



**ATW
ECOLOGY**

Four Winds, Pettycroft,
Ruardean, Gloucestershire,
GL17 9XH

for Michael & Jane Hickey

PRELIMINARY BAT ROOST APPRAISAL



April 2024

5559

ATW Ecology Ltd.

MHSP, Malvern, Worcs, WR14 3SZ

07739072405

hello@atwecology.com

www.atwecology.com

Report control

Site address	Four Winds, Pettycroft, Ruardean, Gloucestershire, GL17 9XH		
Survey date	17 April 2024		
Surveyor	Andrew Tillson-Willis MRSB MCIEEM MIFM Mem.RES		
Version	Date	Ecologist	Action
1.0	18 April 2024	Andrew Tillson-Willis	Document created
1.0	27 April 2024	Andrew Tillson-Willis	Document completed & issued

Signed Disclosure

The information/ data/ evidence/ advice/ opinion which we have prepared and provided is true and has been prepared and provided in accordance with the Chartered Institute of Ecology & Environmental Management's Code of Professional Conduct. We confirm that the opinions expressed are our true and professional bona fide opinions.



Andrew Tillson-Willis MRSB MCIEEM MIFM Mem.RES

Director & Principal Consultant

ATW Ecology Ltd, Malvern Hills Science Park, Geraldine Road, Malvern, Worcestershire, WR14 3SZ

+++
IMPORTANT

Please note, due to the dynamic nature of the natural environment, our reports can only provide a snap-shot of what was present at the time of survey and as such often have a limited period of validity. Many statutory authorities regard one year as the maximum time that should elapse before a report will need to be updated. Where a protected species licence is required, a walk-over of the site should be conducted within three months of an application being submitted to check that the habitats have not changed significantly since the survey was conducted. Any information relating to legal matters in this report is provided in good faith but does not purport in any way to give any advice on or interpretation of the law whatsoever. Professional legal advice should always be sought. Any designs, specifications, advice, suggestions, or comments written or verbal relating to construction or supervision of building-related work of any kind are provided for consideration only and under no circumstances are to be interpreted as provision of design, management or supervision *sensu* the Construction (Design and Management) Regulations 2007.

Table of Contents

Report control.....	1
Table of Contents.....	2
Methods & Objectives	3
Methods.....	3
Objectives	3
Proposed plans.....	4
Survey findings.....	5
Known history of bats	5
Habitat description	5
Limitations	9
Results – Diurnal survey 17 April 2024	9
Legislation & protection.....	10
National Planning Policy	10
Conclusion and recommendations	11
Photographs.....	12
References	20
Quality Assurance	21

Methods & Objectives

Methods

A thorough inspection was undertaken at Four Winds, Pettycroft, Ruardean, Gloucestershire, GL17 9XH for any bat field signs or evidence of, or potential for, bat roosting.

The inspection was conducted by Andrew Tillson-Willis MRSB MCIEEM MIFM Mem.RES an appropriately experienced and licenced ecologist (Natural England CL18 level 2 bat class licence registration number 2020-48784-CLS-CLS), on 17 April 2024.

An inspection was made of all interiors and exterior using 8x42 binoculars, LEDLenser P7 torch, CentBest Red LED torch, telescopic mirror, AlpKit Gamma 111 headtorch, Ridgid CA-350x endoscopic inspection camera, telescopic ladder, and a Panasonic Lumix camera for any bat field signs or evidence of, or potential for, bat roosting such as faeces, feeding remains, oil staining, scratch marks, access points, loose cladding, cavities and hollows etc.

Methods followed those outlined in Collins, J. (ed.) (2023). Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edn). The Bat Conservation Trust, London.

Objectives

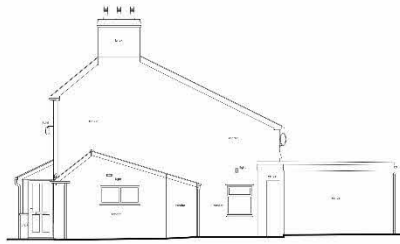
The objectives of this survey were:

- to provide specialist advice on the possible presence of protected species (bats) in relation to planning requirements;
- to inspect all built structures proposed for development for evidence of roosting bats;
- to report the survey findings, make any appropriate recommendations and point out actions that may be required to ensure compliance with wildlife law and recognised best practice;

Proposed plans



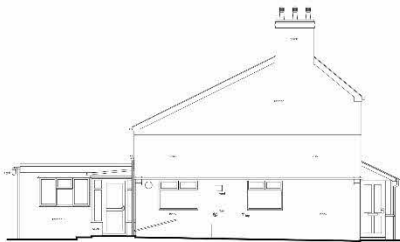
Existing Front Elevation



Existing Side Elevation (West)



Existing Rear Elevation



Existing Side Elevation (East)



RIBA #
Chartered Practice
01292 25044
01292 22827
info@habitatplus.co.uk
www.habitatplus.co.uk

Client
Mr & Mrs Hickey

Project
**HA23020
Four Winds
Ruardean**

Drawing
**PL004
Existing Elevations**

February 24
**PLANNING
1:100 @ A3**

This document is intended for use by the client and is not to be used for any other purpose. It is the client's responsibility to ensure that the information provided is accurate and complete. The architect is not responsible for any errors or omissions in this document. The architect is not responsible for any costs incurred by the client in connection with this project.

