



# Wildwood Ecology



Certified



Corporation

**ISSUING OFFICE:**

Suite 1, Mill Building  
Brimscombe Mill Business Pa  
Stroud,  
GL5 2QG

T: 01453 367

E: [info@wildwoodecology.co](mailto:info@wildwoodecology.co)

W: [www.wildwoodecology.cc](http://www.wildwoodecology.cc)

## ECOLOGICAL IMPACT ASSESSMENT

THE OLD PASSAGE INN, PASSAGE ROAD,  
ARLINGHAM, GL2 7JR

QUALITY INNS OF GLOUCESTERSHIRE LTD

DOCUMENT REF: WWE23136 ECIA | 27/10/2023

Director: [REDACTED] (Hons), CEcol, MCIEEM

Wildwood Ecology Limited. Registered in England & Wales, Company No. 6646654 VAT No. 938019610  
Registered Office: Suite 1, Mill Building, Brimscombe Mill Business Park, Stroud, GL5 2QG

Client:	Quality Inns of Gloucestershire Ltd
Site/Job:	The Old Passage Inn, Passage Road, Arlingham, GL2 7JR
Report title:	Ecological Impact Assessment
Report reference:	WWE23136 EclA

Grid Reference:	SO 69565 11330
Survey date(s):	Preliminary Ecological Appraisal (PEA) and Preliminary Roost Assessment (PRA) – 13/09/23 Bat emergence survey- 26/09/23
Surveyed by:	PEA/PRA– [REDACTED] Bat emergence survey- [REDACTED]
Architect/Agent:	Sutton Cox Architects

## VERSIONING AND QUALITY ASSURANCE

Status	Date	Author	Reviewed by	Approved by
Final	30/10/2023	[REDACTED]	[REDACTED]	[REDACTED]

## DISCLAIMER

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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

Wildwood Ecology was commissioned by Quality Inns of Gloucestershire Ltd (the client) to undertake an Ecological Impact Assessment (EcIA) at The Old Passage Inn, Passage Road, Arlingham, GL2 7JR.

The site is subject to a full planning application for the demolition of single-storey lean-to and construction of two-storey extension; creation of additional car parking; construction of new roof over kitchen; construction of porch on west elevation.

### Work undertaken

A Preliminary Ecological Appraisal (PEA) was undertaken, consisting of a desk study and an extended Phase 1 Habitat Survey, carried out in September 2022, following the Chartered Institute of Ecology and Environmental Management (CIEEM) Preliminary Ecological Appraisal (2017) guidelines and standard Phase 1 Habitat Survey protocol (JNCC, 2010).

A Preliminary Roost Appraisal (PRA) was undertaken, consisting of a desk study and field survey carried out in September 2023.

One bat emergence survey was undertaken on 26/09/23. The bat surveys followed best practice in line with the Bat Surveys for Professional Ecologists Practice Guidelines, 3rd edn (Collins 2016). The guidance was subsequently updated in September 2023.

### Key Constraints

The proposed development would result in impacts on the following designated sites, habitats, and protected species:

- o Designated sites: no impact anticipated.
- o Habitats: modified grassland and onsite scattered trees will be lost to accommodate the new development.
- o Protected species: Unmitigated, the works have the potential to impact on the following species: amphibians, bats, birds, fungi, hedgehog, invertebrates, otter, reptiles and plants such as knotweed.

### Requirements

Mitigation measures during the works of the proposed development are required as follows:

### Designated sites

No mitigation measures are recommended.

### Habitats

Where grassland habitat is being retained, grassland will be improved to improve species diversity of the modified grassland habitat. This could include sowing yellow rattle to reduce dominating grass species, followed by native wildflower seed mix in the same locations.

The loss of the trees onsite will be compensated by replanting.

### Protected species

Precautionary measures will be required during the construction phase to avoid adverse impacts on amphibians, [REDACTED] hedgehog, otter, and reptiles. Trenches will be covered overnight during the works (or a plank provided as a means of escape) and pipes will be capped. Chemicals and fuel will be kept in locked containers in a safe location to prevent harm to wildlife.

Removal of the log pile present on the modified grassland will be carried out outside the active season for amphibians, reptiles, and hedgehog (i.e. April – October inclusive) in order to avoid the risk of impacting protected species during their hibernation season when they are most vulnerable.

The removal of trees/ woody vegetation should take place outside of the nesting season. In the event that clearance work has to be undertaken during the nesting season (generally from 1st March until 31st August, although some birds are known to nest outside of these dates in suitable conditions), a nesting bird check will be required and must be carried out by a suitably qualified person.

A sensitive lighting plan will be produced, demonstrating consideration for bats, with dark flight lines retained to ensure the proposed development does not have a detrimental effect on bats commuting/ foraging along nearby features.

As bats were not confirmed during the surveys, a bat licence will be required. However, as the buildings have suitability for bats, as a precaution prior to the commencement of works, a bat-licensed ecologist will be present onsite to provide a toolbox talk. The licensed ecologist will then supervise the soft demolition of potential roost features in building D, the re-roofing of building C and the lean-to building A.

[REDACTED]

Bird nesting boxes and bat roosting boxes will be incorporated into any buildings or suitable retained onsite trees.

For details of species-specific mitigation/ compensation measures see Section 5.

## Conclusions

Providing that the recommendations outlined in this report are implemented in full, the proposed development will adequately mitigate, compensate and enhance the protected, priority and notable habitats and species adjacent to the site.

This report will remain valid for a maximum period of 18 months from the date of last survey<sup>1</sup> - i.e. until March 2025. In the case of certain exceptions, data may only be valid for 12 months, examples include:

- Where a site may offer existing or new features which could be used by mobile species within a short timeframe,
- Where a mobile species is present onsite or in the wider area, and circumstances change or new features of relevance to the assessment,
- Where country-specific or species-specific guidance dictates otherwise.

Further surveys may be required to update the Site information if planning is not obtained, or works do not commence within this time period.

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<sup>1</sup> CIEEM (2019). *Advice Note: On the Lifespan of Ecological Reports and Surveys*. Chartered Institute for Ecology and Environmental Management, Winchester.

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## 1 INTRODUCTION

- 1.1 Wildwood Ecology was commissioned by Quality Inns of Gloucestershire Ltd (the client) to undertake a PEA at The Old Passage Inn, Passage Road, Arlingham, GL2 7JR (the site), centred at grid reference: SO 69565 11330

### Site description

- 1.2 The aerial image of the site (Figure 1) shows the site to consist of a main building with two east facing extensions and an attached shed. The site was surrounded by grassland with scattered trees. Areas of hardstanding were present around the east and south of the building.



**Figure 1 – Aerial image of the site (red line shows the site boundary).  
Image used under licence (©2023 Google). Imagery date: July 2009**

### Proposed development.

- 1.3 The site is subject to a full planning application for the demolition of single-storey lean-to and construction of two-storey extension; creation of additional car parking; construction of new roof over kitchen; construction of porch to west elevation.

### Purpose of this report

- 1.4 The purpose of this report is to provide sufficient information for the Local Planning Authority to fully assess the ecological impacts of the proposed development, or to identify what further information is required before a full assessment can be made in the form of an Ecological Impact Assessment (EclA).
- 1.5 The key objectives of this EclA are to:
- identify the likely ecological constraints associated with the proposed development.
  - identify mitigation measures likely to be required, following 'Mitigation Hierarchy'.
  - identify additional surveys that may be required to inform an EclA; and
  - identify the opportunities for the proposed development to deliver ecological enhancement.



## 2 METHODOLOGY

2.1 This report has been informed by the following, with detailed methodology provided in Appendix I:

Full desk study and records search; and  
Phase 1 habitat survey.

2.2 This report has been written in cognisance of the CIEEM Guidelines (Ecological Report Writing, Preliminary Ecological Appraisal and Ecological Impact Assessment).

### Desk study

2.3 A desk study was undertaken in relation to the site in 14/09/2023. The sources consulted and the type of information obtained are summarised in Table 1.

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

Source	Information and data sets	Search buffer from the site centre/boundary
Gloucestershire Centre for Environmental Records	Protected and priority species Non-statutory designations	2km 1km
Multi-Agency Geographic Information for the Countryside (MAGIC)	International statutory designations National statutory designations Granted EPSL returns GCN data and pond surveys 2017 - 2019 Bat consultation zones/core + juvenile sustenance zones	25km 2km 2km 5km 10km

2.4 The search buffers within Table 1 are sufficient to cover the Zone of Influence (Zoi) of the proposed development in relation to Protected and Priority species and designated sites.

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

2.6 No previous survey information was available for the site.

### Deviation from standard methodology

2.7 The bat survey was undertaken in September which is a suboptimal month. For bat surveys.

2.8 Surveys were undertaken using the Bat Surveys for Professional Ecologists: Good Practice Guidelines, 3rd edn (Collins 2016). The guidelines were subsequently updated in September 2023.

### Scoping of HRA

2.9 As the proposed development does not include new drainage or an increase in permanent residence an HRA is not recommended to inform the development.

### 3 RESULTS

#### Links to the surrounding landscape

- 3.1 A small bank of grassland was situated to the west of the site; leading to the River Severn estuary, which is located 20m from the site.
- 3.2 Arable fields were situated to the north and south of the site; with good connectivity to the site by hedgerow and tree-lines. A pond was situated in the arable fields 204m east of the site.
- 3.3 A road along the southern border of the site heads eastward to the village of Arlingham. Arlingham is a rural village comprising of residential garden and buildings.

#### Desk study

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

- 3.4 There were eight international statutory designations within 25km of the site and no national statutory designations within 2km. Table 2 sets out further information in relation to each of the statutory designated sites.

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

- 3.5 There were six non-statutory designations within 1km of the site. Table 2 sets out further information in relation to each of the non-statutory designated sites.

