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## **ECOLOGICAL IMPACT ASSESSMENT REPORT**

**THE COACH HOUSE, DOWDESWELL COURT,  
GLOUCESTERSHIRE**

**JULIAN AND JADE DUNKERTON**

DOCUMENT REF: WWE22122 ECIA BATS | 21/09/2022

Client:	Julian and Jade Dunkerton
Site/Job:	The Coach House, Dowdeswell Court, Gloucestershire
Report title:	Ecological Impact Assessment Report
Report reference:	WWE22122 EcIA BATS

Grid Reference:	SP 00223 19704
Survey date(s):	20/07/2022 04/08/2022 and 25/08/2022
Surveyed by:	Richard Dodd, Laoise Wilder, David Withington and Fiona Woods
Architect/Agent:	Yiangou Architects Ltd

## VERSIONING AND QUALITY ASSURANCE

Status	Date	Author(s)	Reviewed by	Approved by
Final	21/09/2022	David Withington Ecologist	Peter Hacker ACIEEM Senior Ecologist	Peter Hacker ACIEEM Senior Ecologist

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The evidence which we have prepared and provided is true and has been prepared and provided in accordance with the guidance of 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.

## SUMMARY

Purpose	<ul style="list-style-type: none"><li>• Wildwood Ecology was commissioned by Julian and Jade Dunkerton (the clients) to undertake an Ecological Impact Assessment (EcIA) for bats and nesting birds of The Coach House, Dowdeswell Court, Gloucestershire .</li><li>• The site is the subject of a planning application to carry out modifications to the house including the addition of a second storey to a former stable.</li></ul>
Methodology	<ul style="list-style-type: none"><li>• A PRA was undertaken consisting of a desk study and field survey undertaken in July 2022 following best practice in line with the Bat Surveys for Professional Ecologists: Good Practice Guidelines, 3rd edn (Collins 2016).</li><li>• Two dusk activity surveys were undertaken in August 2022 following best practice in line with the Bat Surveys for Professional Ecologists: Good Practice Guidelines, 3rd edn (Collins 2016).</li></ul>
Key issues	<ul style="list-style-type: none"><li>• The southern section of the main house roof contains common pipistrelle day roosts for low numbers of bats (maximum count = 2).</li><li>• Foraging and commuting activity of a number of bat species was observed around the buildings, principally to the east and south.</li></ul>
Recommendations	<ul style="list-style-type: none"><li>• For the proposed works to be lawfully undertaken, following planning approval and the discharge of any relevant planning conditions in relation to bats, then a Bat Mitigation Class Licence (BMCL) from Natural England must be applied for and approved before works can commence.</li><li>• During the nesting bird season (typically March to the end of August but some species nest outside this period), vigilance will be maintained throughout the works for signs of nesting behaviour by birds.</li></ul>
Conclusions	<ul style="list-style-type: none"><li>• Providing that the recommendations outlined within this report are successfully implemented, it should be possible for the proposed development to proceed and for there to be no long-term impacts upon the key protected species present at the site.</li><li>• This ecological report will remain valid for a period of 18 months from the date of the last survey – i.e. until March 2024.</li></ul>

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## 1 INTRODUCTION

- 1.1 Wildwood Ecology was commissioned by Julian and Jade Dunkerton (the client) to undertake an Ecological Impact Assessment (EcIA) for bats and nesting birds at The Coach House, Dowdeswell Court, Gloucestershire (the site) centred at grid reference SP 00223 19704.
- 1.2 A Preliminary Roost Assessment (PRA) for bats and nesting birds was undertaken at the site on the 20/07/2022. This found the main house to have low suitability for roosting bats and the former stables to have negligible suitability for roosting bats. Further bat activity surveys (x1) were therefore recommended which identified day roosts for common pipistrelle within the southern section of the roof. Following the initial bat activity survey, a second emergence survey was therefore carried out.

### Site description

- 1.3 The aerial image of the site (Figure 1) shows the site to consist of a residential dwelling with attached outbuildings set around a central courtyard.
- 1.4 The site is situated in the south-east section of a formal garden. Directly to the east is an area of woodland which follows a road and to the south and west is managed grassland with scattered trees.



**Figure 1 – Aerial image of the site (red line shows the site boundary). Image used under licence (©2022 Google). Imagery date 22/04/2021.**

### Proposed development

- 1.5 The site is the subject of a planning application to carry out modifications to the house including the addition of a second storey to a former stable.

### Purpose of this report

- 1.6 This report aims where possible to provide sufficient information for the local planning authority to fully assess the potential ecological impacts of the proposed development.
- 1.7 The results of the EcIA have been used to establish the need for, and extent of, any mitigation or compensation measures required as part of the proposed development.

## 2 METHODOLOGY

### Desk study

2.1 A biodiversity desk study was undertaken in relation to the site in July 2022. The sources consulted and the type of information obtained are summarised in Table 1.

