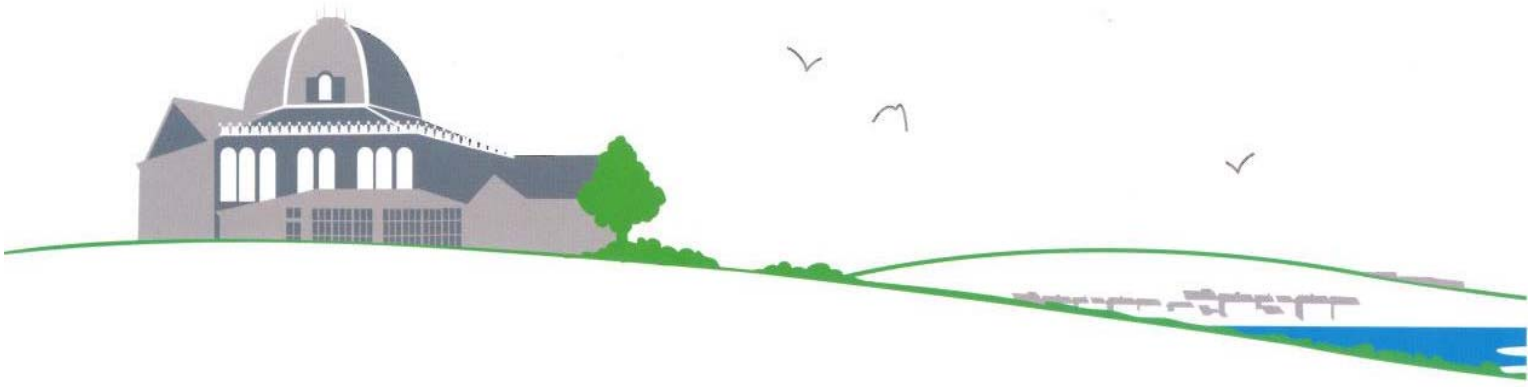
Penny Anderson Associates Ltd
CONSULTANT ECOLOGISTS

MR TONY WILLIAMSON

69 MARKET STREET, CHAPEL-EN-LE-FRITH

BAT ACTIVITY SURVEYS REPORT



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BAT ACTIVITY SURVEYS REPORT

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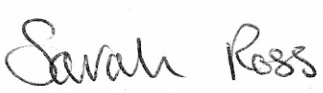
August 2014

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



Signed:_____

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1. INTRODUCTION

1.1 Penny Anderson Associates Ltd (PAA) was commissioned by Mr Tony Williamson in July 2014 to undertake bat activity surveys of a stone warehouse to the rear of 69 Market Street, Chapel-en-le-Frith (hereafter referred to as 'the building' – see Plate 1). The surveys were recommended in support of a planning application to construct three new homes, which would require complete renovation of the existing structure.

1.2 The activity surveys were prescribed according to Hundt (2012) following a detailed building inspection (for bats and barn owls) carried out by PAA in June 2014 (PAA 2014), during which bat feeding remains (Plate 2) and many potential bat roosting features were identified throughout the building. The features of particular note were located around the exterior of the building, particularly across the roof structure (for example gaps beneath roof slates and ridge tiles).

1.3 In addition to the activity surveys, a static Anabat SD1 detector was left within the main section of the building in order to further improve knowledge as to whether or not the building is regularly used by feeding or internally roosting bats, or if indeed it is still used at all.

1.4 This report presents the findings of the activity surveys, evaluating the potential impact of the proposed re-development and any recommendations as necessary.

Site Description

1.5 The building is located to the rear of 69 Market Street, Chapel-en-le-Frith and is immediately surrounded by both residential and commercial properties (as shown on Figure 1) with extensive rural habitat in all directions beyond the town itself.

1.6 The building in question largely comprises a northern, two-storey section (Plate 1), on the first floor of which is a mezzanine level spanning the southern wall (Plate 3). An additional room adjoining this section's southern wall, and a small, two-storey section to the south-west complete the structure proposed for re-development.

Legislation Summary

1.7 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 this legislation is applicable to England and Wales.

1.8 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 2010.

1.9 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.

1.10 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 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.

1.11 Section 11 of the National Planning Policy Framework (NPPF) states that the planning system should contribute to and enhance the natural and local environment by minimising impacts on biodiversity and providing net gains in biodiversity where possible. The NPPF also includes the requirement to contribute to the Government's commitment to halt the overall decline in biodiversity and to promote the reservation, restoration and re-creation of priority habitats, ecological networks and the protection and recovery of priority species populations, linked to national and local targets. 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.