**Table 2 – Summary of designated sites in landscape surrounding the site.**

Site name	Designation	Description/key reason for designation	Distance, direction and connectivity
River Wye	Special Area of Conservation (SAC)	The Wye, on the border of England and Wales, is a large river with a geologically mixed catchment including shales and sands with a clear transition between upland reaches, with characteristic bryophyte-dominated vegetation and the lower reaches, with extensive Ranunculus beds. Species present at the SAC include white-clawed crayfish, sea lamprey, brown lamprey, river lamprey, twaite salmon, Atlantic salmon, bullhead, and otter.	11km west
Wye Valley Woodlands	SAC	The Wye Valley contains abundant and near-continuous semi-natural woodland along the gorge. Beech stands occur as part of a mosaic with a wide range of other woodland types, and represent the western range of beech forests. Such a variety of woodland types is rare within the UK. The woods of the lower Wye Valley on the border of south Wales and England form	13.2km west

		of the most important ar woodland conservation in t and provide the most extensive examples of Tilio-Acerion Forest the west of its range.	
Rodborough Common	SAC	Rodborough Common is the extensive area of semi-natural dr grasslands surviving in the Cotswolds of central southern England. The site contains a range of structural types, ra from short turf through to m argins.	16.8km south-east
Cotswold Beechwoods	SAC	The Cotswold Beechwood: represent the most westerly extensive blocks of beech forest the UK. The woods are florist richer than the Chilterns, and plants include red helleborine stinking hellebore, narrow-lipped helleborine, and wood barley. There is a rich mollusc fauna. The w are structurally varied, including blocks of high forest and some are of remnant beech coppice.	17.4km east
Wye Valley & Forest of Dean B& Sites	SAC	This complex of sites on the bo between England and Wales contains by far the greatest concentration of lesser horse bat in the UK, totalling about 26% the national population. It has b selected on the ground exceptional breeding population, and the majority of sites withi complex are maternity roosts bats are believed to hibernate in many disused mines in the area. This complex of sites also represe greater horseshoe bat in the northern part of its ran, about 6% of the UK population. SAC supports the main materr roost of horseshoe bats in this area which hibernate in th disused mines in the Forest.	3.4km south-west
Severn Estuary	Ramsar, SAC	The Severn Estuary consists of estuary mudflats and sandflats covered by seawater at low tide & Atlantic salt meadows. Species present include sea lamprey, lamprey, and twaite shad.	3.9km south-east
Walmore Common	Ram sar	Walmore Common is situated in a low-lying area in the Severn which is subject to winter floc The site is a wetland overlying p	5.8km north-east

		providing a variety of habitats including improved neutral grassland, unimproved marshy grassland and open water ditches. The common is part of a series of sites within the Severn Vale which, in various forms, form an important refuge and feeding area for wildfowl.	
Newnham Cliff	Local Wildlife Site (LWS)	Good educational and research resource for studying geological and geomorphological features and processes.	0.4km west
Newnham Seve Shore	LWS	Saltmarsh over 0.5 hectares in extent.	0.7km north
Bessy's Wood	LWS	Ancient semi-natural broadleaved woodland site larger than 2 hectares.	1.4km west
Aram's Quarry	LWS	Geological designation: highly valuable exposure of Silurian strata close to and affected by a reverse fault.	1.7km south-west
Round and Long Woods	LWS	Ancient semi-natural broadleaved woodland site larger than 2 hectares.	1.7km west
Box Grove	LWS	Ancient semi-natural broadleaved woodland	1.8km south

### *Local planning policy*

3.6 Stroud District Local Plan 2015-2031 contains the delivery policy ES6 regarding biodiversity:

#### **European Sites**

Development will safeguard and protect all sites of European and Global importance, designated as Special Area of Conservation (SAC), Special Protection Area (SPA) and Ramsar sites. Development must not result in significant adverse effects on these internationally important nature conservation sites, either alone or in combination with other projects and plans. The Council will expect development proposals to demonstrate and contribute to appropriate mitigation and management measures to maintain the ecological integrity of the relevant European site(s).

With specific regard to recreational impacts, the Council will use core catchment zones that identify potential impact areas which extend beyond the relevant European site itself. Development proposals within such areas will take account of any relevant published findings and recommendations. There will be further assessment work on the Severn Estuary SPA and SAC that shall include recreational pressure.

#### **National Sites**

Nationally important sites, including Sites of Special Scientific Interest (SSSI) and National Nature Reserves (NNR), will be safeguarded from

development, unless the benefits of the development can be demonstrated to outweigh the identified national importance of nature conservation interest or scientific interest of the site.

### **Local Sites**

Local sites, including Local Nature Reserves (LNR), Key Wildlife Sites (KWS) and Regionally Important Geological and Geomorphological Sites (RIGS) will be safeguarded from development, unless the benefits of the development outweigh the nature conservation or scientific interest of the site. Where development is considered necessary, adequate mitigation measures or, exceptionally, compensatory measures, will be required, with the aim of providing an overall improvement in local biodiversity and/or geodiversity. Opportunities will be sought to access and enhance the value of such sites for educational purposes, particularly in relation to promoting public awareness as well as appreciation of their historic and aesthetic value.

### **New Development and the Natural Environment**

All new development will be required to conserve and enhance the natural environment, including all sites of biodiversity or geodiversity value (whether or not they have statutory protection) and all legally protected or priority habitats and species. The Council will support development that enhances existing sites and features of natural conservation value (including wildlife corridors and geological exposures) that contribute to the priorities established through the Local Nature Partnership. Consideration of the ecological networks in the district that may be affected by development should take account of the Gloucestershire Nature Map, river systems and any locally agreed Nature Improvement Areas, which represent priority places for the conservation and enhancement of the natural environment. In this respect developments should also enable and not reduce species' ability to move through the environment in response to predicted climate change, and to prevent isolation of significant populations of species.

The District will have a number of undesignated sites, which nevertheless have rare species or valuable habitats. Where a site is indicated to have such an interest, the applicant should observe the precautionary principle and the Council will seek to ensure that the intrinsic value of the site for biodiversity and any community interest is enhanced or, at least, maintained. Where an impact cannot be avoided or mitigated (including post-development management and monitoring), compensatory measures will be sought. The Council may, in exceptional circumstances, allow for biodiversity offsets, to prevent loss of biodiversity at the District level.

### **Protected Species**

Development proposals that would adversely affect European Protected Species (EPS) or Nationally Protected Species will not be supported

unless appropriate safeguarding measures can be provided (which may include brownfield or previously developed land (PDL) that can support priority habitats and/or be of value to protected species).

#### *MAGIC results*

- 1.1 A search for granted EPSL within 5km of the site returned 25 bat licences. The closest licence was located 1.3km east of the site and allowed the destruction of a resting place. There were 24 other licences within the search radius, of which one allowed the damage of a breeding site.
- 1.2 The search for granted EPSL within 2km of the site did not return great crested newt licences.
- 1.3 However, three great crested newt licence returns with confirmed presence of great crested newt have been returned within 2km of the site. All three were located 1.8km south-east of the site.
- 1.4 Furthermore, two great crested newt pond surveys were undertaken between 2017 and 2019 within 2km of the site and of these, one survey returned positive results for presence of great crested newt. The positive result was located 1.89km east.

#### Light pollution

- 1.5 The Site is in a rural area with low levels of light pollution. (See Figure 3 below, VIIRS 2021).

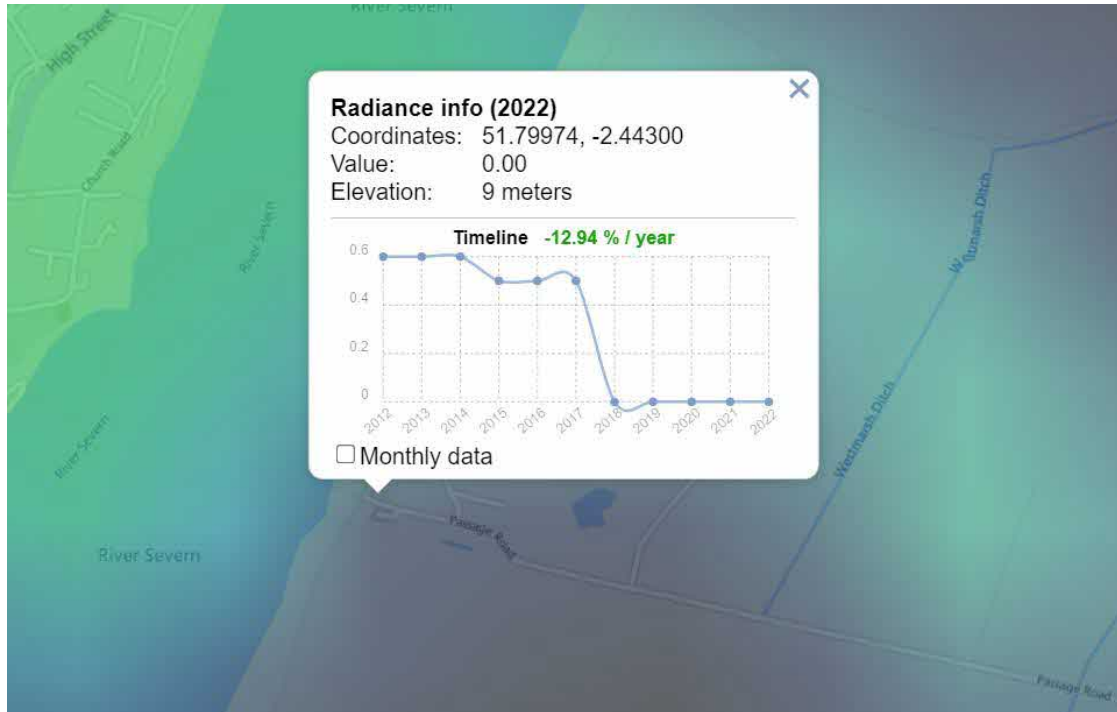


Figure 2 - Radiance level for the site (VIIRS Data Base (2021) Online, accessed 14/09/2023 available at <https://www.lightpollutionmap.info>).

*Priority and protected species*

3.7 Table 3 summarises the priority and protected species records found within the surrounding landscape. It should be emphasised that biodiversity datasets are, by their nature, incomplete. Some groups of species are better recorded than others, whether nationally or locally. It is important to note that absence of evidence is not the same as evidence of absence. A lack of records of a particular species does not mean that it is not present, and this assumption should not be made.

**Table 3 – Protected, priority and notable species records within the surrounding landscape.**

Protected & priority		# of records (# species)
Groups	Species	
Amphibians	Great crested newt	1
	Other amphibians	0
Bats	Common pipistrelle	2
	Greater horseshoe bat	1
	Lesser horseshoe bat	3
	Noctule	4
	Serotine	2
	Soprano pipistrelle	3
	Unidentified <i>Myotis</i>	3
	<i>TOTALS</i>	18 (7)
Birds	Schedule 1	79 (16)
	Non-schedule 1	290 (63)
Invertebrates		19 (17)
Fish		0
Fungi		0
Mammals (excluding bats)		
	Hazel dormouse	0
	Hedgehog	22
	Otter	0
Plants	Polecat	0
		1 (1)
Reptiles	Adder	0
	Common lizard	0
	Grass snake	0
	Slow worm	8
	<i>TOTALS</i>	8 (1)

*Key records*

- 1.6 Two records of roosting common pipistrelle were returned in the search radius, 1.6km east of the site.
- 3.8 One record of a great crested newt 1.8km east of the site.