**Table 1 – Sources of biodiversity and ecological records.**

Source	Information requested (search buffer from site centre/boundary)
Gloucestershire Centre for Environmental Records	<ul style="list-style-type: none"> <li>Bat species (2km)</li> <li>Notable bird species (2km)</li> </ul>
Multi-Agency Geographic Information for the Countryside (MAGIC) <sup>1</sup>	<ul style="list-style-type: none"> <li>International statutory designations (5km)</li> <li>National statutory designations (2km)</li> <li>Site designated for bat species (10km)</li> <li>European Protected Species (EPS) licences (2km)</li> </ul>

2.2 The search buffers are considered to be sufficient to cover the potential zone of influence (Zol<sup>2</sup>) of the proposed development.

2.3 The impact of the proposed development on the biological integrity of any nearby designated protected sites has been fully considered.

2.4 Data for bats and birds only was obtained from Gloucestershire Centre for Environmental Records as the proposals will only impact on the building, hence data for other species would be irrelevant.

2.5 No previous survey information was available for the site itself.

### Field surveys

#### *PRA for bats and nesting birds*

2.6 A field survey was undertaken on 20 July 2022.

2.7 An assessment of the onsite building was undertaken in accordance with the latest published best practice guidance (Collins, 2016).

2.8 The building was externally and internally inspected for bats and their signs with the aid of high-powered lamps and close-focussing binoculars.

2.9 The suitability of the building to accommodate bats was assessed, along with a systematic search for signs of bats (e.g. droppings, moth wings, scratch marks, staining, etc.) or actual bats that were present. Particular attention was paid to the roof areas, with searches for any crevices or gaps in walls, gaps between beams and joists, droppings stuck to the walls, floors or other surfaces, or feeding remains below beams, in addition to a number of other factors and signs indicative of a bat roost.

<sup>1</sup> <http://magic.defra.gov.uk/MagicMap.aspx>

<sup>2</sup> Zol definition – ‘the areas/resources that may be affected by the biophysical changes caused by activities associated with a project’ (CIEEM, 2018).

2.10 In addition, the building was classified according to its suitability for bats, based on the presence of features within the structure and/ or landscape (see Table 2).

**Table 2 – Summary of guidelines for assessing the potential suitability of proposed development sites for bats (from Collins 2016).**

Suitability	Description of building, tree, or structure	Number of activity survey visits required <sup>3</sup>
Negligible	Negligible habitat features on site likely to be used by roosting bats.	None
Low	A structure or tree with one or more potential roost sites that could be used by individual bats opportunistically. However, potential roost sites not suitable for larger numbers or regular use (i.e. maternity or hibernation).	One
Moderate	A structure or tree with one or more potential roost sites that could be used by bats, but unlikely to support a roost of high conservation status.	Two
High	A structure or tree with one or more potential roost sites obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time.	Three
Confirmed roost	Evidence of bats or use by bats found.	Minimum of two – to characterise the roost

*Bat surveys (dusk emergence)*

- 2.11 Two bat surveys (dusk emergence survey: 04/08/2022 and 25/08/2022) were undertaken at the onsite building.
- 2.12 The dusk emergence surveys commenced approximately 15 minutes before the time of local sunset (source [www.sunrisesunsetmap.com](http://www.sunrisesunsetmap.com)) and continued for approximately 1.5 hours after sunset.
- 2.13 Surveyors were equipped with broadband bat detectors and recorders (Elekon Batloggers and Echometer Touch). Infrared cameras and torches were also deployed to record any emergence from sections of the roof.
- 2.14 Note was made of all bat activity recorded including (where appropriate) roost access points, species, time of re-entry, direction of flight, behaviour (foraging or commuting) and use of landscape features. Minimal lighting was used during the surveys as this can alter the behaviour of the bats emerging from or entering a roost or foraging or commuting over a site.

Surveyor information

- 2.15 The surveys were led by David Withington (Natural England Level 1 Class Licence holder 2019-43816-CLS-CLS), assisted by Richard Dodd, Laoise Wilder and Fiona Woods. See Table 1 for further information.

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<sup>3</sup> To provide confidence that bats are absent from the structure

**Table 3 – Surveyor information**

Surveyor	Licences	Ecological experience
<b>Richard Dodd</b> BSc(Hons) CEcol, MCIEEM Principal Ecologist	Bat Dormouse Great crested newt	A Chartered Ecologist with over 10 years of project management experience across the public, private and voluntary sectors. An experienced and licensed bat ecologist and holds additional licences for dormouse and great crested newt surveying and mitigation.
<b>Laoise Wilder</b> BSc(Hons) MSc Assistant ecologist	-	Holds a 2:1 degree in Zoology and a Masters in Species Identification and Survey Skills. Gained experience in species monitoring and habitat management through voluntary work with the Wildlife Trust.
<b>David Withington</b> BSc(Hons) Ecologist	Bat Great crested newt	Holds a PGDip in Environmental Management and Policy. Gained professional experience working with ecological consultancies since 2016. Practised in undertaking a range of protected species surveys including great crested newts, reptiles, hazel dormouse, water vole and bats.
<b>Survey assistant</b> Fiona Woods BSc(Hons)	-	All survey assistants received training in use of bat detectors and survey methodologies. Deemed competent and confident to use bat detectors to observe bats in flight and conduct an emergence/re-entry survey in conjunction with a licenced ecologist. Assistants backed up by experienced surveyors and/or recording detectors where possible.

