

# Ecological Impact Assessment (non-EIA)



North Rye House

On behalf of Studio Spicer

December 2023

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# 1 Executive Summary

<b>Report purpose</b>	This report identifies the potential ecological impacts, mitigation, compensation and enhancement measures for re-development of a stable building at North Rye House, Donnington, GL56 0XU (approximate central OS grid reference SP20542863).
<b>Date and methods of survey</b>	A baseline ecological survey of the site was conducted in November 2023 which comprised a Preliminary Ecological Appraisal (PEA) which included a Daytime Bat Walkover Survey (DBW), Preliminary Roost Assessment (PRA) of the stable building and ecological desk study.
<b>Key findings</b>	<p>The site, situated in Donnington, Gloucestershire, is approximately 3ha in extent and includes buildings, hardstanding, landscaped gardens, broadleaved woodland, introduced shrub, scattered trees, lines of trees, hedges and a culverted ditch. There are no ponds within the site and three ponds within 500m of the site. Protected and priority species present or potentially present include:</p> <ul style="list-style-type: none"> <li>• The stable building (B1) supports individual roosts for Natterers', lesser horseshoe and brown long-eared bat, used as a likely feeding perch/night and/or day roost used on an occasional basis.</li> <li>• Opportunities for nesting birds within buildings, trees and shrubs</li> <li>• Opportunities for foraging, commuting and shelter for badger and hedgehog; and</li> <li>• Negligible opportunities for other protected or priority species.</li> </ul>
<b>Potential impacts</b>	<p>The proposals include the demolition of the existing stable building (B1) and rebuilding to include proposed new garages.</p> <p>In the absence of mitigation, development within the site may result in:</p> <ul style="list-style-type: none"> <li>• The loss of individual night roosts/feeding perches used occasionally by Natterers', lesser horseshoe and brown long-eared bat; and the killing, injury or disturbance of bats should they be present during the works;</li> <li>• Impacts on nesting birds using building B1;</li> <li>• Compaction of tree roots through construction activities; and</li> <li>• Injury to mammals such as badger and hedgehog commuting through the site during construction.</li> </ul>
<b>Measures to avoid and/or reduce impacts and deliver biodiversity enhancements</b>	<ul style="list-style-type: none"> <li>• Earned Recognition licence will be required for the loss of the bat roosts;</li> <li>• Replacement roosting opportunities for the loss of bat roosts including bat boxes incorporated into the new garage building; and a dedicated night roost structure for lesser horseshoe bats;</li> <li>• Protection of retained trees;</li> <li>• Careful site management practices to avoid injury to wildlife; and</li> <li>• The inclusion of bird nesting opportunities and additional bat boxes into the final proposals</li> </ul>

## 2 Introduction

### 2.1 Background

2.1.1 Ecology by Design were commissioned by Studio Spicer to conduct a Preliminary Ecological Appraisal (PEA) of the land at North Rye House, Donnington, GL56 0XU (approximate central OS grid reference SP20542863). This included a Daytime Bat Walkover (DBW) and Preliminary Roost Assessment (PRA) of the stable building.

### 2.2 Site Description

2.2.1 The site at North Rye House is located northeast of the village of Donnington, Gloucestershire. The site is approximately 3ha in extent and is surrounded mostly by agricultural land, with scattered parcels of woodland.

2.2.2 The site includes buildings and hardstanding, landscaped gardens, introduced shrub, broadleaved woodland, scattered trees, lines of trees, hedgerows and a culverted ditch.

### 2.3 Proposed Works

2.3.1 The site has several existing planning permissions approved; (23/02341/FUL) for the demolition of the existing dwelling and erection of a replacement dwelling with associated leisure building; and (22/02335/AGFO and 23/01172/FUL) the erection of a stable building, outdoor manège, access track, ground mounted solar panels, and repositioning of an agricultural barn. The site has a history of ecology survey work undertaken in relation to these applications by Cotswold Wildlife Surveys and Wildwood Ecology.

2.3.2 A new planning application is proposed to include the demolition of the stable building and replacement with a garage building on the same footprint.

### 2.4 Aims of Report

2.4.1 This report is an Ecological Impact Assessment which presents the approach and findings of the assessment of the potential ecological impacts of the proposed redevelopment of the stable building at North Rye House, in accordance with industry standard guidance (CIEEM, 2019; BSI Standards Limited, 2013). It has been produced following a Preliminary Ecological Appraisal whereby no further surveys are considered to be required in order to be confident in the potential impacts of the proposals or how these could be mitigated. The development does not require an Environmental Impact Assessment (EIA), therefore 'non-EIA' has been included on the title page. The report outlines recommendations for avoidance, mitigation, compensation and enhancement measures.

2.4.2 This report will be submitted to Cotswold District Council to inform the planning application.

## 2.5 Personnel

2.5.1 The Preliminary Ecological Appraisal was conducted by Ecology by Design Principal Ecologist Karen Lunan BSc (Hons), MSc, MCIEEM who has over 18 years of experience in ecological consultancy and Assistant Ecologist Jess Botha BSc (Hons), MSc.

2.5.2 The report was reviewed by Senior Ecologist Anna Spence BSc (Hons), MSc, MCIEEM who has seven years' experience in ecological consultancy.

## 3 Methods

### 3.1 Desk Study

3.1.1 A desk study was carried out to identify:

- Internationally protected sites within the potential zone of influence of the site (minimum of 7km);
- Nationally protected sites within 5km of the site; and
- Non-statutory designated sites and records of protected or priority species within 2km of the site (central OS national grid reference SP 20542863).

3.1.2 A 2km search radius for species and non-statutory designated sites is justified due to the small size of the site and small-scale development works being undertaken. It is thought highly unlikely that species or non-statutory sites outside this search zone would be affected by the project. A larger search radius is applied for internationally and nationally designated sites as these sites are protected to a higher level and can often be more sensitive to disturbance. These search distances are also based on industry standard guidance.

3.1.3 Sources consulted include:

- Gloucestershire Centre for Environmental Records (GCER) (returned 28<sup>th</sup> November 2023);
- MAGIC ([www.magic.gov.uk](http://www.magic.gov.uk)) (accessed 29<sup>th</sup> November 2023); and
- Local Planning Policy documents and the local planning portal.

### 3.2 Preliminary Ecological Appraisal

3.2.1 A Preliminary Ecological Appraisal (PEA) was conducted on 30<sup>th</sup> November 2023 by Ecology by Design Principal Ecologist Karen Lunan and Assistant Ecologist Jess Botha using standard techniques and methodologies (CIEEM, 2017) and the nomenclature of Stace (2019).

3.2.2 The PEA includes a survey of the habitats utilising the standard UK Habitat Classification system (UKHab Ltd. 2023). Weather conditions during the survey were cold and frosty (0-0.5°C), calm (wind 1 on Beaufort scale<sup>1</sup>) and overcast at the start (cloud 8/8<sup>2</sup>) with cloud cover clearing towards the end of the survey (cloud 2/8). A UK Habitat Classification map is included in Appendix 2 (Figure 1: EBD\_3425\_DR001).

<sup>1</sup> The Beaufort scale is an empirical measure from 0-12 which relates wind speed to observed conditions. 0- Calm, 1- Light air, 2- Light breeze, 3- Gentle breeze, 4- Moderate breeze, 5- Fresh breeze etc.

<sup>2</sup> Cloud cover is measured using the system called oktas. The visible sky is divided into eight and cloud presence is determined within each section. A value of one to eight is then assigned (1 okta being cloudless to 8 oktas being total cloud cover).

3.2.3 Opportunities for or evidence of protected and priority species were also identified. Where potential impacts on features of ecological interest are identified, the PEA is extended to include an assessment of impact. Any further surveys required are outlined and recommendations are made for appropriate avoidance, mitigation, compensation and enhancement measures.

