Preliminary Bat Roost Assessment & Nesting Bird Survey Report

Woodhouse Farm, Fernhill, Almondsbury, Bristol, BS32 4LU

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Document History

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The evidence in this document is based upon the field survey(s) detailed. Due to the changing nature of ecology the list of species present cannot be considered comprehensive and Smart Ecology cannot guarantee that other protected/notable species and habitats are not present.

The ecology of a site is constantly changing and therefore the information provided in this document is only relevant at the time of survey. **If it has been over 12 months since this survey was undertaken advice should be sought on whether an updated survey is necessary.**

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

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Non-Technical Summary

Purpose of Report	Smart Ecology was commissioned by Mr Roper to undertake a preliminary bat roost assessment and nesting bird survey of two outbuildings (referred to as Buildings A and B) at Woodhouse Farm, Fernhill, Almondsbury, Bristol, BS32 4LU. This was to inform a planning application for conversion of Building A to commercial use and conversion of Building B to residential use.
Methodology	A desk study was undertaken, and a daytime external and internal inspection of the outbuildings was carried out to look for evidence of, and potential for, roosting bats and nesting birds.

Results and Recommendations			
Species/ Group	**Suitability Assessment**	**Survey & Mitigation Requirements**	**Timing**
Bats	Moderate (active period)	**Emergence/re-entry surveys -** Two surveys to determine the presence or likely absence of roosting bats in the outbuildings. If roosting bats are found to be present then one or more additional surveys will be required to fully characterise the roost(s). Five surveyors will be needed for full survey coverage of both outbuildings.	May to September inclusive, at least one or two surveys between May and August inclusive. Surveys must be carried out at least two weeks apart.
	Low (hibernation period)	**Hibernation -** Any necessary mitigation must be determined after the emergence/re-entry surveys have been carried out.	N/A
Birds	Potential	**Mitigation -** Undertake destructive and obstructive works to the outbuildings and remove any shrubs adjacent to Building A outside of the nesting season. If this is not possible then the outbuildings must be checked by an ecologist for the presence of nesting birds no more than 48 hours before works commence; any active nests then found would have to be left undisturbed until the young had fledged.	No destructive and obstructive works between March and September inclusive (or an inspection must be carried out by an ecologist).

Conclusions	The proposed works could impact roosting bats. Therefore, further surveys of the outbuildings are required to determine the presence or absence of roosting bats. Mitigation is required to avoid potential impacts on nesting birds.

Contents

1 Introduction

1.1 Background

1.1.1 Smart Ecology was commissioned by Mr Roper to undertake a preliminary bat roost assessment and nesting bird survey of two outbuildings (referred to as Buildings A and B) at Woodhouse Farm, Fernhill, Almondsbury, Bristol, BS32 4LU (central grid reference ST 60960 85532). Refer to Figure 1, Section 7 for a location map.

1.1.2 This was to inform a planning application to South Gloucestershire Council for conversion of Building A to commercial use and conversion of Building B to residential use.

1.1.3 The survey comprised a daytime external and internal inspection of the outbuildings to look for evidence of, and potential for, roosting bats and nesting birds.

1.1.4 This report has been prepared by Robert Dunn, director at Smart Ecology and an associate member of the Chartered Institute of Ecology and Environmental Management (CIEEM), with reference to the Bat Conservation Trust's (BCT) good practice guidelines (Collins, 2016), CIEEM's Guidelines for Ecological Report Writing (CIEEM, 2017), and BS42020 Biodiversity – a code of practice for planning and development (BSI, 2013).

1.2 Aims

1.2.1 The purpose of the survey and report was to:

- Check the outbuildings for evidence of roosting bats and nesting birds.
- Describe and assess the suitability of the outbuildings for roosting bats and nesting birds.
- Assess the impact of the proposed development on bats and nesting birds.
- Provide details of any required further surveys and/or mitigation.
- Provide recommendations for biodiversity enhancements.

1.3 Site Context

1.3.1 The surveyed outbuildings are situated in a rural location approximately 0.6 km to the south of Tockington. Dwellings are located to the north and the west of the outbuildings, a garden with amenity grassland and scattered trees is located immediately to the east of the outbuildings, and hardstanding is located to the south and west. A minor road is located further to the west of the outbuildings, agricultural buildings are located to the north, and a touring caravan field is located to the south-east. The local landscape predominately comprises arable and pasture fields with boundary hedgerows/tree-lines, with areas of broadleaved woodland and floodplain grazing marsh also present. The M4 motorway is located approximately 350 m to the south-west of the surveyed outbuildings.