1.12 Local authorities in England are required to ensure that where significant harm resulting from development cannot be avoided (through locating on alternative sites with less harmful impacts), adequately mitigated or, as a last resort, compensated for, planning permission is refused. The commitment to preserving, restoring or enhancing biodiversity is further emphasised for England and Wales in Section 40 of the NERC Act 2006.

1.13 A more detailed summary of the legislation in relation to bats and their roosts is presented in Appendix I.

2. METHODS

Activity Surveys

2.1 Two bat activity surveys were conducted, comprising one dusk emergence survey and one dawn re-entry survey. Both were led by Kelly MacGillivray (Natural England Class Survey Licence CLS00075 and ACIEEM) with assistance from suitably experienced ecologists, and were undertaken in accordance with the current guidance of Hundt (2012).

2.2 The dusk activity survey commenced at least 15 minutes prior to sunset, and continued for around 1.5 hrs after sunset. For the dawn activity survey, the surveyors were in place 1.5 hrs prior to sunrise, continuing until sunrise or when conditions were considered light enough that the chance of seeing any bats returning to their roost was highly unlikely.

2.3 Each surveyor used a *Batbox Duet bat detector*, with one AnaBat SD1 detector used per survey to record bat calls for later confirmation of species. A digital thermometer (hygro-thermometer 810-190 www.etiltd.com) was used to get an accurate temperature reading for the activity surveys.

2.4 Surveyors were positioned at the best possible vantage points to observe all aspects of the building, watching for any emerging or re-entering bats and making a note of time, number of bats, species and a point of emergence/re-entry of any such records if possible. Notes were also made of any other bat activity observed, such as commuting past or foraging around the area.

Static Detector Survey

2.5 An Anabat SD1 detector was installed within the main section of the building, directly next to the most significant accumulation of bat feeding remains found during the building inspection (Plate 3) and angled towards the rafters above, where bats would potentially perch to feed. The detector remained *in-situ* on the mezzanine level from the beginning of the first activity survey (a dusk emergence survey on July 16th) until the end of the second activity survey (a dawn re-entry survey on July 24th), resulting in eight nights of data from an optimum period of the bat activity season.

3. RESULTS

3.1 No bats were confirmed to emerge from, or re-enter, the building during either of the visits. Both surveys were conducted under ideal weather conditions and in general, no significant constraints were experienced.

3.2 Table 1, below, provides a summary of the dates, timings and weather conditions of the activity surveys completed on site.

Table 1 Dates and Weather Conditions for Activity Surveys

Date	Survey Type	Sunrise/ Sunset	Start Time	End Time	Weather
16.07.14	Dusk emergence	21:27	21:15	22:55	Very mild and dry, with a slight breeze at times. Temperature 17.6ºC, humidity 74% at survey start, 15.3ºC and 78% humidity by survey end. Cloud cover decreased from around 55 to 0%.
24.07.14	Dawn re-entry	05:11	03:40	05:10	Dry with a light breeze. Temperature 16ºC, humidity 66% at survey start, 15.3ºC and 68% humidity by survey end. Cloud cover remained at 0% throughout the survey.

3.3 Table 2, below, and Figure 1 provide the results of the activity surveys.

Table 2 Activity Survey Results

Date	Survey Type	Findings
16.07.14	Dusk emergence	Up to four common pipistrelles were seen foraging in the vicinity of the building at various times throughout the survey. One of these was suspected to have emerged from a property adjoining the stone warehouse to the south-west, prior to approximately 35 minutes of foraging, with over 300 passes made. A bat of unidentified species was seen but not heard flying east to west past the south of the building. No bats were confirmed as emerging from the surveyed building.
24.07.14	Dawn re-entry	A distant, commuting common pipistrelle was heard but not seen at 03:56. A further common pipistrelle made over 50 foraging/social calling passes before re-entering a confirmed roost towards the apex of the adjoining property's northern gable, suggesting that the bat was the same individual as that previously recorded on the first visit. No bats were seen to re-enter the surveyed building.

3.4 Table 3, below, provides the results of the static detector survey.

Table 3 Results of Static Detector Survey

Date (Evening to Morning)	Findings
16 -17.07.14	No bat calls recorded.
17-18.07.14	No bat calls recorded.
18-19.07.14	No bat calls recorded.
19-20.07.14	No bat calls recorded.
20-21.07.14	No bat calls recorded.
21-22.07.14	No bat calls recorded.
22-23.07.14	No bat calls recorded.
23-24.07.14	Single common pipistrelle call recorded at 23:11.