### 3.3 Daytime Bat Walkover

3.3.1 A Daytime Bat Walkover (DBW) survey was conducted during the PEA. During the DBW the surveyors noted any habitats suitable for roosting, foraging or commuting bats within or adjacent to the site. This includes recording structures, habitat features and trees which could be suitable for bats.

**Table 3.1:** *Categorisation of Potential Suitability of Sites for Bats (Collins, 2023)*

Suitability	Description of Potential Flightpaths and Foraging Habitats
None	No suitable features for flightpaths and foraging.
Negligible	No obvious flightpath or foraging features but cannot be discounted.
Low	Habitats with limited connectivity suitable for use by low numbers of bats.
Moderate	High habitat connectivity including flightpath or foraging habitats features.
High	Well-connected, high quality habitats for foraging which is likely to be in regular use.

### 3.4 Preliminary Roost Assessment

3.4.1 During the PEA, a Preliminary Roost Assessment (PRA) was conducted of the stable building (B1) and bat mitigation barn (B2) by Principal Ecologist Karen Lunan (Level 2 Licence 2015-10763-CLS-CLS) and Jess Botha. The assessment was based on the guidance included in the Bat Surveys for Professional Ecologists: Good Practice Guidelines (4<sup>th</sup> edn) (Collins, 2023) and government guidance (Gov.uk., 2015).

3.4.2 The surveyors used a high-power torch (LEDLenser Lamp) and 10x42mm close focusing and binoculars to inspect features of interest. All external areas of the buildings were inspected as well as internal areas. Evidence searched for included the presence of free hanging bats and bats within gaps and crevices, bat droppings, urine stains, rub marks, scratch marks and feeding remains.



### 3.5 DNA Analysis

3.5.1 A sample of bat droppings were collected from the stable building during the PRA. The droppings were sent to Ecotype Genetics Limited for DNA analysis to confirm the species present. The analysis was completed on 5<sup>th</sup> December 2023.

### 3.6 Limitations/Constraints

3.6.1 The PEA was undertaken outside of the optimal season, albeit the nature of the habitats within the survey area allowed for the broad habitat types to be identified and for an adequate assessment of the intrinsic ecological interest of the site to be made. Otherwise, the PEA accorded with published good practice methods and guidelines. The report presented here is a statement of the findings of surveys/assessments carried out during November 2023. The nature of the habitats within the site allowed for a robust assessment of their character and ecological importance.

3.6.2 The wildlife and wider ecological interest of a site can change. The report presented here is a statement of the findings of surveys carried out in November 2023. For the purpose of this report, the results of site visits are discussed in the present tense. Any appreciable delay in making reference to this report or changes to the proposed development boundary may necessitate a re-survey.

3.6.3 The species information gained from local record centres is largely derived from data submitted from members of the public and volunteers. For this reason, it should be understood that the desk study may not provide an exhaustive list of all protected species that could occur in the local area.

## 4 Results and Interpretation

### 4.1 Designated Sites

4.1.1 The desk study identified no internationally designated sites for nature conservation within 7km of the site, one nationally designated site for nature conservation within 5km and no non-statutory sites within 2km of the site.

4.1.2 New Park Quarry SSSI is located approximately 3km west of North Rye House and is designated for its geological interest and well-preserved fossils rather than nature conservation interest.

### 4.2 Habitats

4.2.1 At the time of the survey (November 2023) the following habitats were recorded on site. They are described in Table 4.1 below, Photographs are included in Appendix 1 and a habitat map is included in Figure 1, Appendix 2.

**Table 4.1:** *Habitat types identified during the PEA*

Habitat type	UKHab Code	Description
Building	u1b5	The site includes several buildings including the main house, garage, gardeners' workshop, stable building (B1) and bat mitigation barn (B2).
Hardstanding	u1b6	Areas of hardstanding within the red line boundary include the access road, driveway, garden paths and patios and a tennis court.
Introduced shrub	u1 (847)	Introduced shrubs are mainly associated with the landscaped gardens to the south of the main house including ornamental flowerbeds and shrub beds and ornamental trees. Species include Mahonia ( <i>Mahonia sp.</i> ), Berberis ( <i>Berberis vulgaris</i> ), Magnolia ( <i>Magnolia sp.</i> ), bamboo ( <i>Bambusa sp.</i> ), Cotoneaster ( <i>Cotoneaster sp.</i> ) and maple species ( <i>Acer sp.</i> ).
Line of trees	w(33)	Along the northern boundary of the site at its eastern end the line of trees is dominated by Leyland and Lawson cypress ( <i>Cupressus x leylandii</i> and <i>Chamaecyparis lawsoniana</i> ); on the western end it comprises broadleaved species including horse chestnut ( <i>Aesculus hippocastanum</i> ), common lime ( <i>Tilia x europaea</i> ) and maple species. Along the western site boundary adjacent to the access road dominated by common lime.
Modified grassland	g4	The majority of the grassland within the site is assessed as modified due to the landscaped nature of the site, managed through regular mowing. The sward is dominated by grasses including ryegrass species ( <i>Lolium sp.</i> ), cocksfoot ( <i>Dactylis glomerata</i> ) and fescue species ( <i>Festuca sp.</i> ) with occasionally occurring herbs limited to creeping buttercup ( <i>Ranunculus</i>

		<p><i>repens</i>) broadleaf dock (<i>Rumex obtusifolius</i>) and dandelion (<i>Taraxacum officinale</i> agg.). Mosses are also present (locally frequent) in damper areas of the lawn.</p> <p>Apart from peripheral parts of the site or grassland beneath scattered trees which is less frequently mown, the grassland is uniformly closely mown with negligible variation in sward height.</p>
Other neutral grassland	g3c (16, 10)	<p>An area of neutral grassland dominated by tall forbs (16) to the east of the main property associated with a ditch. Species include abundant nettles (<i>Urtica dioica</i>), broadleaf dock, creeping thistle (<i>Cirsium arvense</i>); scattered scrub (10) including bramble (<i>Rubus fruticosus</i> agg.) and scattered trees including Maple species (<i>Acer sp.</i>), English oak (<i>Quercus robur</i>) and elm (<i>Ulmus sp.</i>)</p>
Non-native and ornamental hedgerow	h2b	<p>Hedgerows associated with the gardens, formally managed. Dominant species include beech (<i>Fagus sylvatica</i>), yew (<i>Taxus baccata</i>) and hornbeam (<i>Carpinus betula</i>).</p>
Other broadleaved Woodland	w1g	<p>The site includes areas of mixed broadleaved woodland comprising mature trees of native and non-native species including frequently occurring beech and Norway maple (<i>Acer platanoides</i>) and occasional English oak, common lime, willow (<i>Salix sp.</i>) species and wild cherry (<i>Prunus avium</i>). At the time of the survey no woodland flora was apparent and ground flora appears to be a similar composition to adjacent areas of modified grassland.</p> <p>From the desk study (Magic.gov.uk), much of the site appears to fall within deciduous woodland priority habitat. However, given the frequent presence of non-native species and the lack of typical woodland ground flora, the woodland is assessed as closer to Other broadleaved woodland (w1g) rather than w1f Lowland mixed deciduous woodland under the UK Hab classification.</p>
Other standing water (ditch)	r1g (50)	<p>A ditch (50) is present that flows through the site from the north to the east that holds water along most of its length. It is partly culverted in the centre of the site and forms the western and southern boundary of the main curtilage of the outbuildings and formal gardens associated with the property. Bankside is contiguous with adjacent modified grassland vegetation.</p>
Scattered trees	g4 (32)	<p>Predominantly modified grassland with scattered trees (32) including larch adjacent to the road access/driveway; ornamental trees within the main gardens, fruit trees to the north of the stable building (B2); and mature English oak on the northern site boundary.</p>

#### Adjacent habitats

4.2.2 There are a number of Priority Habitats within 2km of the site, including: mainly deciduous woodland but also coastal and floodplain grazing marsh, good quality semi-improved grassland, lowland meadows and wood-pasture and parkland.

