

Preliminary Ecological Appraisal Report (Bats and Roof Nesting Birds)

For site at Hillview, Milkwall, Gloucestershire

Commissioned by: Ms. S Benchetrit

Author: Ashley Butler MSc

Version: Final

Date: 5/4/2023

Grid Reference: SO584090

© Copyright 2023. All Rights Reserved.

This report has been prepared by Ashley Butler of NewWays Ecology with all reasonable skill and diligence, within the terms agreed with the client.

No part of the report may be reproduced without prior written approval of NewWays Ecology.

No liability is accepted in respect of the use of data, conclusions or other material contained in this report for any purposes other than those specific to this report.

Site	Hillview, Milkwall
Project Number	Hillview/2023/23_014
Client	Ms Sandy Benchetrit

Version	Date of Issue	Revisions
Final	5/4/23	

Author	Ashley Butler MSc
Email	Ashley.butler@newwaysecology.co.uk
Telephone	07517516190

Disclosure: This report is confidential, and no part of the report may be copied or reproduced by any means other than to inform the client, local authority and SNCO. If you have received this report in error, please destroy all copies in your possession or control. This report has been prepared for the exclusive use of the commissioning party and unless otherwise agreed in writing from the client, no other party may use, make use of or rely on the contents of the report. No liability is accepted by NewWays Ecology for any use of this report, other than for the purposes for which it was originally prepared and provided.

Opinions and information provided in the report are on the basis of NewWays Ecology using due skill, care and diligence in the preparation of the same and no explicit warranty is provided as to their accuracy.

Please note: Any biological data gained as a result of the surveys will be submitted to the local records centre unless requested not to do so by the client.

The survey information and opinions which we have prepared and provided in this report is our true and professional bona fide opinions.

No liability is accepted in respect of the use of data, conclusions or other material contained in this report for any purposes other than those specific to this report.

This report and data contained cannot be accurately relied upon after a period of 18 months due to potential changes in environmental conditions.

This report remains the intellectual property of NewWays Ecology until such time as full payment is received by NewWays Ecology.

Contents

Non Technical Summary

- 1. Introduction**
- 2. Methodology**
- 3. Results**
- 4. Assessment**
- 5. Legislation and planning**
- 6. Construction Method Statement**
- 7. Conclusion**
- 8. References**
- 9. Appendix 1 Plans**
- 10. Appendix 2 Photos**

Non Technical Summary

Survey type	Preliminary Roost Assessment for bat species at a stone built cottage with 20 th century extensions at Hillview, Milkwall, Gloucestershire
Purpose	To assess the building for bat and roof nesting bird species in order to inform a planning application to Forest of Dean Council. The plans include the extension of the property including changes to the roof
Methodology	A daytime assessment (Bat and roof nesting bird scoping survey) was carried out on 30 th March 2023. All surveys and reporting followed guidance and recommendations from The Bat Conservation Trust and BS42020 Biodiversity (Code of practice for planning and development).
Findings	The inspection resulted in the property having moderate potential for bats
Potential impacts	In the absence of further survey and mitigation the proposed works may have an impact on bat and roof nesting bird species
Further survey requirements	Further survey is deemed necessary as the buildings have moderate potential for roosting bats.
Conclusion	The results of the surveys identified moderate potential for roosting bats. The proposed development may have any impact on bats or roof nesting birds and as such further activity surveys must be carried out between May and September to inform the planning application

1. Introduction

This survey and report were led by Ms Ashley Butler of NewWays Ecology. Ms Butler has experience of bat conservation and commercial survey work in Wales and England.

Associate on the following licenses:

Natural England (NE) class 20 bat survey licence (Number 2016-20666-CLS-CLS)

Natural Resources Wales (NRW) bat licence number S085928/1

Memberships:

Monmouthshire Bat Group

Forest of Dean Bat Group

Herefordshire Mammals group

1.1 Site Description and Context

The site is located at national grid reference SO584090 and is a range a traditional stone built cottage with modern 20th Century extensions. The original cottage is likely to date from the 1800's. The house is rendered and has a slate roof. Internally there are two floors in the cottage and a single storey kitchen extension on the northern side of the house. The whole house is used for residential use. In the original cottage the living space extends most of the way into the roof. There is a small void but there is no access from the cottage into it. In the kitchen extension there is a loft space with access via a hatch. The loft is used boarded out and used for storage. It is inherently dark with no daylight or water ingress. The roof structure is wooden trusses with felt between the roof structure and the slates.

