

# Preliminary Ecological Appraisal

## Burnt House Farm

Turton Road, Bury

August 2022

Prepared for: Mr Walmersley

Report prepared by: Verity Webster BSc (Hons) MSc CEcol CMIEEM



## EXECUTIVE SUMMARY

- On 20<sup>th</sup> July 2022 a Preliminary Ecological Appraisal was undertaken on land at Burnt House Farm, Turton Road, Bury. The site comprises improved grassland, a stone building, access track and shrubs.
- Ecological constraints relate to the following:

### *Wood at Bottoms Hill Site of Biological Importance*

- The site lies in close proximity to Wood at Bottoms Hill SBI. For this reason, avoidance mitigation is proposed to protect this area, although no direct impacts are anticipated.

### *The Stream*

- A stream which runs along the southeast boundary of the wider site, 20m from the survey area is also identified for protection during works to prevent any unnecessary damage.

### *Barn Owl*

- Barn owl are confirmed roosting within the building on site. No evidence of nesting was present, however. Mitigation to compensate for the loss of a roosting site is proposed.

### *Other nesting birds*

- The survey site has potential to support nesting birds within crevices in the walls of the structure and within shrubs and trees. Mitigation to avoid harm to nesting birds in the spring and summer months is recommended.

### *Hedgehog and badger*

- Precautionary mitigation is recommended to avoid harm to this mammal species that are likely to be present in the locality.

### *Reptiles and Amphibians*

- Reptiles are not expected at high density and reasonable avoidance measures are proposed to reduce the risk of harm to negligible. Common toad are likely to be present in the area and precautions for reptiles will ensure protection for these amphibians also.

### *Invasive Species*

- The invasive plant species Himalayan balsam was recorded on site. Measures for biocontrol during works to prevent the spread of this species and the control and eradication of this species are proposed.

### *Enhancement*

- The proposals provide the opportunity to significantly enhance the site for wildlife and recommendations for this have been made, including native species planting, installation of bird and bat boxes, and the creation of log piles.

*Verity Webster*  
Ecology and Protected Species Consultancy



# 1 Introduction

## 1.1 Application Site

- 1.1.1. This report details a Preliminary Ecological Appraisal of land at Burnt House Farm, Turton Road, Bury. Ordnance Survey grid reference (centre of site): SD 7620 1425.
- 1.1.2. Mr Walmersley commissioned Verity Webster Ltd to undertake a Preliminary Ecological Appraisal to inform the planning application.

## 1.2 Objectives

- 1.2.1 The objectives of the Preliminary Ecological Appraisal are to determine:
- The potential for protected species and/or habitats of importance within and surrounding the site.
  - The presence of any designated sites within the surrounding area, or if the site is designated.
  - How the proposed works might impact protected species and/or habitats of importance.
  - How the proposed works might impact designated sites within the surrounding area.
  - How any impacts might be avoided, mitigated and/or ameliorated, including recommendations for further survey work if required.
  - Potential for enhancement of the site for protected species, habitats of conservation interest and overall biodiversity.

## 1.3 Proposals

- 1.3.1 The proposals comprise the demolition of the existing structure and construction of a new dwelling with associated access and landscape.

## 1.4 Ecologist

- 1.4.1 The Ecological Assessment was undertaken by Verity Webster. Verity is a Chartered Ecologist and a full member of the Chartered Institute of Ecology and Environmental Management.
- 1.4.2 Verity has worked as an ecological consultant for over 15 years. She has undertaken Ecological Assessments and protected species surveys for a large variety of projects and schemes, producing the required impact assessment and subsequent mitigation schemes and method statements when necessary.



## 2 Site Location and Description

### 2.1 Site Location

- 2.1.1 The survey site is located in a rural location approximately 1.2km northwest of the northwestern outskirts of Tottington and 1.5km southwest of Greenmount, Summerseat.
- 2.1.2 The site lies approximately 200m north of the B6213 Turton Road, which runs northwest to southeast towards Tottington from Turton Bottoms.
- 2.1.3 Open countryside surrounds the site, comprising grazed pasture and arable land with patches of woodland and scattered waterbodies. Small waterways thread through the landscape.

### 2.2 Site Description

- 2.2.1 The survey site comprises an area of improved grassland, small trees, an access track and a small building. It is noted, however that land beyond the red-line boundary is within the clients ownership and this is considered when considering enhancement on site.
- 2.2.2 The grassland is composed of common and widespread grasses with scattered herbs; rye grass (*Lolium perenne*) and Yorkshire fog (*Holcus lanatus*) are dominant with occasional cock's-foot (*Dactylus glomerata*) and patches of creeping bent-grass (*Agrostis stolonifera*). Soft rush (*Juncus effusus*) is occasional and reflects the wetter nature of the ground. Common nettle (*Urtica dioica*) and creeping thistle (*Cirsium arvense*) are frequent with occasional meadow vetchling (*Lathyrus pratensis*). On the track and at the edges of the trackway there is prickly sow-thistle (*Sonchus asper*), knotgrass (*Polygonum aviculare*) and pinappleweed (*Matricaria discoidea*).
- 2.2.3 Himalayan balsam (*Impatiens grandiflora*) is present and abundant, conspicuous in flower. This is an invasive plant species and its presence must be considered during works.
- 2.2.4 Elder (*Sambucus nigra*) shrubs are scattered. Hawthorn (*Crataegus monogyna*) trees are present up the track.
- 2.2.5 See Phase 1 Habitat Plan, Figure 4.

#### Building

- 7.1.1 The structure on site is constructed of stone with a pitched, corrugated metal roof. The structure is rectangular and oriented northeast to southwest. A portion of the northeast section of the building has been demolished and only segments of low stone walls remain.
- 7.1.2 The building is two-storey, the second storey accessed from the exterior second floor door given the structural demolition. There is no roof void as the first floor is open to the eaves exposing the single-skin corrugated metal roof.
- 7.1.3 There is a porch on the northeast end of the southeast elevation. This also supports a pitched, single-skin corrugated metal roof.



*The building, looking southwest*



*The building, looking northeast*



*The southeast elevation*



Figure 1: Ordnance survey map showing the location of the proposed development site.





Figure 2: Aerial image showing the proposed development site and immediate surroundings





## 3 Legislation

Relevant legislation is listed here. For full details, refer to Appendix A.

### 3.1 Bats

3.1.1 All UK bats receive full protection under the Wildlife and Countryside Act 1981 and are also protected under The Conservation of Habitats and Species Regulations 2017 (as amended) (the Habitats Regs).

3.1.2 This makes it an offence to:

- Capture, injure or kill any bat,
- Disturb a bat of any species,
- Damage or destroy a breeding site or resting place of a bat (ie. The roost)
- Possess any bat, or part of a bat
- Offer for sale or trade any bat, or part of a bat

### 3.2 Badger

3.2.1 Under the Badger Act 1992, it is an offence to:

- Take, injure or kill a badger, or attempt to do so
- Cruelly ill-treat a badger
- Interfere with a badger sett including:
  - Damaging a badger sett or any part of it
  - Destroying a sett
  - Obstructing access to, or entry to a sett
  - Causing a dog to enter a sett; or
  - Disturbing a badger whilst it is occupying a sett.

### 3.3 Reptiles

3.3.1 Smooth snake and sand lizard receive full protection under the Wildlife and Countryside Act 1981 and are also protected under The Conservation of Habitats and Species Regulations 2017 (as amended) (the Habitats Regs).

3.3.2 This makes it an offence to:

- Capture, injure or kill one of these species,
- Disturb these species,
- Damage or destroy a breeding site or resting place of these species.
- Possess one of these species, or part of one
- Offer for sale or trade one of these species, or part of one

3.3.3 Common lizard, adder, grass snake and slow-worm are partially protected under the Wildlife and Countryside Act 1981. This makes it an offence to:

- Kill or injure one of these species.
- Offer for sale or trade one of these species, or part of these animals.

### 3.4 Amphibians

3.4.1 Great crested newts receive full protection under the Wildlife and Countryside Act 1981 and are also protected under The Conservation of Habitats and Species Regulations 2017 (as amended) (the Habitats Regs).

3.4.2 This makes it an offence to:

- Capture, injure or kill one of these species,



- Disturb these species,
- Damage or destroy a breeding site or resting place of these species.
- Possess a great crested newt, or part of this animal
- Offer for sale or trade a great crested newt, or part of this animal.

3.4.3 Common lizard, adder, grass snake and slow-worm are partially protected under the Wildlife and Countryside Act 1981. This makes it an offence to:

- Kill or injure one of these species.
- Offer for sale or trade one of these species, or part of these animals.

3.4.4 Common toad, common frog, palmate newt and smooth newt are protected from sale or trade only.

### 3.5 Barn Owl

3.5.1 The Wildlife and Countryside Act 1981 consolidates and amends existing national legislation to implement the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) and Council Directive 79/409/EEC on the conservation of wild birds (Birds Directive) in Great Britain (NB Council Directive 79/409/EEC has now been replaced by Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds (codified version)).

3.5.2 The Act makes it an offence (with exception to species listed in Schedule 2) to intentionally:

- kill, injure, or take any wild bird,
- take, damage or destroy the nest of any wild bird while that nest is in use or being built (also [take, damage or destroy the nest of a wild bird included in Schedule ZA1] under the Natural Environment and Rural Communities Act 2006), or
- take or destroy an egg of any wild bird.

#### Schedule 1 Birds

3.5.3 In addition to the above, special penalties are available for offences related to birds listed on Schedule 1. Barn owl is included on this schedule.

3.5.4 It is an offence to disturb any Schedule 1 bird at the nest, or to disturb their dependent young.

### 3.6 Section 41 Habitats and Species of Principal Importance

3.6.1 Section 41 Habitats and Species of Principal Importance (NERC Act 2006) are a material consideration for planners. The list is derived from the UK Biodiversity Action Plan list and supports species and habitats of conservation concern.