- KEY
- STONE (EXISTING)
 - RENDER
 - TIMBER CLADDING
 - TILED ROOF (EXISTING)
 - BRICK (EXISTING)
 - DARK GREY WINDOWS
 - DEMOLITION

1. Existing front doors replaced with windows.
2. Garage removed.
3. Rear access door removed and replaced with window.
4. New timber roof to rear elevation.
5. New plastic door rolling side window.
6. Window opening to living room.
7. New opening to kitchen.
8. Window reduced to full height window.
9. Garden side extension reduced in number.



Front Elevation



Side Elevation (West)



Rear Elevation



Side Elevation (East)



RIBA #
Chartered Practice
01292 25044
01292 22827
info@habitatplus.co.uk
www.habitatplus.co.uk

Client
Mr & Mrs Hickey

Project
**HA23020
Four Winds
Ruardean**

Drawing
**PL007
Proposed Floor Plan**

February 24
**PLANNING
1:100 @ A3**

This document is intended for use by the client and is not to be used for any other purpose. It is the client's responsibility to ensure that the information provided is accurate and complete. The architect is not responsible for any errors or omissions in this document. The architect is not responsible for any costs incurred by the client in connection with this project.

Survey findings

Known history of bats

None known.

Habitat description

Located at OS grid reference SO 62020 17289, the building subject to planning is a two-storey residential dwelling, formerly a pair of semi-detached with multiple phases of single-storey extension located on southern edge of the rural Gloucestershire village of Ruardean Woodside, Ruardean, approximately 4.8km north-west of Cinderford, 7km south-south-east of Ross-on-Wye.

Immediate surrounding land use is rural residential and extensive agriculture interspersed with blocks of broadleaved woodland opening out to the Wye Valley to the west, and the Royal Forest of Dean to the south providing excellent roosting, and foraging resources.

A search using DEFRA's Magic Map online revealed one statutory designated site within a 2km search radius:

- River Wye SSSI
- River Wye SAC

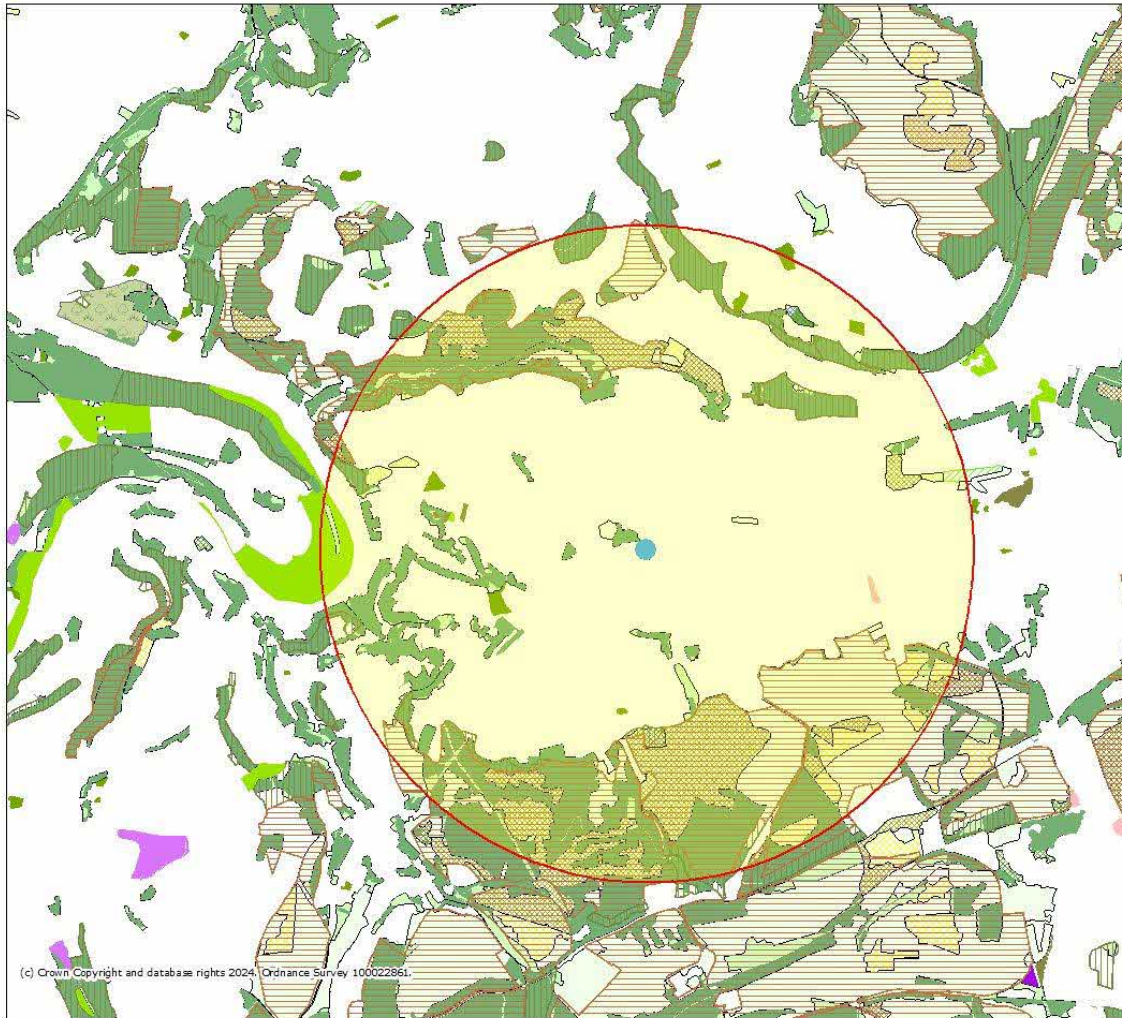
The site lies within the Wye Valley National Landscape (formerly AONB).

