

# Preliminary Ecological Appraisal

Endon Riding School, Staffordshire

July 2013

# Notice to readers

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# Non-technical summary

Absolute Ecology was commissioned to undertake a Preliminary Ecological Appraisal of land at Endon Riding School, Stanley Moss Lane, Endon, Stoke-on-Trent, ST9 9LR. The Preliminary Ecological Appraisal was undertaken on 17<sup>th</sup> July 2013 by an experienced and licensed ecologist who is a full member of the Chartered Institute of Ecology & Environmental Management (CIEEM).

The effect of any development of the site has been considered and the key constraints identified. It has been concluded that further surveys are necessary in order to assess the full impact on certain species and for the key ecological constraints to be further identified or discounted.

The site includes stable buildings, two dwellings with gardens, and corrugated shelters used for storage, with an attached equine building. There are improved grassland fields which are currently grazed by horses and grassland margins with a short section of species-poor gappy hedgerow and conifer hedgerow. The fields lie on a slope down to a stream just beyond the northern boundary. A hedgerow and mature treeline forms the western boundary, with areas of dense young trees, scrub and Indian balsam. Residential gardens with fences and hedgerows form the south and east boundaries.

The small and large buildings, i.e. the equine building and the corrugated sheet buildings, have low or negligible potential for roosting bats and do not require any further surveys. The two dwellings buildings were not inspected internally due to a lack of access. The two houses are potentially suitable for roosting bats, thus further bat surveys are recommended and should include building inspections and dusk emergence and dawn surveys during the peak breeding season (May to August inclusive). These surveys should include activity transect surveys of the site to check for any important commuting routes or foraging areas.

Three mature trees showed potential to support bats thus further bat surveys are recommended and should include building inspections and dusk emergence and dawn surveys during the peak breeding season (May to August inclusive).

The site included habitat likely to be used by foraging and commuting bats particular along the stream. At least one season of bat activity transects would be necessary to identify any important commuting routes or foraging areas. Monthly transects between April and October should be undertaken in advance of any planning application.

The stream is potentially suitable for use by otters and water voles, although no evidence of these species was confirmed. If the stream corridor or grassland adjacent to the stream is likely to be affected by the development (including indirect impacts such as increased human



disturbance or light spill), a specific otter and water vole survey should be undertaken.

There was evidence of nesting birds within the buildings and trees, and birds may also nest within the hedgerows. If the development plans include any demolition or vegetation removal, it should be planned outside of the bird breeding season (which runs from March to August) or be subject to a check for nesting birds immediately prior to works. In this case, any active nests found would need to remain in place until fledglings have left. Provision/enhancement of nest sites should be considered within the development, with particular focus on swallows and house sparrows.

A reptile survey of the grassland margins along the stream should be undertaken well in advance of any groundworks, demolition, or removal of log piles or hedgerows. Reptile surveys can be carried out between April and September (April, May and September being the optimal survey months). Standard survey methodology involves installing artificial refugia (0.5 m squares of roofing felt) throughout the habitat which are used by basking reptiles if they are present. Seven checks of the refugia are carried out to confirm presence or absence.

The presence of Indian Balsam is a cause for concern, particularly along the stream embankment. It is illegal to cause or allow the spread of this plant, so care will need to be taken to avoid this during any works. If permission can be obtained to burn it on site, this would be preferred. Otherwise, any Indian Balsam plants dug up will need to be taken to a licensed landfill site willing to receive invasive weeds. In either case, below-ground parts of the plant will remain in the soil, and so topsoil from the area should not be removed from site.