3.5 The static detector recorded only one bat call (a brief common pipistrelle pass) across eight nights within the building. The bat may have briefly entered the building to explore; however, it is more likely that the bat was passing one of the nearby open windows, due to the fact that no subsequent calls were recorded, as may be expected from a bat flying around a building's interior.

Limitations

3.6 No significant limitations were encountered during the activity surveys. Both were carried out within the optimum season for bats (May to August inclusive) and conducted under appropriate weather conditions.

4. CONCLUSIONS AND RECOMMENDATIONS

Conclusions

4.1 The building surveyed was found to contain evidence of bat feeding during the original building inspection which, combined with the presence of suitable features for roosting bats, resulted in the recommendation of two activity surveys and the installation of a static detector for eight nights to help ascertain whether or not the building was still used by perching/feeding bats.

4.2 During the dusk and dawn activity surveys, no day-roosting bats were confirmed and no bats were seen to enter the building to feed, although a day roost was identified in an adjoining (to the south-west) property.

4.3 Anabat data were recorded over eight nights, with no use of the building by bats as a night/feeding roost confirmed during this period. As these data spanned several nights during the optimum bat activity season (May to August inclusive) and during a prolonged spell of good weather, they are considered to be robust and indicative of an irregularly used feeding roost, likely used by a brown long-eared (*Plecotus auritus*) bat or bats.

4.4 A limited amount of overall bat activity (e.g. foraging and commuting) was recorded within the vicinity of the building, likely due to the predominantly urban immediate surroundings, although the building and its surrounding courtyards were generally quite dark due to a lack of street lighting (perhaps one of the reasons for the presence of the roosting common pipistrelle in the adjoining property).

Potential Impacts

4.5 As no daytime roosting within the building or its roof structure was confirmed during the activity surveys, and due to the low bat numbers recorded and poor surrounding habitats within the immediate vicinity, the impact on local bat populations of the proposed re-development is anticipated to be negligible.

Recommendations

4.6 During the activity surveys, no day time bat roosts were confirmed at the building, whilst the lack of recorded data from the static detector left *in-situ* for eight nights also suggest that the bat night/feeding roost identified during the original building inspection is irregularly used (and likely by three or fewer bats if not an individual, based on the limited number of butterfly wings), if still used at all. According to the Bat Mitigation Guidelines (Mitchell-Jones 2004), the loss of minor roosts such as feeding perches can be tolerated by local bat populations, provided there is no overall loss of habitat; the re-development of the building would result in no loss of foraging habitat that is of any significant value to bats – works will be restricted to only the structure itself, whilst immediate surroundings are exclusively hard-standing.

4.7 However, the guidelines also outline that a European Protected Species Licence (EPSL) from Natural England is required for any sites identified as resting places for bats (i.e all roosts). This licence would need to be secured prior to any demolition or works that will significantly alter the character of the building, particularly its roof structure, taking place. The licence could only be applied for once full planning permission is granted, and Natural England requires a licence determination period of 30 working days prior to issue.

4.8 The licence would require any such work to be undertaken during the least active period for summer roosting, non-breeding bats (September to April, inclusive) to minimise the risk of harm to any bats and to avoid conflicting with the legal obligation to protect bats and their roosting sites. Some supervision of the removal of key roosting features by the ecologist would also be required.

4.9 Replacement roosting is recommended in the form of a single bat box to be installed on the exterior of the building after renovations are completed. Although not 'like-for-like' replacement, this would ensure the roost site was not lost to the local bat population. There is no specific requirement to monitor the use of the replacement roost once re-development has been completed.

4.10 With the implementation of the above timing recommendations, along with the suggested mitigation measure of a single external bat box being installed once the re-development is complete, the impact on the local bat population is assessed to be negligible.

4.11 Finally, several very old bird carcasses were also found on the mezzanine level within the building, and evidence of past bird breeding noted in the form of old nests (appearing to be last year's or, more likely, older), with no recent activity apparent. In accordance with the legislation surrounding breeding birds (see Appendix II), it is advised that works to the building are conducted outside of the main bird breeding season (which is considered to be March to September inclusive). If this is not possible, the building should be checked by an Ecologist for signs of any potentially nesting birds immediately prior to scheduled works commencing.

5. REFERENCES

Hundt, L (ed.), 2012. *Bat Surveys Good Practice Guidelines*. Bat Conservation Trust.