2 Methodology

2.1 Desk Study

2.1.1 The Multi-Agency Geographic Information Centre (MAGIC)[1] website was consulted for existing information on:

- Statutory designated sites designated for bats within 6 km of the surveyed outbuildings[2].
- Granted bat European Protected Species (EPS) mitigation licences within 2 km of the surveyed outbuildings.
- Habitats within 6 km of the surveyed outbuildings[3].

2.1.2 The search areas are considered sufficient to take into account ecological receptors which could potentially be impacted by the proposed development.

2.1.3 A data search was not obtained from the Local Records Centre as it was considered that this would not provide any significant additional information to inform the assessment.

2.2 Field Survey

Personnel

2.2.1 The survey was carried out by Robert Dunn; see Table 2-1 for details of the surveyor's experience and qualifications. All work was undertaken with reference to BCT's good practice guidelines (Collins, 2016).

Table 2-1: Surveyor information

Surveyor	Natural England Bat Survey Licence	Experience
Robert Dunn BSc, MSc, ACIEEM	Level 1 (2016-23966)	Nine years' experience in ecological consultancy. MSc Environmental Biology: Conservation and Resource Management (University of Swansea - Merit). Biological Sciences with Environmental Resources (University of Warwick – 1st).

Habitat Assessment

2.2.2 Habitats on and in the vicinity of the surveyed outbuildings were assessed for their suitability for commuting and foraging bats.

2.2.3 Taking into account information regarding habitats within 6 km of the surveyed outbuildings obtained during the desk study, an assessment of habitat suitability was then made with reference to the BCT good practice guidelines (Collins, 2016); see Table 2-2 for the assessment criteria.

[1] http://magic.defra.gov.uk (accessed July 2023).
[2] 6 km is the largest known bat Core Sustenance Zone (CSZ) (Collins, 2016).
[3] To inform an assessment of the suitability of habitats for commuting and foraging bats.

Table 2-2: Habitat suitability assessment criteria

Suitability	Description
Negligible	Negligible habitat features on site likely to be used by commuting or foraging bats.
Low	Habitat that could be used by small numbers of commuting bats such as a gappy hedgerow or unvegetated stream, but isolated, i.e. not very well connected to the surrounding landscape by other habitat. Suitable, but isolated habitat that could be used by small numbers of foraging bats such as a lone tree (not in a parkland situation) or a patch of scrub.
Moderate	Continuous habitat connected to the wider landscape that could be used by bats for commuting such as lines of trees and scrub or linked back gardens. Habitat that is connected to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland or water.
High	Continuous, high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by commuting bats such as river valleys, streams, hedgerows, lines of trees and woodland edge. High-quality habitat that is well connected to the wider landscape that is likely to be used regularly by foraging bats such as broadleaved woodland, treelined watercourses and grazed parkland. Site is close to and connected to known roosts.

Building Survey

2.2.4 The survey was undertaken on the 12th of July 2023. Refer to Table 2-3 for details of weather conditions during the survey.

Table 2-3: Survey weather conditions

Variable	Weather Conditions
Cloud cover	20 – 30 %
Temperature	19°C
Wind	Light breeze (BWS 2)
Precipitation	None

2.2.5 The outbuildings were surveyed for evidence of, and potential for, roosting bats following the methodology outlined in the BCT good practice guidelines (Collins, 2016). A detailed external and internal inspection of the outbuildings was undertaken using a high-powered torch (Clulite 1 million candle power), close focusing (8.5 x 21) binoculars, and an endoscope. Possible entry/exit locations for bats, potential roost sites, and the presence of or evidence of bats (e.g. carcasses, droppings, urine, grease marks, feeding remains, squeaking etc.) were noted.

2.2.6 An assessment was made of the suitability of the outbuildings for roosting bats during the bat active period (i.e. March to October) with reference to the BCT good practice guidelines (Collins, 2016); see Table 2-4 for the assessment criteria.