A search for granted EPS licenses revealed two licences granted for works affecting bat roosts within a 2km radius:

- 2019 licence for damage to a breeding roost of soprano pipistrelle
- 2019 licence for destruction of a non-breeding roost of brown long-eared bat



Priority habitats 2km



(c) Crown Copyright and database rights 2024. Ordnance Survey 100022861.

Legend

- Priority Habitat Inventory - Calaminarian Grassland (England)
- Priority Habitat Inventory - Coastal and Floodplain Grazing Marsh (England)
- Priority Habitat Inventory - Good quality semi-improved grassland (Non Priority) (England)
- Priority Habitat Inventory - Lowland Calcareous Grassland (England)
- Priority Habitat Inventory - Lowland Dry Acid Grassland (England)
- Priority Habitat Inventory - Lowland Meadows (England)
- Priority Habitat Inventory - Purple Moor Grass and Rush Pasture (England)
- Priority Habitat Inventory - Upland Calcareous Grassland (England)
- Priority Habitat Inventory - Upland Hay Meadows (England)

- Priority Habitat Inventory - Lowland Heathland (England)
- Priority Habitat Inventory - Mountain Heaths and Willow Scrub (England)
- Priority Habitat Inventory - Upland Heathland (England)
- Priority Habitat Inventory - Blanket Bog (England)
- Priority Habitat Inventory - Lowland Fens (England)
- Priority Habitat Inventory - Lowland Raised Bog (England)
- Priority Habitat Inventory - Reedbeds (England)
- Priority Habitat Inventory - Upland Flushes, Fens and Swamps (England)
- Priority Habitat Inventory - Ponds and Lakes (England)

Ancient Woodland (England)

- Ancient and Semi-Natural Woodland
- Ancient Replanted Woodland

Ancient Woodland Revised (England)

- Ancient & Semi-Natural Woodland
- Ancient Replanted Woodland
- Ancient Wood Pasture
- Priority Habitat Inventory - Deciduous Woodland (England)

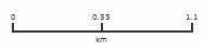
National Forest Inventory (GB)

- Assumed woodland
- Broadleaved
- Cloud \ shadow

- Conifer
- Coppice
- Coppice with standards
- Failed
- Felled
- Ground prep
- Low density
- Mixed mainly broadleaved
- Mixed mainly conifer
- Shrub
- Uncertain
- Windthrow
- Young trees