Limitations and assumptions

- 2.16 Many species of bat in the UK are crevice dwelling, and bats or signs of bats can be difficult to find within a building. In addition, there may be areas that are inaccessible to the surveyor.
- 2.17 No limitations were encountered, or assumptions made, and it is considered that, with the access gained and recording undertaken, an accurate assessment of the site's ecological value was made.



### 3 RESULTS

#### Desk study

##### *Designated sites (statutory)*

- 3.1 There were no international statutory designations within 5km of the site and two national statutory designations within 2km, both Sites of Special Scientific Interest (SSSI) (see Table 4). The closest statutory designated site was approximately 1.5km from the site.
- 3.2 There were no protected areas (SSSIs or SACs) designated for their bat populations within 10km of the site.

##### *Designated sites (non-statutory)*

- 3.3 There was one non-statutory designations within 1km of the site (see Table 4) which was Dowdeswell Wood and Reservoir Local Wildlife Site (LWS).

**Table 4 – Summary of designated sites in range of the site.**

Site name	Designation	Description / key reason for designation	Distance & direction
<b>Statutory sites</b>			
Lineover Wood	SSSI	The site forms part of a more extensive wood which has largely been replanted with conifers and broadleaved mixtures. It has been selected as an outstanding example of the ancient semi-natural coppice woodland which was once widespread in the Cotswolds.	1.5km south-west
Puckham Woods	SSSI	This site is of special interest for its flower-rich, ancient semi-natural woodland and unimproved limestone grassland, which are representative of vegetation types much reduced by recent changes in land use and management.	1.7km north-east
<b>Non-statutory sites</b>			
Dowdeswell Wood & Reservoir	LWS	Ancient semi-natural broad-leaved woodland site and reservoir.	600m north-west

- 3.4 There have been seven protected species bat licences granted within 2km of the site the closest being for a non-maternity roost of common pipistrelle and brown long-eared bat in 2019 and a non-maternity roost for brown long-eared bat, Natterer's bat, lesser horseshoe bat, Whiskered bat and Western barbastelle in 2012.

##### *Protected species*

- 3.5 Table 5 summarises the priority and protected species records found within the local area.

**Table 5 – Bat and roof-nesting bird species records found in the vicinity of the site**

Protected & priority		# of records (# species)			Further information
Groups	Species	Onsite	<500m	>500m	
Bats	Bechstein's bat	-	-	4	Closest record: 1.8km
	Brandt's bat	-	-	4	Closest record: 1.7km
	Brown long-eared bat	-	4	21	Closest record: 60m
	Common pipistrelle	-	6	32	Closest record: 110m
	Daubenton's bat	-	2	9	Closest record: 150m
	Greater horseshoe	-	2	2	Closest record: 60m
	Lesser horseshoe	-	34	32	Closest record: 60m
	Leisler's bat	-	-	2	Closest record: 1.8km
	<i>Myotis</i> unidentified species	-	4	9	Closest record: 110m
	Nathusius' pipistrelle	-	-	1	Closest record: 1.8km
	Natterer's bat	-	10	15	Closest record: 110m
	Noctule	-	1	2	Closest record: 110m
	Pipistrelle species	-	2	2	Closest record: 120m
	Serotine	-	-	5	Closest record: 1.3km
	Soprano pipistrelle	-	2	19	Closest record: 110m
	Western barbastelle	-	1	3	Closest record: 110m
	Whiskered bat	-	2	15	Closest record: 110m
<b>TOTALS</b>	-	-	<b>70 (10)</b>	<b>157 (15)</b>	
Birds (Schedule 1)		-	- (-)	63* (22)	Schedule 1 species: Barn Owl, Brambling, Cetti's Warbler, Common Crossbill, Common Scoter, Fieldfare, Firecrest, Garganey, Goldeneye, Goshawk, Green Sandpiper, Greenshank, Hen Harrier, Hobby, Little Gull, Mediterranean Gull, Osprey, Peregrine, Red Kite, Redwing, Scaup, Whimbrel.
Birds (red list species)		-	- (-)	124* (25)	-

\*Locations of bird species sighting are approximate as often only 4 figure grid references are provided.