3.6.2 Species relevant to this report include hedgehog and common toad.

### 3.7 Designated Sites

3.7.1 Sites of conservation interest can be designated on a statutory or non-statutory basis.

3.7.2 Statutory sites can be designated under UK legislation (the Wildlife and Countryside Act 1981), European Law (the Habitats Regulations 2017) or International law (Ramsar Convention).

3.7.3 Non-statutory sites can be designated by the Local Planning Authority, and different counties have different ways



of designating local wildlife sites. Examples are Local Wildlife Sites and Biological Heritage Sites.

### 3.8 Planning Policy and Legislation

3.8.1 Under the NERC Act 2006, planning authorities are obliged to make sure that they have all the information on the presence of protected species on site before they make a decision on the planning permission.

3.8.2 The National Planning Policy Framework (NPPF, 2021) encourages Local Planning Authorities to conserve and enhance biodiversity.

Chapter 15, Para 174 of NPPF states: *"The planning system should contribute to and enhance the natural and local environment by:*

- a) ***protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils....***
- 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 175 states: *"Plans should: distinguish between the hierarchy of international, national and locally designated sites; allocate land with the least environmental or amenity value, where consistent with other policies in this Framework; take a strategic approach to maintaining and enhancing networks of habitats and green infrastructure; and plan for the enhancement of natural capital at a catchment or landscape scale across local authority boundaries."*

Para 179 identifies that plans should do the following to protect and enhance biodiversity and geodiversity:

- a) ***"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***
- b) ***Promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and peruse opportunities for securing measurable net gains for biodiversity."***

Para 180 states that *"when determining planning applications, local authorities should apply the following principles:*

- a) ***if significant harm to biodiversity from a development cannot be avoided...,adequately mitigated, or, as a last resort compensated for, then planning permission should be refused"***

3.8.3 The local planning authority has a responsibility, therefore, to obtain all information regarding the potential for protected species on a site prior to making a decision about a proposal.



## 4 Survey Methodology

### 4.1 Desk Study

4.1.1 The following data sources used to establish background information about protected species and their likely presence in the locality:

- Magic Map, Natural England (2018)
- Bing Maps (2019)
- Biological records data from Greater Manchester Ecology Unit (GMEU) (2022)

4.1.2 Online mapping facilities, including MAGIC (Defra 2015), Google earth (for aerial mapping) and Ordnance Survey maps for the area were consulted to assess the site in relation to the surrounding landscape and any statutory and non-statutory designated sites.

4.1.3 Records data from GMEU includes records of protected species and habitats of conservation interest within 1km of the survey site.

### 4.2 Site Survey

4.2.1 The survey site, was walked in daylight on 20<sup>th</sup> July 2022, and during the visits the habitat was assessed for potential for protected species. The surveyor searched for signs of the presence of protected species where appropriate, including pathways, burrows / nests / resting places, scratch markings, footprints and droppings etc. The presence of all animals and birds, if seen or heard, was recorded.

4.2.2 All woodland on site was searched for evidence of the presence of badger where accessible.

4.2.3 A general appraisal of their suitability of trees on site for bats was undertaken across the site. A detailed Preliminary Roost Assessment of the trees to record Potential Roost Features was undertaken if they have been identified for removal or may be significantly indirectly impacted (ie immediate surrounding conditions altered) as a result of the proposed works.

4.2.4 Habitats on site were assessed and described, and a list of conspicuous species recorded.

### 4.3 Bat Emergence / Re-entry Surveys and Assessment of Activity

4.3.1 The Bat Surveys were undertaken in accordance with current accepted guidance: Collins, J. (ed.) (2016) Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd Edn). The Bat Conservation Trust, London.

4.3.2 Following the Preliminary Roost Assessment the building at Burnt House Farm was considered to have low suitability for bats due to the presence of potential roost features in the roof structure, including crevices beneath tiles.

4.3.3 A single evening survey was considered sufficient to give confidence in a negative result (absence of a roost).

4.3.4 Table 7.1 of Collins, J. (ed.) (2016). Bat Surveys for Professional Ecologists: Good Practice



Guidelines (3rd Edn). The Bat Conservation Trust, London:

**Table 7.3 Recommended minimum number of survey visits for presence/absence survey to give confidence in a negative result for structures.**

| <b>Low roost suitability</b>                                  | <b>Moderate roost suitability</b>                                                   | <b>High roost suitability</b>                                                                                                         |
|---------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|
| One survey visit. One dusk emergence or dawn re-entry survey. | Two separate survey visits. One dusk emergence and a separate dawn re-entry survey. | Three separate visits. At least one dusk emergence and a separate dawn re-entry survey. The third visit could be either dusk or dawn. |

- 4.3.5 The bat emergence survey was undertaken from 15 minutes before sunset to 1.5 hours after sunset.
- 4.3.6 During the surveys two surveyors were positioned on site such that the elevations of the building were easily observed. The skyline was such that it was clear to see bats against the sky if they were to emerge.
- 4.3.7 Batbox Duet detectors and Echo Meter Touch detectors were used so that any calls heard that could not be identified were recorded for later analysis.
- 4.3.8 The time, activity (emergence, foraging, commuting) and species of bats (where possible) were recorded when observed. Notes were made of the activity of bats elsewhere on site as well as around the building. The number of bat passes were recorded to provide an indication of bat activity level within the site.

#### **4.4 Survey Limitations**

- 4.4.1 The survey work was undertaken in July 2022. At this time of year bats are likely to be accommodating summer roost sites. Evidence of bats using external features of buildings may be present, unless it has been washed away by the weather. Inside buildings evidence is more likely to be found if bats are using the interior of the structure with regularity and evidence is protected from the weather.
- 4.4.2 At this time of year wildlife, including reptiles, amphibians and birds are active.
- 4.4.3 The majority of higher plants are visible in July, but some species are more conspicuous at some times of the year than others, and due to the presence of dense vegetation in some areas, some species may have been missed. The species list constructed is not comprehensive.



## 5 Findings: Surrounding Designated Sites

- 5.0.1 Sites of conservation interest can be designated on a statutory or non-statutory basis.
- 5.0.2 The protection over European designated sites (or Natura 2000) sites and Ramsar sites require any potential direct and indirect impacts are assessed within at least a 5km radius of the survey site.
- 5.0.3 The protection over UK statutory sites (Sites of Special Scientific Interest and Local Nature Reserves) requires that any potential direct and indirect impacts from a development are assessed within at least a 2km radius of the survey site.
- 5.0.4 Any potential direct or indirect impacts upon non-statutory sites are assessed within 1km of the survey site.

### Statutory Sites

- 5.0.5 The protection over UK statutory sites (Sites of Special Scientific Interest) requires that any potential direct and indirect impacts from a development are assessed within at least a 2km radius of the survey site, whilst the protection over European designated sites (or Natura 2000) sites and Ramsar sites require any potential direct and indirect impacts are assessed within at least a 5km radius of the survey site.
- 5.0.6 There is one UK designated site within 2km; Kirklees Valley Local Nature Reserve (LNR) which is situated approximately 1.5km to the southeast of the survey site.
- 5.0.7 Kirklees Valley is designated for the variety of habitats present, comprising woodland, grassland, heathland, ponds and streams.

### Assessment

#### *Kirklees Valley*

- 5.0.8 Kirklees valley, located 1.5km to the southeast of the survey site is considered very unlikely to be significantly impacted directly or indirectly by the proposals. The habitats within the survey site are dissimilar from those found within the LNR. However, there are direct habitat links to the LNR from the site, including a brook which runs east just 29m south of the survey area and connects with Kirklees Brook, which runs south east towards the LNR. This connection is tenuous, and at the time of survey, the brook to the south of the survey site was dry, but given the potential link, precautions to prevent discharge into the waterway and damage to the waterway are proposed.

### Non-statutory sites

- 5.0.9 There are two Sites of Biological Importance (SBI) within 1km of the survey site:
  - Wood at Bottoms Hill: This site is located approximately 50m to the east of the survey area and adjoins the area of improved grassland directly at the northeast boundary of



the land within the clients ownership. The SBI is composed of mature broadleaf woodland, scrub, wet woodland, marsh and acid grassland.

- Hawkshaw Brook: This site lies approximately 75m to the northwest of the survey area at the closest point. The SBI is comprises broadleaf woodland, scrub, unimproved acid grassland, neutral grassland, streams and large waterbodies.

### Assessment

- 5.0.10 Direct impacts upon the SIBs are unlikely as the proposals will not impact habitat within 50m, but precautionary mitigation measures must be put in place to protect the woodland and avoid any accidental damage.
- 5.0.11 The survey site supports habitats dissimilar to those associated with the nearby SIBs. For this reason plant species associated with these designated sites are unlikely to be present on site and any indirect impact, for example by disruption of plant populations, is unlikely.
- 5.0.12 Similarly, most animals associated with the woodland are unlikely to be present, although there will be some cross-over, for example with birds and bats, and these species will be considered below.
- 5.0.13 Overall, direct and indirect impacts are considered unlikely as long as suitable precautions are put in place.

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### Statutory Site Designations

**Local Nature Reserve (LNR)** Local Nature Reserves (LNRs) are a statutory designation made under Section 21 of the National Parks and Access to the Countryside Act 1949 by principal local authorities. LNRs are areas of natural space for people and wildlife. They can be designated on the basis of wildlife and biodiversity, or for geological reasons.

### Non-statutory Site Designations

**Sites of Biological Interest (SBI):** Sites of Biological Interest are 'Local Wildlife Sites' in Greater Manchester. They are identified within the county using a set of published guidelines. Their selection is based on the most important, distinctive and threatened species and habitats within a national, regional and local context. Local Wildlife Sites are locally valuable areas and are often corridors for wildlife forming key components of ecological networks. They are non-statutory designations, but are a material consideration within the planning process.