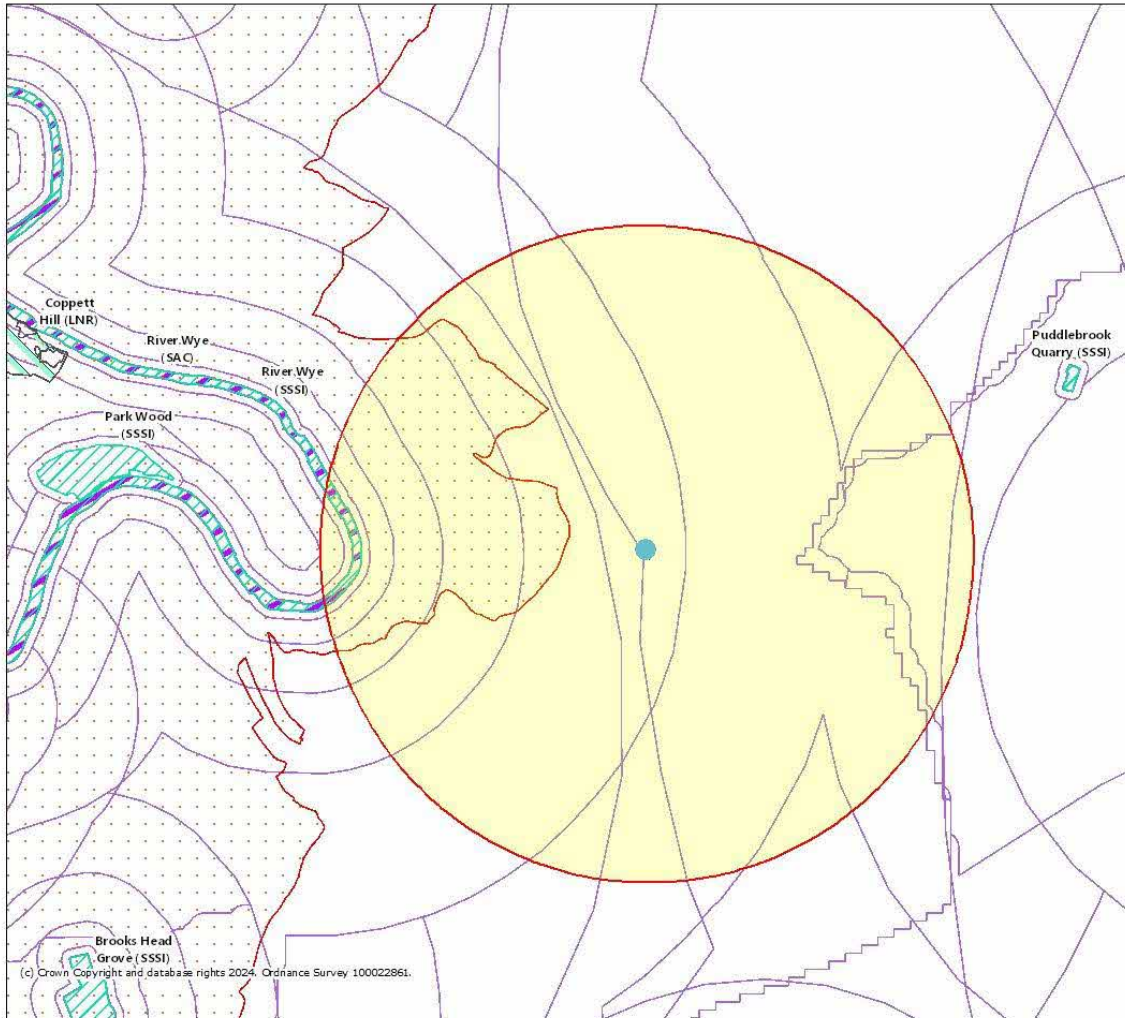
Projection = OSGB36
 xmin = 356100
 ymin = 214400
 xmax = 367000
 ymax = 220700

Map produced by MAGiC on 27 April, 2024.
 Copyright resides with the data suppliers and the map must not be reproduced without their permission. Some information in MAGiC is a snapshot of the information that is being maintained or continually updated by the originating organisation. Please refer to the metadata for details as information may be illustrative or representative rather than definitive at this stage.



MAGiC

Designated sites 2km

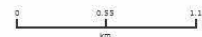


Legend

- Areas of Outstanding Natural Beauty (England)
- Local Nature Reserves (England)
- National Nature Reserves (England)
- National Parks (England)
- Ramsar Sites (England)
- Sites of Special Scientific Interest (England)
- SSSI Impact Risk Zones - to assess planning applications for likely impacts on SSSIs/SACs/SPAs & Ramsar sites (England)
- Special Areas of Conservation (England)
- Special Protection Areas (England)
- Biosphere Reserves (England)