There is a garage on the western side of the house. This is open to the rafters and has a new roof structure consisting of wooden trusses and felt between the structure and the slates.

Hillview is situated to the south of the village of Milkwall on the edge of the wooded areas of the Forest of Dean. It is 300m from Old Bow and Old Ham Mines SSSI. Part of the Wye valley and Forest of Dean Bat sites SAC. This is an important hibernation roost for Lesser Horseshoe bats.



Figure 1: Site location. Contains Ordnance Survey data © Crown copyright and database right 2023

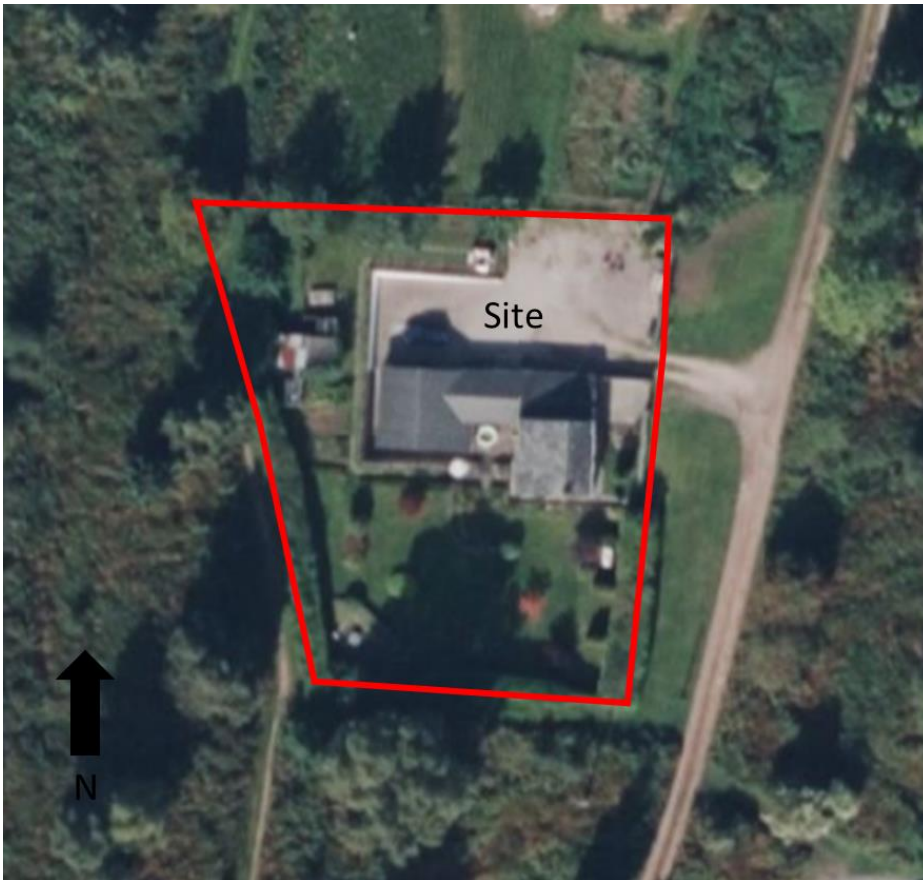


Figure 2: Building location within site

1.2 Proposed Development

The proposed development includes the extension of the property including replacing the roof.

1.3 Aims of the study

The aim of this study is to identify evidence of any use of the building by bat and roof nesting bird species. This survey report aims to assess the level of usage, classification of roost present, and any requirement for a UK Protected Species mitigation licence (UKPS). It will also provide mitigation proposals to be carried out prior to, during and after the works.

2 Methodology

2.1 Desk Study

A desk study was undertaken, and records were obtained from NBN atlas and Magic. The data search includes information on UK designated sites (e.g. Special Areas of Conservation (SACs) and Site of Special

Scientific Interest (SSSIs). The local authority planning website was searched for information on historical developments within the zone of impact of the proposed works to assess cumulative impacts on bats.