Figure 3: The Survey Site in relation to nearby Sites of Biological Importance





## 6 Findings: Habitat Survey

### 6.1 Habitat Assessment

#### Data Search

- 6.1.2 The data from GMEU does not contain any records of protected plants or species of conservation concern within 1km of the survey site. This is likely due to a lack of survey effort rather than an absence of species of interest, especially given the presence of Sites of Biological Importance within the vicinity.

#### Survey Site

- 6.1.3 The survey site comprises improved grassland with an invasive species (Himalayan balsam) with occasional scattered small elder trees. Hawthorn shrubs are present along the track. See site description Section 2.2.2.
- 6.1.4 The Phase 1 Habitats are categorised as follows:
- **Improved Grassland (Modified Grassland UK Hab)**
  - **Shrubs**
- 6.1.5 Refer to the Phase 1 Habitat Plan below for Target Note (TN) references for habitat descriptions and other interest features.
- 6.1.6 The UK HAB classifications are now commonly used as part of Biodiversity Net Gain and are becoming more frequently used to categorise habitats.
- 6.1.7 The habitats on site relate to the UK HAB classifications in brackets above.

#### Assessment

- 6.1.8 The habitats present are common and composed of common and widespread plant species.
- 6.1.9 The proposals are considered unlikely to have a negative impact upon plant species or habitats of interest within the locality, so long as precautions are undertaken to prevent indirect damage to the brook and nearby SBIs.
- 6.1.10 The proposals provide the opportunity to significantly enhance the site for wildlife and recommendations for this have been made.
- 6.1.11 Part of this enhancement will comprise the control and eradication of Himalayan balsam. Measures to prevent the spread of this species must be undertaken during works on site.

Figure 4: The Survey Site – Phase 1 Habitat Plan



### **Target Notes**

**TN1 - Improved (modified) grassland**

**TN2 - Disturbed ground including remains of part of the building and rubble piles**

**TN3 – Himalayan balsam is dense on site**

**TN4 – Barn owl roost within the loft void of the building. The walls of the building have suitability for roosting bats.**

**TN5 - Hawthorn along the track side**

**TN6 – Elder trees are scattered**

**TN7 – The trackway/hard standing**



## 7 Findings: Protected Species

### Mammals

#### 7.2 Bats

##### Potential for Bats

- 7.2.1 At a landscape level, the area surrounding the survey site is very good for bats. Refer to Figure 2.
- 7.2.2 Countryside extends in all directions and comprises a matrix of arable and pasture land with tree lines, scattered plots of woodland and waterbodies and waterways within close proximity. The habitat will support a variety of bat species including widespread species such as common and soprano pipistrelle bat (*Pipistrellus pipistrellus* and *Pipistrellus pygmaeus* respectively). Species that favour wooded habitat, such as brown long-eared bat (*Plecotus auritus*), Natterer's bat (*Myotis nattereri*), whiskered bat (*Myotis mystacinus*) and Brandt's bat (*Myotis brandtii*) are likely to be present as well as species that favour open habitats such as Leisler's (*Nyctalus leisleri*) and noctule bat (*Nyctalus noctula*).
- 7.2.3 The linear features (hedgerows, tree lines and waterways) provide good habitat links that are likely utilised by commuting bats and will facilitate the movement of bats through the landscape.

##### Data Search

- 7.2.4 Data from GMEU include records of six bat species within 1km of the survey site; common pipistrelle (*Pipistrellus pipistrellus*), soprano pipistrelle (*Pipistrellus pygmaeus*), noctule bat (*Nyctalus noctula*), Daubenton's bat (*Myotis daubentonii*), whiskered bat (*Myotis mystacinus*) and Brandt's bat (*Myotis brandtii*).
- 7.2.5 There are three known roost sites within 1km, all those of pipistrelle species and all associated with houses in Hawkshaw village approximately 800m to the northwest of the survey site.



### *The Conservation Status of Bats in the Area*

7.2.6 The conservation status of bats in the area is shown in Table 1.

**Table 1:** *The Conservation Status of Bats in the area at a Local, County and Regional Level*

| <b>Species</b>                 | <b>Local</b>                                                                                                           | <b>County</b>                                                                                             | <b>Regional</b>                                                              |
|--------------------------------|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|
| <i>Common pipistrelle</i>      | Likely to be common in the area. There are records of this species in the area (10km).                                 | Common and widespread Frequently recorded.                                                                | Common and widespread Frequently recorded across the Northwest               |
| <i>Soprano pipistrelle</i>     | Likely to be present due to the presence of riparian habitat.                                                          | Widespread. Frequently recorded.                                                                          | Common and widespread Frequently recorded across the Northwest               |
| <i>Nathusius's pipistrelle</i> | Likely to be rare in the area.                                                                                         | Infrequently recorded, but this may be due to low survey effort. Not yet recorded breeding in the county. | Rare across the northwest. A migratory species.                              |
| <i>Brown long-eared bat</i>    | Likely to be in the area. There is a recent record of this species within 10km of the site.                            | Common and widespread Frequently recorded.                                                                | Common and widespread Frequently recorded across the Northwest.              |
| <i>Natterer's bat</i>          | Likely to be in the area, although this species favours woodland habitat, which is infrequent in the landscape.        | Frequently recorded                                                                                       | Widespread and scattered across the Northwest.                               |
| <i>Noctule</i>                 | Present                                                                                                                | Widespread and frequently recorded.                                                                       | Common and widespread. Frequently recorded in the Northwest.                 |
| <i>Whiskered bat</i>           | Present but likely rare                                                                                                | Present                                                                                                   | Widespread.                                                                  |
| <i>Brandt's bat</i>            | Rare / absent                                                                                                          | Present                                                                                                   | Widespread.                                                                  |
| <i>Alcathoe's bat</i>          | Unknown                                                                                                                | Unknown                                                                                                   | Widespread. Likely under-recorded.                                           |
| <i>Daubenton's</i>             | Presence is likely due to the riparian habitat present.                                                                | Widespread, frequently recorded near water.                                                               | Widespread                                                                   |
| <i>Serotine</i>                | Rare / absent                                                                                                          | Unknown                                                                                                   | Restricted to south and southwest Britain, rarely recorded in the northwest. |
| <i>Leislars</i>                | Rare                                                                                                                   | Unknown                                                                                                   | Rare, but widespread in Britain. Present in the northwest.                   |
| <i>Barbastelle</i>             | Unlikely to be present in the area. This species is a woodland-specialist and there is a lack of this habitat present. | Unknown                                                                                                   | Present south of a line from North Wales to the Wash.                        |



### Preliminary Roost Assessment

- 7.2.7 An appraisal of the structures and trees on site was undertaken to determine the potential for roosting bats.

#### *Building*

- 7.2.8 The walls of the structure contain a few crevices in the stone work on all elevations where the pointing has fallen away. These crevices provide potential roost sites for bats.
- 7.2.9 The roof structure itself has very low – negligible suitability for bats as the single-skin corrugated metal will fluctuate widely in temperature, which is not favoured by bats.
- 7.2.10 Internally, the roof void is of a size suitable for bats, such as brown long-eared bat in which to roost and fly prior to leaving to forage. However, upon inspection, it is evident that barn owl is roosting within the void. The numerous barn owl pellets suggest regular presence. This significantly reduces the likelihood of bats as owls will prey on bats.
- 7.2.11 No evidence of bats was found internally or externally, but given the external crevices, although owls are present, the presence of bats cannot be entirely ruled out.
- 7.2.12 For this reason, the structure is considered to have low suitability for bats and a single evening emergence survey was recommended to determine presence or absence. This survey was undertaken in August.

#### *Trees and Shrubs*

- 7.2.13 The shrubs on site are immature and have negligible suitability for bats as they lack the features such as split limbs, rot holes and flaking bark associated with potential roost features.

#### *Habitat for foraging and commuting bats.*

- 7.2.14 The woodland and woodland edge to the east of the site, and the grassland on site are likely to provide habitat for foraging bats. The woodland edge and tree line to the south of the site are also likely to provide features along which bats may commute.
- 7.2.15 The loss of a proportion of improved grassland is unlikely to impact foraging bat populations in the locality however, as the habitat within the locality is of high quality. No linear features will be impacted by the proposals.



## Bat Presence/Absence Survey

### Survey 1: Evening Emergence on 25<sup>th</sup> August 2022

**Surveyors:** Verity Webster Bsc MSc CEng MCIEEM (bat licence Class 2) and Derren Bailey (four years bat survey experience)

**Weather:** 10-8.9°C 95% cloud. Dry. Humidity 95-97%. Very light breeze 5mph Northwest.

**Sunset:** 20:16

**Time on site:** 20:00 – 21:50

### Survey Findings

- 6.1.1 A single species of bat was recorded during the survey: common pipistrelle (*Pipistrellus pipistrellus*).
- 6.1.2 A single barn owl was observed flying south to north across the site, skirting around the building at 20:30. A second barn owl was observed to the east at 20:38. Owls are known to predate bats, so the presence of barn owl is of note.
- 6.1.3 The first bat was recorded at 20:38, 22 minutes after sunset. This suggests the bat emerged from a site within close proximity to the survey site, but was not observed emerging from the structure and entered the site from the south.
- 6.1.4 This bat foraged around the building and over the grassland to the south of the building for the duration of the survey.
- 6.1.5 A single common pipistrelle bat was recorded commuting south to north across the field to the west of the building at 20:54.
- 6.1.6 At 21:04 two common pipistrelle bats were observed passing west to east across the site.

### Appraisal

- 6.1.7 A single species of bat was recorded during the survey and bat activity at the site was considered to be low.
- 6.1.8 No bats were recorded emerging from the building.
- 6.1.9 The survey work is considered sufficient to give confidence in a negative result (likely absence of a roost within the building).