Table 2-4: Bat roost suitability assessment criteria and required surveys

Suitability	Description	Number of Surveys Required[2]
Negligible	Negligible suitability for roosting bats.	None
Low	1 + potential roost sites that may be used by individual bats opportunistically. However, these potential roost sites do not provide suitable conditions[1] or have suitable surrounding habitat to be used on a regular basis or by larger numbers of bats.	One
Moderate	1 + potential roost sites with suitable conditions[1] and surrounding habitat but unlikely to support high conservation status roosts.	Two
High	1 + potential roost sites with good conditions[1] and surrounding habitat, that are obviously suitable for use by large number of bats regularly.	Three
Confirmed bat roost	1 + roost sites.	Two (minimum)

[1] Conditions include size, protection, shelter, temperature, humidity, height above ground, light levels and disturbance levels.
[2] Recommended number of emergence/re-entry surveys required by the BCT good practice guidelines (Colins, 2016) to provide confidence that bats are absent from the building/structure, or to characterise confirmed roosts.

2.2.7 During the survey, the interior and exterior of the outbuildings were also checked for evidence of birds (e.g. droppings, feathers, nesting material etc.), and features with potential for use by nesting birds.

Hibernation Assessment

2.2.8 An assessment of the suitability of the outbuildings for hibernating bats was undertaken, which considered the following aspects (Middleton, 2019):

- Presence and suitability of potential roost features.
- Likely temperature and humidity conditions during the hibernation period (i.e. between November and February).
- The suitability of habitat in the local landscape for bats.
- Presence of known roosts within, or close to, the outbuildings.

2.2.9 Refer to Table 2-5 for the assessment criteria and suitability.

Table 2-5: Hibernation assessment criteria (adapted from Middleton, 2019)

Suitability	Description
Negligible	Negligible suitability for roosting bats.
Low	Limited number of external features, many features shallow (e.g. less than 10 cm deep). The features would not typically be regarded as providing the protection from weather or favourable temperature and humidity conditions required during the winter period. OR External and/or internal features present which offer full protection from the weather, however the surrounding habitat offers negligible/low suitability for bats. OR No roosts exist in the structure or nearby over the active period.
Moderate	External and/or internal features present which larger numbers of bats could occupy. The features offer full protection from the weather and there is potential for suitable temperature and humidity conditions. The site is well connected to moderate or high suitability habitat.
High	External and/or internal features present which offer a 'classic' hibernation setting (e.g. stable temperature, humid conditions, underground site). The site is well connected to moderate or high suitability habitat.

2.3 Limitations

2.3.1 Bat droppings may not be found during surveys as these often remain in inaccessible locations such as under tiles, between tiles and felt, or within crevices and cavities. However, it was still possible to note whether there were any suitable features which could be used by roosting bats.

2.3.2 Bird nests are often hidden away in areas that are not viewable. However, it was still possible to identify any visible evidence of old nests and features with potential for use by nesting birds.

2.3.3 Stored items within Building A obstructed access to some parts of the interior for survey. Additionally, a lean-to on the south-western elevation of Building A was not accessible for survey due to safety concerns as it was structurally unsound and an area of the southern part of Building B was not accessible for survey due to a non-opening door; these limitations are not considered to be significant provided that the required bat emergence/re-entry surveys are carried out.

3 Results

3.1 Desk Study

Statutory Designated Sites

3.1.1 No statutory designated sites which include bats as a reason for their designation are located within 6 km of the surveyed outbuildings.

EPS Mitigation Licences

3.1.2 There are records of four granted EPS bat mitigation licences within 2 km of the surveyed outbuildings; refer to Table 3-1 for details. This shows that bats are present in the area and that the local landscape has suitability for bats.

Table 3-1: Granted bat EPS mitigation licences within 2 km

Case Reference	Approximate Distance from Site (km)	Species Affected	Start Date	End Date	Impact Allowed
EPSM2012-4007	0.32	Common pipistrelle Soprano pipistrelle	05/04/2013	31/08/2015	Destruction of a resting place
2017-27604-EPS-MIT	0.60	Brown long-eared Common pipistrelle Noctule	11/05/2017	30/04/2027	Destruction of a resting place
EPSM2011-3661	1.54	Brown long-eared Whiskered	08/11/2011	30/09/2013	Destruction of a resting place
2018-34320-EPS-MIT	2.00	Brown long-eared Common pipistrelle Greater horseshoe Lesser horseshoe Soprano pipistrelle	17/05/2018	15/05/2028	Destruction of a resting place

Habitat Assessment

3.1.3 With reference to Collins (2016), it is assessed that habitats within the local landscape have **high suitability** for foraging and commuting bats; see Table 3-2 for details of the assessment. The presence of highly suitable habitats in the local landscape indicates a high likelihood that bats may roost in buildings close to these habitats where suitable roosting opportunities are available.