2.2 Field Survey

Date	30/3/23
Weather	Overcast with heavy isolated showers
Cloud Cover	80%
Temperature	12°C
Wind Speed	10 mph
Surveyors	Ashley Butler

The methods used were appropriate to achieve the aims of the survey and follow Collins, J. (ed.) (2016) Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd Edition) The Bat Conservation Trust London and BS 42020:2013 Biodiversity (Code of practice for planning and development).

Survey type	Month											
	J	F	M	A	M	J	J	A	S	O	N	D
Preliminary ecological appraisal – fieldwork												
Preliminary roost assessment – structures ^a												
Emergence/re-entry survey for maternity or summer roosts ^b												
Emergence/re-entry ^c survey for transitional roosts ^b												
Emergence survey for mating roosts ^b												
Hibernation survey – structures ^a												
Preliminary ground level roost assessment – trees ^d												
Potential roost feature (PRF) inspection survey – trees												
Ground level bat activity survey – transects and automated/static												
Pre-, during and post-hibernation – automated/static bat activity survey												
Swarming survey												
Back-tracking survey												
Trapping survey ^e												
Radio tagging and tracking survey ^e												




 = optimal period
  = sub-optimal period
 = weather or location dependent (i.e. may not be suitable due to spring and autumn conditions in any one year or in more northerly latitudes). Note that October surveys are not acceptable in Scotland.

Plate 1. Optimal Timings

Equipment Used

The buildings were inspected externally and internally using binoculars, camera, and a high-powered torch. Photographs of any evidence of bat or bird activity and potential exit or entry points identified in the building were taken and noted for the report. Where necessary, ladders and an endoscope were used.

The following features were recorded for buildings:

- Location
- Type
- Size
- Age
- Construction materials
- Current use

Descriptions of potential and actual access points and roosting places were recorded (including height above ground level and aspect), as well as descriptions of evidence of bats found. The following types of evidence of use by bats were recorded:

- Location and number of any live bats
- Location and number of any bat corpses or skeletons
- Locations and number of bat droppings
- Notes on relative freshness, shape, and size of bat droppings
- Location and quantity of any bat feeding remains
- Location of clean, cobweb-free timbers, crevices, and holes
- Location of characteristic staining from urine and/or grease marks
- Location and quantity of bat-fly (Nycteribiidae) pupal cases
- Location of known and potential access points to the roost
- Location of the characteristic smell of bats

The potential of the building to support roosting bats was established using the following factors:

Factors affecting the probability of a building being used by bats in summer	
Increase probability	Disused or little used; largely undisturbed Large roof void with unobstructed flying spaces Large dimension roof timbers with cracks, joints and holes Uneven roof covering with gaps, though not too draughty Entrances that bats can fly in through Hanging tiles or wood cladding, especially on south-facing walls Rural setting Close to woodland and/or water Pre-20 th century or early 20 th century construction Roof warmed by the sun Within the distribution area of horseshoe bats and serotine
Decrease probability	Urban setting or highly urbanised area with few feeding places Small or cluttered roof void (esp. for <i>Plecotus</i>) Heavily disturbed Modern construction with few gaps around soffits or eaves (but be aware these may be used by pipistrelles in particular) Prefabricated with steel and sheet materials Active industrial premises Roof shaded from the sun

Plate 2

3 Results

3.1 Desk Study

3.1.1 Designated Sites

Designated sites of importance to bats within the 10 km radius of the site include the following:

- Wye Valley and Forest of Dean Bat Sites SAC – Old Bow and Old Ham Mines SSSI – 0.3km
- Wye Valley and Forest of Dean Bat Sites SAC – Devil’s Chapel Scowles SSSI – 4.1km
- Wye Valley Woodlands SAC – 4.1km
- Wye Valley and Forest of Dean Bat Sites SAC - Oakenhill Railway Cutting SSSI – 4.6km
- Wye Valley and Forest of Dean Bat Sites SAC – Penallt Old Church SSSI – 6.5km
- Wye Valley and Forest of Dean Bat Sites SAC – Buckstraf Mine and Bradley Hill Railway Tunnel SSSI – 7.5km
- Wye Valley and Forest of Dean Bat Sites SAC – Llandogo Priory SSSI – 7.5km
- Wye Valley and Forest of Dean Bat Sites SAC- Sylvan Barn SSSI – 8.3km
- Wye Valley and Forest of Dean Bat Sites SAC – Newton Court Stable Block SSSI – 8.3km
- Wye Valley and Forest of Dean Bat Sites SAC - Dean Hall Coach House and Cellar SSSI – 9.5km

3.1.2 Protected Species

The desk top survey identified the following bat and roof nesting bird species recorded within a 2km radius of the site:

Species
Jackdaw
Blue Tit
House Martin
Kestrel
Swift
Little Owl
Common Pipistrelle
Soprano Pipistrelle
Lesser Horseshoe Bat
Greater Horseshoe Bat
Western Barbastelle
Daubenton’s Bat

Whiskered/Brant's Bat
Natterer's Bat
Noctule
Brown Long Eared Bat

3.2 Field Surveys

3.2.1 *Habitat Description*

The habitat at site and immediately surrounding the site is rural pastoral with large swathes of wooded areas and with the towns of Milkwall and Coleford directly to the north. The site is house with a large mature garden situated on the edge of the Forest of Dean.

300m to the east of the site is Old Bow and Old Ham mines SSSI which forms part of the Wye Valley and Forset of Dean Bat sites SAC. This is an important hibernation roost for Lesser Horseshoe bats. The site is surrounded by woodland scrub linking the site to the wider woodland areas of the Forest of Dean, many of which are areas of ASNW, which would provide roosting, foraging and commuting opportunities for bats.

Roosting potential locally is high due to the mature woodland and older buildings.



Figure 3: Habitat surrounding site. Contains Ordnance Survey data © Crown copyright and database right 2023

3.2.2 External Survey

The external survey identified:

Potential Level	Justification of Assessment
Moderate	On original cottage -Gaps in cement at eaves. Lifted lead flashing around chimney. Gaps and holes along barge boards. Door and windows modern and in good repair. Modern extensions – Good repair. One hole in barge board at eastern end – likely chewed by squirrels

3.2.3 Internal Survey

Potential Level	Justification of Assessment
-----------------	-----------------------------

Low

No access to roof void in original cottage. Living space extends most of the way into the roof and no access to small space left.
Loft above kitchen – Inherently dark, no light or water ingress. Cobwebs in rafters. No evidence of droppings
Garage open to the rafters. New roof structure.
No evidence of bats

Overall building potential level

Moderate

4 Assessment

4.1 Survey Constraints (incl. equipment)

Surveys were carried out at an optimal time of year; survey was constrained by no access to cottage roof space however this has not impacted survey results as all other internal areas were surveyed.

Any survey for bat species can only be a series of snapshots in time. Bats are very mobile with complex social structures and utilise multiple roost sites during the year. The implications of this are that surveyors must make informed assumptions based on observations, recorded data, local information, and a detailed knowledge of the species.

4.2 Potential Impacts

Roost type	Development effect	Scale of impact		
		Low	Medium	High
Maternity	Destruction			✓
	Isolation caused by fragmentation			✓
	Partial destruction; modification		✓	
	Temporary disturbance outside breeding season	✓		
	Post-development interference			✓
Major hibernation	Destruction			✓
	Isolation caused by fragmentation			✓
	Partial destruction; modification		✓	
	Temporary disturbance outside hibernation season	✓		
	Post-development interference			✓
Minor hibernation	Destruction			✓
	Isolation caused by fragmentation			✓
	Partial destruction, modification		✓	
	Modified management		✓	
	Temporary disturbance outside hibernation season	✓		
	Post-development interference		✓	
	Temporary destruction, then reinstatement	✓		
Mating	Destruction		✓	
	Isolation caused by fragmentation		✓	
	Partial destruction	✓		
	Modified management	✓		
	Temporary disturbance	✓		
	Post-development interference	✓		
	Temporary destruction, then reinstatement	✓		
Night roost	Destruction	✓		
	Isolation caused by fragmentation	✓		
	Partial destruction	✓		
	Modified management	✓		
	Temporary disturbance	✓		
	Post-development interference	✓		
	Temporary destruction, then reinstatement	✓		
<p>NB This is a general guide only and does not take into account species differences. Medium impacts, in particular, depend on the care with which any mitigation is designed and implemented and could range between high and low.</p>				

Plate 3. Scale of impacts taken from the Bat Mitigation Guidelines 2004.