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# 1.0 Introduction

# Background

- 1.1 Absolute Ecology was commissioned to undertake an Extended Phase I Habitat Survey of a site known as Endon Riding School, Stanley Moss Lane, Endon, Stoke-on-Trent, ST9 9LR.
- 1.2 The Preliminary Ecological Appraisal was undertaken on 17<sup>th</sup> July 2013 by an experienced ecologist who is a full member of the Chartered Institute of Ecology & Environmental Management (CIEEM). The objective of this report is to provide the client with information about any known or potential protected or rare species that may be using the site, and to outline recommendations for how to proceed with the works in a legal and ecologically sensitive manner.
- 1.3 Unless the client indicates to the contrary, information about the species found to be present on the site will be passed to the county biological records centre to update records held for the area.

# Site Description

The south-western part of the site comprises a collection of small to large buildings currently used for livery. The eastern section comprises two dwellings and stables. The western part of the site comprises grassland for horse grazing, and a slow-running brook runs through the site to the north-east. The main part of Baggley Green lies to the south-west of the site. The site is surrounded by residential dwellings and commercial buildings to the north and east, and the surrounding landscape is dominated by mixed agricultural land, with the Cauldon Canal 253 m to the west and Stanley Pool 330 m to the south.



Figure 1: Location of site (right) and aerial view of site (left)



# 2.0 Methodology

### **Desk Study**

- 2.1 In order to compile background information on the site and immediate surroundings, Staffordshire Ecological Records (SER) was contacted.
- 2.2 Information requested was as follows:
  - Records of protected species within 1 km of the site.
  - Records of rare or notable species within 1 km of the site.
  - Non-statutory site designations on or within 1 km of the site.
- 2.3 Additionally, MAGIC (Multi-Agency Geographic Information for the Countryside, 2010) was used to establish whether any of the following are present:
  - Statutory site designations on or within 1 km of the site.
  - Statutory sites designated for bats within 5 km of the site.

## **Habitat Survey**

- 2.4 The site was visited on 17<sup>th</sup> July 2013 and was surveyed in accordance with the Joint Nature Conservation Committee (JNCC) Phase I Habitat Survey methodology (JNCC, 2007). This technique provides an inventory of the basic habitat types present and allows the identification of areas of greater potential that might warrant further study.
- 2.5 The observable higher plant species in each habitat type within the site, and their abundance, were recorded using the DAFOR scale:
  - D Dominant
  - A Abundant
  - F Frequent
  - O Occasional
  - R Rare

#### Fauna

2.6 Habitats present on the site were searched for obvious signs of faunal activity, e.g. presence of badger setts, mammal tracks or herpetofauna under refugia. Any buildings and mature trees on site were visually examined from the ground to identify features with the potential to support roosting bats.

## Valuation of Ecological Features

2.7 The value of areas of habitat and plant communities has been measured against published criteria where available. Biodiversity Action Plans (BAPs) have been searched to identify whether action has been taken to protect all areas of a particular habitat and to identify current



factors causing the loss and decline of particular habitats. The presence of injurious and legally controlled weeds has also been taken into account.

2.8 When assigning a level of value to a species, its distribution and status (including a consideration of trends based on available historic records) has been taken into account. Other factors influencing the value of a species are legal protection, rarity and Species Action Plans (SAPs). Guidance, where it is available, for the identification of populations of sufficient size for them to be considered of national or international importance has also been taken into account.

### Nomenclature

2.9 The English name only of flora and fauna species is given in the main text of this report; however, scientific names are used for invertebrates where no English name is available. Vascular plants and charophytes follow the nomenclature of The Botanical Society for the British Isles (BSBI) 2007 database (BSBI, 2011), with all other flora and fauna following the Nameserver facility of the National Biodiversity Network Species Dictionary (http://www.nhm.ac.uk/nbn/), which is managed by the Natural History Museum.