Field survey*Timing and conditions*

- 3.9 Prevailing weather conditions during the field survey are summarised within Table 4.

**Table 4 – Summary of weather conditions during the PEA and PRA.**

Date	Weather conditions			
	Temp [°C]	Cloud cover [Okta s]	Wind speed [Beaufort scale]	Rain
13/09/2023	14	2	2	Nil

Date	Type	Survey Timing			Conditions			
		Start	End	Sunset / Sunrise	Temp [°C]	Cloud Cover [Okta s]	Wind Speed [Beaufort]	Rain
26/09/2023	Dusk emergence	18:45	20:30	19:00	Start: 16 End: 13	Start: 7 End: 1	Start: 3 End: 1	Nil

*PEA**Priority, Protected and notable Habitats*

- 3.10 The site was classified according to the following UKHab habitat types:

Modified grassland (g4);  
Hedgerow (h2);  
Sparsely vegetated urban land (u1f);  
Buildings (u1b5); and  
Developed land; sealed surface (u1b).

- 3.11 Table 5 sets out descriptions of the habitats present within the site using Phase 1 survey habitat classification hierarchical alphanumeric reference codes, along with descriptions of the Target Notes.
- 3.12 The distribution and extent of habitats which were present within the site is illustrated in the extended Phase 1 habitat plan (Appendix II) along with the locations of the Target Notes. An accompanying full species list (including scientific names) can be found in Appendix V.



**Table 5 – Habitats and linear features present within the site.**

Habitat type/Linear feature	Species present
<p><i>Modified grassland with scattered trees (g4-32)</i></p> <p>Location/extent: Comprised the majority of the site, particularly to the north.</p>	<p>Grasses: perennial rye, red fescue, Yorkshire fog.</p> <p>Forbs: clematis, creeping buttercup, daisy, dandelion, dog rose, dove's-foot crane's-bill, greater plantain, ground ivy, hydrangea, <b>Japanese knotweed</b>, nettle, white clover.</p> <p>Trees: apple tree sp., bay, cherry laurel, cherry tree sp., hazel, oak, walnut, white willow, oak.</p>
<p><i>Hedgerow (h2)</i></p> <p>Location/extent: present in the centre of site, leading from the northern entrance to the building. Approximately 5m in length.</p> <p>Present along the northern boundary of site. Approx 35m in length.</p>	<p>Yew</p> <p>Bramble, nettle.</p>
<p><i>Sparsely vegetated urban land (u1f)</i></p> <p>Location/extent: Comprised the south-eastern corner of the site.</p>	<p>Grasses: cocksfoot.</p> <p>Forbs: black medick, broad-leaved dock, clematis, greater plantain, herb Robert, knot grass, nettle, ox-eye daisy, red dead nettle, selfheal, sour thistle, spurge, wall barley white clover, willowherb.</p> <p>Trees: hazel, horse chestnut.</p> <p>Fungi: artist's bracket, honey fungus.</p>
<p><i>Buildings (u1b5)</i></p> <p>Location/extent: Comprised of a main building in the south of the site. Adjoining to the main building are two east facing extensions. The southern extension comprised an additional shed.</p>	<p>N/A</p>
<p><i>Developed land; sealed surface (u1b)</i></p> <p>Location/extent: Present around the south and west of the main building.</p>	<p>N/A</p>

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*Habitat descriptions*

## Modified grassland with scattered trees

- 3.13 The modified grassland comprised the majority of the site, with a range of common forb and grass species. There was a small pile of dead wood in the south-eastern corner of the site. The pile of deadwood could provide a sheltering and hibernating opportunity for onsite fauna. The modified grassland may provide a commuting feature for the site fauna if the habitat was left unmanaged. There was hedgerow scrub along the northern boundary of the site. The lack of site boundaries at the south and west would allow animals to commute easily through the site to connecting arable field or to the River Severn Estuary. The modified grassland is a common local habitat but as it provides connectivity to suitable offsite habitat, it is therefore considered to be of **site ecological importance**.
- 3.14 There were multiple semi-mature, scattered trees of various native species present. The scattered trees could provide sheltering and foraging opportunities for onsite fauna particularly as fruit tree species were present. As the trees are not easily replaceable in the short to medium future, and they provide connectivity to offsite habitats, they are, therefore, considered to be of up to **local ecological importance**.

## Hedgerow

- 3.15 The hedgerow present within the modified grassland habitat created a curved pathway to the northern entrance of the main building. It was short in length and width and monospecific, comprised entirely of yew. The hedgerow foliage was dense and could provide a sheltering opportunity for nesting birds, however it was a negligible foraging resource, and its limited size reduced its suitability for other sheltering species. Additionally, it had connectivity to other hedgerows or tree-lines, reducing its suitability as a commuting route. The yew hedgerow is therefore considered to be of **site ecological importance**.
- 3.16 The hedgerow present along the northern boundary of the site consisted of bramble and nettle. It was approximately 35m in length and was short width and height. The foliage was dense and could provide shelter for onsite fauna; albeit limited by its small size. The bramble could also provide a foraging opportunity for some onsite fauna. The hedgerow bordered arable field, with connectivity to offsite hedgerow. Therefore, the northern boundary hedgerow is considered to be of **site ecological importance**.

## Sparsely vegetated urban land

- 3.17 The sparsely vegetated urban land habitat comprised a variety of common forb species and had a ground substrate of gravel. Flowering species may provide a foraging opportunity for onsite invertebrates but is unlikely to be suitable for other foraging fauna onsite. This habitat could also provide a basking opportunity for reptiles if they were to access it via the modified

grassland but had limited suitability for sheltering reptiles or other onsite fauna. Commuting fauna may pass through this habitat as it had open accessibility leading to the modified grassland onsite, the buildings and an offsite non-major road running along the southern boundary. This habitat is therefore considered to be of **site ecological importance**.

### Buildings

3.18 The buildings onsite comprised of a main building with two east fac extensions and an additional shed. Buildings in themselves are of **negligible ecological importance**. However, their suitability to support protected species is discussed in the section Fauna below.

Developed land; sealed surface.

3.19 The developed land, sealed surface habitat had negligible opportunity for sheltering and foraging onsite fauna. Commuting fauna may use this habitat as it connected to the modified grassland, leading to the wider landscape. It was situated adjacent to the road on the southern boundary, but as it is not a major road, it would not be a dispersal barrier. This habitat could also be used by basking reptile species if they were to access it via the modified grassland. This habitat is therefore considered to be of **site ecological importance**.

### Priority, protected and notable species

3.20 The confirmed presence, likely presence or absence of each of the protected, priority and notable species is discussed below. The results of the surveys describe the importance of the site and local area for each of the species in cognisance of their ecology and behaviour. A summary of the results can be found in Table 7.

### Amphibians

3.21 There was one pond present 204m east of the site. This pond could provide a breeding opportunity for amphibians, with connectivity to the site by pastureland and developed land. The developed land reduces the likelihood of amphibians commuting to the site. There was three additional offsite pond located south-east of the site. A stream was present 20m south-east of the site.

3.22 The modified grassland habitat was predominantly short sward, making it unsuitable for amphibian shelter during their terrestrial phase, although it was suitable for commuting amphibians. Additionally, the sparsely vegetated urban land habitat was exposed and therefore unsuitable for sheltering o commuting amphibians, however it may provide an opportunity for basking. The hedgerow habitat could provide shelter for amphibians, but its limited size and connectivity reduces its suitability.

3.23 There was one record of great crested newt approximately located 1.8km east of the site. Based on aerial photography, the offsite pond's core a intermediate terrestrial habitat was suboptimal therefore great crested newt

and common amphibians would be less likely to commute to other offsite terrestrial habitat. Due to the suboptimal commuting route from the closest waterbody to the site and suboptimal habitat onsite it is considered unlikely that great crested newt are present onsite. However, common amphibians may be present.

### **Bats**

- 3.26 A PRA was undertaken for the buildings onsite and a ground level tr assessment was undertaken for the trees onsite to assess their suitability for roosting bats. The buildings were assessed to have low suitability for bats whilst the trees were assessed to have negligible potential roosting features for bats. Further details are outlined in Table 7.
- 3.27 The site had connectivity to a surrounding landscape of arable fields and hedgerows that may be used by foraging and commuting bats. The presence of trees onsite may increase the site's suitability for foraging bats.
- 3.28 There was a road located along the southern boundary of the site leading to residential properties to the east. However, the site is in a rural location, and the road was small and not lit by streetlights therefore, it is unlikely to deter bats being present on and around the site.
- 3.29 Onsite light levels were low with no artificial lighting present therefore light-averse bat species could be commuting through the site. The records search returned records of light-averse species (lesser and greater horseshoe bats, and *Myotis* species). Additionally, the site was situated within 5km of the Wye Valley and Forest of Dean Bat Sites SAC which is known to support light-averse species including lesser and greater horseshoe bats, therefore increasing the likelihood of their presence onsite.

### **Birds**

- 3.30 There was suitable habitat and foraging opportunities present onsite for nesting birds in the hedgerow and trees. Common species are likely to be present year-round sheltering onsite. Overwintering migratory birds could also be using the site for foraging or shelter as there have been records of species such as redwing and fieldfare within the search radius.

### **Hazel dormouse**

- 3.31 No incidental observations of hazel dormouse or hazel dormouse nests were observed whilst onsite.
- 3.32 The hedgerow within the modified grassland was monospecific, consisting of yew which was suboptimal dormouse due to no connectivity to other hedgerow or tree-lines. The hedgerow had dense foliage and could therefore provide shelter, but its limited size and length reduced its suitability for dormouse.
- 3.33 The hedgerow bordering the northern site boundary comprised of dense nettle and bramble foliage, providing a foraging opportunity for dormouse. This hedgerow also had connectivity to offsite hedgerow. However, the lack of species diversity, woody species, and its limited size makes this hedgerow suboptimal for sheltering dormouse.
- 3.34 The scattered trees present onsite did not have connectivity between them, making them unsuitable for dormouse.
- 3.35 Additionally, there have been no records of dormouse within 2km of the site.
- 3.36 Therefore, due to the suboptimal onsite opportunities for dormouse, it is considered unlikely that hazel dormouse are present onsite and are therefore not considered further in this report.

### **Fish**

- 3.37 There were no waterbodies present onsite.
- 3.38 The River Severn was situated 55m west of the site with no aquatic connectivity to the site. The river supports a wide range of fish species. As the proposed development will not include new drainage, impacts on fish are not anticipated, and are therefore not discussed further in this report.