### Field surveys

#### Timing and conditions

3.6 The survey timings and prevailing weather conditions during the PRA and bat activity surveys can be seen in Table 6.

**Table 6 – Summary of survey timing and conditions during surveys.**

Date	Type	Conditions			
		Temp [°C]	Cloud cover [Oktas]	Wind speed [Beaufort]	Rain
20/07/22	Preliminary Roost Assessment	20	8	2	Nil

Date	Type	Survey Timing			Conditions			
		Start	End	Sunset / Sunrise	Temp [°C]	Cloud Cover [Oktas]	Wind Speed [Beaufort]	Rain
04/08/22	Dusk emergence	20:38	22:23	20:53	Start: 17 End: 15	Start: 2 End: 2	Start: 2 End: 2	Nil
25/08/22	Dusk emergence	19:56	21:41	20:11	Start: 18 End: 17	Start: 1 End: 6	Start: 1 End: 1	Nil

*PRA for bats and nesting birds*

3.7 A description of the buildings inspected during the PRA can be seen in Table 7.

**Table 7 – Onsite building information.**

Building reference	Building type	Description	Development plans
A	House	Two-storey, limestone block construction with parapet walls on the western and southern elevations forming the western and southern sides of a courtyard. Hipped slate roof with ceramic ridge tiles. Single storey annex to the northern and eastern elevation and single-storey lean-to to the elevation facing the courtyard.  Internal: roof spaces run the length and width of the two sections of the main house. Wooden framed with intact sarking between the rafters with a typical height of 1m to the apex.	Internal changes to the layout with an extension to the single storey lean to. Connection to the new second storey of Building B.
B	Former stable block	Single storey, natural stone construction with rendered external elevation and slate half-pitched roof. Internally divided into a number of sections and used as storage. No separate internal roof space.	Conversion into two-storey dwelling with connection to the main house

3.8 The results of the PRA can be seen in Table 8.

**Table 8 – PRA results.**

Building reference	Use by bats	Use by birds	Bat signs and internal and external Potential Roost Features (PRFs) & access points
A	Low	No evidence but suitable	Some slipped roof ridge tiles within the northern annex with gaps between and below ridge tiles within the main roof of the house.
B	Negligible	No evidence and very limited suitability	None

*Links to surrounding habitat*

3.9 Good connectivity in all directions to the areas of grassland to the south and west, garden to the north and mature woodland to the east.

Bat surveys (dusk emergence)

3.10 The results of the bat surveys (dusk emergence) are summarised in Table 9.

**Table 9 – Bat activity survey results. SS±xx refers to the time in minutes before/after sunset.**

Survey type and date	Roosts and activity/points of particular interest	General observations
Dusk emergence 04/08/2022	<ul style="list-style-type: none"> <li>o First bat observed at 20:56 (SS+3) – common pipistrelle emerged from below a ridge in south-east section of the roof</li> <li>o At 21.13 (SS+17) a second common pipistrelle emerged from the same location</li> <li>o Foraging and commuting route along the tree line to the east of the buildings</li> </ul>	<ul style="list-style-type: none"> <li>o Species detected: brown long-eared bat, lesser horseshoe bat, <i>Myotis</i> species, noctule, common and soprano pipistrelle and serotine.</li> </ul>
Dusk emergence 25/08/2022	<ul style="list-style-type: none"> <li>o First bat observed at 20:28 (SS+17) – common pipistrelle emerged from below a ridge in south section of the roof</li> <li>o At 20:31 (SS+20) a second common pipistrelle emerged from below a ridge tile in the south-east section of the roof</li> <li>o Foraging and commuting route along the tree line to the east of the buildings</li> </ul>	<ul style="list-style-type: none"> <li>o Species detected: brown long-eared bat, lesser horseshoe bat, <i>Myotis</i> species, noctule, common and soprano pipistrelle and serotine.</li> </ul>

3.11 Bat flight lines in and around the site can be seen in Appendix I.

3.12 Bat roosts were identified during the activity surveys and are summarised in Table 10.

**Table 10 - Details of bat roosts identified.**

Date	Species (number)	Roost type (number)	Structure reference	Roost location	Access points	Dimensions or description
04/08/2022	Common pipistrelle (2)	Day (1)	A	Below ridge tiles in south-east hip	Gaps between ridge tiles	Crevice below ridge tile
25/08/2022	Common pipistrelle (2)	Day (2)	A	Below ridge tiles in southern roof section and south-east hip	Gaps between ridge tiles	Crevice below ridge tile

## 4 INTERPRETATION AND ASSESSMENT

4.1 The following interpretation and assessment is provided to ensure full compliance with both UK and European legislation and both local and national planning policy (see Appendix IV).

### PRA for bats and nesting birds

4.2 Based on the results of the PRA, an assessment of the potential suitability of the onsite buildings for bats and nesting birds could be made (see Table 11).

**Table 11 – Onsite buildings suitability for bats and nesting birds.**

Building reference	Suitability / confirmed use	
	Bats	Nesting birds
A	Low	No evidence but suitable
B	Negligible	No evidence and negligible suitability

### Bats

#### *Preliminary Roost Assessment*

4.3 The local records search returned 227 records of at least 15 bat species in the vicinity of the site (see Table 5). Two licences have been granted for disturbance to non-maternity bat roosts within 1km of the site.

4.4 The low suitability of the onsite Building A, together with the local records for bat species in the vicinity of the site, means there may be a negative impact on bat species as a result of the proposed development.