Table 3-2: Habitat assessment

Habitat and Environmental Context	Suitability Descriptions[1]		Comment	Suitability[1]
General location	H	Rural	Rural location.	**H**
	M	Suburban/intensive farmland		
	L	Dense urban		
Foraging opportunities (within 50 m)	H	Well connected, high quality habitat (e.g. broadleaved woodland, tree-lined watercourses, grazed parkland)	Hedgerows, grassland, scattered trees.	**H**
	M	Connected habitat (e.g. trees, scrub, grassland, water)		
	L	Isolated habitat (e.g. lone tree, small scrub patch)		
Foraging opportunities within 2 km	H	Well connected, high quality habitat (e.g. broadleaved woodland, tree-lined watercourses, grazed parkland)	Scattered broadleaved woodlands, including ancient woodland, small number of traditional orchards. Good quality semi-improved grassland. Hedgerows/tree-lines and watercourses. M4 motorway likely to be a barrier to habitats to the south-west.	**H**
	M	Connected habitat (e.g. trees, scrub, grassland, water)		
	L	Isolated habitat (e.g. lone tree, small scrub patch)		
Foraging opportunities within 2 - 6 km	H	Well connected, high quality habitat (e.g. broadleaved woodland, tree-lined watercourses, grazed parkland)	Further areas of broadleaved woodland, including ancient woodland, as well as calcareous grassland, floodplain grazing marsh, and good quality semi-improved grassland. Hedgerows/tree-lines, watercourses, and waterbodies. M4 motorway likely to be a barrier to habitats to the south-west.	**H**
	M	Connected habitat (e.g. trees, scrub, grassland, water)		
	L	Isolated habitat (e.g. lone tree, small scrub patch)		
Commuting opportunities	H	Continuous, high quality, well connected habitat (e.g. river valleys, hedgerows, tree lines, woodland edge)	Continuous connectivity to foraging habitat via field hedgerows/tree-lines and watercourses	**H**
	M	Continuous connected habitat (e.g. tree lines, linked back gardens)		
	L	Isolated habitats (e.g. gappy hedgerow, unvegetated stream)		

Habitat and Environmental Context	Suitability Descriptions[1]	Comment	Suitability[1]
Overall Assessment Result		Features in the local landscape are assessed to have high suitability for foraging and commuting bats.	**HIGH**

[1] H = High; M = Moderate; L = Low

3.2 Field Survey

3.2.1 Refer to Tables 3-3 and 3-4 for the results of the building surveys.

Table 3-3: Building survey results (Building A)

General Photographs	
	
South-western and north-western elevations	South-eastern elevation
	
North-eastern elevation (eastern extent)	North-eastern elevation (western extent)

Interior (lean-to on north-eastern elevation)

Interior (main section)

Interior (main section)

Interior (lean-to on south-western elevation)

General Description	**Building description**	Dilapidated barn with lean-to on the north-eastern elevation and lean-to on the south-western elevation.
	Current use	Storage.
	Number of storeys	One.
	Age	Unknown.
External Description	**Elevation construction**	Mortared stonework. Single skin timber north-western elevation of southern lean-to section. Some blockwork in northern lean-to.
	Roof type	Double pitched.
	Roof material	Clay pantiles, clay ridge tiles. Transparent plastic sheets forming roof of northern lean-to.
	Roof ridge orientation	Approximately north-west to south-east.
	Bargeboards/ fascias/soffits	Wooden bargeboard on northern section of north-western elevation.
	Windows/doors	Wood framed doors and windows.
	Lead flashing	None.
	Artificial lighting	Lights at western end of north-eastern elevation and on south-eastern corner of the northern lean-to; unknown if these lights work.