4.2.3 There is an area of ancient woodland, Crawthorn Woods, which is 21ha in size and is approximately 500m north east of the site.

**Conclusion**

4.2.4 The valuation of habitat importance below is based on set criteria or professional judgement as appropriate within a fixed range of geographic contexts (CIEEM, 2017) as outlined in Appendix 3.

4.2.5 The broadleaved woodland, scattered trees and line of trees are considered to be of elevated ecological importance in the context of the site but of limited ecological importance beyond this due to the frequent presence of non-native species and setting within a residential amenity context.

4.2.6 All other habitats within the site itself comprise a limited assemblage of species which are common within both a local and national context and do not display a particularly high species-richness or structural diversity. They are therefore considered to be of negligible ecological importance.

**4.3 Protected, Priority and Invasive Species**

4.3.1 The results of the preliminary ecological appraisal and desk study are presented together in Table 4.2 below. Relevant legislation and policy are referred to as appropriate and further details are provided in Section 6. The presence or potential for each species / group to occur within the site is considered.

4.3.2 Species associated with watercourses such habitats such as white-clawed crayfish (*Austropotamobius pallipes*), otter (*Lutra lutra*) and water vole (*Arvicola amphibius*) are highly unlikely to be affected by the proposals to demolish and rebuild the barn (B2). As such, they are not discussed further within this report.

**Table 4.2:** Presence of or potential for protected / notable / invasive species within the site and local area

Species	Protection or Status *	Presence/potential at the site
Bats	EPS. Some species are also SPis.	Twenty-three records of at least seven bat species have been recorded within 2km of the site including lesser horseshoe bat ( <i>Rhinolophus hipposideros</i> ), Natterer’s bat ( <i>Myotis nattereri</i> ), common pipistrelle ( <i>Pipistrellus pipistrellus</i> ), brown long-eared

	W&CA 1981 Sch5	<p>bat (<i>Plecotus auritus</i>), serotine (<i>Eptesicus serotinus</i>), noctule (<i>Nyctalus noctula</i>), and soprano pipistrelle (<i>Pipistrellus pygmaeus</i>). The closest of these records is for a brown long-eared bat, within the site boundary, in 2022.</p> <p>Two European Protected Species Licences (EPSL) for bats were returned, with the closest for the impact of a breeding site, destruction of a breeding site, and destruction of a resting place for barbastelle, brown long-eared, and common pipistrelle bats, approximately 1km south east of the site.</p> <p>Previous surveys undertaken at the site by Cotswold Wildlife Surveys between 2018 and 2023 (CWS, 2023) identified the presence of roosting bats in the main house (brown long eared bat, common and soprano pipistrelle and Natterers' bat); single lesser horseshoe bat and brown long eared bat roosting in the log store adjacent to the gardener's workshop; and a dead brown long-eared bat in the stables in 2021. In 2023, no bats were observed emerging from the log store or stables during two nocturnal surveys in June.</p> <p>The habitats within the site provide suitable opportunities for roosting (buildings) and foraging and commuting (woodland edge habitats). In addition, the site is connected by hedgerows to suitable habitat in the wider landscape. As such the site is assessed as being of moderate suitability for bats. Buildings B1 and B2 were further assessed for their suitability for roosting bats (See section 4.4 below).</p> <p><b>Adverse impacts likely, further consideration required.</b></p>
Nesting birds	W&CA 1981 Sch1 / Sch5	<p>152 records of 30 bird species were returned by the desk study, comprising a mix of species typical of urban, arable, wetland and woodland habitats. The closest of these was of a woodpigeon (<i>Columba palumbus</i>), on the site in 2022.</p> <p>The buildings, trees and shrubs provide nesting opportunities for common bird species. Birds recorded during the survey include wren (<i>Troglodytes troglodytes</i>) and long-tailed tit (<i>Aegithalos caudatus</i>). Evidence of nesting barn swallow (<i>Hirundo rustica</i>) (several old bird's nests) was also recorded in the stable building.</p> <p><b>Potential adverse impacts likely, further consideration required.</b></p>
Badger ( <i>Meles meles</i> )	Protection of Badgers Act 1992.	<p>Two records of badger were returned by the desk study. The closest of these is 1km south west of the site in 2016.</p> <p>The habitats on site provide suitable opportunities for sett creation and foraging and the site is well connected to features in the surrounding landscape which badgers could use. In addition, during the PEA, a mammal hole considered to be suitable in size for a badger was recorded in the woodland in the northern part of the site and is a potential sett entrance. The entrance did not appear to be active and no other evidence of badger was recorded within the site (such as latrines, tracks, hair, snuffle holes), however badgers tend to be less active in winter.</p> <p><b>Potential adverse impacts, further consideration required.</b></p>
Hedgehog ( <i>Erinaceus europaeus</i> )	SPI	<p>Three records of hedgehog were returned by the desk study. The closest of these is 0.9km south to the site in 2022.</p>

		<p>There are suitable habitats on the site for hedgehogs to shelter within the hedgerows, tree lines and shrub and there is potential for hedgehog to forage and/or commute through the site.</p> <p><b>Some potential adverse impacts, further consideration required.</b></p>
Invasive species	W&CA 1981 Sch9	<p>One record of one invasive plant species, wall cotoneaster (<i>Cotoneaster horizontalis</i>), was returned by the desk study. This was recorded on site in 2022.</p> <p>Three records of the invasive faunal species Chinese muntjac (<i>Muntiacus reevesi</i>) were returned by the desk study. The closest of these was of 0.9km east of the site in 2022.</p> <p>Cotoneaster (<i>Cotoneaster sp.</i>) was recorded within the landscaped gardens during the PEA. Five cotoneaster species are listed on Schedule 9. It is not possible to confirm which species of cotoneaster is present on the site, however, it is only an offence to plant or allow the schedule 9 species to spread into the wild. Therefore, within the confines of the garden, no further action is required.</p> <p><b>No adverse impacts likely.</b></p>
Dormouse ( <i>Muscardinus avellanarius</i> )	EPS. SPI. W&CA 1981 Sch5	<p>No records of the species were returned by the desk study.</p> <p>There is no habitat onsite suitable for use by dormouse that will be impacted as a result of the proposals to redevelop the stable building. Whilst there is habitat connectivity to the surrounding landscape, with the hedgerows connected to nearby woodlands and mature hedgerows; due to the lack of records and small home range of the species, dormouse presence on site is considered reasonably unlikely and the species is therefore not considered further in this report.</p> <p><b>No adverse impacts likely.</b></p>
Great crested newt ( <i>Triturus cristatus</i> )	EPS. SPI. W&CA 1981 Sch5	<p>No records for this species were returned for within 2km of the site.</p> <p>No European protect Species Licences (EPSL) were returned for GCN within 2km of the site.</p> <p>There are three ponds within 500m of the site, the nearest being 225m east of the site. No ponds, ditches or other aquatic habitat will be impacted by the proposals. In addition, as the proposals will only impact the existing footprint of the stable building, no terrestrial habitats suitable for amphibians will be impacted. It is considered reasonably unlikely that this species will be impacted by the proposals and the species is therefore not considered further in this report.</p> <p><b>No adverse impacts likely.</b></p>
Reptiles	W&CA 1981 Sch5	<p>One reptile record, for adder (<i>Vipera berus</i>) was returned by the desk study, 1.9km east of the site in 2017. There are suitable habitats on site for basking and foraging reptile. However as the proposals will only impact the existing footprint of the stable building, no habitats suitable for reptile species will be impacted and this species group is not considered further in this report.</p> <p><b>No adverse impacts likely.</b></p>

Invertebrates	SPIs.	<p>No records of protected invertebrate species were returned by the desk study. The habitats on site are likely to support common invertebrate species.</p> <p>There are opportunities for common invertebrates on the site, however the proposals to redevelop the stable building will not have an impact on invertebrate habitats.</p> <p><b>No adverse impacts likely.</b></p>
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\* Where:

*EPS = European Protected Species under the provisions of the Conservation of Habitats and Species Regulations 2017 (as amended)*

*SPI = Species of Principal Importance under Section 41 of the NERC Act 2006*

*W&CA 1981 = Wildlife and Countryside Act 1981 (as amended)*

*Sch1 = Schedule 1 Birds which are Protected by Special Penalties (W&CA 1981)*

*Sch5 = Schedule 5 Animals which are Protected (W&CA 1981)*

*Sch9 = Schedule 9 Animals and Plants to which Section 14 Applies (W&CA 1981)*

## 4.4 Preliminary Roost Assessment

4.4.1 An internal and external inspection was conducted of two buildings, the stable building (B1) and the bat mitigation barn (B2).