# 3.0 Legislation

- 3.1 The United Kingdom Biodiversity Action Plan (BAP) 1994 sets out a strategy for implementing the Convention on Biological Diversity, which was signed by the United Kingdom at the Rio de Janeiro Earth Summit in 1992. The published report contains action plans for the United Kingdom's most threatened species and habitat plans for the most vulnerable areas.
- 3.2 The Local BAP sets out the county's part in the UK biodiversity planning process, in the form of local habitat and species action plans. Local BAPs are intended to focus resources, to conserve and enhance biodiversity, by taking account of national and local priorities.
- 3.3 Schedule 1 Part 1 of The Wildlife and Countryside Act 1981 (and amendments) lists birds protected by special penalties at all times. It prohibits intentional killing/injuring, taking, possessing, disturbing and selling (including parts and derivatives, eggs, nests, etc. as applicable) as well as damaging, destroying or disturbing nests in current use or dependent young, etc.
- 3.4 Schedule 5 of The Wildlife and Countryside Act 1981 (and amendments) prohibits deliberate killing, injuring, taking, possessing, disturbing and selling (including parts and derivatives) as well as damaging, destroying or obstructing any structure or place of refuge of listed fauna, such as dormouse, otter and bat species.
- 3.5 The Conservation of Habitats and Species Regulations 2010 consolidate all the various amendments made to the Conservation (Natural Habitats, &c.) Regulations 1994, in respect of England and Wales. It is illegal to kill, disturb, destroy eggs, breeding sites or resting places, to pick, collect, take cuttings, uproot or destroy in the wild as well as keep, transport, sell/exchange and offer for sale/exchange species listed.
- 3.6 The Countryside and Rights of Way Act 2000 increases the protection given by The Wildlife and Countryside Act 1981 (and amendments). The offence to intentionally damage any structure or place that a wild animal listed in Schedule 5 of the Act uses for shelter or protection or deliberately disturbing any such animal while in such a structure or place is extended so that the offence also covers reckless damage or disturbance. The CRoW Act also places a duty on Ministers and Government Departments to have regard for the purpose of conserving biological diversity in accordance with the Convention on Biological Diversity.
- 3.7 The Protection of Badgers Act 1992 makes it illegal to wilfully kill, injure or take any badger, or attempt to do so and it is an offence to intentionally or recklessly damage, destroy or obstruct access to any part of a badger sett.
- 3.8 The Natural Environment and Rural Communities Act 2006, as well as creating Natural England, gives all public authorities the duty to have regard for conserving biodiversity within the commission of their duties. This includes a duty to restore and enhance as well as maintain biodiversity. The act also strengthens protection for Sites of Special Scientific Interest (SSSI) and makes authorities liable for allowing damage to such sites or their features.



# 4.0 Results

### **Desk Study**

- 4.1 There are no statutory designated sites within 1 km of the site.
- 4.2 There are no statutory designated sites for bats within 5 km of the site.
- 4.3 There are no non-statutory sites within 1 km of the site.
- 4.4 SER provided the following records for protected and notable species within 1 km of the site boundary:

Plants - 5 records

**Mammals** – common pipistrelle (20 records), brown long-eared bat (1 record), badger (2 records), water vole (3 records)

Birds - 58 records

Reptile – grass snake (40 records), slow-worm (1 record), adder (2 records)



#### Habitats

- 4.5 The following habitats or vegetation types were identified on the site during the course of the habitat survey:
  - Buildings
  - Improved grassland
  - Amenity grassland
  - Species-poor gappy hedgerow
  - Broadleaved trees
  - Tall ruderal herbs
  - Introduced shrub
  - Running water

#### Buildings and bridge

4.6 On the south-west part of the site is a large complex of metal corrugated sheet buildings. The internal roofing is all open to roof level. Many of the buildings are open-fronted structures which are deteriorating. The largest building, currently used for equines, has a number of sky lights, thus has a low potential for bats.



4.7 Dwelling 1 is located immediately to the south of the main access drive. The building is a twostorey, rendered brick construction with three gable ends aligned north, south and west. It forms part of a curtilage of farm buildings considered to have been built pre 20th century. The overall dimensions of the building are approximately 16 m long x 14 m wide. The roof is of a pitched and tiled design, and appears to have some gaps under some of the ridge tiles and a number of missing, lifted tiles. This building has medium potential for bats.