External Potential Bat Roost Features (See the Appendix for photographs)	• Gaps where roof field tiles were missing, slipped or lifted on both roof slopes, permitting access to areas between tiles and underlying felt/lath and plaster (P1). • Gaps at the end of roof field tiles on the north-east facing roof slope, permitting access to areas between tiles and underlying felt/lath and plaster (P2). • Multiple cavities in stonework on all elevations providing access into rubble filled wall cavities, at least some of which were deep (at least 30 cm) (P3).	
External Features for Birds (See the Appendix for photographs)	• Gaps where roof field tiles missing, slipped, or lifted on both roof slopes (P1). • Gaps at the end of roof field tiles on the north-east facing roof slope (P2). • Multiple cavities in stonework on all elevations (P3). • Shrubs adjacent to the south-eastern elevation provided suitable nesting habitat.	
Internal Description	**Number of roof spaces**	No roof space present.
	Roof space dimensions	N/A
	Presence and extent of cobwebs	Light cover only.
	Roof construction	Machine cut timber roof supports in northern lean-to. Elsewhere mostly rough cut timber supports except for rafters under north-east roof slope which were machine cut.
	Roof lining	Main section - bitumen felt under north-eastern roof slope, lath and plaster under south-western roof slope. Southern and northern lean-to – no lining.
	Elevation construction	Mortared stonework.
	Natural light levels	Relatively light in lean-tos, darker in the larger central section.
	Exposure to weather	Relatively sheltered.
	Level of disturbance	Low disturbance central section and southern lean-to, high in northern lean-to.
	Flight space	Uncluttered in central section.
	Artificial lighting	Lights in central section and northern lean-to but unknown if working.
Internal Potential Bat Roost Features (See the Appendix for photographs)	• Rips in bitumen felt permitting access to areas between felt and roof tiles (P4). • Missing section of lath and plaster, permitting access to areas between lath and plaster and roof tiles (P5). • Multiple cavities in stonework on all elevations into rubble filled wall cavities, at least some of which were deep (at least 30 cm) (P6). • Gaps between gable wall tops and roof (P7). • Gap between plaster and wall (P8).	
Potential Access Points to Interior	• Interior fully accessible, including via unglazed windows.	
Internal Features for Birds (See the Appendix for photographs)	• Multiple cavities in stonework on all elevations (P7). • Gaps between gable wall tops and roof (P8). • Roof support timbers.	

Evidence of Bats	• None (but see limitations).
Evidence of Birds	• Bird droppings on stored items. • One swallow nest on top of ridge beam in central section, not in use (no young and no droppings below nest). • Two nests of other species on top of ridge beam in central section, not in use (no young and no droppings below nest).

Table 3-4: Building survey results (Building B)

General Photographs

South-western and north-western elevations

South-western and north-eastern elevations

North-western and north-eastern elevations

Interior (northern section)

Interior (southern section)

Interior (central section)

General Description	**Building description**	Barn with high open fronted central section used for storage and lower partitioned sections in the north and south of the building used for storage and as a workshop.
	Current use	Storage/workshop.
	Number of storeys	One.
	Age	Unknown.
External Description	**Elevation construction**	Timber cladding and mostly rendered blockwork. Stonework around main entrance on north-western elevation.
	Roof type	Double pitched.
	Roof material	Clay double Roman tiles, clay ridge tiles.
	Roof ridge orientation	Approximately north-west to south-east.
	Bargeboards/ fascias/soffits	Wooden fascia on south-western elevation.
	Windows/doors	Wood framed door. Metal framed window.
	Lead flashing	None.
	Artificial lighting	None.
External Potential Bat Roost Features (See the Appendix for photographs)	• Gaps at the end of roof field tiles on the north-eastern and south-western elevations, permitting access to areas between tiles and underlying membrane (P9). • Gaps under lifted roof field tiles, permitting access to areas between tiles and underlying membrane (P10). • Shallow gaps between timber cladding on the south-eastern elevation (P11).	
External Features for Birds (See the Appendix for photographs)	• Gaps at the end of roof field tiles on the north-eastern and south-western elevations (P9). • Gaps under lifted roof field tiles (P10).	
Internal Description	**Number of roof spaces**	No roof space present.
	Roof space dimensions	N/A
	Presence and extent of cobwebs	No significant cobweb cover.
	Roof construction	Machine cut timber.
	Roof lining	Breathable membrane.
	Elevation construction	Predominantly blockwork, some stonework around entrance to central section.
	Natural light levels	Central section very light, except for alcove like feature at rear. Workshop in northern section dark, south-western room light due to presence of window, and south-eastern section (not accessible for survey) was dark.
	Exposure to weather	Central section exposed to weather; remainder of interior sheltered from weather.
	Level of disturbance	Moderate/high.

	Flight space	Relatively uncluttered.
	Artificial lighting	Artificial lighting present throughout interior, possibly with the exception of the south-eastern section (not accessible for survey).
Internal Potential Bat Roost Features	• Roof support timbers. No evidence of use by bats however (e.g. droppings, feeding remains).	
Potential Access Points to Interior	• Central main section open on north-western elevation. Northern section and central section connected via gap above dividing wall.	
Internal Features for Birds	• Roof support timbers.	
Evidence of Bats	• None (but see limitations).	
Evidence of Birds	• Scattered droppings. No nests (but see limitations).	