4.4.2 Building B1 is an L-shaped, single storey stable block that is now used for storage. It measures approximately 35m by 5m, comprises timber shiplap walls with a pitched roof comprising felt and timber tiles that are in a poor state of repair. External features providing access to potential roosting locations include gaps under the bargeboards at the gable ends; gaps under slipped roof tiles on north and south elevations; gaps under the eaves on the north elevation; open windows on north and south elevations; and holes in the outer timber skin on the north elevation.

4.4.3 Internally, the roof of B1 is lined with plyboard and bitumen in parts. The western part of the building appears to have been re-roofed more recently, is lined with sarking boards and is in a better state of repair. Evidence of bats was recorded in the eastern part of the stable building in two of the stable rooms. Two distinctly different piles of bat droppings were recorded, one adjacent to the southern gable end wall beneath the apex comprising a scattered pile (~80 droppings) of mixed aged droppings and numerous yellow underwing moth wings. A second pile of scattered, more recent droppings (~60-80 droppings) on the floor adjacent to the doorway beneath a timber overhang. These were considered likely to belong to different species and a sample of droppings was collected for DNA analysis. A small number of bat droppings (less than 10) were also found in the northeast gable end room corner room on the floor beneath a light fitting.

- 4.4.4 Results from the DNA analysis of the bat droppings collected confirmed that that these belong to Natterer’s bat and lesser horseshoe bat.
- 4.4.5 Building B2 is a barn that was modified in 2020 as a replacement roost for the loss of a brown long-eared bat maternity roost in the main house (Cotswold Wildlife Surveys, 2023). B2 is a two-storey, open-fronted, timber framed barn, lined with plyboard; with a low-pitched roof. There is a false plyboard wall which separates the open fronted part of the barn with the bat mitigation roost. A purpose-built access for bats has been created in the rear wall (west gable end) in the form of a vertical slot.
- 4.4.6 Internally, the bat mitigation roost has been lined (both walls and roof) with polystyrene panels and bitumen and some timber rafters have been added. The bitumen lining has become loose in areas and is gaping. Evidence of bats was recorded in the form of a small number of droppings (<25 with the appearance of long-eared species) in the centre of the room, on the floor.

**Conclusion**

- 4.4.7 The valuation of species importance below is based on set criteria or professional judgement as appropriate within a fixed range of geographic contexts (CIEEM, 2017; Reason and Wray, 2023) as outlined in Appendix 4 and 5.
- 4.4.8 The PRA confirms that the stable building supports roosts of at least two species of bat, Natterer’s and lesser horseshoe bat. Given the relatively small number of droppings recorded coupled with the history of bat surveys undertaken at the site by Cotswold Wildlife Surveys (CWS, 2023) which did not record these species roosting in the stables but in adjacent buildings (the log store and main house); it is reasonable to conclude that the stable building supports individual bats/very small roosts and that these are likely to be night-time roosts/feeding perches and/or day roosts used on an occasional basis. Furthermore, given the presence of numerous moth feeding remains which is typical of brown-long eared bats and as a dead brown long-eared bat was also discovered in the stable building in 2021 (CWS, 2023), it is likely that this species also uses the barn as a feeding perch on an occasional basis.
- 4.4.9 According to the Bat Mitigation Guidelines (Reason and Wray, 2023), these type of roosts with individual bats used on an occasional basis for both common and widespread species (brown long-eared), widespread but less abundant species (Natterer’s) and rarer species (lesser horseshoe); these are valued as important in the context of the Site only (refer to definitions in Appendix 5) due to irregular use by likely individual bats.



4.4.10 Otherwise, for all other species, in accordance with the categories outlined in Appendix 4, the site is considered to be of negligible importance. Nevertheless, some species may have implications to development of the site as a result of legislative protection or planning policy (see Section 6).

## 5 Potential Impacts and Recommendations

### 5.1 Introduction

5.1.1 The potential impacts of the proposals to demolish and redevelop the stable building are identified, and recommendations are made to include avoidance, mitigation, compensation, or enhancement measures.

#### **Adoption of the Mitigation Hierarchy**

5.1.2 In accordance with the National Planning Policy Framework (NPPF) (see Section 6) and British Standard 42020:2013 'Code of Practice for Planning and Development' (BSI Standards Limited, 2013), the 'Mitigation Hierarchy' has been adopted at the site with regards to the potential ecological impacts of the proposals. The mitigation hierarchy outlines a stepwise process as follows:

- **Avoidance** – as a first option, adverse impacts should be avoided through good design, such as retaining and safeguarding important ecological features wherever practicable;
- **Mitigation** – where unavoidable, adverse impacts should be reduced as much as possible, such as reducing land-take of important habitats;
- **Compensation** – where residual effects remain, compensation should be secured to offset adverse impacts, such as through compensatory habitats creation; and
- **Enhancement** – opportunities for net gains in biodiversity should be explored and included wherever appropriate.

### 5.2 Designated Sites

5.2.1 Natural England defines Impact Risk Zones (IRZs) around SSSI's, SACs, SPAs and Ramsar sites and categories of development for local authorities to determine if they need to consult Natural England in regard to potential impacts upon them.

5.2.2 The IRZs for which the site lies within, New Park Quarry SSSI, is not considered to apply to the category of planning application proposed at the site; as such, the potential for impacts on nearby SSSIs are considered very unlikely.

### 5.3 Habitats

#### **Potential Impacts**

5.3.1 There will be no loss of habitat at the site as the proposals include the demolition of the existing stable building and rebuilding on the existing building footprint and adjacent hardstanding.

#### **Recommendation R1 – Safeguarding Trees**

5.3.2 The trees in the vicinity of the building to be demolished should be fully safeguarded from harm as part of any detailed proposals through the demarcation and fencing of root protection areas during construction works or as otherwise indicated by a suitably qualified arboriculturist. These root projection zones must be strictly enforced to prevent further damage to the trees on site.

## 5.4 Species

### **Potential Impacts**

5.4.1 Species/groups and other ecological features for which potential impacts are not considered likely to occur as a result of the proposals are outlined alongside justification in Table 4.2 above; these are excluded from further assessment. The following focuses on those ecological features likely to be significantly impacted (adverse or beneficial impacts) only.

### **Bats**

5.4.2 In the absence of avoidance measures, the demolition of the stable building (B1) will result in the loss of night roosts/feeding perches for Natterer's, lesser horseshoe and brown long-eared bats used by individual bats very occasionally. Under the legislation (refer to Section 6), any development works that could affect a bat or bat roost as described by the relevant legislation can only be permitted under a mitigation licence from Natural England. A mitigation licence will be required to enable the lawful demolition of the building.

5.4.3 The proposals could also result in the disturbance to roosting bats, should bats be present during the works; and disturbance to foraging and commuting bats through increased levels of artificial light.

5.4.4 Although several bat species can take advantage of artificial lighting systems for foraging, feeding off the insects they attract, other species avoid them as foraging within an illuminated area increases the risk of predation by nocturnal birds of prey or even domestic cats. If lighting is intensive and widespread, particularly lighting from lamps, which emit UV light (such as mercury vapour); it can deter some bats from utilising the site and in some instances can act as a barrier across commuting lines. Research has also shown that certain types of artificial lighting have been proven to disturb the emergence patterns of bats when they are placed within the vicinity of entrances to a bat roost.