### **Fungi**

- 3.39 The trees and grassland present onsite could provide a habitat for a variety of common fungal species. There was limited dead wood onsite that could provide habitats for saprotrophic fungi.
- 3.40 The fungi species observed whilst onsite were common species often found in grassland habitats and on deadwood. It is therefore considered unlikely that rare or priority species of fungi are present onsite.

### **Hedgehog**

- 3.41 No signs of hedgehog were observed when onsite. However, the modified grassland onsite provided suitable foraging habitat for hedgehog. Additionally, 22 hedgehog records were returned by the records centre.
- 3.42 Taken together, and due to the connectivity to other suitable habitats offsite (pastureland and grassland), it is therefore possible that hedgehog may commute through the site.

3.43 Sheltered locations in dense vegetation, the deadwood pile, and leaf piles present onsite in winter would allow hibernation, particularly in locations where deciduous trees are present and in hedgerows.

3.44 It is therefore considered likely that hedgehog may be present onsite.

### **Invertebrates**

3.45 The site could support a variety of invertebrate species, commonly found in the area and wider landscape, due to the abundant vegetation including onsite flowering plant species. Onsite deadwood may also provide a suitable habitat for saproxylic beetle species. It is therefore considered likely that an assemblage of common invertebrates is present onsite.

### **Otter**

3.46 There were no incidental sightings of otter or otter evidence (lat footprints, feeding remains) onsite during the survey.

3.47 There were no waterbodies present onsite and no aquatic connectivity to offsite waterbodies. The nearest waterbodies were a stream located 14m south of the site and the River Severn located 55m west of the site. Both waterbodies could support otter if suitable foraging resources were present. The small road between the southern stream and the site is unlikely to act as a barrier for commuting otter. There were no dispersal barriers for commuting otter from the River Severn to the site. Although otter records were not returned, otter are confirmed on most river catchments, and therefore the presence of commuting otter onsite is possible.

### **Reptiles**

3.48 Slow worm records were returned by the records centre. No incidental signs of reptiles were observed onsite. The modified grassland habitat was short sward, making it unsuitable for foraging or commuting reptiles. Additionally, the sparsely vegetated urban land habitat was highly exposed, making it unsuitable for foraging or commuting reptiles, however, it may be suitable for basking.

3.49 The hedgerow habitat may provide a sheltering opportunity for reptiles, but its limited size and lack of connectivity reduces its suitability. The deadwood pile may also provide a sheltering and hibernating resource for reptiles.

3.50 There was limited connectivity to suitable habitats offsite with arable field, urban developed land, and an estuary surrounding the site. To the east there was pastureland that may be used by commuting and foraging reptiles, but urban developed land separated the site from this habitat.

3.51 Therefore, it is possible that there could be a small population of common reptile species present onsite.

**Water vole**

- 3.52 No waterbodies were present onsite, and no aquatic connectivity to offsite waterbodies. Water vole records were not returned by the records centre and no incidental signs of water vole were observed whilst onsite (burrows, droppings, tracks, and feeding remains).
- 3.53 The nearest waterbody was a stream located 14m south of the site, with suitability to support water vole populations. The small road between the stream and the site is unlikely to act as a barrier for commuting water vole.
- 3.54 The vegetation onsite is not suitable for foraging water vole and is highly exposed to be able to support commuting water vole (short sward grassland and sparsely vegetated urban land). Taken together, water vole presence onsite is not anticipated and therefore, the species is not discussed further in this report.

**Invasive species**

- 3.55 Japanese knotweed was observed along the north-eastern corner of the northern building extension and just offsite site along the eastern boundary.

**Additional incidental fauna records**

- 3.56 The presence of the following species was observed or inferred by field signs at the site during the survey: goldfinch, pigeon, house sparrow, red admiral.

**Table 6 - Current understanding of the status of the assessed species.**

Habitat or Species/species group	Status
Amphibians	Likely absent
Bats – commuting and foraging	Assumed present
Birds	Present
Fish	Absent
Fungi	Present
Hazel dormouse	Likely absent
Hedgehog	Assumed present
Invertebrates	Present
Otter	Assumed present (commuting)
Reptiles	Likely present
Water vole	Likely absent

*PRA*

3.57 A description of the buildings and trees inspected during the PRA and the results of the survey can be seen in Table 7.

**Table 7 – Building and tree information and PRA results.**

Building / Tree reference	Use by bats	Description (including internal and external roosting features)	Development plans
A	No signs of use by bats inside but potential roosting bat access point observed externally.  Assessment: low suitability	Main building: double A-frame roof with concrete tiling and an adjacent mansard roof on the southern aspect.  <b>External</b>  Lifted roof tiles present. Hole in stonework present on eastern aspect of the building.  <b>Internal</b>  No evidence of roosting bats observed.  <b>Attic and loft</b>  Access to attic and loft spaces were not possible due to asbestos risk.  <b>Cellar</b>  No evidence of roosting bats observed. There were no obvious holes or gaps within the cellar to allow bat access.	Re-roofing of the western aspect of the western most roof
B	No signs of use by bats inside but potential roosting bat access point observed externally.  Assessment: low suitability	Northern Extension: single story breezeblock barn with corrugated sheeting roof.  <b>External</b>  Gaps around the wooden doorway and underneath the roofing.  <b>Internal</b>  Access to inside of the building prevented due to asbestos risk.	No changes planned
C	No signs of use by bats inside but potential roosting bat access point observed externally.	Southern extension: single story building with an A frame roof and concrete tiling.  <b>External</b>  Gaps present under the northern eaves tiles and a gap along the northern	Demolition



Building / Tree reference	Use by bats	Description (including internal and external roosting features)	Development plans
	Assessment: low suitability	fascia bordering where it connects to the main house. Some gaps were present under the lead flashing on the northern aspect.  <b>Internal</b> No evidence of roosting bats. There were no obvious holes or gaps in the building to allow for bat access	
D	No signs of use by bats inside but potential roosting bat access point observed externally. Assessment: low suitability	Shed: single-storey wooden barn with corrugated roofing.  <b>External</b> Gaps were present at the eastern gable of the roof and under the corrugated sheeting. There was a window left ajar on the northern aspect of the building.  <b>Internal</b> No access possible due to asbestos risk.	Demolition
E	No potential roosting features observed.	Cherry tree	Removal to create the new parking area
F	No potential roosting features observed.	Apple tree	Retained
G	No potential roosting features observed.	A group of three willow trees	Retained
H	No potential roosting features observed.	Walnut tree	Retained
I	No potential roosting features observed.	Coppiced hazel	Removal to create the new parking area
J	No potential roosting features observed.	Apple tree	Retained

Building / Tree reference	Use by bats	Description (including internal and external roosting features)	Development plans
K	No potential roosting features observed.	Walnut tree	Retained
L	No potential roosting features observed.	Coppiced cherry laurel	Retained
M	No potential roosting features observed.	Bay tree	Retained
N	No potential roosting features observed.	Oak tree	Retained

#### Bat emergence survey

3.58 The results of the bat emergence survey are summarised in Table 8.

Survey type and date	Confirmed roosts and key activity	General observations
Dusk emergence: 26/09/2023	<p>No bat emergences observed.</p> <p>To the east of the site there was predominantly common pipistrelle and soprano pipistrelle commuting and foraging activity around the building. Lesser horseshoe bat call recorded.</p> <p>To the west of the site there was common pipistrelle foraging over the garden. Lesser horseshoe bat call recorded.</p> <p>There were common pipistrelle and soprano pipistrelle commuting along the road adjacent to the south boundary of the site heading towards nearby arable fields.</p>	<p>First bats observed at: 19:29</p> <p>Species observed include common pipistrelle, soprano pipistrelle, myotis, noctule, serotine, lesser horseshoe bat, and barbastelle.</p>

3.59 Bat flight lines in and around the site can be seen in Appendix IV.

3.60 No bat roosts were identified during the survey, albeit the survey was carried out in suboptimal season.

## 4 DISCUSSION AND ASSESSMENT

- 4.1 The following discussion and assessment is provided to ensure full compliance with legislation and both local and national planning policy (see Appendix VII).

### Effects of the proposed development

- 4.2 The proposed development will result in the removal of habitats and/or disturbance to their associated species and features. This section concerns an assessment of ecological effects resulting from the proposed development. The following effects have been identified:

the removal of trees E, and I to create a parking area;

the removal of the eastern section of modified grassland to create a parking area;

the demolition of building D and single story WC connected on the east elevation of Building A;

removal of the existing pergola and constructing a porch on the west elevation of building A;

demolishing the current roof and re-roofing building C.

### Designated sites

- 4.3 There were both statutory and non-statutory designated sites identified within the vicinity of the Site (see Table 2). The closest statutory site was the Wye Valley & Forest of Dean Bat Sites SAC, located 3.4km south-west and the closest non-statutory site was Newnham Cliff LWS, located 0.4km west.
- 4.4 The site is within the ZOI of the Wye Valley and Forest of Dean Bats Sites' SAC as well as the River Severn SAC. The site is
- 4.5 As proposed development will not include new drainage, an HRA is not recommended to inform the development.
- 4.6 Given the scale and type of the proposed development, the distance of the designated sites from the site, the lack of aquatic connectivity, impacts on the designated features of the designated sites are not anticipated as a result of the works.

### Priority, protected and notable habitats

- 4.7 Common and widespread habitats which are of limited ecological importance are not discussed further as they will be compensated by native and wildlife-friendly planting and general landscaping across the site. No priority habitats will require further consideration.

### Priority, protected and notable species

- 4.8 The following priority, protected or notable species were present, likely to be present or currently unconfirmed, within the site:

amphibians;

■■■■■■■■■■

bats;  
birds;  
fungi;  
hedgehog;  
invertebrates;  
otter;  
reptiles; and  
invasive species.

4.9 The following section outlines survey requirements, mitigation, compensation, and enhancement for each priority, protected or notable species within or potentially within the site. The surveys, mitigation, and compensation follow industry standard and/or relevant good practice guidelines.