#### *Bat activity surveys (dusk emergence)*

4.5 Two bat roosts for common pipistrelle were confirmed within the onsite Building A.

4.6 During both surveys, common pipistrelle were seen to emerge from the same location beneath the ridge tiles on the southern section of the roof. During the second survey, a single bat was seen to emerge from below a ridge tile in the same section of roof. Given the low number of bats this was considered to be a day roost.

4.7 Foraging and commuting activity was seen around the building principally along the tree line directly to the east of the building and the area of grassland to the south.

4.8 In the absence of mitigation, there will be a negative impact on bat species as a result of the proposed development of the site.

### Nesting birds

4.9 The local records search returned 187 records for notable bird species in the vicinity of the site including 22 Schedule 1 bird species (see Table 5).

4.10 During the PRA no active nests or nesting behaviour by birds was seen within or around the buildings. No evidence of inactive nests was seen during the survey although there were areas of the roof, principally behind the parapets, that were

not possible to survey. The current proposals for the building will not impact the part of the roof behind the parapets and so it is considered that the possibility of nesting birds being impacted by the proposals is negligible.

## 5 CONCLUSIONS AND RECOMMENDATIONS

- 5.1 Wildwood Ecology was commissioned by Julian and Jade Dunkerton (the clients) to undertake an ecological impact assessment (EcIA) for bats and nesting birds at The Coach House, Dowdeswell Court, Gloucestershire .
- 5.2 The site is the subject of a planning application to carry out modifications to the house including the addition of a second storey to the former stables.

### Designated sites

- 5.3 Designated sites in the vicinity of the site (see Table 4) are sufficiently well separated so that no impacts on their designated features are anticipated as a result of the proposed development.

### Protected species

#### Bats

- 5.4 Two bat roosts for common pipistrelle were confirmed within the onsite Building A. Given the low numbers of bats present (maximum count = 2) these were both considered to be day roosts.
- 5.5 In the absence of mitigation, there will be a negative impact on bat species as a result of the proposed development of the site.
- 5.6 For the proposed works to be lawfully undertaken, following planning approval and the discharge of any relevant planning conditions in relation to bats, then a Bat Mitigation Class Licence (BMCL) from Natural England (NE) must be applied for and approved before works can commence.
- 5.7 In support of any application made for a BMCL, licence documents must specify work methods, timescales, and mitigation/ compensation required to ensure that the roost at the site are appropriate and managed/ maintained and that the local bat populations are maintained at the favourable conservation status for the species concerned. Examples of mitigation include access features in soffits/ fascias or raised roofing/ ridge tiles to allow bats to access crevices within the roof space.
- 5.8 Only BS747 Type 1F bitumen roofing felt or wooden sarking will be used to line the roof. Breathable membranes will not be used as they are detrimental to the welfare of bats and when used in bat roosts are known to lose their functionality over time.
- 5.9 In order to prevent an impact on local bat populations, foraging and commuting routes particularly along the tree line to the east of the buildings must remain unfragmented. Fragmentation can occur by physical removal of the woodland habitat, but also by artificial light spilling onto them.
- 5.10 All UK bats are nocturnal species and light averse (brown long-eared bat, Myotis species and horseshoe bats particularly so). Artificial lighting of foraging and commuting routes is known to act as a barrier to bats and fragment otherwise suitable habitats, causing a negative impact on their local populations.
- 5.11 Therefore, if there is to be lighting, there will need to be a lighting plan demonstrating consideration for bats with dark flight lines maintained (see Appendix I). The external works for the proposed development should be



undertaken during daylight hours and the lighting plan should demonstrate that any 'exterior' lighting proposed post-development would not have a detrimental effect on bats commuting along nearby habitat.

5.12 Suggestions for achieving this and for mitigating the light impact on bats are outlined in Guidance Note 08/18 - 'Bats and artificial lighting in the UK; Bats and the built environment series' (The Bat Conservation Trust, BCT, and the Institution of Lighting Professionals, ILP). These include:

- All luminaires should lack UV elements when manufactured. Metal halide, fluorescent sources should not be used.
- LED luminaires should be used where possible due to their sharp cut-off, lower intensity, good colour rendition and dimming capability.
- A warm white spectrum (ideally <2700Kelvin) should be adopted to reduce blue light component.
- Luminaires should feature peak wavelengths higher than 550nm to avoid the component of light most disturbing to bats.
- Internal luminaires can be recessed (rather than choosing a pendant fitting) where installed in proximity to windows to reduce glare and light spill.
- The use of specialist bollard or low-level downward directional luminaires to retain darkness above can be considered. However, this often comes at a cost of unacceptable glare, poor illumination efficiency, a high upward light component and poor facial recognition, and their use should only be as directed by a lighting professional.
- Column heights should be carefully considered to minimise light spill.
- Only luminaires with an upward light ratio of 0% and with good optical control should be used – See ILP Guidance for the Reduction of Obtrusive Light.
- Luminaires should always be mounted on the horizontal, i.e., no upward tilt.
- Any external security lighting should be set on motion-sensors and short (1min) timers.
- As a last resort, accessories such as baffles, hoods or louvres can be used to reduce light spill and direct it only to where it is needed.