4 Evaluation

4.1 Bats

Suitability Assessment

Building A

4.1.1 The building was assessed to have **moderate suitability** for roosting bats during the active season with multiple potential roost sites (e.g. under roof tiles and within wall cavities) with suitable conditions and high suitability surrounding habitat, but is considered unlikely to support high conservation status roosts.

4.1.2 The building was assessed to have **low suitability for hibernation**, with features present with potential for use by species which can hibernate in more exposed conditions (including gaps between roof tiles and felt/lath and plaster, and wall cavities), but which are not considered likely to provide the protection from weather or favourable temperature and humidity conditions during the winter period which would be found in a classic hibernation site.

Building B

4.1.3 The building was assessed to have **moderate suitability** for roosting bats during the active season with multiple potential roost sites (e.g. under roof tiles) with suitable conditions and high suitability surrounding habitat, but is considered unlikely to support high conservation status roosts.

4.1.4 The building was assessed to have **low suitability for hibernation**, with features present with potential for use by species which can hibernate in more exposed conditions (including gaps between roof tiles and underlying membrane), but which are not considered likely to provide the protection from weather or favourable temperature and humidity conditions during the winter period which would be found in a classic hibernation site.

Legislation and Planning Policy

4.1.5 All bat species and their roosts are protected by the Conservation of Habitats and Species Regulations 2017 (as amended) and the Wildlife and Countryside Act 1981 (as amended); see Table 4-1.

Table 4-1: Legal implications of legislation with regard to bats

Legislation	Legal Implications
Conservation of Habitats and Species Regulations 2017 (as amended)	It is illegal to: • Deliberately capture, injure or kill bats. • Deliberately disturb[1] bats. • Damage or destroy a breeding site or resting place[2].

Legislation	Legal Implications
Wildlife and Countryside Act 1981 (as amended) – sub-sections 9(4) b and c and 9(5) only	It is illegal to: • Intentionally or recklessly disturb bats while they are occupying a structure or place of shelter or protection[2]. • Intentionally or recklessly obstruct access to a structure or place of shelter or protection[2].

[1] Disturbance under the Conservation of Habitats and Species Regulations 2017 (as amended) is defined as impairing the ability of an animal to survive, breed, reproduce, rear or nurture their young, hibernate or migrate, or to significantly affect the local distribution or abundance of the species.
[2] Bat roosts are any structure or place used for breeding, shelter or protection and are protected even when bats are not present.

4.1.6 A EPS licence is required if works affect bats or their roosts. EPS licences are issued by Natural England only after the following three tests have been satisfied:

- The proposed works must be for the purpose of preserving public health or safety or other imperative reasons of overriding public interest.
- There is no satisfactory alternative to the proposed works.
- The proposed works will not be detrimental to the maintenance of the species concerned at a favourable conservation status in their natural range.

4.1.7 The presence of bats is a material consideration in the planning process and local planning authorities will refuse planning permission where a EPS licence is unlikely to be granted and a criminal offence relating to bats is likely to result from a development.

4.1.8 Additionally, barbastelle, Bechstein's bat, brown long-eared, greater horseshoe bat, lesser horseshoe bat, noctule, and soprano pipistrelle bats are designated as species of principal importance (priority species) under the Natural Environment and Rural Communities Act 2006. Section 40 of this Act places a duty on local planning authorities to '*have regard*' to conserving these species when determining planning applications.

4.1.1 Paragraph 174 of the National Planning Policy Framework (NPPF) 2021 states that planning decisions should protect sites of biodiversity value, minimise biodiversity impacts, and contribute to net biodiversity gains. Paragraph 180 states that planning permission should be refused if significant harm to biodiversity resulting from a development cannot be avoided, adequately mitigated, or, as a last resort, compensated for. The NPPF also emphasises the need to protect priority species.

Impact Assessment

4.1.1 The proposed works to the outbuildings could potentially destroy bat roosts and disturb, kill, or injure bats (if present at the time of works).

4.2 Birds

Suitability Assessment

4.2.1 Both outbuildings had potential for use by nesting birds. Shrubs immediately adjacent to the south-eastern elevation of Building A could be used by nesting birds.

Legislation and Planning Policy

4.2.2 Birds and their nests are protected by the Wildlife and Countryside Act 1981 (as amended); see Table 4-2 for details.