#### *Amphibians*

- 4.10 The nearest waterbody was a pond, located approximately 204m east of the site. Additionally, there were three ponds located within a 1km radius of the site (as identified via aerial mapping).
- 4.11 No ponds, ditches or other aquatic habitat are being impacted by the proposed development.
- 4.12 Coppiced trees and scattered tree roots could provide a sheltering opportunity for amphibians which would be lost as a result of their removal due to the proposed works.
- 4.13 Connectivity between suitable onsite habitats and nearby ponds/known records is poor as the site is connected by pastureland and developed land. The developed land reduces the likelihood of amphibians commuting to the site and the site boundary closest to the pond was fenced, creating a barrier to commuting amphibians.
- 4.14 In the absence of mitigation during works, there is unlikely to be an adverse impact on great crested newt as a result of the proposed development due to limited breeding ponds available in proximity to the site and connectivity.
- 4.15 Common amphibians could be present onsite. The removal of scattered trees may remove sheltering opportunities for amphibians but it is not considered likely that the proposed development will adversely impact amphibian populations due to the presence of more suitable habitat in the surrounding landscape. Without mitigation, if common amphibians were present during works, legislation could be triggered by killing/ injury.

### *Bats*

- 4.16 There was no evidence of bats identified within the onsite buildings.
- 4.17 The onsite buildings were all assessed to have low suitability to support roosting bat species.
- 4.18 The bat emergence survey (albeit in suboptimal season) confirmed no roosts onsite. However, bats were confirmed to use the site habitats for foraging and commuting, including light-averse species such as barbastelle, *Myotis* sp., and lesser horseshoe bats were confirmed (barbastelle and horseshoe bats are rare Annex II species). to be commuting south of the site and along the east boundary (see Appendix III).
- 4.19 Additionally, the site is located 3.4km from the Wye Valley and Forest of Dean Bat Sites SAC. Therefore, the site is within the ZoI of the SAC and could adversely affect greater and lesser horseshoe if or foraging and commuting habitats are lost.
- 4.20 None of the buildings onsite provided free flight bat access, which means that they are unlikely to support roosting horseshoe bats. The features onsite are likely to support crevice-dwelling species such as common and soprano pipistrelle, long-eared bat species and *Myotis* bat species.
- 4.21 Even though no roosts were identified during the emergence survey, there is still opportunity for bats to be occasionally using the potential roost features as roosting opportunities.
- 4.22 The proposed development will result in a loss of foraging and commuting habitats as five trees are to be removed as well as an area of modified grassland.
- 4.23 Additionally, as the onsite light levels are currently low and overall radiance is low, therefore, any new lighting (including new light spill from the internal lighting) will cause a fragmentation in the habitat suitable for foraging and commuting bats across the site, in particular to the east, north and south of the site.
- 4.24 Therefore, in the absence of mitigation, there will be an adverse effect on bat assemblages as a result of the proposed development of the site, due to impacts on the ability of bats to forage/commute to foraging areas. As the buildings are suitable for roosting bats, there is also the potential for legislation triggering if a roosting bat (if present) is killed, injured, or disturbed during the construction period, or if a roost is destroyed without a licence.

- 4.26 The proposed development will result in the loss of small areas of potential foraging habitat (such as modified grassland) [REDACTED] (if the species is present at the site).
- 4.27 However, areas of suitable foraging habitat will remain onsite post-completion of the development and suitable foraging habitat is adjacent to the site and is a common resource locally. It is therefore not considered likely that the proposed development will impact on the ability of local [REDACTED] populations to forage.
- 4.28 There may be an adverse effect [REDACTED] during the construction phase, triggering legislation by killing/ injury or avers affecting a potential new [REDACTED]. However, there is unlikely to be an adverse effect [REDACTED] as a result of the proposed development post-construction.

#### *Birds*

- 4.29 It is considered likely that nesting birds use the trees, building hedgerow present onsite.
- 4.30 No incidental sightings of bird' nests were observed onsite during the survey.
- 4.31 In the absence of mitigation during tree removal/ demolition, there may be an adverse effect on nesting birds as a result of the proposed development, due to killing/ injury/ destruction of active nests (if present), trigger legislation that protects nesting birds.

#### *Fungi*

- 4.32 The habitats present onsite (modified grassland with trees) were suitable for common fungi species and two fungal species (indicative of tree decay) were observed whilst onsite. However, these habitats were abundant in the surrounding landscape and thus it is not considered likely that the proposed development will adversely affect fungi populations. Fungi are therefore not discussed further in this report.

#### *Invertebrates*

- 4.33 It is considered likely that common invertebrate species are present within the onsite habitats. However, these habitats were abundant in the surrounding landscape and thus it is not considered likely that the proposed development will adversely affect local invertebrate populations.
- 4.34 Therefore, invertebrates are not discussed further in this report.

#### *Otter*

- 4.35 The closest waterbody to the site is the River Severn, located 55m west of the site, with no aquatic connectivity to the site. There are no dispersal barriers present between the site and the river.
- 4.36 The site does not contain habitat suitable to support foraging otter.
- 4.37 However, due to its close proximity to the river, it is considered reasonably likely that otter may commute through the site.

4.38 Commuting otter may be impacted by the development during construction phase, triggering legislation due to killing/ injury. Given the size of the proposed development area and suitable offsite habitats, it is considered reasonably unlikely that otter populations (if present) will be directly impacted by the proposed development post-construction. The development will not impact upon the ability of otters to commute across the surrounding landscape.

#### *West European hedgehog*

4.39 Onsite habitats (modified grassland and hedgerow) were suitable to support hedgehog. It is considered likely that this species uses the site for commuting, shelter, and foraging, with 22 records of hedgehog within the search radius.

4.40 If suitable habitats are cleared without mitigation, during the construction phase there could be an adverse effect on hedgehog as a result of the proposed development due to killing/ injury (if present), triggering legislation that protects the species.

4.41 The loss of habitat may have an impact on individual hedgehogs due to the loss of foraging/commuting/sheltering habitat. However, it is considered that adverse effects on the local hedgehog populations are unlikely during the operational phase as the onsite habitats are a common local resource and available in the surrounding landscape.

#### *Reptiles*

4.42 The local records search returned eight records of reptiles in the vicinity of the site (see Table 5), with the closest record located 563m from the site. However, the River Severn is situated between this record and the site, acting as a dispersal barrier.

4.43 Onsite habitats are considered poor for use by reptiles for basking, commuting, and foraging. However, the log pile on the modified grassland habitat could be suitable to provide shelter and hibernation opportunities for reptiles.

4.44 The surrounding landscape and associated features are considered suitable as common reptile habitat with the presence of pastureland.

4.45 The site is likely to support low numbers of reptiles. Therefore, in the absence of mitigation there may be an adverse effect on reptiles as a result of the proposed development due to killing/ injury (if present), triggering legislation that protects reptiles.

#### *Invasive species*

4.46 Japanese knotweed was observed along the north-eastern corner of the northern building extension and just offsite along the eastern site boundary.

4.47 The proposed works include the development of a car parking area where there was Japanese knotweed present. Incorrect removal of this invasive plant may cause its spread, triggering legislation.

#### Effects of proposed development

4.48 Table 7 summarises the effects of the proposed development on protected, priority and notable species that are present or are likely to be present within the Site.

**Table 8 – Effects of the proposed development on habitats and species.**

Habitat or Species/species group	Effect
Amphibians	No effect on great crested newt. Potential adverse effect on common amphibians during construction phase (legislation triggering).
Bats - roosts	Potential adverse effect during roof removal/re-roofing (legislation triggering).
Bats – commuting and foraging	Disturbance of light-averse species.
Birds	Adverse effects resulting from vegetation removal (legislation triggering).
Fungi	No effect
Reptiles	Adverse effects resulting from vegetation removal (legislation triggering).
Hedgehog	Adverse effects during construction phase resulting from vegetation removal (legislation triggering).
Invertebrates	No effect
Otter	Adverse effects during construction phase (legislation triggering).
Invasive species	Removal of Japanese knotweed.



## 5 RECOMMENDATIONS AND CONCLUSIONS

- 5.1 Providing that the requirements outlined within this report are implemented in full, the proposed development will be able to proceed and there will be no long-term effects on the designated sites, habitats and species discussed within this report.
- 5.2 Mitigation measures during the demolition, construction and/or operation of the proposed development are required as follows:

### Designated sites

- 5.3 No further mitigation measures are required.

### Habitats

- 5.4 Where grassland habitat is being retained, grassland management improve species diversity of the modified grassland habitat will take place. This could include sowing yellow rattle, a semi-parasitic annual grassland, in the autumn (August-November) to reduce dominating grass species, and then sowing native wildflower seed mix in the same locations the following late summer/early autumn.
- 5.5 The loss of the trees onsite will be compensated by replanting onsite. New trees will be planted to replace the lost trees and further plants recommended to increase biodiversity and the resources available to onsite fauna. Native tree species grown in the UK will be used for new planting. Amphibians and reptiles

### Protected species

#### *Amphibians*

- 5.6 No surveys are recommended for amphibians and reptiles.
- 5.7 The grassland habitat was of short sward, however if it was left unmanaged and then required cutting prior to works, a precautionary working method would be required. Vegetation clearance (if required) will be carried out in stages, directionally towards retained habitat (hedgerow and surrounding grassland) to allow animals to disperse and escape. Vegetation removal will be done in the active season for herptiles (March – October, inclusive). A first cut will be to 150cm, then to ground level.
- 5.8 As a precaution, trenches will be covered overnight during the works (or a plank provided as a means of escape) and pipes will be capped.
- 5.9 Removal of the log pile present on the modified grassland will be carried out in the active season for amphibians and reptiles (i.e. April – October, inclusive) in order to avoid the risk of impacting protected species during hibernation season when they are most vulnerable.

#### *Nesting birds*

- 5.10 No surveys are recommended for nesting birds.

- 5.11 The removal of trees/woody vegetation will take place outside of the nesting bird season. If clearance work has to be undertaken during the nesting season (generally from 1st March until 31st August, although birds are known to nest outside of these dates in suitable conditions), a nesting bird check will be required and must be carried out by a suitably qualified person.
- 5.12 Active nests will be protected by a suitable buffer, as advised by the ecologist, until the young have fledged, as confirmed by the ecologist. Where a Schedule 1 species (as defined in the Wildlife and Countryside Act 1981 - <http://www.jncc.gov.uk/page-3614>) is confirmed to be present, compensation for impacts, e.g., loss of nesting sites, will be devised and implemented.