### **Recommendation R2 – Mitigation Licence**

5.4.5 Upon receipt of planning permission, a derogation bat mitigation licence must be secured from Natural England. The site would be eligible to be registered under an Earned Recognition Bat

Licence, a pilot scheme which Ecology by Design have achieved with Natural England. This allows qualifying sites to be registered within approximately 15 working days.

5.4.6 The licence will detail the mitigation methods that are to be carried out for the works and is likely to include the below measures:

- **Toolbox talk** – A licensed bat worker will deliver a toolbox talk to contractors and project managers regarding bats and their protected status, detailing features of the buildings with suitability for roosting bats and how they should be sensitively removed by hand, inspecting the undersides of suitable features to identify any bats which may be present.
- **Replacement bat roost**– bat boxes integrated into the fabric of the new proposed building and dedicated night roost for lesser horseshoe bats (see Appendix 5).
- **Sensitive stripping of the building prior to demolition**– suitable features for roosting bats including the roof covering will be removed by hand under supervision of a licensed ecologist.

#### ***Recommendation R3 – Lighting***

5.4.7 Any lighting for the development (if required) will need to be designed sensitively in accordance with industry standard guidance (BCT & ILP, 2023) and the following principles will need to be adopted:

- Maintaining dark corridors along the site boundaries;
- Not illuminating any existing or newly created roosting features (i.e. bat boxes);
- Where lighting is required, ensuring:
  - Light levels are less than 3 Lux;
  - LED luminaires with a warm white spectrum ideally <2700 Kelvin (to avoid blue / UV elements);
  - Bollard or low-level downward directional luminaires are used and mounted on the horizontal (with no upward tilt); and
  - Security lighting, if required, is motion-activated with short (<1 minute) timers.

#### ***Recommendation R4 – Bat Boxes***

5.4.8 It is recommended that four bat tubes are incorporated into the fabric of the proposed new garage on the northern (facing woodland vegetation) and southern gable ends of the building to provide a continuation of roosting opportunities for bats. Boxes should be installed at 3-5m height with a clear flight line away from artificial light sources.

5.4.9 In addition, a dedicated night roost for lesser horseshoe bats following the general design principles of the Vincent Wildlife Trust Cathedine night roost (as shown in Appendix 6). This will be sited in the northern part of the site adjacent to woodland.

***Nesting Birds***

5.4.10 Evidence of nesting birds (barn swallow) was recorded in building B1. The demolition of the building would result in a contravention of relevant wildlife legislation if active nests are present. In the absence of mitigation measures, this would be considered to represent an adverse ecological impact of significance within a local context.

***Recommendation R5 – Safeguarding Nesting Birds***

5.4.11 Any wild birds' nests are protected whilst in use. As such, demolition works should be conducted outside the nesting bird season (March – August, inclusive), or following a check for nests by an ecologist. Any active nests must be left in situ until the chicks have fledged and the nest is no longer active.

***Recommendation R6 – Bird Boxes***

5.4.12 It is recommended that inclusion of swallow and swift bird boxes are secured as part of the proposed development. The boxes should be incorporated into the design of the new building or erected on the exterior of other suitable buildings within the site. Swift boxes should be positioned at least 5m high on a non-south facing wall, with a clear flight path to the entrance. Swifts are colony breeders, so multiple boxes should be sites together. Swallow Boxes must be positioned at a minimum height of 3m in a sheltered area with a clear flight path to the entrance.

5.4.13 A suitably qualified ecologist must direct and/or approve the installation of bird boxes to ensure their suitable placement; this can be achieved by:

- signing off on detailed design plans showing inclusion within architectural drawings;
- providing detailed instruction and signing off on evidence of installation such as photos; or
- attending site to direct installation via affixture to buildings/trees.

***Badgers and Other Wild Mammals***

5.4.14 Site clearance and construction works could result in the killing / injury of wide-ranging wild mammals (such as badger or hedgehog) which make use of the site. This would be considered an offence as all wild mammals are protected from unnecessary harm (see Section 6). A mammal hole was recorded within the woodland to the north of the stables (beyond 40m) which appeared inactive. Given the nature of the works which will only impact the existing

footprint of the stable building and adjacent hardstanding, no further surveys in relation to badger are recommended.

***Recommendation R7 – Safeguarding Wild Mammals***

**5.4.15** Detailed proposals should include measures to safeguard wild animals should they enter the site during construction works, and to discourage wild animals from entering the site. This can be achieved by implementing the following standard mitigation measures:

- trenches or pits left overnight should be provided with a means of escape for wild animals should they enter such as a collapsed edge or a flat roughened stable plank (no steeper than 45°) acting as a ramp to the surface;
- pipes should be capped off overnight to prevent animals entering and becoming trapped; and
- all trenches and pits will be inspected each morning to ensure no wild animals have become trapped overnight. Should a badger become trapped in a trench it will likely dig itself into the side of the trench. Should a trapped badger be encountered, a suitably qualified ecologist should be contacted immediately for further advice.

**5.5 Opportunities for Ecological Enhancement**

**5.5.1** In line with planning policy, which requires developments to enhance the site for wildlife, a number of enhancements should be included within the design plans (example specifications are included in Appendix 6).

***Recommendation R8 – Enhancements***

**5.5.2** In order to enhance the local area for wildlife and contribute towards biodiversity net gain, it is recommended that proposals include the following:

- Any planting foreseen as part of the proposals should include native planting.
- Bat boxes and bird boxes will be incorporated as recommended in R4 and R6, respectively.
- Two additional bat boxes mounted on mature trees in the property boundary (as per examples in Appendix 6)

**5.5.3** Once ecological enhancements have been delivered a ‘statement of good practice’ shall be signed by the competent ecologist, and be submitted to the LPA, confirming that the specified enhancement measures have been implemented in accordance with good practice upon which the planning consent was granted.

## 6 Relevant Legislation and Policy

### 6.1 Local Planning Policy

6.1.1 The Cotswold District Local Plan was adopted in August 2018. The following policies are of relevance to this development:

#### **Policy EN7- Trees, Hedgerows and Woodlands**

*1. Where such natural assets are likely to be affected, development will not be permitted that fails to conserve and enhance:*

*a. trees of high landscape, amenity, ecological or historical value;*

*b. veteran trees;*

*c. hedgerows of high landscape, amenity, ecological or historical value; and/or*

*d. woodland of high landscape, amenity, ecological or historical value.*

*2. Where trees, woodland or hedgerows are proposed to be removed as part of development, compensatory planting will be required.*

*3. Development proposals affected by (2) above should, where appropriate, have regard to the potential for new or extended woodland to assist in carbon storage and to be a potential local source of biomass or biofuel.*

#### **Policy EN8- Biodiversity and Geodiversity: Features, Habitats and Species**

*1. Development will be permitted that conserves and enhances biodiversity and geodiversity, providing net gains where possible.*

*2. Proposals that would result in significant habitat fragmentation and loss of ecological connectivity will not be permitted.*

*3. Proposals that reverse habitat fragmentation and promote creation, restoration and beneficial management of ecological networks, habitats and features will be permitted, particularly in areas subject to landscape-scale biodiversity initiatives. Developer contributions may be sought in this regard.*

*4. Proposals that would result in the loss or deterioration of irreplaceable habitats and resources, or which are likely to have an adverse effect on internationally protected species, will not be permitted.*

*5. Development with a detrimental impact on other protected species and species and habitats “of principal importance for the purpose of conserving biodiversity”(42) will not be permitted unless adequate provision can be made to ensure the conservation of the species or habitat.*

## Policy EN9- Biodiversity and Geodiversity: Designated Sites

### International Sites

1. *Internationally designated wildlife sites (including proposed sites and sites acquired for compensatory measures) will be safeguarded from development that could cause a significant effect that would adversely affect their integrity.*