### Assessment of Impacts

- 6.1.10 The survey work indicates the likely absence of a bat roost within the building at Burnt House Farm. The proposals to refurbish the building is therefore considered unlikely to have any



detrimental impact upon bats in the locality.

- 6.1.11 The proposals provide the opportunity to enhance the site for bats and recommendations for this have been made.**

### 7.3 Badger

#### Data Search

- 7.3.1 Data from GMEU does not include any records badger (*Meles meles*) within 1km of the survey site.

#### Survey and Assessment

- 7.3.2 The habitat surrounding the survey site, comprising woodland and grassland is ideal for badger, which are considered likely to be in the area.
- 7.3.3 However, no evidence of badger (setts, tracks, latrines, snuffle holes) was found within the survey site, nor within 150m of the survey site.
- 7.3.4 The proposals are therefore unlikely to impact this species.
- 7.3.5 **However, given the high quality of the surrounding habitat for this species, there is potential for badger to cross the site upon occasion. For this reason, reasonable avoidance measures are proposed to minimise the risk of harm to badger during works.**

### 7.4 Water Vole

#### Data Search

- 7.4.1 Data from GMEU does not include any records of water vole (*Arvicola terrestris*) within 1km of the survey site.

#### Survey and Assessment

- 7.4.2 The stream which runs along the southeast boundary of the wider site (approximately 20m from the survey site boundary) is considered generally unfavourable for water-vole as it is densely shaded in the wooded area, and so it is not well-vegetated with grasses and rushes. There was very little water present in the stream at the time of survey and this is unlikely to provide suitable habitat for breeding water vole.
- 7.4.3 No evidence of water vole was found upon inspection of the stream.
- 7.4.4 **The proposals are considered unlikely to impact this species and no further survey work is considered necessary.**



- 7.4.5 **Precautionary mitigation to avoid accidental pollution or damage to the stream is recommended.**

## 7.5 Otter

### Data Search

- 7.5.1 Data from GMEU do not contain any records of otter (*Lutra lutra*) within 1km of the survey site.

### Survey and Assessment

- 7.5.2 The stream that runs along the boundary of the wider site, approximately 20m from the survey site, of the site has low suitability for otter as it is shallow and narrow. Although otter do often travel widely from a main, source river, and may travel along the stream, it is unlikely that they would do so with any regularity and unlikely that this species is present in any number within the vicinity of the site.



*The stream*

- 7.5.3 **The proposals are considered unlikely to impact this species and no further survey work is considered necessary.**

- 7.5.4 **Precautionary mitigation to avoid accidental pollution or damage to the stream is recommended.**

## 7.6 Brown Hare

### Data Search

- 7.6.1 Data from GMEU does not contain any records of hedgehog (*Erinaceus europaeus*) within 1km of the survey site.

### Survey and Assessment

- 7.6.2 The survey site, comprising a small area of improved grassland with rubble and access track does not provide ideal habitat for brown hare, which like larger areas of tussocky grassland that provides cover.
- 7.6.3 Although hare may well be present in the area, the likelihood that the survey site is important for this species is considered to be low. Rough grassland further afield is likely to be of more value.
- 7.6.4 **The proposals are considered very unlikely to have any negative impact upon this species and no further survey work for brown hare is considered necessary.**



## 7.7 Hedgehog

### Data Search

- 7.7.1 Data from GMEU does not contain any records of hedgehog (*Erinaceus europaeus*) within 1km of the survey site.

### Survey and Assessment

- 7.7.2 Hedgehog are a Species of Principal Importance under the NERC Act, 2006 (also known as UK Biodiversity Action Plan species).
- 7.7.3 The survey site, comprising improved grassland, and the adjacent habitats including grassland and woodland provide very good habitat for foraging and sheltering hedgehog.
- 7.7.4 Hedgehog are considered likely to be present in the area.
- 7.7.5 **Although the proposals are unlikely to have a significant negative impact upon populations of this species, precautionary measures to ensure the protection of hedgehog during works are proposed.**

## 7.8 Reptiles

### Data Search

- 7.8.1 The data from GMEU does not include any records of reptiles within 1km of the survey site.

### Survey and Assessment

- 7.8.2 The records for reptiles in the northwest are generally low. Reptiles are of very low distribution and found at low density even in ideal habitats such as rough grassland with scrub.
- 7.8.3 The habitat within the survey site, comprising improved grassland with rubble is considered to be good for reptiles; the grassland provides potential foraging habitat whilst the rubble and debris provide opportunity for cover and hibernacula.
- 7.8.4 The survey site is very unlikely to provide habitat for a high density of reptiles, but it is possible that these species are present in low numbers.
- 7.8.5 **The proposals will result in the loss of an area of improved grassland and rubble. This is unlikely to be of significance to the viability of reptile populations in the area, but avoidance mitigation to prevent harm to individual animals is recommended.**



## 7.9 Amphibians

### Great crested newt

#### Data Search

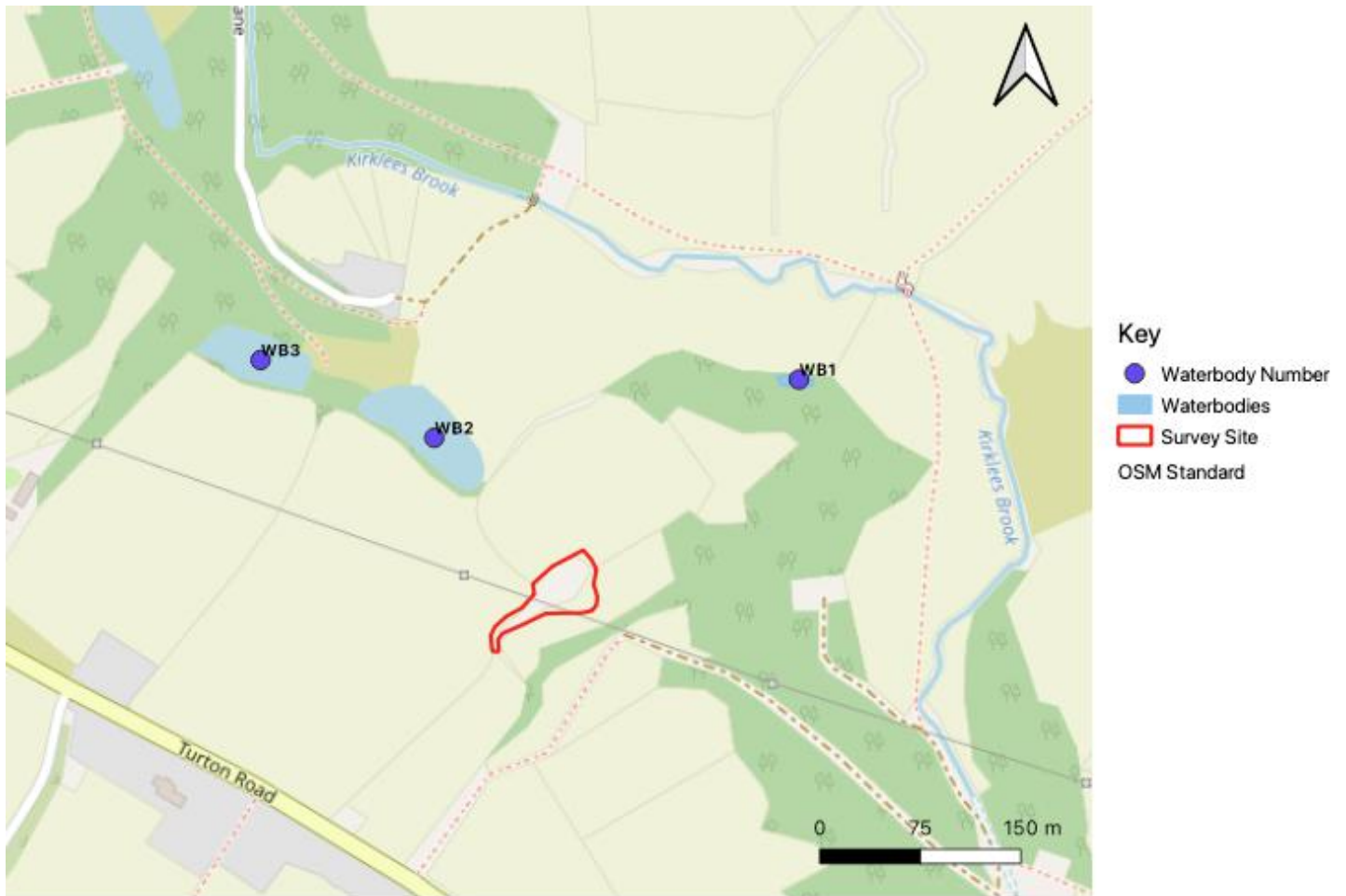
- 7.9.1 The data from GMEU does not include any records of great crested newt (*Triturus cristatus*) within 1km of the survey site.

#### Survey and Assessment

- 7.9.2 Great crested newt, which have the highest protection of all amphibians under UK and EU law, favour still water bodies, such as ponds with good vegetation. They breed in ponds, but spend much of the year terrestrially, within habitat such as rough grassland and woodland, which provides good foraging and hibernacula. Great crested newts are known to travel, usually, within a 250m radius of breeding ponds, but can travel up to 500m.
- 7.9.3 According to the relevant Ordnance Survey and aerial maps there are three waterbodies within 250m of the site:
- Waterbody 1 (WB1) 180m to the northeast of the survey site.
  - Waterbody 2 (WB2) 87m to the northwest of the survey site in Hawkshaw Brook SBI
  - Waterbody 3 (WB2) 217m to the northwest of the site.
- 7.9.4 Upon inspection waterbody 1 no longer holds water and is unsuitable for amphibians.
- 7.9.5 Waterbodies 2 and 3 are large and support fish and well as wildfowl including Canada geese and mallards. The presence of fish and wildfowl significantly reduce the likelihood of great crested newts as both these taxa would prey on the small amphibians.
- 7.9.6 The habitat on site is good for great crested newt as the grassland provides good foraging habitat and areas of disturbed ground and rubble provide good hibernacula.
- 7.9.7 However, given the lack of suitable waterbodies for this species within 250m, the likelihood of great crested newts is extremely low.
- 7.9.8 **The proposals are considered very unlikely to impact this species and no further survey work or mitigation is considered necessary.**



Figure 5: Showing the locations of waterbodies in relation to the survey site





## Common Toad

### Data Search

- 7.1.1 Data from GMEU include records of common toad (*Bufo bufo*) within 1k of the survey site.