Target Note 9

- 4.8 All windows and doors are intact, preventing any potential access for bats or birds.
- 4.9 Dwelling 2 is located immediately to the east of the main access track. The building is two-storey and constructed similarly to building 1, with brick rendering. The majority of the gable ends are aligned north to south and east, with an attached flat roof on the east elevation. It forms part of a curtilage of farm buildings and is considered to have been built pre 20th century. The overall dimensions of the building are approximately 23 m long x 8 m wide. The roof is of a pitched and tiled design and appears to have some gaps under some of the ridge tiles and a number of lifted tiles. There are sky lights in the roof, which may indicate that there are living areas within the roof void. This building has medium potential for bats.



Target Note 10

- 4.10 All windows, doors and soffits are tightly fitted, preventing any potential access for bats or birds.
- 4.11 The wooden stable has a felt shallow-pitched roof. The open stable doors allow potential bat access to the interior. However, the inside of the stable is light and draughty due to the half-open stable doors.
- 4.12 There is an overhang at the front of the stable providing a small triangular space between the wood panels and the felt roof, and there is a hole in the wood which could give potential bat access to this space. This building has low potential for bats.





4.13 There is a stone bridge situated over the running stream which connects the site. The stone structured bridge has a number of crevices which bats could use for roosting. It was also noticeable that this bridge is not regularly used by vehicles, which cause disturbance such as noise and vibration. It is only used by the occasional tractor and walking horses, thus noise and vibration are minimal. In addition, part of the stream is slow running and may provide a food resource, and the linear features of the trees may be favourable as commuting features for bats. The bridge has medium potential for bats.



Target Note 4

### Improved grassland

4.14 The site included two fields of semi-improved species-poor grassland. The two fields were being horse-grazed at the time of the survey and were extremely compacted. Grasses present include Yorkshire fog (*Holcus lanatus*), cocksfoot (*Dactylis glomerata*), perennial ryegrass (*Lolium perenne*) and rough-stemmed meadow-grass (*Poa trivialis*). Herbs are rare and include occasional spear thistle (*Cirsium vulgare*), common chickweed (*Stellaria media*), pineapple weed (*Matricaria discoidea*), common foxglove (*Digitalis purpurea*), broad-leaved dock (*Rumex obtusifolius*) and ribwort plantain (*Plantago lanceolata*).





4.15 There are grassland margins, particularly running along the stream, which are currently ungrazed. The sward is longer and has formed a denser structure. Grasses present include common bent (*Agrostis capillaris*) and Yorkshire fog (*Holcus lanatus*), with occasional herbs including creeping buttercup (*Ranunculus repens*), broad-leaved dock (*Rumex obtusifolius*) and ribwort plantain (*Plantago lanceolata*).



Target Note 7

#### Amenity grassland

4.16 There is mown lawn on the two residential properties, which was accessible for close inspection. They contain common lawn grasses such as annual meadow grasses (*Poa* species) and bent (*Agrostis* species) and herbs such as daisy (*Bellis perennis*).



#### Species-poor gappy hedgerow

4.17 The site is bordered by species-poor hedgerows which are generally thick (2 m) and regularly cut (up to 2 m high). They are mostly dominated by holly (*llex aquifolium*), beech (*Fagus sylvatica*) and hawthorn (*Crataegus monogyna*). The ground flora is sparse and includes grasses.

Broadleaved trees



4.18 There are occasional mature trees present on site, including beech (*Fagus sylvatica*), ash (*Fraxinus excelsior*), English oak (*Quercus robur*), Alder (*Alnus glutinosa*) and common cherry (*Prunus padus*).