### *Bats*

- 5.13 Further bat surveys are not recommended. Although bat roosts were not confirmed during the 2023 survey, it was carried out in suboptimal season and the buildings have low suitability to support roosting bats. Additional crevice-dwelling bats were observed to forage and commute in the vicinity of the buildings. Therefore, as a precaution, prior to the commencement of works, a licensed ecologist will be present onsite to provide a toolbox talk. The licensed ecologist will then supervise the soft demolition of features suitable for roosting bats in building D, the re-roofing of building C and the lean-to building A.
- 5.14 All UK bats are nocturnal species, and some species are light-averse. Artificial lighting of foraging and commuting routes is known to act as a barrier to bats and fragment otherwise suitable habitats, causing adverse effects on local populations. Therefore, lighting around the onsite buildings must be kept at the current dark levels to avoid impacting these species. This includes the internal light spill.
- 5.15 If there is to be new external or internal artificial lighting proposed as part of the development, a sensitive lighting plan will be produced, demonstrating consideration for bats with dark flight lines retained to ensure the proposed development would not have a detrimental effect on bats commuting along nearby habitat (see Appendix III). The external works for the proposed development will be undertaken during daylight hours, taken to mean starting at least 30 minutes after sunrise and finishing no later than 30 minutes before sunset. If security lighting is required, it will be located away from the identified bat flight lines.
- 5.16 Suggestions for mitigating the light impact on bats are outlined in Guidance Note 08/23 - Bat Conservation Trust and the Institution of Light Professionals (2023); Bats and artificial lighting at night, The Bat Conservation Trust, London. These include:
- All luminaires should lack UV elements when manufactured. Metal halide, compact 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 (i.e. a narrow beam illuminating only what is necessary to reduce light spill), 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 (Stone, 2012).
- Internal luminaires can be recessed (rather than choosing a pendant fitting) where installed in proximity to windows to reduce glare and light spill.
- Waymarking inground markers (low output with cowls or similar to minimise upward light spill) to delineate path edges can be used.
- 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., not 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.

5.17 The loss of the five fruit trees onsite must be compensated in a different area onsite to replace the lost foraging and commuting habitats.

5.18 No surveys are recommended for badger.

5.19 However, [REDACTED] as a precaution in order not to trigger legislation, a suitably qualified ecologist will carry out a badger check at the site prior to the start of works to ensure no setts exist that would be adversely affected by the development.

5.20 During construction works, trenches and excavations will be left covered overnight, or if this is not possible, a ramp will be installed to provide an escape route.

5.21 All works will be restricted to daylight hours (see Bats above), so as to avoid disturbance [REDACTED]

*European otter*

- 5.22 No surveys are recommended for otter.
- 5.23 During construction works, trenches and excavations will be left covered overnight, or if this is not possible, a ramp will be installed to provide an escape route.
- 5.24 All works will be restricted to daylight hours (see Bats above), so as to avoid disturbance to commuting otter as they are largely nocturnal.

*West European hedgehog*

- 5.25 No surveys are recommended for hedgehog.
- 5.26 Creating holes at suitable points in all new fences and walls will provide access for hedgehog commuting or foraging onsite. Where feasible, fencing will be installed without the use of concrete gravel boards. A 13 x 13cm gap at the bottom of the fence will be included to allow hedgehog to pass through. Hedges or hedgerows are preferable to fences to define property boundaries. Netting will not be used as this may cause entanglement and killing/ injury of hedgehog (and other species).
- 5.27 During construction works, trenches and excavations will be left covered overnight, or if this is not possible, a ramp will be installed to provide an escape route.
- 5.28 Works taking place during October to March will be carefully undertaken to avoid injuring hibernating animals. A toolbox talk will be delivered by the ecologist and works in suitable habitat will be carried out slowly, being particularly careful when using machinery within a foot of ground level when removing brash/log piles. Brash/ log piles will be dismantled by hand prior to works to avoid killing/ injury of hedgehog.

*Protected species enhancements*

- 5.29 Bird nesting boxes and bat roosting boxes will be incorporated within the buildings or retained trees. A range of types will be used to provide opportunities for a number of species. Based on the species records returned by the record centre and the species observed at the site, the following designs are recommended:

Two 2F Schwegler general purpose bat box - (<https://www.nhbs.com/2f-schwegler-bat-box-general-purpose>) (or similar); and

One standard nest box for garden birds -

<https://www.nhbs.com/traditional-wooden-bird-nest-box> (or similar)

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## **APPENDIX I: SURVEY METHODS**

### UK Habitat Survey

- 5.30 A field survey was undertaken on 12/09/2023.
- 5.31 All habitats present within the site with the suitability to support protected, or otherwise notable species of flora or fauna (together with direct signs) were noted.
- 5.32 In the context of this report, rare, protected, or otherwise notable species of flora or fauna were those considered to meet any of the following criteria:
- Species protected by UK legislation (see Appendix VII)
  - UK Post 2010 UK Biodiversity Framework priority species or Local Biodiversity Action Plan (LBAP) species
  - Nationally rare or nationally scarce species
  - Species of Conservation Concern (e.g. JNCC Red List, RSPB/BTO Red Lists)
- The Wildlife and Countryside Act (1981) as amended, makes it an offence to release or allow to escape into the wild any animal, plant or micro-organism not ordinarily resident in the UK (as listed in Schedule 9 of the Act). Plant species listed in Schedule 9 were searched for during the survey. However, many invasive species can be cryptic and therefore this survey does not provide a guarantee that an invasive species is not present and shouldn't be relied upon to rule out absence of an invasive species
- 5.33 An extended Phase 1 Habitat Plan was produced in QGIS, incorporating Target Notes used to highlight features of ecological interest (see Appendix II).

### Bats - Preliminary Roost Assessment (PRA)

- 5.34 The buildings within the site were subject to a Preliminary Roost Assessment (PRA). This is an external and internal building inspection survey, the purpose of which is to search for bats/evidence of bats and assess the likelihood of bats being present and the need for further survey and/or mitigation.
- 5.35 A systematic search was made of the building and the ground, especially below suitable access points where present. Such features include window sills, windowpanes, walls, tiles, weather boarding, lead flashing, eaves, behind surfacing materials and under tiles, and other cracks and crevices that provide protection from the elements. Such features are known to be used by roosting bats.
- 5.36 The building inspection included searching for the following evidence roosting bats:
- Roosting bats within crevices or free-hanging;

Bat corpses e.g. on the floor, in uncovered water (header) tanks or other containers in roof voids;

Bat droppings beneath roosting features;

Feeding remains e.g. moth/butterfly Lepidoptera spp. wings & beetle Coleoptera spp. wing casings;

Scratch marks and characteristic staining from urine and/or fur & beneath roosting features e.g. on roofing timbers and walls within roof voids;

'Clean' gaps associated with bat roosts;

Bat-fly Nycteribiid spp. pupal cases;

Droppings, corpses, feeding remains and/or bat-fly pupal cases beneath roof insulation, which indicates use by bats before insulation was installed; and

Clean swept floors, which may indicate evidence has been removed.

5.37 The internal building inspection included searching for the following evidence of roosting bats:

Roosting bats within crevices or free-hanging, bat corpses including in uncovered water tanks or other containers in roof voids;

Bat droppings, scratch marks or staining beneath roosting features, and 'clean' gaps associated with bat roosts;

Feeding remains e.g. moth/butterfly Lepidoptera spp. wings & beetle Coleoptera spp. wing casings;

Bat-fly Nycteribiid spp. pupal cases;

Evidence beneath roof insulation, which indicates use by bats before the insulation was installed;

Clean swept floors, which may indicate evidence has been removed.

Gaps within the structure of the building, for example: light ingress in the roof indicating access points to the outside; between the roof lining and roof covering; within the structure of walls and suitable access points to cavity or rubble-filled walls; around the structure of chimneys or within disused chimneys; and around lintels.

Suitable locations for free-hanging bats and/or night/feeding perches e.g. timber beams; and

Cool areas suitable for torpor or hibernation e.g. cellars.

5.38 The following equipment was used for the bat survey:

Elevation and baseline drawings of the building or structure

Binoculars

Powerful torch to illuminate dark corners from the ground

A ladder

Collection pots and labels for corpses and droppings

Camera to record evidence and suitable roosting sites

#### Bats - Ground Level Assessment (GLA)

5.39 The trees were searched for bats/evidence of bats and assessed for their suitability to support roosting bats. Evidence searched for included: roosting bats, bat corpses, bat droppings, feeding remains, and 'clean' entrance/exit points. The features that bat species use to roost were searched for on the trees with reference to the Bat Tree Habitat Key<sup>2</sup>. These are as follows:

Longitudinal splits

Crevices

Rot-hollows

Transverse cracks

Loose bark

Dense ivy lattices

5.40 The following equipment was used for the bat survey:

Smartphone with GPS OS mobile application

Tree survey plans of the site

Binoculars to inspect PRFs at higher elevations.

Powerful torch to illuminate dark features from the ground

A ladder

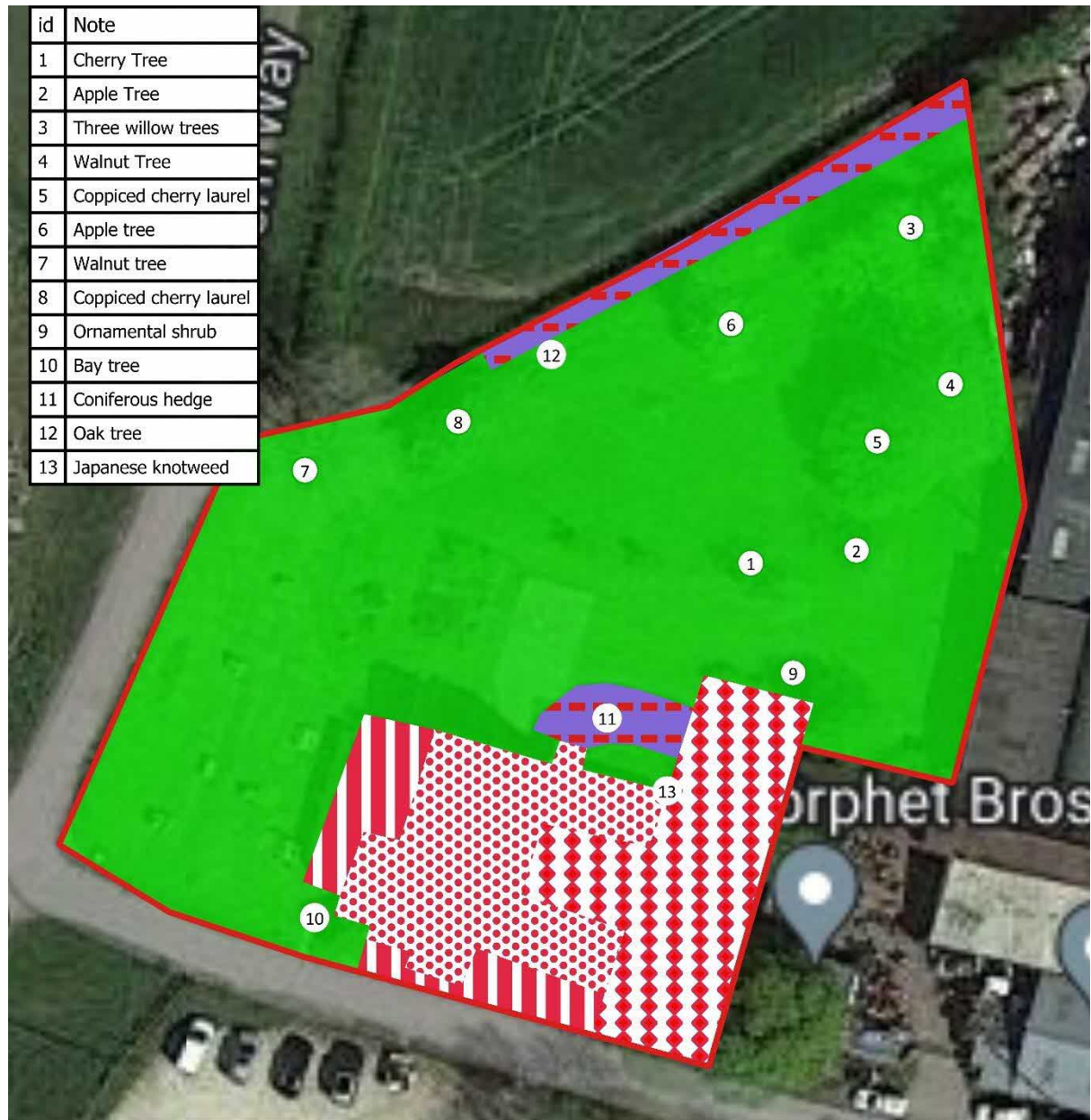
Collection pots and labels for corpses and droppings