### Survey and Assessment

- 7.1.2 Common toad are a Species of Principal Importance under the NERC Act, 2006 (also known as UK BAP species).
- 7.1.3 The grassland within the survey site and grassland and woodland within the locality, with large waterbodies, provide very good habitat for common toad. Common toad are a mobile species and will regularly travel long distances to reach breeding ponds. They may travel across the site regularly.
- 7.1.4 **The proposals for the site are not expected to impact upon populations of this species, but precautionary measures are proposed during works to avoid unnecessary harm to individual animals.**

## 7.2 Nesting Birds

### Data Search

- 7.2.1 Data from GMEU includes records of 4 bird species of conservation concern and listed on Schedule 41 of the NERC Act (2006) within 1km of the survey site; bullfinch (*Pyrrhula pyrrhula*), curlew (*Numenius arquata*), grasshopper warbler (*Locustella naevia*), house sparrow (*Passer domesticus*), lapwing (*Vanellus vanellus*) and tree pipit (*Anthus trivialis*).
- 7.2.2 Bullfinch, house sparrow and tree pipit may potentially be found within woodland, shrubs and scrub close to and within the survey site. Grasshopper warbler, a summer visitor like tree pipit is associated with rough grassland and may also be present in the locality, but is unlikely to be present within the survey site. Similarly, curlew and lapwing are associated with wider expanses of grassland.

### Survey and Assessment

- 7.2.3 Five bird species were recorded on site during the survey: Carrion crow (*Corvus corone*), robin (*Erithacus rubecula*), wood pigeon (*Columba palumbus*) and magpie (*Pica pica*).
- 7.2.4 Wood pigeon is on the amber list of Birds of Conservation Concern (BoCC).
- 7.2.5 Birds, including those of conservation concern may nest on site in the spring and summer months, both in vegetation and within holes and crevices in the building.
- 7.2.6 **Avoidance mitigation will be necessary to prevent harm and unnecessary disturbance to nesting birds during any future vegetation works and to minimise the risk of indirect harm to**



nesting birds during works as a result of noise, vibration or accidental damage of boundary vegetation.

- 7.2.7 The proposals provide the opportunity to enhance the site for nesting birds and recommendations for this have been made.

#### Barn owl

- 7.2.8 Upon inspection of the first floor void of the building it was evident that barn owl, a Schedule 1 species, have been roosting within first floor void, entering through the broken window. A small scaffold platform provides an ideal roosting space. Numerous pellets of a size and shape typical of barn owl were present, containing fur and bones of small mammals including field vole. Droppings were also evident.



*Barn owl pellets on the first floor*

- 7.2.9 No evidence of nesting was observed when the platform present was inspected, for example, few feathers were present, no fragments of shell, unhatched eggs, or deep layers of pellets.

- 7.2.10 Compensation measures to replace the roost site will be required, along with appropriate avoidance mitigation to prevent harm and unnecessary disturbance to barn owl during any works on site.



*Barn owl pellets on the platform*




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**\*Birds of Conservation Concern (BoCC):** These lists indicate the population status of birds in the UK, Channel Islands and the Isle of Man.

- BoCC Red list: Includes species globally threatened, a historical population decline in the UK, a severe 9at least 50% decline in the UK breeding population over the last 25 years or long-term period. A severe (at least 50%) contraction of the UK breeding range over the last 25 years or the longer term.
- Amber list: Includes species with unfavourable conservation status in Europe, a historical population decline, moderate (25-50%) decline in the UK breeding population over the last 25 years, moderate (25-50%) contraction in UK breeding or non-breeding range, rare breeders (1-300 breeding pairs in UK), rare non breeders, localised rare breeders or non-breeders, internationally important breeders or non-breeders.

## 7.3 Invertebrates

### Data Search

- 7.3.1 Data from GMEU includes records of one invertebrate species within 1km, a moth listed (unnamed) on Schedule 41 of the NERC Act (2006).
- 7.3.2 The lack of records of any other invertebrate species is likely a reflection of the lack of survey and recording than the absence of species.

### Survey and Assessment

- 7.3.3 The majority of the survey site, comprising disturbed improved grassland and rubble is composed of common and widespread plant species and will support common and widespread invertebrates. No invertebrates that are rare and/or protected are expected on site.
- 7.3.4 The hedgerows and trees around the boundaries are also likely to support common and widespread invertebrates.
- 7.3.5 **The loss of a small area of grassland is considered unlikely to be of significance to populations of common and widespread invertebrates in the locality.**
- 7.3.6 **No further survey or mitigation is recommended.**

## 7.4 Other protected species and habitats.

- 7.4.1 Other protected species, including red squirrel (*Sciurus vulgaris*) and white-clawed crayfish (*Austropotamobius pallipes*) are not expected on or near the site as the area is outside the distribution range of red squirrel and there is no suitable habitat for white-clawed crayfish.



## 8 Conclusion

- 8.0.1 The land at Burnt House Farm supports improved grassland and shrubs and lies within close proximity to nearby Hawkshaw Brook SBI and Wood at Bottoms Hill SBI.
- 8.0.2 Measures to minimise the risk of accidental damage to the Wood at Bottoms Hill SBIs are proposed. Avoidance mitigation measures will also be required to protect the stream approximately 20m to the southeast of the survey site, but within the curtilage of the wider site.
- 8.0.3 The loss of the improved grassland is not considered likely to have a significant negative impact upon local flora. However, control of the Himalayan balsam on site is necessary and biosecurity measures must be employed during works to prevent spread.
- 8.0.4 Barn owls roost within the building on site and measures are necessary to avoid disturbance of the species and to compensate for the loss of a roost site.
- 8.0.5 Measures are proposed to minimise the impact on lighting and noise on bats. Precautionary mitigation is also required for nesting birds, badger, reptiles, hedgehog and common toad.
- 8.0.6 The proposals provide the opportunity to enhance the site for nesting birds, bats and other wildlife and recommendations for this have been made.

## 9 Recommendations

### 9.1 Wood at Bottoms Hill SBI

- 9.1.1 The wood at Bottoms Hill SBI lies just 50m to the northeast of the survey site and borders the edge of the land within the clients ownership. The land slopes steeply into the woodland.
- 9.1.2 Measures must be put in place to prevent accidental damage of the woodland during works:
  - Heras fencing must be installed around the work site boundary.
  - Machinery must not be stored or left running within 20m of the woodland boundary.
  - Precautions to prevent accidental pollution including run off must be undertaken, including retention of plant nappies on site for spills.



## 9.2 The Stream

9.1.1 The stream that runs southwest to northeast along the wider site, but 20m outside the propose development area must be protected during works.

- Heras fencing must be installed around the work site boundary.
- Machinery must not be stored or left running within 10m of the stream.
- Precautions to prevent accidental pollution including run off must be undertaken, including retention of plant nappies on site for spills.

## 9.2 Bats

8.0.1 The survey work undertaken indicates the absence of a bat roost within the building and it is considered therefore that the proposals to refurbish and extend the structure are unlikely to have a negative impact upon individual bats, their roosts, or on bat populations in the locality.

8.0.2 However, bats forage on site and in order to minimise the impact of any lighting on commuting and foraging bats, the following is recommended:

- Lighting during the construction and operational phase will be directed to avoid the hedgerows.
- Baffles will be used to avoid spillage of light into the sky and into areas toward the site boundaries.
- Lighting installed during the operational phase will be High or Low Pressure Sodium or LED. These forms of lighting have a lower UV output, which reduces the attraction of insects. Outside lighting should be on a timer to minimise light pollution.

## 9.3 Badger

9.0.1 Badger are likely to be present within the locality and must be considered during works.

9.0.2 Prior to the start of works a pre-check of the site must be undertaken by a suitably qualified ecologist to check for the presence of badger setts.

9.0.3 During works any large holes or ditches created must be covered overnight to prevent mammals falling into them. If this is not possible, then a plank or similar should be left in the hole to allow badgers and other wildlife to climb out.



## 9.4 Reptiles and Amphibians

9.0.4 In order to reduce the risk of harm to individual reptiles and amphibians during works, the following is recommended:

- No machinery or materials are stored on hard standing where possible.
- Materials on site are stored on pallets to prevent reptiles and amphibians hiding in them.
- Vegetation should be strimmed to approximately 15cm prior to clearance or works on the site and left for at least two nights. This will encourage any wildlife to move away prior to works. The vegetation should then be maintained at this length during works.
- Care must be taken when clearing vegetation and debris. Careful watch must be taken whilst clearing topsoil. If any wildlife is found, for example common toad, they can be moved to a safe place away from the area of works where there is vegetative cover.

## 9.5 Hedgehog

9.5.1 There is potential for hedgehog on site. In order to reduce the risk of harm to these species during works, the following is recommended:

- Any works to remove vegetation is undertaken by hand with care, whilst checking for wildlife. This is especially important around the site boundaries and where vegetation is long.
- If hedgehog are found during works, they can be picked up and moved to a safe place away from the area of works where there is vegetative cover.