Target Note 1

Target Note 2



Target Note 3

Scrub

4.19 Scattered throughout the site are small thickets of bramble (*Rubus fruticosa*).

Tall ruderal herbs

4.20 There are areas dominated by tall ruderal herbs, including cow parsley (*Anthriscus sylvestris*), hogweed (*Heracleum sphondylium*), broad-leaved dock (*Rumex obtusifolius*), common nettle (*Epilobium angustifolium*) and creeping thistle (*Cirsium arvense*)





Tall ruderal adjacent to Target Note 7

#### Introduced shrubs

4.21 The garden borders contain ornamental shrubs and garden species. A close inspection around the dwellings could not be made to map the exact areas of shrubbery.

#### Running water

4.22 Although the stream is not within the site boundary, it is considered necessary to include it in this report, as it could be affected by any change in site use. The stream is slow flowing with some deeper pools, and ranges from between 1 m and 4 m wide. The estimated water depth is 30–60 cm. The banks are steep and vegetated with grasses and herbs, and in places are lined with stone blocks and rubble. The water appears turbid, suggesting poor water quality. No aquatic vegetation could be seen.



Potential for water vole and otter



#### Fauna

#### Bats

4.23 SER provided a number of records of bat species within 1 km of the site. There are two dwellings on site which have pitched roofs and soffits that have crevices. Both have potential for bats. The stone bridge also has a variety of crevices for bats to inhabit.

There is a small number of mature trees present within the hedgerows, some of which show signs of decay, with cavities and crevices which are potentially suitable for roosting bats.

The trees, grassland, gardens and hedgerows provide potential bat foraging habitat. Bats are likely to forage along the stream corridor.

#### Badgers

4.24 SER provided records of badger within 1 km of the site. A number of tracks were found during the inspection which were well used, although no badger setts were identified around the site. However, due to the dense nature of some areas on site an in-depth inspection was not possible.

#### Dormice

4.25 There are no records of dormice occurring within 1 km of the site. The potential for the site to support dormice is low. The trees and hedgerows provide only limited habitat and are not well connected to the wider area. No significant areas of woodland are evident in the surrounding area and it is considered that dormice are likely to be absent from the site.

#### Water voles and otters

There are records of water voles occurring within 1 km of the site. A search along the bank of the stream found no evidence of water vole, although the habitat appears suitable. There are stony areas with holes and rotten wooden piles along the bank of the stream which could be used by this species, although no evidence such as burrows, droppings or feeding remains were found. An in-depth inspection was not undertaken.

#### Other mammals

4.26 One record of polecat exists but no records of other mammal species were provided by SER. A few scattered rabbit droppings were noted in a small number of locations on site, indicating the presence of rabbits, which could be used as a food source by polecats. With regard to other mammals, the whole site provides habitat with plenty of cover, and as such is expected to support a good number of common small mammals.

#### Birds

4.27 Records of hobby and kingfisher were provided by SER. The following were all either observed or heard on site during the survey: wren, magpie, blackbird, feral pigeon and woodpigeon.



4.28 The site as a whole provides good foraging and nesting habitat for a range of bird species. The area of poor semi-improved grassland provides cover for ground-nesting birds, although this area is small. The majority of the remaining habitats on site, such as the trees, scrub and hedgerows, offer good foraging and nesting habitat for a range of common birds.

#### Reptiles

4.29 SER provided some records of reptiles. The grassed margins contain areas of scrub thickets in various locations around the development boundary, particularly running along the stream, and small piles of stone and brash. It is considered that the site is potential habitat for common and widespread reptiles, particularly slow-worm (*Anguilis fragilis*).

#### Amphibians

4.30 SER provided no records of amphibian species within 1 km of the site. The site provides potential terrestrial habitat for amphibians such as great crested newts. Two ponds were identified on Promap. One pond 20 m from the site has dried up. This water body contains no marginal vegetation and is considered to be negligible habitat for amphibians. The second pond is 180 m south-east. Given the poor migratory connectivity and the fact that the pond is used for fishing, indicating that there are fish species present that would predate amphibians, it is therefore considered to be unlikely that any populations of great crested newt reside on the site or would range as far as the terrestrial habitats found on the site; therefore, no further surveys are considered necessary in this instance.