Table 4-2: Legal implications of legislation with regard to birds

Legislation	Legal Implications
Wildlife and Countryside Act 1981 (as amended)	It is illegal to intentionally: • Kill, injure or take any wild bird. • Take, damage or destroy a wild bird's nest while it is in use or being built. • Take of destroy the eggs of any wild bird. • There is additional protection for birds listed on Schedule 1 (S1) of the Act, which includes barn owls, whereby it is an offence to intentionally or recklessly disturb a S1 bird while building a nest or in or near a nest containing eggs or young, and disturb dependent young of a S1 bird.

4.2.3 Additionally, several bird species are designated as species of principal importance (priority species) under the Natural Environment and Rural Communities Act 2006, including house sparrow and common starling which often nest in buildings. Section 40 of this Act places a duty on local planning authorities to '*have regard*' to conserving these species when determining planning applications. The NPPF also emphasises the need to protect priority species.

Impact Assessment

4.2.4 If destructive and obstructive works to the outbuildings and any removal or damage of shrubs adjacent to Building A take place during the nesting season (which is typically March to August inclusive, extended to the end of September for swallows which could nest within the outbuildings) then there is the potential for birds to be killed or injured and for eggs and active nests to be destroyed.

5 Further Actions

5.1 Surveys and Mitigation

5.1.1 Details of required further surveys and/or mitigation are provided in Table 5-1.

Table 5-1: Survey and mitigation requirements

Species	Suitability Assessment	Survey & Mitigation Requirements	Timing
Bats	Moderate (active period)	**Emergence/re-entry surveys -** Two surveys to determine the presence or likely absence of roosting bats in the outbuildings. If roosting bats are found to be present then one or more additional surveys will be required to fully characterise the roost(s). Five surveyors will be needed for full survey coverage of both outbuildings.	May to September inclusive, at least one or two surveys between May and August inclusive. Surveys must be carried out at least two weeks apart.
	Low (hibernation period)	**Hibernation -** Any necessary mitigation must be determined after the emergence/re-entry surveys have been carried out.	N/A
Birds	Potential	**Mitigation -** Undertake destructive and obstructive works to the outbuildings and remove any shrubs adjacent to Building A outside of the nesting season. If this is not possible then the outbuildings must be checked by an ecologist for the presence of nesting birds no more than 48 hours before works commence; any active nests then found would have to be left undisturbed until the young had fledged.	No destructive and obstructive works between March and September inclusive (or an inspection must be carried out by an ecologist).

5.2 Enhancements

5.2.1 In line with the NPPF, details of opportunities to permit a biodiversity enhancement are provided in Table 5-2.

Table 5-2: Opportunities for biodiversity enhancements

Opportunity	Details
Provision of bird nest boxes	It is recommended that additional nesting habitat is provided for birds. This could include the installation of at least two nest boxes integrated into the elevations of the converted buildings (e.g. Build-in Woodstone Half Open Box, WoodStone Build-in Swift Nest Box B, and/or Vivara Pro WoodStone House Sparrow Nest Box). Alternatively/additionally, at least two nest boxes could be installed on the exterior walls of the converted buildings and/or on nearby trees (e.g. Schwegler 1SP Sparrow Terrace [building only], Schwegler 1B Nest Box, 3S Schwegler Starling Nest Box, and/or 2GR Schwegler Nest Box). Nest boxes must be installed at least 3 m above ground level, ideally facing between the north and east. Birds must have a clear flight path to and from the boxes.

6 References

British Standards Institute (BSI) (2013). *BS4202 Biodiversity – A code of practice for planning and development.* BSI, London.

CIEEM (2017). *Guidelines for Ecological Report Writing – Second Edition.* Chartered Institute of Ecology and Environmental Management, Winchester.

Collins, J. (2016). *Bat Surveys for Professional Ecologists – Good Practice Guidelines, 3rd edition.* Bat Conservation Trust, London.

Middleton, N. (2019). *Assessing Sites for Hibernation Potential. A Practical Approach, including a Proposed Method & Supporting Notes.* Unpublished.