5.13 If any major tree works (e.g., felling, removal of major limbs, crown lifting) are planned then these trees must be subject to a preliminary ground level roost assessment to identify any potential roost features (PRFs). Any PRFs identified will require further investigation – a PRF inspection survey (involving tree climbing/endoscopy) prior to works.

#### Biodiversity enhancement

5.14 Local Authorities have a duty to seek to maintain and enhance biodiversity in the exercise of their functions.

5.15 Bird nesting boxes and bat roosting boxes (over and above that required for mitigation on this site) should be incorporated within any newly constructed buildings and boundary features. A range of types should be used in order to cover a variety of species. Many designs are available and we would initially recommend the following for this site:

- Bats - PRO UK Build-in WoodStone Bat Box and Vivara Pro WoodStone Bat Box (or similar);
- House Sparrow - Vivara Pro WoodStone House Sparrow Nest Box; and
- General open fronted bird box - Vivara Pro Barcelona WoodStone Open Nest box (suitable for robin, wren, blackbird, redstart, thrushes, flycatchers).

#### Overall conclusion

5.16 Providing that the recommendations outlined within this report are successfully implemented, it should be possible for the proposed development to proceed and for there to be no long-term impacts upon the key protected species present at the site.

This ecological report will remain valid for a period of 18 months from the date of the last survey – i.e. until February 2024. Further surveys may be required to update the site information if planning is not obtained or works do not commence within that time period.

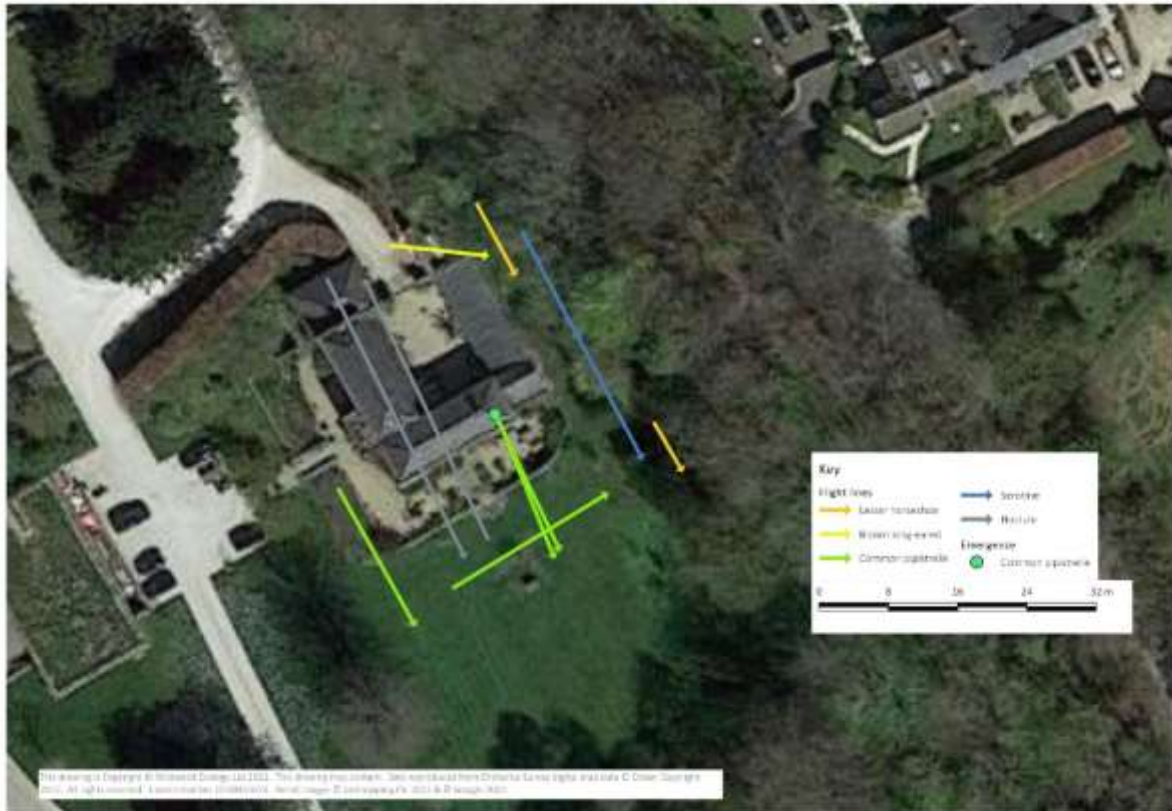
## 6 REFERENCES

Bat Conservation Trust and the Institution of Lighting Professionals (2018) Bats and artificial lighting in the UK; *Bats and the Built Environment* series (Guidance Note 08/18), The Bat Conservation Trust, London.