## 9.6 Nesting Birds

9.6.1 Birds may nest in the trees and hedgerow within the site and adjacent to site in the spring and summer months. In order to prevent disturbance and/or harm to nesting birds, if vegetation works are necessary, it is recommended that:

- Initial and heavy construction works are timed to avoid the bird breeding season (breeding season: March – September).
- If heavy machinery is required on site in the bird breeding season, this must be stored as far away from boundary trees and shrubs as possible, to minimise the risk of disturbance.
- If this is not possible, a suitably qualified ecologist should check the vegetation on site to



determine the presence / absence of nesting birds prior to the start of any works.

- If birds are found actively nesting on site, the nest and surrounding vegetation (5m) must be left undisturbed until the young have fledged.

### Barn Owl

9.6.2 Barn owl have evidentially been utilising the loft void of the structure as a roost, but there is no evidence that they are breeding in the void.

9.6.3 For this reason, the conversion of the building and the loss of the roost is unlikely to have any negative impact upon the conservation status of barn owl in the area.

9.6.4 However, compensatory mitigation, to replace the roost site is recommended, along with appropriate avoidance measures, to prevent harm to barn owl during the works.

9.6.5 In order to prevent harm to barn owl during works it is recommended that:

- A pre-check for barn owl is undertaken prior to the start of works on site. If barn owl are present, works must be delayed until this species has left the site. The pre-check can take place a couple of weeks prior to work if the building can be secured to prevent re-entry by barn owl, to minimise the risk of delay.

9.6.6 In order to maintain the ecological functionality of the site for barn owl it is proposed that:

- Three barn owl boxes is installed on a pole on the site boundary. The box can be bought or constructed by hand. They will provide a sheltered cavity with a flat nesting site, proven to be effective for barn owl.

9.6.7 The exact location of the boxes will be decided on-site in the presence of the ecologist.

### Box Specification

9.6.8 The boxes should be erected on poles within a minimum diameter of 150mm (for example telegraph poles) at a height of approximately 4.5m and NOT less than 4m above ground.

9.6.9 The nest boxes must have a floor area of at least 600mm x 600mm. The entrance hole must be 100mm x 130mm and the depth of the internal floor to the entrance hole not less than 540mm. The external platform should be at least 0.125m<sup>2</sup>.

9.6.10 Wood used should be softwood ply and FSC approved. The top of the box should be covered with heavy duty roofing felt and all joints of the roof and box sealed to prevent water ingress.



Figure 6: An example of a pole-mounted barn owl box.



From The Barn Owl Trust

## 9.7 Himalayan Balsam

9.7.1 Himalayan balsam is present on site. Himalayan balsam spreads by seed (each plant releases approximately 3000 seeds). Although the plant grows annually, some of the seeds from previous years will lay dormant in the soil.

9.7.2 In order to ensure the prevention of accidental spread of these species the following must be considered and undertaken on site:

- Due to the distribution of the plant, all soil within the survey site must either be treated as contaminated waste or retained on site.
- Any soil removed from site must be treated as contaminated waste.
- All machinery and operatives working on site must use bio-control to prevent the spread of the seeds of this species; they must wash down machinery and boots/clothing with water on site, prior to leaving site.
- If the plant is managed on-site (by pulling up or cutting prior to flowering) for the next 2-3 years, this should eradicate it. The Himalayan balsam is removed by hand by pulling up the individual plants, or cutting the plants **prior to** their setting seed. This species sets seed following flowering in July.



- Use of chemical control should be avoided to prevent harm to the environment.
- Operatives on site should be informed of the presence of this species and the Toolbox Talk (Appendix B) delivered to all persons working on site.

9.7.3 Management of the Himalayan balsam on site should form part of the site management plan to assist with long-term eradication and prevention of spread of the species.

## 9.8 Enhancement for Biodiversity

9.8.1 The proposals provide the opportunity to retain and enhance the existing biodiversity.

### Native species planting

9.8.2 It is proposed that native species are used for planting plans, for example planting of native species hedgerow around part or all of the wider site boundary with the exception of the stream boundary. Species that could be used include guelder rose (*Viburnum opulus*), rowan (*Prunus aucuparia*), hazel (*Corylus avellana*), holly (*Ilex aquifolium*), dog rose (*Rosa canina*) and honeysuckle (*Lonicera periclymenum*).

### Breeding Birds and Roosting Bats

9.8.3 In addition to maintenance of existing habitat, additional enhancement for nesting birds and roosting bats can be achieved through provision of bird nest boxes and bat boxes.

### Provision of Bat Boxes

9.8.4 It is recommended that:

- At least two crevice-roost sites for roosting bats are integrated into the newly converted building.
- These could be in the form of bat roost slates, to allow bats to enter a space in the roof, between the slates and the lining. See Appendix C. However, it is imperative that bitumen roofing felt (not breathable roofing membrane) is used beneath these spaces as bats get caught in the fibre of breathable roofing membrane.
- Alternatively, bat boxes could be attached externally to the building, or integrated into the stonework – see the examples below. There are many alternatives at NHBS.com.

### Provision of Bird Boxes

9.8.5 In addition to installation of barn owl boxes, it is recommended that:

- At least three bird boxes are installed on trees within the wider site, or on the building. Boxes should be a mix of 28mm holes, 32mm holes and open nest boxes.

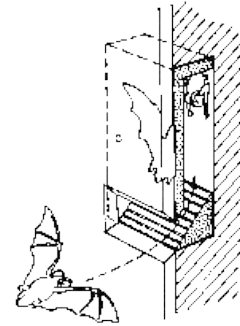


For example, the Vivara Pro Seville Woodstone Nest Box would provide suitable nesting habitat for passerine birds. The 2H Schwegler Robin Box is suitable for open-box nesting species such as robin, wren and spotted flycatcher. The boxes are made of woodcrete and are very durable so do not require regular replacement.

## Bat and Bird Boxes

### *1FE Schwegler bat access panel*

This box is durable and does not require cleaning.



### *Beaumaris Woodstone Bat Box*

This box is durable and does not require cleaning.

All bat boxes are available from NHBS Ltd

### *Vivara Pro Seville Woodstone Nest Box*



### *2H Schwegler Robin Box*



### Creation of Log Piles

- 9.8.6 Log piles provide habitat for a range of wildlife, including invertebrates, which favour dead wood, small mammals, amphibians and reptiles, which can use the log piles for hibernacula and to forage.
- 9.8.7 Long piles can be created around the wider site boundary to add structural diversity and provide dead wood habitat for invertebrates.
- 9.8.8 Log piles will be created by embedding base logs into the ground by approx. 5cm and piling length-ways logs above.
- 9.8.9 Logs can be tied together with wire to prevent removal or damage until established.
- 9.8.10 Lower logs can be covered in soil and soil sprinkled between logs to help them embed and allow vegetation to establish quickly.
- 9.8.11 Vegetation should be allowed to establish naturally. Ideally logs should be sourced locally.



*Established log-pile*



## 10 References

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## • APPENDIX A: Wildlife Legislation and Planning Policy

### 1.0 UK AND EU LEGISLATION

#### KEY LEGISLATION

- In the UK, the following legislation relates to wildlife and habitats:
- Wildlife and Countryside Act 1981 (as amended)
  - The Countryside and Rights of Way Act (CROW), 2000
  - The Badger Act 1992
  - The Natural Environment and Rural Communities Act (NERC, 2006)
  - Conservation of Habitats and Species Regulations 2017 (as amended).
  - The Hedgerow Regulations (1997)

#### 1.1 WILDLIFE AND COUNTRYSIDE ACT 1981 (AS AMENDED)

- 1.1.1 The Wildlife and Countryside Act 1981 consolidates and amends existing national legislation to implement the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) and Council Directive 79/409/EEC on the conservation of wild birds (Birds Directive) in Great Britain (NB Council Directive 79/409/EEC has now been replaced by Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds (codified version)).

##### BIRDS

- 1.1.2 The Act makes it an offence (with exception to species listed in Schedule 2) to intentionally:

- kill, injure, or take any wild bird,
- take, damage or destroy the nest of any wild bird while that nest is in use or being built (also [take, damage or destroy the nest of a wild bird included in Schedule ZA1] under the Natural Environment and Rural Communities Act 2006), or
- take or destroy an egg of any wild bird.

##### Schedule 1 birds

- 1.1.3 Special penalties are available for offences related to birds listed on Schedule 1, for which there are additional offences of disturbing these birds at their nests, or their dependent young, for example Barn Owl and Red Kite.

##### Areas of Special Protection for Birds

- 1.1.4 The Secretary of State may also designate Areas of Special Protection (subject to exceptions) to provide further protection to birds.

##### Other offences

- 1.1.5 The Act also prohibits certain methods of killing, injuring, or taking birds, restricts the sale and possession of captive bred birds, and sets standards for keeping birds in captivity.

#### OTHER ANIMALS

- 1.1.6 The Act makes it an offence (subject to exceptions) to intentionally ([or recklessly] - only under the Nature Conservation (Scotland) Act 2004) kill, injure or take any wild animal listed on Schedule 5, and prohibits interference with places used for shelter or protection, or intentionally disturbing animals occupying such places. The Act also prohibits certain methods of killing, injuring, or taking wild animals.

- 1.1.7 For animals listed in Schedule 5 of the act, it is an offence under:

- Section 9(1) to kill, injure or take the animal by any method
- Section 9(2) to possess or control a dead or live animal (or part or derivative).
- Section 9(4)(a) to cause damage to, destruction of, obstruction of access to any structure or place used by a scheduled animal for shelter or protection.
- Section 9(4)(b) to disturb any animal on the schedule occupying such as structure or place.
- Section 9(4)(c) to obstruct access to any structure or place which any such animal uses for shelter or protection.
- Section 9(5)(a) to sell, offer or expose for sale, possess or transport for the purpose of sale, any live or dead wild animal, or part or derivative of an animal included in Schedule 5.
- Section 9(5)(b) to publish or cause to be published any advertisement likely to be understood as conveying that he buys or sells, or intends to buy or sell, any of those things.