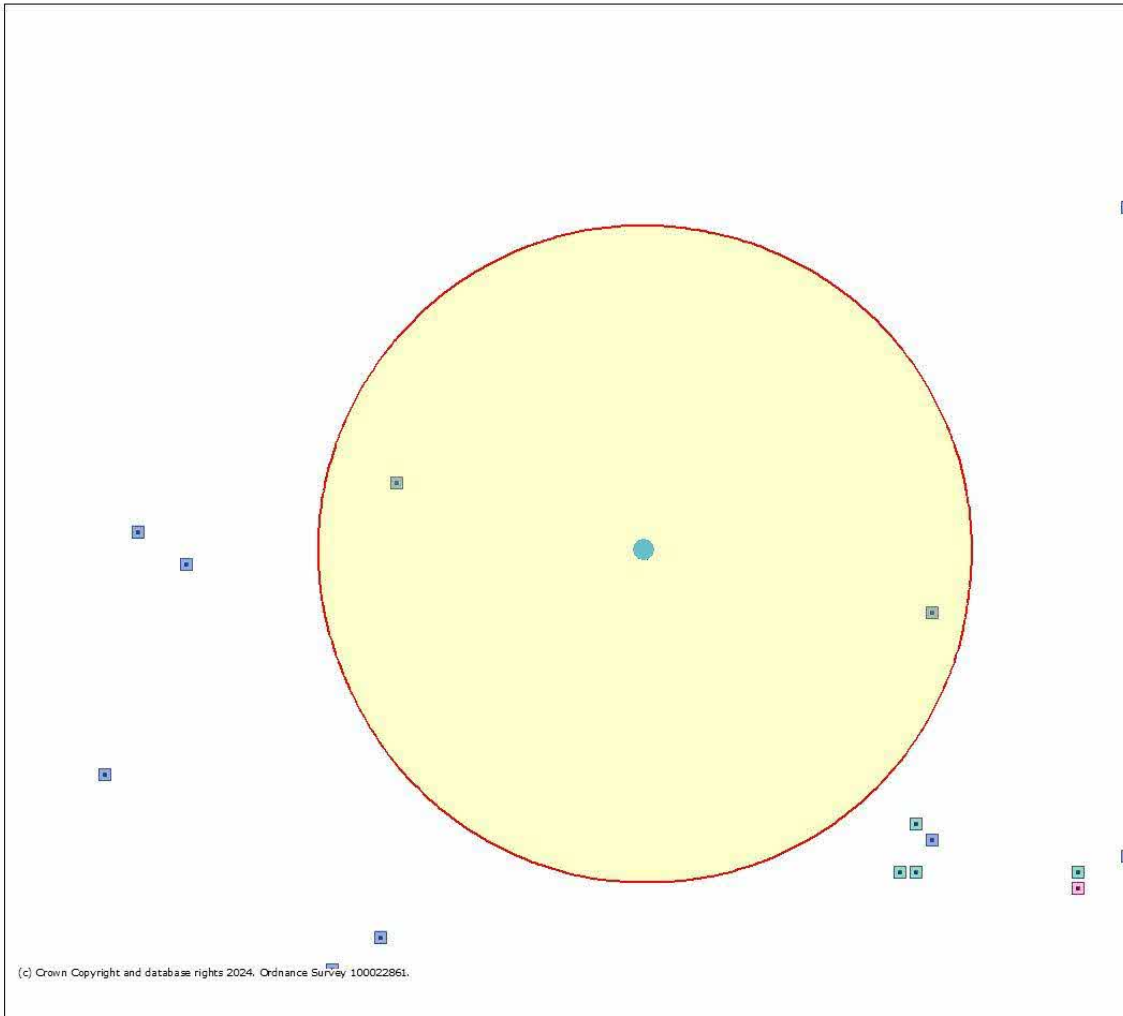
Projection = OSGB36
 xmin = 356100
 ymin = 214400
 xmax = 367000
 ymax = 220700

Map produced by MAGiC on 27 April, 2024.
 Copyright resides with the data suppliers and the map must not be reproduced without their permission. Some information in MAGiC is a snapshot of the information that is being maintained or continually updated by the originating organisation. Please refer to the metadata for details as information may be illustrative or representative rather than definitive at this stage.



MAGIC

Granted EPSML 2km

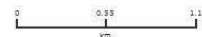


Legend
Granted European Protected
Species Applications (England)

-  Amphibian
-  Bat
-  Cetacean
-  Invertebrate
-  Other Mammal
-  Plant
-  Reptile

Projection = OSGB36
xmin = 356100
ymin = 214400
xmax = 367000
ymax = 220700

Map produced by MAGIC on 27 April, 2024.
Copyright resides with the data suppliers and the map must not be reproduced without their permission. Some information in MAGIC is a snapshot of the information that is being maintained or continually updated by the originating organisation. Please refer to the metadata for details as information may be illustrative or representative rather than definitive at this stage.



Limitations

A third-party data search was not commissioned as part of this appraisal.

The month of April is just outside the main bat activity and maternity roosting period, and outside the main season for identifying hibernation roosts, however it is within the season to identify transitional roosts and potential for all roost types can still be assessed.

These limitations are not considered to have altered key recommendations detailed within this report.

Results – Diurnal survey 17 April 2024

The building subject to inspection is a two-storey residential dwelling, formerly a pair of semi-detached now a single dwelling with multiple phases of single-storey extension.

Constructed of local stone exposed stonework and pointing of the northern façade are in good condition while all other aspects are fully rendered with pebble-dash creating a sealed surface. An extension to the east is constructed of red-brick in good condition, and single-storey extension wrapping around the south-west corner is fully rendered.

Windows and doors are PVCu, all in good condition and tight to apertures. An enclosed porch on the northern façade features a pent roof of manufactured slate, verge pointing is deteriorating but endoscopic inspection identified no evidence of bat roosting. Single-car garage to the west features an aluminium up-and-over door in poor condition and wedged permanently open.