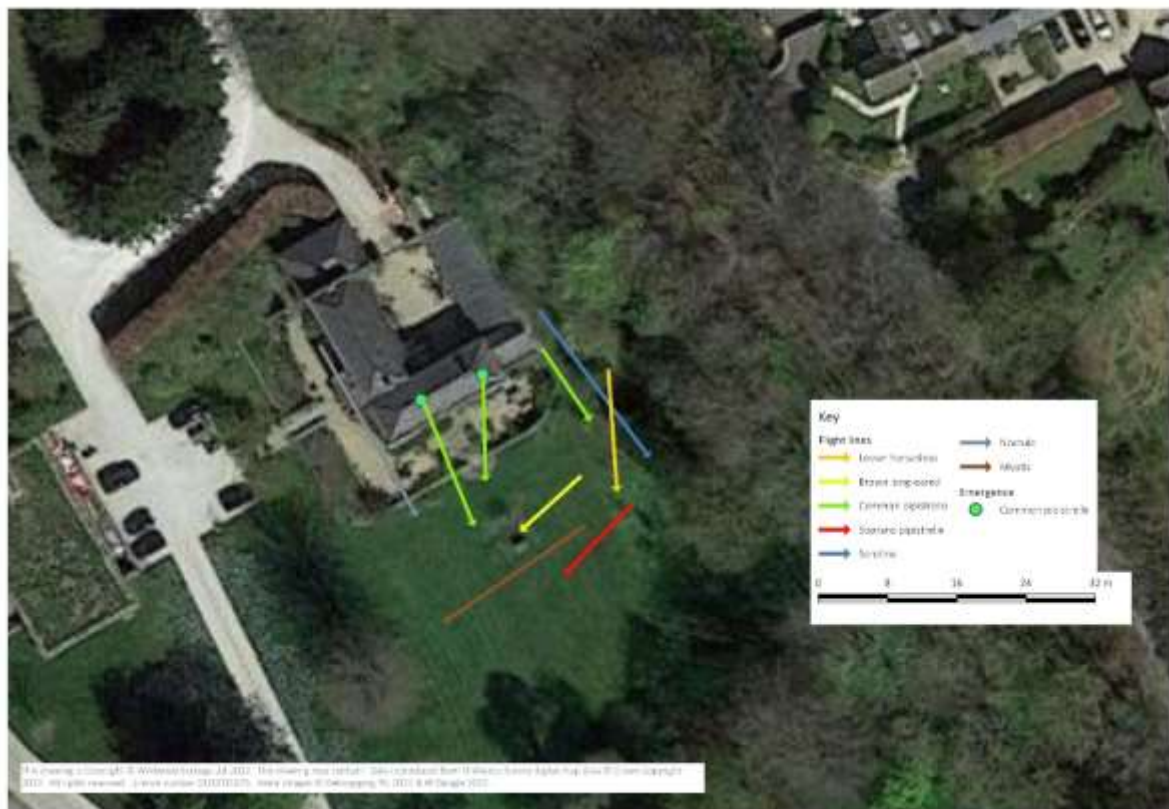
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**APPENDIX I: ACTIVITY SURVEY PLAN**



**Figure 2 – Bat activity survey results 04/08/2022**



**Figure 3 – Bat activity survey results 25/08/2022**

**APPENDIX II: PROPOSED DEVELOPMENT PLAN**



### APPENDIX III: SURVEY IMAGES



**Figure 4 – Eastern elevation with bat emergence points (arrowed)**



**Figure 5 – Courtyard area showing roof of former stable block**



**Figure 6 – Internal view of main house roof space**



**Figure 7 – Tree line and grassland: main areas of bat activity**

## APPENDIX IV: SPECIES LIST

To be submitted to the appropriate Local Records Centre

**Site Name:** The Coach House,  
Dowdeswell Court,  
Gloucestershire

**Provided by:** Wildwood Ecology

**Grid ref:** SP 00223 19704

**Verified by:** David Withington

Common name	Scientific Name	Comment	Survey Date
Brown long-eared bat	<i>Plecotus auritus</i>		04/08/2022 25/08/2022
Daubenton's bat	<i>Myotis daubentonii</i>		25/08/2022
Lesser Horseshoe bat	<i>Rhinolophus hipposideros</i>		04/08/2022 25/08/2022
Myotis species	<i>Myotis</i> sp.		04/08/2022 25/08/2022
Noctule	<i>Nyctalus noctula</i>		04/08/2022 25/08/2022
Common pipistrelle	<i>Pipistrellus pipistrellus</i>	2x day roosts	04/08/2022 25/08/2022
Soprano pipistrelle	<i>P. pygmaeus</i>		04/08/2022 25/08/2022
Serotine	<i>Eptesicus serotinus</i>		04/08/2022 25/08/2022

## **APPENDIX V: PLANNING POLICY AND LEGISLATION**

The following local and national planning policy and both primary and European legislation relating to nature conservation and biodiversity status are considered of relevance to the current proposal.

### Planning and biodiversity

Local Authorities have a requirement to consider biodiversity and geological conservation issues when determining planning applications under the following planning policies.