Species that receive FULL PROTECTION under the act:

- All UK bats
- Otter
- Water vole
- Dormouse
- Red squirrel
- Wildcat
- Reptiles – Smooth snake and sand lizard
- Amphibians – Great crested newt, Natterjack toad, Pool frog
- Invertebrates – some including, but not restricted to Swallowtail butterfly, Marsh fritillary butterfly, Large copper butterfly, Heath fritillary butterfly, Large blue butterfly, Barberry carpet moth, Rainbow leaf beetle, Violet click beetle, Medicinal leech.

Species that protected from intentional KILLING, INJURY and SALE only:

- Reptiles – widespread species; Common lizard, Slow-worm, Grass snake and Adder.

Species protected from TAKING and SALE only:

- Atlantic stream (white-clawed) crayfish

Species protected from SALE only:

- Common toad
- Common frog
- Palmate newt
- Smooth newt
- Invertebrates – Some including 18 butterflies such as Chalk hill blue butterfly, Adonis blue butterfly, Large tortoiseshell butterfly.

Vascular Plants, Bryophytes, Lichens and Fungi (PLANTS)

1.1.8 For any vascular plant, bryophyte, lichen or fungi listed in Schedule 8 of the Act, it makes it an offence under:

- Section 13(1)(a) to Intentionally pick, uproot or destroy plants in Schedule 8.
- Section 13(1)(b) to undertake unauthorised intentional uprooting of any wild plant not included in Schedule 8.
- Section 13(2)(a) to sell, offer for sale, possess or transport for the purpose of sale any plant (live or dead, part or derivatives) on Schedule 8.
- Section 13(2)(b) to publish or causes to be published any advertisement likely to be understood as conveying that he buys or sells, or intends to buy or sell, any of those things.

1.1.9 Species with protection under Schedule 8 include, but are not restricted to:

1.1.10 Bluebell, Wood calamint, Rock cinquefoil, Early spider orchid, Spring gentian, Stinking goosefoot, Small hare's-ear, Alpine copper moss (*Mielichhoferia mielichoferi*), Goblin lights lichen (*Catolechia wahlenbergii*).

Non-Native Species

1.1.11 Species listed in Schedule 9 of the Act are non-native species, which the establishment of in the wild may be detrimental to native wildlife. Species listed in Schedule 9 include Japanese knotweed, Himalayan Balsam and Giant hogweed.

1.1.12 For species listed in Schedule 9 of the act it is an offence:

- Under Section 14(1) if any person releases or allows to escape into the wild any animal which—

(a) is of a kind which is not ordinarily resident in and is not a regular visitor to Great Britain in a wild state; or

(b) is included in Part I of Schedule 9,

- Under Section 14ZA (1) to sell, offers or exposes for sale, or has in his possession or transports for the purposes of sale an animal or plant to which this section 14 applies, or anything from which such an animal or plant can be reproduced or propagated.
- Under Section 14ZA (2) to publish or cause to be published any advertisement likely to be understood as conveying that he buys or sells, or intends to buy or sell an animal or plant to which this section applies, or anything from which such an animal or plant can be reproduced or propagated.



1.1.13 Section 14ZB gives the Secretary of State the power to issue codes of practice, or approve a code of practice issued by others, relating to non-native animal and plant species. It is intended that the codes will be used to provide recommendations, advice and information on how to stop the damage caused by non-native animals and plants.

## 1.2 SITES OF SPECIAL SCIENTIFIC INTEREST (SSSIs) AND OTHER PROTECTED AREAS

1.2.1 Sections 28 to 33 of Part 2 of the Wildlife and Countryside Act detail the law regarding SSSIs. Sections 34 to 53 deal with other protected areas within Great Britain.

- The Act provides for the notification and confirmation of Sites of Special Scientific Interest (SSSIs) – these sites are identified for their flora, fauna, geological or physiographical features – by the country conservation bodies in England (Natural England) and Wales (Natural Resources Wales).
- The Act also contains measures for the protection and management of SSSIs.
- The Act provides for the making of Limestone Pavement Orders, which prohibit the disturbance and removal of limestone from such designated areas
- The Act provides means for the designation of Marine Nature Reserves.
- The Act prohibits the undertaking of agricultural or forestry operations on land within National Parks which has been either moor or heath for 20 years, without consent from the relevant planning authority.

## 1.3 THE COUNTRYSIDE AND RIGHTS OF WAY (CROW) ACT 2000

1.3.1 The Countryside and Rights of Way Act 2000 strengthened the Wildlife and Countryside Act 1981 in the following ways:

### Schedule 12

1.3.2 Schedule 12 of the Act amends the species provisions of the Wildlife and Countryside Act 1981 and strengthens the legal protection of species by:

- Providing provisions to make certain offences 'arrestable'
- Changing the term 'intentional' to 'reckless' with regard to disturbance offences, such that ignorance of the law is no longer a defence.
- Conferring greater powers to police and wildlife inspectors for entering premises and obtaining wildlife tissue samples for DNA analysis, and;
- Enabling heavier penalties on conviction of wildlife offences.

### Schedule 9

1.3.3 Schedule 9 of the Act amends SSSI provisions of the Wildlife and Countryside Act 1981, including provision to change SSSIs and providing increased powers for their protection and management, placement of a duty on public bodies to further the conservation and enhancement of SSSIs and increases in penalties on convictions where the provisions are breached.

## 1.4 THE BADGER ACT 1992

1.4.1 Under the Badger Act 1992, it is an offence to:

- Section 1 – Take, injure or kill a badger, or attempt to do so
- Section 2 – Cruelly ill-treat a badger, inclusive of digging for a badger
- Section 3 – Interfere with a badger sett. A person is guilty of an offence if, except as permitted by or under this Act, he interferes with a badger sett by doing any of the following things—
  - (a)damaging a badger sett or any part of it;
  - (b)destroying a badger sett;
  - (c)obstructing access to, or any entrance of, a badger sett;
  - (d)causing a dog to enter a badger sett; or
  - (e)disturbing a badger when it is occupying a badger sett,
- Section 4 – To sell or possess a live badger.
- Section 5 – To mark or ring a badger unless under licence to do so.

## 1.5 THE HEDGEROWS REGULATIONS, 1997



1.5.1 The Hedgerows Regulations, 1997 ensure the protection from damage or destruction of 'important' hedgerows. Criteria within the regulations determine the importance.

#### 1.6 THE CONSERVATION OF HABITATS AND SPECIES REGULATIONS 2017 (as amended)

1.6.1 In addition to the Wildlife and Countryside Act 1984, certain species have additional protection under European Law.

1.6.2 The Conservation of Habitats and Species Regulations 2017 (as amended) (the Habitats Regs) consolidate the amendments made to the Conservation (Natural Habitats, &c.) Regulations 1994 in England and Wales. The Regulations transpose the Council Directive 92/43/EEC on the conservation of natural habitats and wild fauna and flora (EC Habitats Directive) into UK law.

1.6.3 The Habitats Regulations 2010 provide protection for 'European Protected Species' and protection and designation for 'European Protected Sites'.

##### Schedule 2: European Protected Species of Animals

- All UK bats
- Dormice
- Otter
- Large blue butterfly
- Wild cat
- Sand lizard
- Smooth snake
- Great crested newt
- Natterjack toad
- Fishers estuarine moth
- Lesser whirlpool ram's horn snail
- Sturgeon
- Marine turtles
- All dolphins, porpoises and whales.

1.6.4 For species listed in Schedule 2, Under Part 3 Regulation 41(1) it is an offence to

- (a) deliberately capture, injure or kill any wild animal of a European protected species,
- (b) deliberately disturb a wild animal of any such species,
- (c) deliberately take or destroy the eggs of such an animal, or
- (d) damage or destroy a breeding site or resting place of such an animal,

1.6.5 Under Part 3 Regulation 41 (2) For the purposes of paragraph (1)(b), 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.

Under Part 3 Regulation 41.(3) It is an offence for any person—

- (a) to be in possession of, or to control,
- (b) to transport,
- (c) to sell or exchange, or
- (d) to offer for sale or exchange any animal in Schedule 2.

##### Schedule 5: European Protected Species of Plants

- Shore dock
- Killarney Fern
- Early Gentian
- Lady's-slipper
- Creeping marshwort
- Slender naiad
- Fen orchid
- Floating-leaved water plantain
- Yellow-marsh saxifrage.

1.6.6 For species listed in Schedule 2, Under Part 3 Regulation 45(1) It is an offence deliberately to pick, collect, cut, uproot or destroy a wild plant of a European protected species.

1.6.7 Under Part 3 Regulation 45(1) (2) It is an offence for any person

- (a) to be in possession of, or to control,



- (b) to transport,
- (c) to sell or exchange, or
- (d) to offer for sale or exchange any plant in Schedule 5

#### European Designated Sites

1.6.8 These include:

- Special Protection Areas – SPAs are classified in accordance with Article 4 of the EC Birds Directive for rare and vulnerable birds (as listed on Annex I of the Directive), and for regularly occurring migratory species
- Special Areas of Conservation – SACs are classified in accordance with Article 3 of the EC Habitats Directive. SACs are designated to establish a European network of important high-quality conservation sites that will make a significant contribution to conserving the 189 habitat types and 788 species identified in Annexes I and II of the Directive (as amended).

1.6.9 Natura 2000 is the name of the European Union-wide network of nature conservation sites established under the EC Habitats and Birds Directives. This network will comprise Special Areas of Conservation (SACs) and Special Protection Areas (SPAs). Marine Natura 2000 sites contribute to our ecologically coherent network of marine protected areas.

### 1.7 NATURAL ENVIRONMENT AND RURAL COMMUNITIES (NERC) ACT 2006

#### Planning Authorities: A Duty to Conserve Biodiversity

1.7.1 Under this legislation, planning authorities are obliged to make sure that they have all the information on the presence of protected species on site *before* they make a decision on the planning permission.