4.2.1 Designated Sites

In the absence of mitigation, the proposed development would have low-negligible impact on designated sites.

4.2.2 Bat Roosts

In the absence of mitigation, the proposed development would have a potentially moderate impact on bat roosts, this would be due to the following: potential destruction of unknown bat roosts and additional light spill onto the garden which may impact bats using the site for foraging and commuting.

4.2.3 Bat Foraging and Commuting Habitat

In the absence of mitigation, the proposed development would have a potentially low impact on bat foraging and commuting routes due to additional light spill.

4.2.4 Overall Bat Impacts (Cumulative Impacts)

In the absence of mitigation, the proposed development would have a potentially moderate impact.

4.2.5 Favourable Conservation Status Impact

In the absence of mitigation, it is deemed likely that the proposed development would have a low impact on Favourable Conservation Status locally and regionally.

4.2.6 Roof nesting birds

No evidence of roof nesting birds was observed during the survey

5 Legislation and Policy Guidance

This legislation must be considered at all stages of development.

All bat species occurring in the UK are fully protected by UK law.

Under the Conservation of Habitats and Species Regulations 2017 (Now UK Law)

(1) A person who—

- (A) Deliberately captures, injures or kills any wild animal of a European protected species,
 - (b) Deliberately disturbs wild animals of any such species,
 - (c) Deliberately takes or destroys the eggs of such an animal, or
 - (d) Damages or destroys a breeding site or resting place of such an animal,
- is guilty of an offence.

Under the Wildlife and Countryside Act 1981 (as amended) it is an offence to:

- Intentionally or recklessly damage, destroy or obstruct access to any structure or place used by bats for shelter or protection.
- Intentionally or recklessly disturb bats whilst in their place of rest or shelter
- Sell or advertise for sale or transport bats (including their derivatives)

The Countryside and Rights of Way Act 2000

The Act places a duty on Government Departments and the National Assembly for Wales to have regard for the conservation of biodiversity and maintain lists of species and habitats for which conservation steps should be taken or promoted, in accordance with the Convention on Biological Diversity.

Schedule 9 of the Act amends SSSI provisions of the Wildlife and Countryside Act 1981 including provisions to change SSSIs and providing increased powers for their protection and management. The provisions extend powers for entering into management agreements; place a duty on public bodies to further the conservation and enhancement of SSSIs; increases penalties on conviction where the provisions are

breached; and introduce a new offence whereby third parties can be convicted for damaging SSSIs. To ensure compliance with the Human Rights Act 1998, appeal processes are introduced with regards to the notification, management and protection of SSSIs.

Schedule 12 of the Act amends the species provisions of the Wildlife and Countryside Act 1981, strengthening the legal protection for threatened species. The provisions make certain offences 'arrestable', create a new offence of reckless disturbance, confer greater powers to police and wildlife inspectors for entering premises and obtaining wildlife tissue samples for DNA analysis, and enable heavier penalties on conviction of wildlife offences.

The UK Biodiversity Action Plan (UKBAP) includes objectives to conserve, and, where practicable, enhance:

- The quality and range of wildlife habitats and ecosystems;
- The overall populations and natural ranges of native species;
- Internationally important and threatened species, habitats and ecosystems;
- Species, habitats and natural and managed ecosystems characteristic of local areas
- Biodiversity of natural and semi-natural habitats where this has been diminished over recent decades.

Protected Species

The presence of a species protected under UK legislation is a material consideration when a local planning authority is considering a development proposal which, if carried out, would be likely to result in disturbance or harm to the species or its habitat. Local planning authorities should advise anyone submitting a planning application that they must conform with any statutory species protection provisions affecting the site concerned and should consult Natural England before granting permission. An ecological survey to confirm whether a protected species is present and an assessment of the likely impact of the development on a protected species may be required in order to inform the planning decision.