#### *National Planning Policy Framework 2021*

The National Planning Policy Framework (NPPF) (Ministry of Housing, Communities and Local Government, 2021) states: *“Planning policies and decisions should contribute to and enhance the natural and local environment by: protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan); recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland; maintaining the character of the undeveloped coast, while improving public access to it where appropriate; minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures;*

### Legislation and biodiversity

Certain species of animals and plants found in the wild in the UK are legally protected from being harmed or disturbed. These species are listed in the Wildlife and Countryside Act 1981 (as amended) or are named as European Protected Species (EPS) in the Conservation of Habitats and Species Regulations 2017 (as amended). These two main pieces of legislation have been consulted when writing this report and are therefore described in detail within this section.

Other relevant legislation and policy documents that have been consulted include –The Countryside and Rights of Way Act 2000; The Hedgerow Regulations 1997; Biodiversity Action Plans, both UK-wide (UKBAP) and Local plans (LBAPs), and The National Planning Policy Framework (NPPF).

There is also legislation that legally protects certain animals - for example, the Protection of Badgers Act (1992) protects badgers and their setts, and the Deer Act (1991) places restrictions on actions that can be taken against deer species.

#### *Wildlife & Countryside Act 1981 (as amended)*

The Wildlife & Countryside Act 1981 (as amended) [WCA] is the primary legislation for England and Wales for the protection of flora, fauna and the countryside. Part I within the Act deals with the protection of wildlife.



Most European Protected Species offences are now covered under the Conservation of Habitats and Species Regulations (see below), but some 'intentional' acts are still covered under the WCA, such as obstructing access to a bat roost.

The WCA prohibits the release to the wild of non-native animal species listed on Schedule 9 (e.g. Signal Crayfish and American Mink). It also prohibits planting in the wild of plants listed in Schedule 9 (e.g. Japanese Knotweed and *Rhododendron ponticum*) or otherwise deliberately causing them to grow in the wild. This is to prevent the release of invasive non-native species that could threaten our native wildlife.

The provisions relating to animals in the Act only apply to 'wild animals'; these are defined as those that are living wild or were living wild before being captured or killed. It does not apply to captive bred animals being held in captivity.

There are 'defences' provided by the WCA. These are cases where acts that would otherwise be prohibited by the legislation are permitted, such as the incidental result of a lawful operation which could not be reasonably avoided, or actions within the living areas of a dwelling house.

Licensing: certain prohibited actions under the Wildlife and Countryside Act may be undertaken under licence by the proper authority. For example, scientific study that requires capturing or disturbing protected animals can be allowed by obtaining a licence – e.g. bat surveys.

#### *Conservation of Habitats and Species Regulations 2017 (as amended)*

The Conservation of Habitats and Species Regulations 2017 (as amended) (which are the principal means by which the EC Habitats Directive is transposed in England and Wales) update the legislation and consolidate all the many amendments which have been made to the Regulations since they were first made in 1994.

These regulations provide for the:

- protection of European Protected Species [EPS] (animals and plants listed in Annex IV Habitats Directive which are resident in the wild in Great Britain) including bats, dormice, great crested newts, and otters;
- designation and protection of domestic and European Sites - e.g. Site of Special Scientific Interest [SSSI] and Special Area of Conservation [SAC]; and
- adaptation of planning controls for the protection of such sites and species.

Public bodies (including the Local Planning Authority) have a duty to have regard to the requirements of the Habitats Directive in exercising their function – i.e. when determining a planning application.

There is no defence that an act was the incidental and unavoidable result of a lawful activity.

Licensing: it is possible for actions which would otherwise be an offence under the Regulations to be undertaken under licence issued by the proper authority. For example, where a European Protected Species has been identified and the development risks deliberately affecting an EPS, then a 'development licence' may be required.

### Species protection

The following protected species information is relevant to this report. Legislation is only discussed in relation to planning and development; other offences may exist.

#### *Bats*

All British bats are classed as European Protected Species and therefore receive protection under the Conservation of Habitats and Species Regulations 2017 (as amended), making it an offence inter alia to:

- Deliberately kill, injure or capture a bat;
- Deliberately disturb bats;
- Damage or destroy a breeding site or resting place of a bat.

In addition, all British bats are also listed under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) which contains further provisions making it an offence to intentionally or recklessly:

- Obstruct access to any structure or place which any bat uses for shelter or protection; or
- Disturb any bat while occupying a structure or place which it uses for that purpose.

If proposed development work is likely to destroy or disturb bats or their roosts, then a licence will need to be obtained from Natural Resources Wales, which would be subject to appropriate measures to safeguard bats.

#### *Birds*

In the UK, the provisions of the Birds Directive are implemented through the Wildlife & Countryside Act 1981 (as amended), the Conservation of Habitats and Species Regulations 2017 (as amended). All wild birds, their nests and eggs are protected it an offence to:

- kill, injure, or take any wild bird;
- take, damage or destroy the nest of any such bird whilst it is in use or being built; or
- take or destroying an egg of any such wild bird.

The law covers all species of wild birds including common, pest or opportunistic species. Special protection against disturbance during the breeding season is also afforded to those species listed on Schedule 1 of the Act.