1.7.2 Part 2, Section 40 confers on the planning authorities a duty to conserve biodiversity and states:

*"Every public authority must, in exercising its functions, have regard, so far as is consistent with the proper exercise of those functions, to the purpose of biodiversity"*

#### Species of Principal Importance

1.7.3 Part 3, Section 41 requires the Secretary of State to "publish a list of the living organisms and types of habitat which in the Secretary of State's opinion are of **principal importance** for the purpose of conserving biodiversity".

1.7.4 This requirement lead to production of a list of species and habitats of Principal Importance, which should be a material consideration during the planning process.

### 1.8 DESIGNATED SITES OF CONSERVATION INTEREST

1.8.1 Sites of conservation interest can be designated on a statutory or non-statutory basis.

#### Statutory Sites

1.8.2 Statutory sites can be designated under UK legislation (the Wildlife and Countryside Act 1981), European Law (the Habitats Regulations 2010) or International law (Ramsar Convention).

1.8.3 The designated sites are referred to under the relevant legislation above.

1.8.4 UK designated sites include Sites of Special Scientific Interest (SSSIs).

1.8.5 European designated sites include Special Areas of Conservation (SACs) and Special Protection Areas (SPAs).

1.8.6 Ramsar sites are wetlands of international importance designated under the Convention on Wetlands of International Importance, agreed in Ramsar, Iran, in 1971.

1.8.7 Local Nature Reserves (LNRs): Under the National Parks and Access to the Countryside Act 1949 LNRs may be declared by local authorities after consultation with the relevant statutory nature conservation agency. LNRs are declared and managed for nature conservation, and provide opportunities for research and education, or simply enjoying and having contact with nature.

1.8.8 National Nature Reserves (NNRs): are declared by the statutory country conservation agencies under the National Parks and Access to the Countryside Act 1949 and the Wildlife and Countryside Act 1981.

#### Non-Statutory Sites

1.8.9 Local authorities for any given area may designate certain areas as being of local conservation interest. The criteria for inclusion, and the level of protection provided, if any, may vary between areas. Most individual counties have a similar scheme, although they do vary.



- 1.8.10 These sites, which may be given various titles such as 'Listed Wildlife Sites' (LWS), 'Local Nature Conservation Sites' (LNCS), 'Sites of Importance for Nature Conservation' (SINCs), 'Biological Heritage Sites' (BHS) or 'Sites of Nature Conservation Importance' (SNCIs), together with statutory designations, are defined in local and structure plans under the Town and Country Planning system and are a material consideration when planning applications are being determined.

## 2.0 Plans and Policies

In the UK, the following plans and policies relate to wildlife and habitats:

- o National Planning Policy Framework (NPPF, 2021)
- o The Natural Environment White Paper 'The Natural Choice: Securing the Value of Nature'
- o Biodiversity – The UK Action Plan (1994, and subsequent revisions)
- o Local Biodiversity Action Plans where applicable
- o Neighbourhood plans where applicable

### NATIONAL PLANNING POLICY FRAMEWORK

- 2.1.1 In March 2012 the Government introduced the National Planning Policy Framework (NPPF). This was revised in 2021

#### Chapter 15: Conserving and Enhancing the Natural Environment

Chapter 15, Para 174 of NPPF states: "The planning system should contribute to and enhance the natural and local environment by:

- b) **protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils....**
- e) **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 175 states: "Plans should: distinguish between the hierarchy of international, national and locally designated sites; allocate land with the least environmental or amenity value, where consistent with other policies in this Framework; take a strategic approach to maintaining and enhancing networks of habitats and green infrastructure; and plan for the enhancement of natural capital at a catchment or landscape scale across local authority boundaries."

Para 179 identifies that plans should do the following to protect and enhance biodiversity and geodiversity:

- c) **"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**
- d) **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."**

Para 180 states that "when determining planning applications, local authorities should apply the following principles:

- b) **if significant harm to biodiversity from a development cannot be avoided...,adequately mitigated, or, as a last resort compensated for, then planning permission should be refused"**
- c) **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;**
- d) **Development result in the loss of deterioration of irreplaceable habitats (such as ancient woodland or ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensatory strategy exists; and**
- e) **Development whos 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.**

Para 182 states "the presumption in favour of sustainable development does not apply where development requiring appropriate assessment because of its potential impact on a habitats site is being planned or determined."

## 2.2 ODPM CIRCULAR 06/2005: BIODIVERSITY AND GEOLOGICAL CONSERVATION

- 2.2.1 This document, to be read in conjunction with NPPF provides administrative guidance on the application of the law relating to planning and nature conservation as it applies in England. It makes it clear that it is the intention of the government that local authorities and developers consider protected species at the earliest possible stage in the planning process. Any planning application that is likely to



affect protected species should come with details of the surveys which have been undertaken and should include, if necessary, recommendations for mitigation. Applications which do not include sufficient data should be rejected.

## 2.3 The Natural Environment White paper

- 2.3.1 The Natural Environment White Paper 'The Natural Choice: Securing the Value of Nature' states that 'We want to create a resilient and coherent ecological network at national and local levels across England... To make this happen the government will put in place a clear institutional framework to support nature restoration. This means: establishing Local Nature Partnerships... Creating new Nature Improvement Areas (NIAs) and strengthening support through the planning system.'

### Biodiversity Offsetting

- 2.3.2 Biodiversity offsetting is described in the Natural Environment White Paper as 'conservation activities designed to deliver biodiversity benefits in compensation for losses in a measurable way. Good developments incorporate biodiversity considerations in their design but are still likely to result in some biodiversity loss. One way to compensate for this loss is by offsetting: the developer secures compensatory habitats elsewhere.'
- 2.3.3 The level of biodiversity offsetting required could be determined by means of assessments undertaken in accordance with the Department for Environment, Food and Rural Affairs (DEFRA) metric contained in Biodiversity Offsetting Pilots published in March 2012 as applied in the Defra offsetting pilot projects. Biodiversity offsetting could be delivered by developers in partnership with various partners including conservation organisations, local landowners and the borough council.

## 2.4 Biodiversity Action Plan (Local or UK)

### UK Biodiversity Action Plan

- 2.4.1 Biodiversity: The UK Action Plan outlines how the UK plans to address biodiversity conservation in response to the Rio Convention on Biological Diversity (1992). In 2004 a UK Biodiversity Steering Group was formed and discussions resulted in the publication of 'Biodiversity: the UK Steering Group Report – meeting the Rio challenge', which established a framework and criteria for identifying species and habitats of conservation concern. From this list, action plans for 391 species and 45 broad habitat types were prepared. In 2007, the UK List of Priority Species and Habitats was reviewed and the revised list identifies 1149 species and 65 habitats requiring conservation action.
- 2.4.2 These species are now listed in Section 41 of the NERC Act, 2006 and referred to as Habitats and Species of Principal Importance (HPI or SPI).
- 2.4.3 Outcome 3 of the Government's Biodiversity 2020 strategy (DEFRA, 2011) contains an ambition to ensure that "By 2020, we will see an overall improvement in the status of our wildlife and will have prevented further human-induced extinctions of known threatened species". Protecting and enhancing England's Species and Habitats of Principal Importance is key to delivering this outcome.

### Local Biodiversity Action Plans

- 2.4.4 Local Biodiversity Action Plans (LBAPs) are a means for delivering UK Biodiversity Action Plan targets at a local level. LBAPs were launched in 1997 by a partnership of conservation groups, government agencies and local authorities. They set out a framework for nature conservation in the specified area. This framework includes priority species and habitats and sets targets to maintain and enhance their conservation status.

## 2.5 Other Species Lists of Species of Conservation Concern

- 2.5.1 Species lists of Species of Conservation Concern also considered within this assessment are as follows:



- Birds of Conservation Concern: Based on an assessment of the conservation status of British birds. Following an assessment of data on population and trends against established criteria, there are red, amber and green lists of BoCC. The latest review was BOCC 4 (Eaton et al, 2015)

Red Data Book Species: In 1999 the Species Status Assessment project (JNCC) assigned conservation status to the UK flora and fauna using the internationally approved IUCN Red Data Book criteria and categories. The reviews were published in a series of data sheets and assigned a conservation status to each species.



## APPENDIX B

# Himalayan Balsam Toolbox Talk

Himalayan balsam is listed on the Schedule 9 of the Wildlife and Countryside Act, 1981 (as amended) making it an offence to spread it, or to cause it to grow in the wild.



## About (Ecology)

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Himalayan balsam (*Impatiens grandiflora*) is non-native plant now regularly seen along watercourses across the UK. It often forms continuous stands along streams and rivers. Due to its rapid growth, it shades out most of our native species, resulting in damage to natural habitats.

Himalayan balsam is pretty, and produces big, pink-purple flowers. Each plant produces about 2,500 seeds, which fall to the ground.

The soil within at least 7m of a stand of this plant is likely to contain seeds.



## Where you might find it

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Widespread throughout the UK, this plant is most commonly found along waterways (streams and rivers) and in damp areas, such as wet woodlands, marshes and mires.

## Identification

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Individual plants reach 2m in height, have translucent fleshy stems, pink-purple slipper-shaped flowers and large oval pointed leaves with obvious teeth around their edges. The midrib of the leaves can be tinged with red, which can help with identification early in the growing season.



*Showing the pink flowers and seed pods of Himalayan balsam*

The plant produces seed pods in late-summer that explode when touched, releasing 100s of seeds.



## Biosecurity

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If working in an area supporting Himalayan balsam, you should either avoid disturbing it and create a 7m buffer around the stand, or employ appropriate methods of treatment and biosecurity to prevent spread off site. This will include washing down equipment, machinery and clothing prior to leaving the site in case the seeds are transferred.

Any soil that may be contaminated by Himalayan balsam seeds must be treated as contaminated waste.



## • APPENDIX C: Bat Access Slate