7 Figure

Figure 1 – Location Map

Figure 1 - Location Map

Woodhouse Farm,
Fernhill,
Almondsbury,
Bristol,
BS32 4LU

Building A
Building B

Date:	24/07/2023
Drawn by:	Robert Dunn
Checked by:	Rachel Barber

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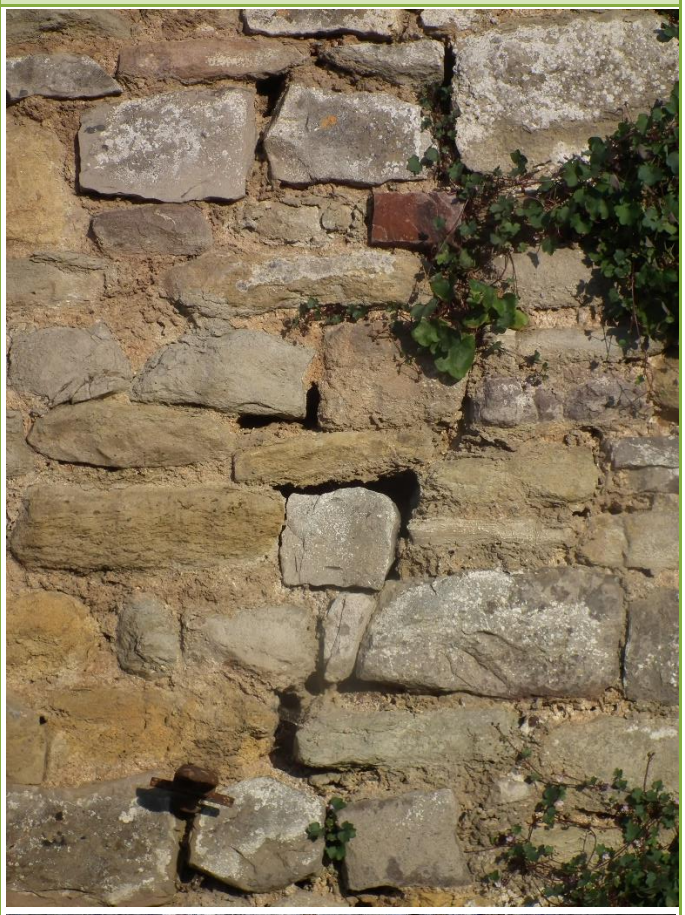
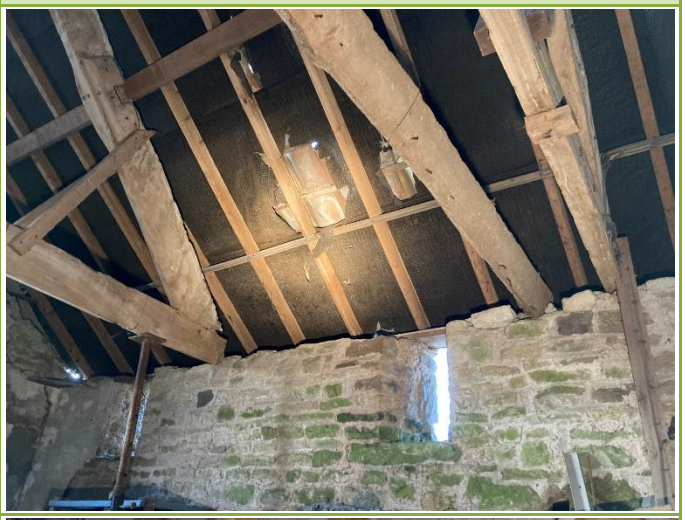
Appendix – Building Survey Photographs

Number	Description	Photograph
Building A		
P1	Examples of gaps where roof field tiles were missing, slipped or lifted on both roof slopes, permitting access to areas between tiles and underlying felt/lath and plaster.	 
P2	Example of gaps at end of roof field tiles on the north-east facing roof slope, permitting access to areas between tiles and underlying felt/lath and plaster.	

Number	Description	Photograph
P3	Examples of cavities in the stonework on all elevations.	 

Number	Description	Photograph
P4	Example of rips in bitumen felt permitting access to areas between felt and roof tiles.	
P5	Example of missing section of lath and plaster, permitting access to areas between lath and plaster and roof tiles.	
P6	Example of cavities/crevices in stonework in internal walls.	

Number	Description	Photograph
P7	Example of gaps between gable wall tops and roof.	
P8	Gap between plaster and wall.	

Number	Description	Photograph
Building B		
P9	Example of gaps at the end of roof field tiles on the north-eastern and south-western elevations, permitting access to areas between tiles and underlying membrane.	
P10	Example of gaps under lifted roof tiles, permitting access to areas between tiles and underlying membrane.	
P11	Example of shallow gaps between timber cladding on the south-eastern elevation.