#### 4.31

#### Invertebrates

4.32 SER did not provide any records of protected or notable invertebrate species. The habitats on site are generally common and do not provide much potential for rare invertebrate species, although they are expected to support a number of more common species.



# 5.0 Development Constraints and Recommendations

5.1 The site is the subject of a possible planning application for a residential development. Ecological constraints and recommendations with regard to any development are discussed below.

## **Designated Sites**

5.2 There is no designated statutory site within 1 km of the site.

### Habitats

- 5.3 Botanically, the site itself does not appear to have any rare species and it is not particularly diverse.
- 5.4 The stream, although outside the site boundary, could be affected by works on site, particularly run-off or pollution events and changes in hydrology.

## **Potential Impact of Works**

- 5.5 There are no plans for the site; however, if residential development is undertaken in the future, potential impacts are likely to include the following.
- 5.6 No evidence of bats was found during the brief inspection undertaken, but the two dwellings and bridge have the potential to support bat roosts. If bats are present, demolition or work to the buildings may destroy the roosts and could harm bats.

Three trees have features which are assessed to have high bat roost potential. If any felling or surgery work to the trees is required there is potential for bat roosts to be affected. Trees can also be affected by compacting, changes in hydrology and groundworks.

Bats may use the fields for foraging, and the hedgerow and stream corridor may be used by commuting bats. Loss of these habitats, or indirect impacts such as lighting, may affect commuting and foraging bats.

- 5.7 Due to the dense vegetation in some areas it could not be confidently determined if there are badger setts on site. Badger activity can change over a short time. If any setts are created on site prior to works, tunnels could be affected by groundworks and vegetation removal and badgers could be harmed.
- 5.8 Otters may use the stream for commuting, and there are several potential holt sites under tree roots/rubble. If the species is present, they may be affected by any disturbance of the habitat along the stream banks, increased human presence and light spill.
- 5.9 The stream is suitable for water vole, although no initial evidence was found to confirm presence of this species. If the species is present, they would be affected by any habitat loss or degradation along the stream banks, as well as by any increased human disturbance.



- 5.10 Loss of grassland, hedgerows and trees may affect birds that use the site for breeding and foraging by causing a decrease in nesting sites and food resources. Loss of these habitats may directly harm nesting birds if carried out during the breeding season (March to August inclusive).
- 5.11 In the event that reptiles are present on site, they might be killed or injured during removal of vegetation or groundworks. They would also suffer loss of habitat.
- 5.12 The site contains an area of Indian balsam, a non-native invasive species, which it is an offence to cause to spread in the wild. If vegetation removal in this area is undertaken whilst the plant is in seed, it may cause seed to spread downstream or into other habitats if vegetation cuttings are not dealt with appropriately.

#### Recommendations

5.13 The following are general recommendations that are likely to be a minimum requirement for any future development of the site. To prevent potential delays, it would be prudent to undertake the recommended surveys well in advance of any master-planning and certainly before any planning application is made.

#### Bats

- 5.14 The two dwellings, bridge on site are assessed to have at least moderate potential for roosting bats, but no internal survey was undertaken at the time.
- 5.15 In order to identify if any bat roosts are present, further bat surveys are required. They should include internal and external building inspections of the farmhouse and garage and the disused garage. Depending on the nature of the development (e.g. if demolition is proposed), it is likely that at least two dusk emergence/dawn surveys of the buildings should also be undertaken, spread throughout the peak breeding season (May to August inclusive). These surveys should be combined with general activity transects around the site to assess the level of bat activity and identify any important foraging areas or commuting routes.
- 5.16 There are three trees on site which are assessed to have high potential for roosting bats. These trees should also be surveyed using dusk/dawn survey methodology.
- 5.17 If evidence of bats were found in any of the buildings or trees during the surveys, a European Protected Species (EPS) licence would need to be applied for from Natural England. The licence may require further survey work to be undertaken, and an appropriate level of mitigation to be developed. The licensing process can take up to 10 weeks.
- 5.18 The site included habitat likely to be used by foraging and commuting bats particular along the stream. At least one season of bat activity transects would be necessary to identify any important commuting routes or foraging areas. Monthly transects between April and October should be undertaken in advance of any planning application.