Camera to record evidence and Potential Roost Features (PRFs).

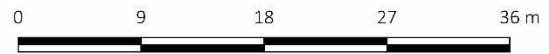
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<sup>2</sup> Andrews H. (2018). *Bat Roosts in Trees - A Guide to Identification and Assessment for Tree-care and Ecology professionals: Bat Tree Habitat Key*. Pelagic Publishing, Exeter.

**APPENDIX II: EXTENDED UK HABITAT PLAN**



id	Note
1	Cherry Tree
2	Apple Tree
3	Three willow trees
4	Walnut Tree
5	Coppiced cherry laurel
6	Apple tree
7	Walnut tree
8	Coppiced cherry laurel
9	Ornamental shrub
10	Bay tree
11	Coniferous hedge
12	Oak tree
13	Japanese knotweed



**Key**

RLB	u1b- developed land. sealed surface
<b>UKHAB</b>	u1b5- buildings
g- grassland	u1f- sparsely vegetated urban land
h2b- other hedgerows	target note

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### APPENDIX III: PROPOSED DEVELOPMENT PLAN



**APPENDIX IV: BUILDING REFERENCE**



**Key**

**proposed plans**

- Re-roofing of building C
- Demolition of building D and the construction of a two storey structure.
- Re-roofing and extension of roof on Building A

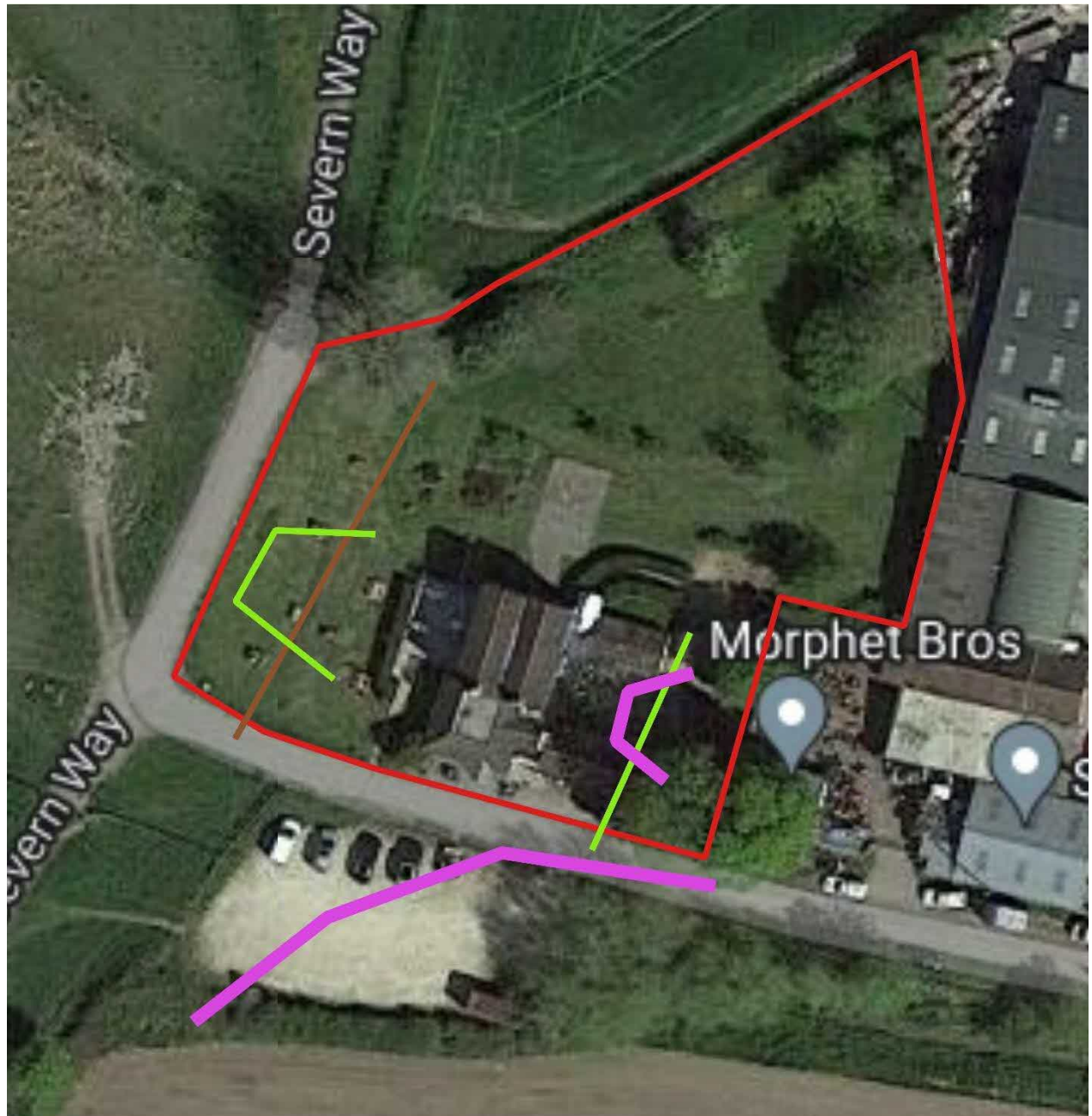
Creation of a car parking area

**Building references**

- Building A
- Building B
- Building C
- Building D
- RLB

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## APPENDIX V: BAT ACTIVITY PLAN



### Key

#### Flightlines

Common pipistrelle

Soprano pipistrelle

Myotis

Multi-species main foraging/commuting

RLB

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**APPENDIX IV: SURVEY PHOTOGRAPHS**



Figure 3. Southern aspect building



Figure 4. Southern aspect of building C.



Figure 5. Northern aspect of building C and the sparsely vegetated urban land habitat.



Figure 6. Northern aspect of building D.



Figure 7. Northern aspect of building B.



Figure 8. Southern aspect of building B.



Figure 9. Western aspect of building A.



Figure 10. Northern side of the modified grassland habitat with River Severn beyond the site boundary.



Figure 11. Modified grassland habitat with scattered trees in the eastern corner.



Figure 12. Modified grassland habitat with scattered trees at the southern edge.



Figure 13. Building A, southern main entrance.



Figure 14. Building A, ground floor reception.



Figure 15. Building A, ground floor kitchen.



Figure 16. Internal space of building C entered via building A.



Figure 17. Building A, stairway to first floor.



Figure 18. Bedroom 1, first floor of building A.



Figure 19. Bedroom 2, first floor of building A.



Figure 20. Bedroom 3, first floor of building A.



Figure 21. Basement of building A.



Figure 22. Basement of building A

**APPENDIX VII: SPECIES LIST**

To be submitted to the appropriate Local Records Centre

**The Site Name:** The Old Passage Inn, Passage Road, Arlingham, GL2 7JR      **Provided by** Wildwood Ecology

**Grid reference:** SO 69565 11330

**Verified by:** XXXXXXXXXX

Common name	Scientific name	Comment
Apple tree sp.	<i>Malus</i> sp.	
Bay	<i>Laurus nobilis</i>	
Black medic	<i>Medicago lupulina</i>	
Broad-leaved dock	<i>Rumex obtusifolius</i>	
Cherry tree sp.	<i>Prunus</i> sp.	
Clematis	<i>Clematis patens</i>	
Cocksfoot	<i>Dactylis glomerata</i>	
Common walnut	<i>Juglans regia</i>	
Creeping buttercup	<i>Ranunculus repens</i>	
Daisy	<i>Bellis perennis</i>	
Dandelion	<i>Taraxacum officinale</i>	
Dog rose	<i>Rosa canina</i>	
Dove's-foot crane's-bill	<i>Geranium molle</i> L. subsp. <i>molle</i>	
Goldfinch	<i>Carduelis carduelis</i>	Seen onsite
Greater plantain	<i>Plantago major</i>	
Ground ivy	<i>Glechoma hederacea</i>	
Hazel	<i>Corylus avellana</i>	
Herb Robert	<i>Geranium robertianum</i>	
Horse chestnut	<i>Aesculus hippocastanum</i>	
House sparrow	<i>Passer domesticus</i>	Seen onsite
Hydrangea	<i>Hydrangea arborescens</i>	
Japanese knotweed	<i>Fallopia japonica</i>	
Knot grass	<i>Polygonum aviculare</i>	
Nettle	<i>Urtica dioica</i>	
Oak	<i>Quercus robur</i>	
Oxeye daisy	<i>Leucanthemum vulgare</i>	
Perennial rye	<i>Lolium perenne</i>	
Pigeon	<i>Columba livia</i>	Seen onsite
Red admiral	<i>Vanessa atalanta</i>	Seen onsite
Red dead nettle	<i>Lamium purpureum</i>	
Red fescue	<i>Festuca rubra</i>	
Selfheal	<i>Prunella vulgaris</i>	
Sour thistle	<i>Sonchus oleraceus</i>	
Spurge sp.	<i>Euphorbia</i> sp.	
Wall barley	<i>Hordeum murinum</i>	
White clover	<i>Trifolium repens</i>	
White willow	<i>Salix alba</i>	
Willowherb sp.	<i>Epilobium</i> sp.	
Yew	<i>Taxus baccata</i>	
Yorkshire fog	<i>Holcus lanatus</i>	



**APPENDIX VIII: FULL METHODOLOGY**Field Surveys

All surveys followed good practice guidelines, with a detailed method for each survey presented within Appendix I.