Facia, bargeboards, and soffits are PVCu, in good condition and tightly fitted.

The dwelling features a gable roof. Covering is manufactured slate, in very good condition and very well seated. Ridge tiles are in good condition, well seated, and tight to slates. Verges are capped.

Brickwork and pointing of chimneys are in good condition and lead flashing appears tight.

The garage features a gable roof of manufactured slate, in good condition and well seated. Ridge tiles are in good condition, well seated and mortar is good. Verge is well pointed.

The eastern extension features a pent roof of manufactured slate, in very good condition and very well seated. Lead flashing between roof and wall is tight.

The south-eastern extension features a flat roof with butyl rubber covering, in good condition.

A conservatory sits across the remainder of the southern aspect, constructed of PVC and aluminium framed glass with twin-wall polycarbonate roof, all parts are in good condition and tightly fitted.

Internally the building features a large but shallow roof void spanning the main dwelling, and a smaller secondary void within the eastern extension.

The main void features machine-cut rough-sawn timbers with purlins supported on brick plinths. Slates are lined with traditional hessian reinforced bituminous felt. Timbers and lining are lightly cobwebbed while gable walls are moderate to heavily cobwebbed. Floor of the void is insulated with glass fibre roll.

The secondary void within the eastern extension is open to a workshop area at the northern end. Timbers are machine-cut rough-sawn supported on a beam attached to the main wall. Slates are lined with traditional hessian reinforced bituminous felt. Floor of the void is uninsulated.

All accessible internal and external surfaces were inspected for evidence of bat activity including live and dead bats, faeces, oil and urine staining, scratch marks, feeding remains etc. but none were found.

Legislation & protection

Bats and their habitats are protected under The Wildlife and Countryside Act 1981 (as amended) and the Conservation of Habitats and Species Regulation 2010. Formal policies and recognised best practice include the UK Post-2010 Biodiversity Framework (former UK Biodiversity Action Plan), PAS2010 Planning to Halt the Loss of Biodiversity, Circular 06/2005 Biodiversity and Geological Conservation, BS 42020: 2013 and BS 8583: 2015 on Biodiversity, the National Planning Policy Framework.

All bat species are designated and protected as European protected species (EPS). EPS are protected under the Conservation of Habitats and Species Regulations 2017.

It is an offence to:

- deliberately kill, injure, disturb or capture them
- damage or destroy their breeding sites and resting places (even when bats are not present)
- possess, control or transport them (alive or dead)

It is also an offence under the Wildlife and Countryside Act 1981 to intentionally or recklessly:

- disturb bats while they occupy a structure or place used for shelter or protection
- obstruct access to a place of shelter or protection

Several species of bats are listed as rare and most threatened species under Section 41 of the Natural Environment and Rural Communities Act (2006). You must have regard for the conservation of Section 41 species as part of your planning decision.

Bats may use a variety of structures for roosting including but not limited to buildings (including modern and ancient structures), caves, mines, tree hollows, and purpose-built bat boxes. Bats change roosts seasonally with different roosts serving different purposes (breeding, hibernating, maternity) and some roosts such as day roosts and transitional roosts may only be used briefly and infrequently, however unoccupied roosts are still protected by law. Due to multiple factors including loss of roost sites, loss or degradation of foraging habitat, predation by domestic pets, and persecution by humans, UK bat populations have suffered significant decline leading to them being considered of conservation concern.

National Planning Policy

In accordance with the National Planning Policy Framework 2012, the planning system should contribute to and enhance the natural environment by minimising impacts on biodiversity and providing biodiversity net gain where possible, promote the preservation, restoration and re-creation

of priority habitats, and the protection and recovery of priority species populations and ecological networks.

Local planning authorities should aim to conserve and enhance biodiversity by applying the following principles when determining planning applications:

- Planning permission should be refused if harm resulting from a development cannot be avoided, adequately mitigated, or compensated.
- Opportunities to incorporate biodiversity in and around developments should be encouraged.
- Planning policies and decisions should limit the impact of light pollution from artificial light on local amenity, intrinsically dark landscapes, and nature conservation.

Additional advice set out in the National Planning Practice Guidance (2014) section 'Natural Environment' emphasizes the need for biodiversity to be taken into account when preparing a planning application, as detailed above, and sets out how biodiversity can be protected and enhanced by: seeking to include habitat restoration; re-creation and expansion; improved links between existing sites; buffering of existing important sites; new biodiversity features within a development; and securing management for long term enhancement.

Conclusion and recommendations

Four Winds, Ruardean, was subject to preliminary bat roost appraisal on 17 April 2024.

The building is subject to planning for refurbishment including the creation of a dormer / raised roof to the southern elevation ([see plans above](#)).

The dwelling was found to be in a generally good state of repair offering very limited potential for bat roosting.

No evidence of bat activity was identified within interior roof voids which were easily accessed and thoroughly searched.