Developments are always subject to the legislation covering protected species regardless of whether or not they are within a designated site. New developments for which development works would contravene the protection afforded to protected species require derogations from the provisions of the Habitats Directive.

Conservation of Habitats & Species Regulations 2017 (as amended) - Regulation 9

Requires local authorities to take account of the presence of UK Protected Species at development sites. If they are present and affected by the development proposals, the Local Planning Authority must establish whether the three tests have been met, prior to determining the application.

The three tests that must be satisfied are:

- 1) That the development is in the interests of public health and public safety, or for other imperative reasons of overriding public interest, including those of a social or economic nature and beneficial consequences of primary importance for the environment.
- 2) That there is no satisfactory alternative

- 3) That the derogation is not detrimental to the maintenance of the populations of the species concerned at a favourable conservation status in their natural range.
- Derogations are granted by a licence issued by the UK Government. Local planning authorities are under a duty to have regard to the requirements of the Habitats Directive in exercising their functions. To avoid developments with planning permission subsequently not being granted derogations in relation to UK protected species, planning authorities should take the above three requirements for derogation into account when considering development proposals where a UK protected species is present.

6 Recommendations


Low	Roost status	Mitigation/compensation requirement (depending on impact)
Conservation significance 	Feeding perches of common/rarer species	Flexibility over provision of bat-boxes, access to new buildings etc. No conditions about timing or monitoring
	Individual bats of common species	
	Small numbers of common species. Not a maternity site	
	Feeding perches of Annex II species	Provision of new roost facilities where possible. Need not be exactly like-for-like, but should be suitable, based on species' requirements. Minimal timing constraints or monitoring requirements
	Small numbers of rarer species. Not a maternity site	
	Hibernation sites for small numbers of common/rarer species	Timing constraints. More or less like-for-like replacement. Bats not to be left without a roost and must be given time to find the replacement. Monitoring for 2 years preferred.
	Maternity sites of common species	
	Maternity sites of rarer species	Timing constraints. Like-for-like replacement as a minimum. No destruction of former roost until replacement completed and usage demonstrated. Monitoring for at least 2 years.
	Significant hibernation sites for rarer/rarest species or all species assemblages	
	Sites meeting SSSI guidelines	Oppose interference with existing roosts or seek improved roost provision. Timing constraints. No destruction of former roost until replacement completed and significant usage demonstrated. Monitoring for as long as possible.
High	Maternity sites of rarest species	

Plate 4. Mitigation hierarchy taken from the Bat Mitigation Guidelines 2004

6.1 Further Survey

Further survey is required as not enough information was gained during the surveys to attain a confident and accurate assessment of use of the building by bat species.

6.2 Requirement for Licence

Requirement for a UK protected species licence will be informed by the results of further surveys.

7 Conclusion

Results of surveys carried out have identified a moderate potential for bat roosts within the building.

In the absence of mitigation, the impacts to bats and birds because of this development is deemed to be Moderate therefore further surveys on the buildings are deemed necessary. Bat activity surveys must be carried out between May and September.

8 References

Collins, J. (ed.) (2016) Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd Edition) The Bat Conservation Trust London

The bat workers' manual (3rd Edition). Joint Nature Conservation Committee
Mitchell-Jones, A.J. & McLeish, A.P. (2004)

British Bat Calls. Russ. J 2012

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

The Conservation of Habitats and Species Regulations 2017

The Wildlife and Countryside Act 1981 (as amended)

BS: 42020 / 2013 Biodiversity (Code of practice for planning and development).

Appendix I: Plans

No plans available

Appendix 2 : Supporting Photographs



Figure 1 – Hole in kitchen extension barge board



Figure 2- East face of Kitchen block



Figure 3 – South face of original cottage



Figure 4 – South face of kitchen block and garage



Figure 5 – West face of cottage



Figure 6- Garage block



Figure 7 – North side of property



Figure 8 – Loft space in kitchen roof



Fig 9- Roof structure



Fig 10 – Storage in loft



Fig. 11 – Garage roof structure