Mitchell-Jones, A.J., 2004. *Bat Mitigation Guidelines*. English Nature.

FIGURE

405920 405930 405940 405950

380780 380770 380760

Park Road

Legend

Visit

- Visit 1 (16/07/14) Dusk Emergence
- Visit 2 (24/07/14) Dawn Re-entry

Bat Species

- Pip45
- Unidentified species

- Surveyor location
- Location of bat feeding remains found during building inspection
- Re-entry point

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 0.5 1 2 3 4

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Discipline: Ecology

Title:

BAT SURVEY RESULTS (DUSK EMERGENCE & DAWN RE-ENTRY)

Scale: 1:125		Drawing No.: Figure 1	
Drawn By: DHI	Originator: KMG/RR	Date: 04/08/2014	
PAA Ref.: G:\WITO01\Maps		Revision: 1.0	

PLATES

Plate 1. The main building (foreground) with the smaller side-section as viewed from the north-west

Plate 2. Accumulation of butterfly wings found on mezzanine level in main section of building

Plate 3. The mezzanine level within the main section of building, on which feeding remains were found and the static detector was placed

APPENDICES

APPENDIX I
Bat Legislation Summary

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 2010, 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 2010.

The Conservation of Habitats and Species Regulations 2010[1] 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. Section 11 of the National Planning Policy Framework (NPPF) states that the planning system should contribute to and enhance the natural and local environment by minimising impacts on biodiversity and providing net gains in biodiversity where possible. The NPPF also includes the requirement to contribute to the Government's commitment to halt the overall decline in biodiversity and to promote the reservation, restoration and re-creation of priority habitats, ecological networks and the protection and recovery of priority species populations, linked to national and local targets. Reference is made to Circular 06/2005 *Biodiversity and*

[1] *These regulations have been slightly amended by The Conservation of Habitats and Species Regulations 2012*

Geological Conservation - Statutory Obligations and Their Impact within the Planning System in respect of statutory obligations for biodiversity and geodiversity conservation.

Local authorities in England are required to ensure that where significant harm resulting from development cannot be avoided (through locating on alternative sites with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, planning permission is refused. 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.

APPENDIX II
Breeding Bird Legislation

Penny Anderson Associates Ltd
CONSULTANT ECOLOGISTS

SUMMARY OF THE LEGISLATION RELATING TO BREEDING BIRDS

All wild species of breeding birds and their nests are protected under Part 1 of the Wildlife and Countryside Act (WCA) 1981, as amended by later legislation including the Countryside and Rights of Way (CRoW) Act 2000. This legislation applies in England and Wales.

Part 1 (Section 1:1) of the WCA states that:

> 'If any person intentionally,
>
> (a) kills, injures or takes any wild bird;
>
> (b) takes, damages or destroys the nest of any wild bird while that nest is in use or being built; or
>
> (c) takes or destroys an egg of any wild bird,
>
> he shall be guilty of an offence.'

Part 1 (Section 1:5) of the WCA (amended by the CRoW Act 2000) refers to specific birds listed on Schedule 1 of the WCA, and states that:

> 'If any person intentionally or recklessly,
>
> (a) disturbs any wild bird included in Schedule 1 while it is building a nest or is in, on or near a nest containing eggs or young; or
>
> (b) disturbs dependent young of such a bird,
>
> he shall be guilty of an offence and liable to a special penalty.'

Schedule 1 includes birds such as barn owl (*Tyto alba*), black redstart (*Phoenicurus ochruros*), wood lark (*Lullula arborea*) and Cetti's warbler (*Cettia cetti*). Please refer to the WCA for a complete list of Schedule 1 species.

Some provisions are made to allow the killing and taking of certain species under certain circumstances, as follows:

- Birds listed on Schedule 2 (Part 1) of the Act may be taken or killed outside of the 'close season' for each individual species (the 'close season' is defined by the Act). This includes various wild duck and geese species.
- Birds listed on Schedule 2 (Part 2) of the Act may be killed or taken by authorised persons at all times. This includes species such as carrion crow (*Corvus corone*), black-billed magpie (*Pica pica*), feral pigeon (*Columba livia*) and greater Canada goose (*Branta canadensis*). An 'authorised person' is defined as a person who has written authorisation to undertake the act from the relevant statutory authority. The written authority is in the form of a licence, either a general licence which covers a number of the more typical 'pest' species, or an individual licence for other individual species. In England these licences are issued by Natural England and in Wales by the Welsh Assembly Government.

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

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