The building was assessed as having 'negligible' bat roost suitability, in line with currently accepted guidelines no further surveys are required and bats are not expected to pose a constraint on the development.

As a precaution a soft-strip of roofing materials is recommended, in the unlikely event that bats are discovered during works, all work shall halt immediately while the project ecologist is consulted.

Any external lighting plans shall follow recommendations contained within: [Guidance Note 8 Bats and Artificial Lighting | Institution of Lighting Professionals \(theilp.org.uk\)](#)

In line with local planning policy for biodiversity enhancement one general purpose woodstone/woodcrete bat box (Beaumaris Woodstone or suitable alternative) shall be installed on a south-facing aspect of a building or a mature tree, at a height in excess of 3 meters. All enhancement measures shall be maintained in perpetuity.

Photographs

All photographs taken 17 April 2024.



Plate 1. Northern facade.



Plate 2. Northern roof aspect.



Plate 3. Enclosed porch planned for removal.



Plate 4. Garage planned for removal.



Plate 5. Southern rear aspect.



Plate 6. Southern roof aspect planned for dormer installation.



Plate 7. Southern roof aspect planned for dormer installation.



Plate 8. Southern aspect of garage to be removed.



Plate 9. Eastern extension roof planned for 'Velux' installation.



Plate 10. Butyl covering of flat roofed extension.



Plate 11. General view of interior roof void.



Plate 12. General view of interior roof void.



Plate 13. Eastern gable.



Plate 14. Western gable.

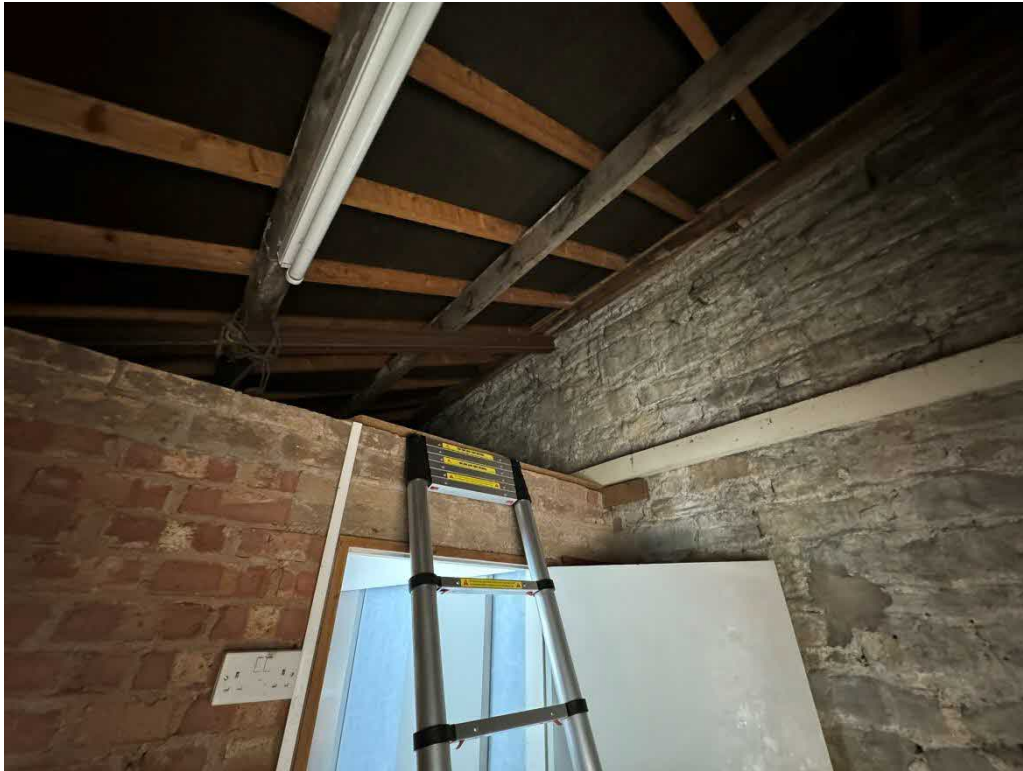


Plate 15. Roof of eastern extension open to workshop area.



Plate 16. Roof void of eastern extension.