### National Sites

2. *Development that is likely to have an adverse effect upon a nationally designated nature conservation site will not be permitted unless the benefits of development at the site clearly outweigh the impact development is likely to have both on (a) its special features and (b) the national network of Sites of Special Scientific Interest. Where a proposal is permitted appropriate mitigation or compensation will be required.*

### Local Sites

3. *Development proposals that are likely to cause significant harm to locally identified wildlife sites<sup>(43)</sup> and Local Nature Reserves, where such harm cannot be satisfactorily mitigated or adequately compensated for, will not be permitted unless it can be demonstrated that the benefits of the proposal clearly outweigh the impact of the development on the nature conservation value of the site.*

4. *Development should maintain Local Geological Sites for their scientific and educational value. Development that significantly adversely affects local geological features will be permitted only where comparable sites can be identified or created elsewhere, or the impact can be adequately mitigated through other measures.*

## 6.2 Exit from European Union

6.2.1 The Conservation of Habitats and Species Regulations 2017 (as amended), referred to as the '2017 Regulations,' are one of the pieces of domestic law that transposed the land and marine aspects of the Habitats Directive (Council Directive 92/43/EEC) and certain elements of the Wild Birds Directive (Directive 2009/147/EC) (known as the Nature Directives). Changes to the 2017 Regulations have been made by the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 (referred to as the '2019 Regulations') to transfer functions from the European Commission to the appropriate authorities in England and Wales.

6.2.2 The amendments prescribed by the 2019 Regulations allow existing protections afforded by current wildlife legislation and transposed EC Council Directives to be operable from 01 January 2021.



6.2.3 The 2019 Regulations protect rare and vulnerable birds and the habitats that they depend upon. This is achieved in part through the classification of Special Protection Areas (SPAs). The Habitats Directive aims to protect plants, habitats and animals other than birds. This is achieved in part through the creation of Special Areas of Conservation (SACs). SPAs and SACs are collectively referred to as the 'National Site Network'.

6.2.4 Designated Wetlands of International Importance (known as Ramsar sites) do not form part of the National Site Network, however, all Ramsar sites remain protected in the same way as SACs and SPAs.

### 6.3 National Planning Policy Framework

6.3.1 The National Planning Policy Framework (NPPF) was updated in September 2023 (DHLUC, 2023) thereby replacing the older version of July 2021. The new framework sets out in section 15 that planning policies and decisions should contribute to and enhance the natural and local environment by ... (d) minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures (Para 174).

6.3.2 To protect and enhance biodiversity and geodiversity (Para 179), 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 and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity.

6.3.3 When determining planning applications, local planning authorities should apply the following principles (Para 180):

- if significant harm to biodiversity resulting from a development cannot be avoided (through locating 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, and 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 clearly 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 incorporate biodiversity improvements in and around developments should be encouraged, especially where this can secure measurable net gains for biodiversity.

6.3.4 The following should be given the same protection as habitats sites (Para 181):

- 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.

6.3.5 The presumption in favour of sustainable development does not apply where the plan or project is likely to have a significant effect on a habitats site (either alone or in combination with other plans or projects), unless an appropriate assessment has concluded that the plan or project will not adversely affect the integrity of the habitats site (Para 182).

## 6.4 European Protected Species (EPS) Animals

6.4.1 The Conservation of Habitats and Species Regulations 2017 (as amended) transpose the EC Habitats Directive on the Conservation of Natural Habitats and of Wild Fauna and Flora (Council Directive 92/43/EEC) into national law.

6.4.2 “European protected species” (EPS) of animal are those which are shown on Schedule 2 of The Conservation of Habitats and Species Regulations 2017 (as amended). They are subject to the provisions of Regulation 43 of those Regulations. All EPS are also protected under the Wildlife and Countryside Act 1981 (as amended). Taken together, these pieces of legislation make it an offence to:

- a) intentionally or deliberately capture, injure or kill any wild animal included amongst these species;
- b) possess or control any live or dead specimens or any part of, or anything derived from these species;
- c) deliberately disturb wild animals of any such species;

- d) deliberately take or destroy the eggs of such an animal; or
- e) intentionally, deliberately or recklessly damage or destroy a breeding site or resting place of such an animal, or obstruct access to such a place.

6.4.3 For the purposes of paragraph (c), disturbance of animals includes in particular any disturbance which is likely—

- a) to impair their ability—
  - i. to survive, to breed or reproduce, or to rear or nurture their young; or
  - ii. in the case of animals of a hibernating or migratory species, to hibernate or migrate; or
- b) to affect significantly the local distribution or abundance of the species to which they belong.

6.4.4 Although the law provides strict protection to these species, it also allows this protection to be set aside (derogated) through the issuing of licences. The licences in England are currently determined by Natural England (NE) for development works. In accordance with the requirements of The Conservation of Habitats and Species Regulations 2017 (as amended), a licence can only be issued where the following requirements, known as the “Three Tests”, are satisfied:

1. The proposal is necessary ‘to preserve public health or public safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment’
2. ‘There is no satisfactory alternative’

6.4.5 The proposals ‘will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range.

## 6.5 Bats

6.5.1 Bats and their roost sites are protected by UK legislation.

6.5.2 The Wildlife and Countryside Act (1981) (as amended) makes it an offence to:

- Intentionally kill, injure or take a bat;
- Possess or control any live or dead specimen or anything derived from a bat;
- Intentionally or recklessly damage, destroy or obstruct access to any structure or place used for shelter or protection by a bat; and
- Intentionally or recklessly disturb a bat while it is occupying a structure or place which it uses for that purpose.

6.5.3 Additionally, The Conservation of Habitats and Species Regulations 2017 (as amended) make it an offence to:

- Deliberately capture or kill a bat;
- Deliberately disturb a bat;
- Damage or destroy a breeding site or a resting place of a bat; and
- Keep, transport, sell or exchange or offer for sale or exchange a live or dead bat or any part of a bat.

## 6.6 Birds

6.6.1 All nesting wild birds are protected under Section 1 of the Wildlife and Countryside Act 1981 (as amended) which makes it an offence to intentionally kill, injure or take any wild bird or take, damage or destroy its nest whilst in use or being built, or take or destroy its eggs. In addition to this, for some rarer species (listed on Schedule 1 of the Act), it is an offence to disturb them whilst they are nest building or at or near a nest with eggs or young, or to disturb the dependent young of such a bird.

6.6.2 The Conservation of Habitats and Species Regulations 2017 (as amended) places duties on competent authorities (including Local Authorities and National Park Authorities) in relation to wild bird habitat. These provisions relate back to Articles 1, 2 and 3 of the EC Directive on the conservation of wild birds (2009/147/EC, 'Birds Directive' ) (Regulation 10 (3)) requires that the objective is the 'preservation, maintenance and re-establishment of a sufficient diversity and area of habitat for wild birds in the United Kingdom, including by means of the upkeep, management and creation of such habitat, as appropriate, having regard to the requirements of Article 2 of the new Wild Birds Directive...' Regulation 10 (7) states: 'In considering which measures may be appropriate for the purpose of security or contributing to the objective in [Regulation 10 (3)] Paragraph 3, appropriate account must be taken of economic and recreational requirements'.

6.6.3 In relation to the duties placed on competent authorities under the 2017 Regulations (as amended), Regulation 10 (8) states: 'So far as lies within their powers, a competent authority in exercising any function [including in relation to town and country planning] in or in relation to the United Kingdom must use all reasonable endeavours to avoid any pollution or deterioration of habitats of wild birds (except habitats beyond the outer limits of the area to which the new Wild Birds Directive applies).'