The surveys undertaken at the site can be seen in table 9.

**Table 9 - Surveys undertaken**

Survey undertaken	Surveyor(s)	Date
Extended Phase 1 Habitat Survey		18/09/2023
Bats - Preliminary Roost Assessment		18/09/2023
Bats - Ground Level Assessment		18/09/2023
Bats - Emergence surveys		26/09/2023

Assessing ecological importance

The assessment of the importance of sites, habitats and species are made with reference to CIEEMs guidelines for EclA, where possible. These guidelines provide consistency in the approach to evaluating the importance of the ecological features within a site and the effects or impacts a proposed development will have on them.

Firstly, the sites, habitats and species are assessed using a framework which assigns a level of geographical importance to ecological features. This framework incorporates a wide range of legislation and governmental guidance in assessing each feature's importance.

Next, the effects/likely effects of the proposed development are predicted considering different stages and activities within the development process. These effects/likely effects are then assessed for their significance, based upon the importance of the site, habitat or species being assessed. The assessment of effects/likely effects significance is considered before and after the proposed mitigation to give an overall indication of significance.

The importance of specific ecological receptors (sites, habitats or species) assigned according to their level of importance using the following terms:

International Importance;

UK Importance;

National Importance (i.e. England/Northern Ireland/Scotland/Wales);

Regional Importance;

County Importance;

District Importance (or Unitary Authority, City, or Borough);

Local or Parish Importance; and

Of importance within the site (the zone of influence or a larger defined area).

### Contributor information

The PEA was undertaken [REDACTED] The report was written [REDACTED] The report was reviewed and approved [REDACTED]

Table 10 outlines the relevant experience of each of the assessment contributors.

**Table 10 – Contributor licences, skills, and experience.**

Contributor	Licences	Skills and Experience
[REDACTED]	Bat Great crested newt	Holds a PGDip in Environmental Management and Policy. Gained professional experience working with ecological consultants in 2016. Practised in undertaking a range of protected species surveys including great crested newt, reptiles, hazel dormouse, vole, and bats.
[REDACTED]	-	Holds a 2:1 degree in Zoology and MSc in Species Identification and Survey Skills. Gained experience in species monitoring and management through voluntary work with the Wildlife Trust before joining Wildwood Ecology in 2021, carrying out reptile, bat, and great crested newt surveys.
[REDACTED]	-	Holds a first-class honours degree in Zoology. Gained professional experience in fieldwork through previous ecological roles. Experience surveying protected species including bats, birds, small mammals, and reptiles.
[REDACTED]	-	Holds a first-class honours degree in Applied Behaviour and Wildlife Conservation. Gained experience in monitoring and habitat management through voluntary work with various conservation charities and as an Assistant Wetlands Ranger with a local authority.
[REDACTED]	Bats (Level 2) Bat Mitigation Class Licence (BMCL) Dormouse Great Crested Newt Water vole (displacement licence)	MSc in Environmental Sciences. Over 17 years project management in the private and voluntary sector, the last 10 years working as an ecologist. Experienced in habitat and protected species surveys, as well as mitigation and compensation design, and report writing. Named ecologist on numerous European Protected Species licences for bats, dormouse and great crested newt. Registered Consultant on numerous BMCL and named ecologist on water vole displacement/ site specific conservation licences.

### Assumptions

No assumptions have been made within this assessment.

### Limitations and assumptions

The desk study and field survey do not produce a comprehensive list of plants and animals as this is limited by factors that influence their presence (e.g. activity and dormancy periods). An assessment can however be made of the habitats within the survey area, their nature conservation importance and suitability to support protected or priority species.

The survey was undertaken in September which is a suboptimal period for bat emergence survey.

No other limitations were encountered, or assumptions made during either the desk study or the field survey and it is considered that with the access gained and recording undertaken an accurate assessment of the site's ecological importance has been made.

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## APPENDIX IX: BIBLIOGRAPHY

Andrews H. (2018). Bat Roosts in Trees - A Guide to Identification and Assessment for Tree-care and Ecology professionals: Bat Tree Habitat Key. Pelagic Publishing, Exeter.

CIEEM (2015). Guidelines on Ecological Report Writing. Chartered Institute for Ecology and Environmental Management, Winchester.

CIEEM (2017). Guidelines for Preliminary Ecological Appraisal. 2nd Edition. Chartered Institute for Ecology and Environmental Management, Winchester.

CIEEM (2018). Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater and Coastal and Marine. Chartered Institute for Ecology and Environmental Management, Winchester.

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

Defra (2007). Hedgerow Survey Handbook: A standard procedure for local surveys in the UK. 2nd Edition. Department for Environment, Food and Rural Affairs, London.

Institution of Lighting Professionals. (2023). Guidance Note 8 Bats and Artificial Lighting.

JNCC (2010). Handbook for Phase 1 habitat survey - a technique for environmental audit. Joint Nature Conservation Committee, Peterborough.

MAGIC England and Wales online at: <https://magic.defra.gov.uk/home.htm>.

Mitchell-Jones, A.J. (2004). Bat Mitigation Guidelines. English Nature, Peterborough. <https://theilp.org.uk/publication/guidance-note-8-bats-and-artificial-lighting/>

Oldham, R.S., Keeble, J., Swan, M.J.S. and Jeffcote, M. (2000). Evaluating the suitability of habitat for the great crested newt (*Triturus cristatus*). Herpetological Journal, 10: 143-155.

## **APPENDIX X: 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 geology conservation issues when determining planning applications under the following planning policies.

#### *National Planning Policy Framework (2021)*

*The National Planning Policy Framework (NPPF) was updated on the 20th of July 2021 and sets out the Government's planning policies for England and how these should be applied. It replaces the National Planning Policy Framework published in July 2019.*

*Paragraph 11 states that: "Plans and decisions should apply a presumption in favour of sustainable development. "Section 15 of the NPPF (paragraphs 174 to 182) considers the conservation and enhancement of the natural environment including habitats and biodiversity (paragraphs 179-182).*

*Paragraph 174 states that planning and decisions should contribute to 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; and Minimising impacts on and providing net gains to biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures"*

*Paragraph 175 states that plans should distinguish between the hierarchy of international, national, and locally designated sites; allocate land with the least environmental or amenity value; take a strategic approach to maintaining and enhancing networks of habitats and green infrastructure; and plan for enhancement of natural capital at a catchment or landscape scale across local authority boundaries.*

*Paragraph 179 states that in order to protect and enhance biodiversity and geodiversity, plans should: "Identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks, including the hierarchy of international, national and locally designated sites of importance for biodiversity; wildlife corridors and stepping stones that connect them; and areas identified by national and local partnerships for habitat management, enhancement, restoration or creation; and Promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection of*

*recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity. "When determining planning applications, Paragraph 180 states that local planning authorities should aim to conserve and enhance biodiversity by applying the following principles: "If significant harm to biodiversity resulting from a development cannot be avoided (through location on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused. Development on land within or outside a Site of Special Scientific Interest, which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest; Development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons, and a suitable compensation strategy exists; and development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate."*

*As stated in paragraph 181 the following should be given the same protection as habitats sites: "Potential Special Protection Areas and possible Special Areas of Conservation; Listed or proposed Ramsar sites; and Sites identified, or required, as compensatory measures for adverse effects on habitats sites, potential Special Protection Areas, possible Special Areas of Conservation, and listed or proposed Ramsar sites."*

*"Paragraph 182 states that the presumption in favour of sustainable development does not apply where the planned project is likely to have a significant effect on a habitat site (alone or in combination with other plans or projects) unless appropriate assessment has concluded the plan or project will not adversely affect the integrity of the habitats site."*

### 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 incident result of a lawful operation which could not be reasonably avoided, or activity 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 into England and Wales) update the legislation and consolidate all the 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 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 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.

#### *Amphibians*

The common frog, common toad, common newt, and palmate newt receive limited protection under the Wildlife and Countryside Act 1981 (as amended) making it illegal to sell or trade them.

The Great Crested Newt and Natterjack Toad are fully protected under the Conservation of Habitats and Species Regulations 2017 (as amended) as European Protected Species. It is illegal to:

- Deliberately capture, injure, kill, or disturb either species,
- Intentionally or recklessly obstruct access to any structure/place used for shelter or protection, or
- Damage or destroy a breeding site or resting place.

#### *Badger*

Badgers are protected in the UK under the Protection of Badgers Act 1992. Under the act it is an offence to:

- Wilfully kill, injure, take, possess or cruelly ill-treat<sup>3</sup> a Badger, or attempt to do so;
- To intentionally or recklessly interfere with a sett<sup>4</sup> (this includes disturbing Badgers whilst they are occupying a sett, as well as damaging or destroying a sett or obstructing access to it).

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<sup>3</sup> The intentional elimination of sufficient foraging area to support a known social group of Badgers may, in certain circumstances, be construed as an offence by constituting "cruel ill treatment" of a Badger

<sup>4</sup> A sett is defined as "any structure or place which displays signs indicating current use by a Badger". Advice issued by Natural England (June 2009) is that a sett is protected as long as such signs remain present, which in practice could potentially be for some time after the last actual occupation by Badger.



The legislation aims to protect the species from persecution, rather than being a response to an unfavourable conservation status, as the species is in fact common over most of Britain; it is not intended to prevent properly authorised development.

### *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 roost: then a licence will need to be obtained from Natural England, which would be subject to appropriate measures to safeguard bats.

### *Birds*

In the UK, the provisions of the Birds Directive are implemented through 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.

### *Otters*

The European otter is a 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 capture, injure or kill any wild otter;
- deliberately disturb wild otters;
- damage or destroy a breeding site or resting place of an otter.

In addition, the otter is listed under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) which contains further provisions making it an offence intentionally or recklessly:

disturbs an otter while it is occupying a structure or place which it uses for shelter or protection; or

obstructs access to such a place.

If proposed development work is likely to destroy or disturb otters or their resting places, then a licence will need to be obtained from Natural England, which would be subject to appropriate measures to safeguard otters.