References

- BS 42020:2013 Biodiversity — Code of practice for planning and development. The British Standards Institution.
- Collins, J. (ed.) (2023). Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edn). The Bat Conservation Trust, London.
- JNCC (1994). The Bat Workers' Manual. Eds. A.J. Mitchell-Jones & A.P. McLeish. JNCC, Peterborough, UK.
- English Nature (2004). Bat Mitigation Guidelines, January 2004. English Nature, Peterborough, UK.
- Russ, J. (2012). British Bat Calls, A Guide to Species Identification. Pelagic Publishing, London.
- Eurobats publication series No.8 Guidelines for consideration of bats in lighting projects.
- Institute of Lighting Professionals and Bat Conservation Trust (2018). Guidance Note 08/18: Bats and artificial lighting in the UK, Bats and the Built Environment series. ILP, Warwickshire.
- CIEEM (2021). Bat Mitigation Guidelines: A guide to impact assessment, mitigation and compensation for developments affecting bats. Beta version. Chartered Institute of Ecology and Environmental Management.
- [Bats: surveys and mitigation for development projects - GOV.UK \(www.gov.uk\)](https://www.gov.uk/guidance/bat-surveys-and-mitigation-for-development-projects)
- Bat Tree Habitat Key (2018). Bat Roosts in Trees. Pelagic Publishing, London.
- Middleton, N. (2020). Is That a Bat? A Guide to Non-Bat Sounds Encountered During Bat Surveys. Pelagic Publishing, London.
- Runkel, V. et.al. (2021). The Handbook of Acoustic Bat Detection. Pelagic Publishing.
- Chartered Institute of Ecology and Environmental Management (June 2021). Bat Mitigation Guidelines, Beta version 1.0: June 2021. CIEEM.
- Russ, J. (2021) Bat Calls of Britain and Europe. Pelagic Publishing, London.
- Bat Rock Habitat Key (2018). Bat Roosts in Rock. Pelagic Publishing, London.
- Bat Conservation Trust (May 2022). Interim Guidance Note: Use of night vision aids for bat emergence surveys and further comment on dawn surveys. The Bat Conservation Trust, London.
- Andrews & Pearson (2022). Review of empirical data in respect of emergence and return times reported for the UK's native bat species Version 6.
- Fawcett Williams (2021). Thermal Imaging Bat Survey Guidelines. The Bat Conservation Trust, London.
- Davidson-Watts (2021). Can you see what I see? – The importance of night vision aids to conduct effective emergence surveys of tree roosting bats (presentation to UK Bat Steering Group 2021).
- Froidevaux, J. S. P., Boughey, K.L., Hawkins, C.L., Jones, G. & Collins, J. (2020) Evaluating survey methods for bat roost detection in ecological impact assessment. Animal Conservation 23 597–606.
- Crompton, R. (2021). Better bat surveys – using infrared video for bats (presentation to National Bat Conference 2021).
- <https://magic.defra.gov.uk/magicmap.aspx>
- <https://osmaps.ordnancesurvey.co.uk/>
- <https://gridreferencefinder.com>

Quality Assurance

ATW Ecology was founded during the Covid-19 pandemic. Specialists in terrestrial and freshwater ecology, our in-house staff work closely with a team of sub-contractors, associates, and assistants, each chosen for their expertise and experience in their chosen field to deliver a wide range of ecological and environmental services with projects ranging from house-holder planning applications to commercial developments and local infrastructure schemes.

ATW Ecology Ltd. is registered in England, number 14937736. Registered office: 173 Brookfarm Drive, Malvern, Worcestershire, WR14 3SL.

Andrew Tillson-Willis MRSB MCIEEM MIFM Mem.RES — Director & Principal consultant

Andrew is an experienced ecologist, herpetologist, and entomologist with nineteen years' experience as a zoological consultant and eight years as a freelance ecological surveyor before joining full time ecological consultancy six years ago. He holds Natural England survey licences for great crested newt (personal licence), bats (level 2 class licence), and white-clawed crayfish (class licence), a Natural Resources Wales survey licence for great crested newt, is registered under the Construction Skills Certification Scheme (CSCS), is a registered member of the Royal Society of Biology, and Institute of Fisheries Management, a full member of the Chartered Institute of Ecology and Environmental Management, and Royal Entomological Society. In his spare time Andrew is co-ordinator and recorder for the Worcestershire Reptile & Amphibian Group, long-standing committee member of the Herefordshire Amphibian & Reptile Team, committee member of Worcestershire Mammal Group, steering member of the Malvern Hills Crayfish Group, and an active member of the Worcestershire Bat Group, and Herefordshire Mammal & Bat Group.

NB. Whilst all due and reasonable care is taken in the preparation of reports we accept no responsibility whatsoever for any consequences of the release of this report to third parties. Clients are reminded that all work carried out is subject to our Terms of Trading which may be viewed at any time on our web site at www.atwecology.com or can be provided on request. Please again be aware that site surveys inevitably miss species not apparent on the date of visit(s) by reason of seasonality, mobility, habits or chance. Results are indicative and given in good faith but they are not a guarantee of presence or absence of any particular taxa.

Please note that this report is a baseline ecological site audit of factors and features that may be significant for regulatory compliance and biodiversity policies relating to change of use or other disturbance. Such reports may not, on their own, contain sufficient information for a planning application and may require further more detailed study to assure compliance.



**ATW
ECOLOGY**

Malvern Hills Science Park, Geraldine Road, Malvern, Worcestershire. WR14 3SZ.

07739072405 | hello@atwecology.com | www.atwecology.com