## 6.7 Badgers

- 6.7.1 Badger is protected under the Protection of Badgers Act 1992. It is not permitted to wilfully kill, injure, take, possess or cruelly ill-treat a badger, or to attempt to do so; or to intentionally or recklessly interfere with a sett. Sett interference includes disturbing badgers whilst they are occupying a sett, as well as damaging or destroying a sett or obstructing access to it. A badger sett is defined in the legislation as “a structure or place, which displays signs indicating current use by a badger”.
- 6.7.2 ODPM Circular 06/2005 (ODPM, 20005) provides further guidance on statutory obligations towards badger within the planning system. Of particular note is paragraph 124, which states that “The likelihood of disturbing a badger sett, or adversely affecting badgers’ foraging territory, or links between them, or significantly increasing the likelihood of road or rail casualties amongst badger populations, are capable of being material considerations in planning decisions.”
- 6.7.3 Natural England provides Standing Advice (Gov.uk, 2015), which is capable of being a material consideration in planning decisions. Natural England recommends mitigation to avoid impacts on badger setts, which includes maintaining or creating new foraging areas and maintaining or creating access (commuting routes) between setts and foraging/watering areas.

## 6.8 Wild Mammals

- 6.8.1 The Wild Mammals (Protection) Act 1996 (as amended) makes provision for the protection of wild mammals from certain cruel acts, making it an offence for any person to intentionally cause suffering to any wild mammal. In the context of development sites, for example, this may apply to rabbits in their burrows.

## 6.9 Invasive non-native species

- 6.9.1 An invasive non-native species is any non-native animal or plant that has the ability to spread causing damage to the environment.
- 6.9.2 Under the Wildlife and Countryside Act 1981 (as amended) it is an offence to release, or to allow to escape into the wild, any animal which is not ordinarily resident in and is not a regular visitor to Great Britain in a wild state or is listed under Schedule 9 of the Act.
- 6.9.3 It is an offence to plant or otherwise cause to grow in the wild invasive non-native plants listed on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended).

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## Appendix 1 - Photographs

**Photograph 1:** Modified grassland and scattered trees to the south of the stables



**Photograph 2:** Ditch forming the southern boundary of the formal gardens



**Photograph 3:** South elevation of the main house and formal gardens



**Photograph 4:** Broadleaved woodland to the north of the stables



**Photograph 5:** Southern elevation of the stable building B1



**Photograph 6:** Northern elevation of the stable building B1



**Photograph 7:** Stable building B1. Eastern end, location of bat roosts



**Photograph 8:** Feeding remains and bat droppings



**Photograph 9:** Lesser horseshoe roosting perch



**Photograph 10:** Lesser horseshoe droppings



**Photograph 11:** Bat Mitigation Barn (B2) Open-fronted east elevation



**Photograph 12:** Building B2, west elevation with slot access for bats





## Appendix 2 - Figures

Next page:

- Figure 1: Baseline Habitats



**LEGEND**

- Site Boundary (3.3 ha)
- g4 - modified grassland (1.1498 ha)
- u1(828) - vegetated garden (0.0691 ha)
- u1(847) - introduced shrub (0.1327 ha)
- u1b5 - buildings (0.0872 ha)
- u1b6 - hardstanding (0.4595 ha)
- u1c - artificial unvegetated unsealed surface (0.0612 ha)
- w1g - other woodland -broadleaved (1.0521 ha)
- g3c(16) - tall forbs (0 ha)
- h2b - Non-native and ornamental hedgerow (0.19 km)
- w(33) - Line of trees (0.25 km)
- u(11) - scattered tree, large (1 trees)
- u(11) - scattered tree, small (4 trees)
- r1(191) - Ditches (0.38 km)

Location (1:75,000):



Project:

**North Rye House**

Client:

**Studio Spicer**

Drawing Title:

**Baseline Habitats**

Drawing No.:

EBD\_3425\_DR001

Scale (@A3):

1:1,200

Central Eastings, Northings:

420546, 228632

Date Drawn:

12/12/2023

Drawn by:

ASp

Approved by:

BG

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Hampden House, Monument Park,  
Chalgrove, Oxon,  
OX44 7RW

## Appendix 3 - Definitions of the Geographic Context of Habitat Importance

Geographic Context of Importance	Examples
International value	Ramsar Sites, Special Protection Areas, Biosphere Reserves, Special Areas of Conservation. Sites supporting populations of internationally important species.
National value	SSSIs or non-designated Sites meeting SSSI selection criteria, NNRs, Marine Nature Reserves, NCR Grade 1 Sites. Sites containing viable areas of key habitats identified in the UK Biodiversity Action Plan.
Regional value	Sites containing viable areas of threatened habitats listed in a Regional BAP (or some Natural Areas), comfortably exceeding SINC criteria, but not exceeding SSSI criteria.
County / Metropolitan	Sites meeting the criteria for county or metropolitan designation (SINC, CWS, etc.). Ancient semi-natural woodland, LNRs or viable areas of key habitat types listed in county BAPs/Natural Areas.
District / Borough	Undesignated Sites or features considered to appreciably enrich the habitat resource in the District or Borough.
Local i.e. Parish / Neighbourhood	Undesignated Sites or features which appreciably enrich the habitat resource within the Parish or Neighbourhood.
Negligible value	Low grade and widespread habitats.

## Appendix 4 - Definitions of the geographic Context of Species Importance

Geographic Context of Importance	Examples
International	<p>Any regularly occurring population of an internationally important species, which is threatened or rare in the UK. i.e. it is a UK Red Data Book species or listed as occurring in 15 or fewer 10km squares in the UK (categories 1 and 2 in the UK BAP) or of uncertain conservation status or of global conservation concern in the UK BAP.</p> <p>A regularly occurring, nationally significant population/number of any internationally important species.</p>
National	<p>Any regularly occurring population of a nationally important species which is threatened or rare in the region or county (see local BAP).</p> <p>A regularly occurring, regionally or county significant population/number of any nationally important species.</p>
Regional	<p>Any regularly occurring, locally significant population of a species listed as being nationally scarce which occurs in 16-100 10km squares in the UK or in a Regional BAP or relevant Natural Area on account of its regional rarity or localisation;</p> <p>A regularly occurring, locally significant number of a regionally important species.</p>
County/ Metropolitan	<p>Any regularly occurring, locally significant population of a species which is listed in a County/Metropolitan “red data book” or BAP on account of its regional rarity or localisation;</p> <p>A regularly occurring, locally significant number of a County/Metropolitan important species.</p>
District / Borough	<p>A population of a species that is listed in a District/Borough BAP because of its rarity in the locality or in the relevant Natural Area profile because of its regional rarity or localisation;</p> <p>A regularly occurring, locally significant number of a District / Borough important species during a critical phase of its life cycle.</p>
Local i.e. Parish / Neighbourhood	<p>Species that are not threatened but are valued at a local level on intrinsic appeal.</p>
Negligible	<p>Common or widespread species.</p>

## Appendix 5 - Valuing Bat Roosts

From UK Bat Mitigation Guidelines (Reason and Wray, 2023) Table 3.2 Assessing importance of roosts (p33).

Roost category: note this table relates to VALUATION and does not mean that all such sites are 'places of shelter' as referenced in the W9CA or Habitats Regulations. Inclusion in this table does not indicate that a licence would be required; this would be driven by roost status, any impacts and the likelihood of an offence.							
Conservation status/ distribution	Feeding perches; night-roosts; Individual or very small occasional/ transitional/ opportunistic roosts	Non-breeding day roosts (small numbers of species)	Mating sites (excluding individual trees and larger swarming sites); small numbers of hibernating bats	Larger transitional roosts	Hibernation sites <sup>d</sup>	Autumn swarming sites [largely, vesper species which hibernate underground	Maternity sites <sup>e</sup>
Widespread all geographies	Site	Site	Site	Site/Local	District/County [Larger hibernation sites rare in the UK]	District/County [Very large pipistrelle swarming sites as yet unknown in the UK91, but see Section 6.7	Unlikely to exceed District importance unless colonies are atypically large; importance increased for assemblages.
Widespread in many geographies, but not as abundant in all	Site	Site	Site, dependent on local distribution [For <i>Myotis</i> , see swarming site column]	District	District/County importance dependent on size <sup>b</sup> and number of species	County/Regional importance dependent on size <sup>b</sup> ; importance increased for larger sites that serve larger numbers/species	Unlikely to exceed County importance unless colonies are atypically large; importance increased for assemblages.
Rarer or restricted distribution	Site (very well-used night roosts may be of District importance for some species)	Site/Local/District, dependent on local distribution	Site/Local/District, dependent on local distribution	District	District/County importance dependent on size <sup>b</sup> and local distribution; increased value for assemblages.	County/Regional importance on size <sup>b</sup> and local distribution; increased value for assemblages.	County/Regional importance on size <sup>b</sup> and local distribution; increased value for assemblages.
Rarest Annex II species and very rare	Site (very well-used night roosts may be of District importance for some species)	Site/Local/District, dependent on local distribution	Site/Local/District, dependent on local distribution	District	County/Regional importance on size <sup>b</sup> and local distribution; increased value for assemblages	County/Regional importance on size <sup>b</sup> and local distribution; increased value for assemblages.	County/Regional importance on size <sup>b</sup> and local distribution' increased value for assemblages.