#### Badgers



5.19 Although no badger activity was observed on the site at the time of the survey, activity patterns of this species can change over a short time. It is recommended that a full badger survey is undertaken prior to any planning application. Badger surveys can be undertaken at any time of year.

#### Birds

- 5.20 Nesting birds may be present in buildings, hedgerows and trees during the bird breeding season (March to August inclusive). If demolition or vegetation removal are planned during these months, a prior check for nesting birds should be undertaken by an ecologist. Any active nests that are found must not be moved until fledglings have dispersed.
- 5.21 If demolition of buildings is planned, it would be of conservation benefit to install a variety of nesting boxes for different bird species within the new development, to replace nesting sites that are currently within the stable buildings. In particular, nesting provision for swallows (if possible) and house sparrows should be incorporated into the development plans.

#### Reptiles

- 5.22 A reptile survey of the grassland margins along the stream should be undertaken well in advance of any groundworks, demolition, or removal of log piles or hedgerows. Reptile surveys can be carried out between April and September (April, May and September being the optimal survey months). Standard survey methodology involves installing artificial refugia (0.5 m squares of roofing felt) throughout the habitat which are used by basking reptiles if they are present. Seven checks of the refugia are carried out to confirm presence or absence.
- 5.23 If reptiles are present, mitigation will involve protecting individuals from harm during the development. Depending on the size of the population present, this may require catching and translocating reptiles prior to groundworks and/or destructive searches during groundworks.

#### Otters

5.24 If the development is likely to affect the stream corridor (including in the form of increased human presence, lighting or increased traffic), an otter survey should be undertaken along the stream (and at least 50 m outside the site boundary either way) to check for any holts or resting sites that may be present. If the species is found to use the stream corridor adjacent to the site, mitigation may be required, and potentially a licence will be required from Natural England if any holt is to be affected.

#### Water voles

5.25 If the development is likely to affect the stream or vegetation within 5 m of the banks, a further water vole survey should be undertaken along the stream (and at least 50 m outside the site boundary each way) between March and October. The survey would require walking along the stream and checking both banks to enable close inspection of any holes or other evidence to confirm whether the species is present. If present and potentially affected by the development, a licence from Natural England may be required.

#### Indian balsam



5.26 If any vegetation removal alongside the stream is required, firstly an otter and water vole survey must be undertaken. If these species are confirmed to be absent, removal of Indian balsam may proceed, but must be carried out before the plants set seed (the species flowers between June and October, so before this time would be advisable).



# 6.0 References

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# 7.0 Plans

Extended Phase I Habitat Survey Figure 1





# 8.0 Target notes

Table 1: Target notes which are mapped on Figure 2

Number	Target Note
1	Mature oak tree with crack running along trunk; potential for bats.
2	Common alder with a number of cracks and woodpecker holes; potential for bats.
3	Mature oak tree with cracks and woodpecker hole; potential for bats. Indian balsam.
4	Stone-structured bridge running over stream; potential for bats.
5	Semi-improved grassland margin with brash woodpile; ideal for sheltering/basking reptiles.
6	Semi-improved grassland margin; ideal for sheltering/basking reptiles.
7	Semi-improved grassland margin; ideal for sheltering/basking reptiles.
8	Indian balsam.
9	Residential building with various egress points for bats.
10	Residential building with various egress points for bats.