## Appendix 6 - Proposed Enhancements

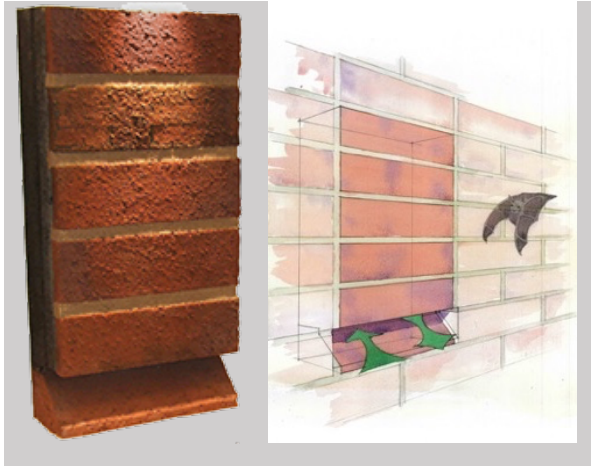
Products	Description
	<p><b>Ceramic Swallow bowl nest</b></p> <p>This provides nesting opportunities for swallows and should be installed beneath the shelter of the eaves at least 3m high.</p> <p><a href="https://www.nhbs.com/search?q=swallow%20bowl&amp;hPP=60&amp;idx=titles&amp;p=0&amp;fR%5Bdoc_s%5D%5B0%5D=false&amp;fR%5Bhide%5D%5B0%5D=false&amp;fR%5Blive%5D%5B0%5D=true&amp;qtview=173581">https://www.nhbs.com/search?q=swallow%20bowl&amp;hPP=60&amp;idx=titles&amp;p=0&amp;fR%5Bdoc_s%5D%5B0%5D=false&amp;fR%5Bhide%5D%5B0%5D=false&amp;fR%5Blive%5D%5B0%5D=true&amp;qtview=173581</a></p>
	<p><b>Pro UK Visible Build-in Swift Box</b></p> <p>Designed to be built into the wall fabric, provides nesting opportunities for swifts. Made from long-lasting woodstone. Multiple boxes should be positioned together with at least 40mm between entrances at least 5m high on a non-south facing wall.</p> <p><a href="https://www.nhbs.com/pro-uk-visible-build-in-swift-box?bkfno=257048&amp;ca_id=1495&amp;adlocale=uk&amp;gad_source=1&amp;gclid=EAIaIQobChMI4z4wMCJgwMVxNbtCh3XtwjgEAQYAIAABEgLhWfD_BwE">https://www.nhbs.com/pro-uk-visible-build-in-swift-box?bkfno=257048&amp;ca_id=1495&amp;adlocale=uk&amp;gad_source=1&amp;gclid=EAIaIQobChMI4z4wMCJgwMVxNbtCh3XtwjgEAQYAIAABEgLhWfD_BwE</a></p>
	<p><b>1MF Bat and Swift Nest Box</b></p> <p>The 1MF contains two nesting chambers for swifts, each with its own entrance, allowing two pairs to breed and successfully raise their young separately from each other but in the same box. In addition a recess in the rear panel creates a space between the wall of the building and the box ideal for crevice dwelling bats. The 1bat slope at the base allows the 1MF to be built into the wall with the box flush to the surface.</p> <p><a href="https://www.nhbs.com/1mf-bat-and-swift-nest-box">https://www.nhbs.com/1mf-bat-and-swift-nest-box</a></p>



**1FR Schwegler Bat Tube (or similar)**

A bat tube designed to be fitted discretely on the external walls of a building or fitted beneath a rendered surface.

[http://www.nhbs.com/title/161276/1fr-schwegler-bat-tube?bkfno=178018&ca\\_id=1495&gclid=CNb\\_5M\\_8o9ICFUFmGwodDgcEYw](http://www.nhbs.com/title/161276/1fr-schwegler-bat-tube?bkfno=178018&ca_id=1495&gclid=CNb_5M_8o9ICFUFmGwodDgcEYw)



**Habibat Bat Box**

The Habibat Bat Box is a solid box made of insulating concrete with an internal roost space, which can be incorporated into the fabric of a building as it is built or renovated. A variety of facings can be fitted to suit any building. The box is suitable for Pipistrelle bats and other common UK species.

<https://www.nhbs.com/habibat-bat-box-plain-for-rendering>



**2F or 2FN Schwegler Bat Box (or similar)**

Both made from long lasting woodcrete and suitable for mounting on trees. The 2F is a standard bat box for smaller bats to be placed on a mature tree. The 2FN has a larger internal height with a domed roof allowing bats to cluster.

<http://www.nhbs.com/2f-schwegler-bat-box-general-purpose>

[https://www.nhbs.com/2fn-schwegler-bat-box?bkfno=174819&ca\\_id=1495&adlocale=uk&gad\\_source=1&gclid=EA1aIQobChMIw-PWhpSKgwMVOo9QBh0L6AypEAQYASABEgKwZ\\_D\\_BwE](https://www.nhbs.com/2fn-schwegler-bat-box?bkfno=174819&ca_id=1495&adlocale=uk&gad_source=1&gclid=EA1aIQobChMIw-PWhpSKgwMVOo9QBh0L6AypEAQYASABEgKwZ_D_BwE)



### Beaumaris Woodstone bat Box

Suitable for hanging on trees or external walls/fences and made of long lasting woodstone, this bat box has a narrow internal cavity favoured by crevice-roosting species such as soprano pipistrelle. With an entrance hole at the bottom, this box is self-cleaning and requires little-no maintenance.

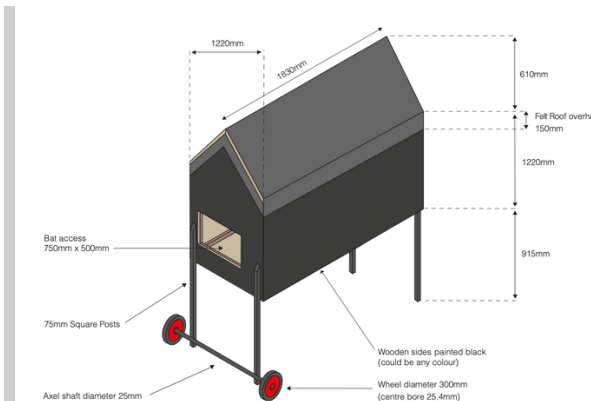
<https://www.nhbs.com/beaumaris-woodstone-bat-box>



### 1WI Schwegler Summer and Winter Bat Box

Manufactures by woodcrete to be both long-lasting and thermally-desirable by bats, this box provides a suitable roosting space for both winter and summer roosts that can be built into a wall cavity or incorporated into the masonry and rendered flush with the surface so that just the entrance hole is exposed or accessible (e.g. through a gap in pointing).

<https://www.nhbs.com/1wi-schwegler-summer-and-winter-bat-box>



### Vincent Wildlife trust: Cathedine Night Roost Design for lesser horseshoe bats