Preliminary Ecological Appraisal

Land at Horse Road, Alton, Staffordshire

June 2017

Notice to readers

This report has been prepared by Absolute Ecology LLP with all reasonable skill, care and diligence, within the terms of the contract with the client. The actions of the surveyor on site and during the production of the report were undertaken in accordance with the Code of Professional Conduct for the Chartered Institute of Ecology and Environmental Management (www. cieem.org.uk).

Non-technical summary

Absolute Ecology LLP was commissioned to undertake a Preliminary Ecological Appraisal of land at Horse road, Alton, Staffordshire Grid reference SK 07067 42430. The Preliminary Ecological Appraisal was undertaken on June 16th, 2017 by an experienced and licensed ecologist who is a full member of the Chartered Institute of Ecology & Environmental Management (CIEEM).

The site comprises of bare ground, dominating Himalayan balsam, scattering of young to semi mature trees, and fencing.

There is no statutory designated site located near to the site.

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 the key ecological constraints further identified or discounted.

Nesting birds may be present in trees and brash pile during the bird breeding season (March to August inclusive). If vegetation or building removal is 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.

The mature Sycamore tree also known as Target note 1: shows moderate potential to support, bats, therefore to conform in line with the Bat Conservation Trust Best Practice 3rd Edition 2016 at least one dusk or one dawn should be conducted, though if the tree is to remain no further action is required.

Himalayan balsam seedlings were recorded dominating the site. This species is listed on Schedule 9 of the Wildlife and Countryside Act 1981(as amended) and must not be caused to spread into the wild. A recommendation is made in Section 6. Therefore, Works must not cause Himalayan balsam to spread into the wild. Prior to any development of the site, the Himalayan balsam should be controlled and eliminated. It is illegal to cause the spread of this. Himalayan balsam can spread very quickly, so control and elimination should be carried out as soon as possible.

There is also an opportunity to provide a biodiversity gain on site, such as incorporating species rich hedgerows around the perimeter of the site, planting of native tree species and the incorporation of bat boxes into the dwellings & bird nesting boxes and around the site boundary hedgehog boxes.

Contents

1.0 Introduction

Background

1.1 Absolute Ecology LLP was commissioned to undertake a Preliminary Ecological Appraisal of land at Horse road, Alton, Staffordshire Grid reference SK 07067 42430.

1.2 The Preliminary Ecological Appraisal was undertaken on June 16th 2017 by Matthew James Haydock has been involved in many projects including designing and undertaking ecological habitat surveys and site nature conservation evaluations; writing and implementing site management plans; acting in an advisory capacity to provide recommendations for ecological protection, enhancement and mitigation measures; protected species surveys under Natural England licence for survey and development; undertaking ecological impact assessment, appropriate assessment. Matthew has a National Diploma in ecology and Landscape studies and holds higher National Diploma in Environmental Management and whom is a full member of the Chartered Institute of Ecology & Environmental Management (CIEEM).

1.3 The site will be potentially developed for residential housing.

1.4 Unless the client indicates to the contrary, information on 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

1.5 The site comprises of areas of bare ground, Himalayan balsam, young to semi mature trees, and fencing boundaries. The site is adjacent to woodland and residential properties. The site size is 0.04 ha.

Figure 1: Location map – aerial photograph of site (yellow pin)

2.0 Methodology

Desk Study

2.1 In order to compile background information on the site and immediate surroundings the Staffordshire Ecological Records Centre (SERC) was contacted.

2.2 Information requested was as follows:

- Records of protected species within 2 km of the site.
- Records of rare or notable species within 2 km of the site.
- Non-statutory site designations on or within 2 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 2 km of the site.
- Statutory sites designated for bats within 5 km of the site.

Habitat Survey

2.4 The site was visited on June 16th, 2017 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 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 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 is Three statutory designated site within 2 km of the site.

Grid Ref.	Site Name	Status
SK050429	Dimmings Dale & The Ranger	SSSI
SK050429	Dimmings Dale & The Ranger	SSSI
SK050429	Dimmings Dale & The Ranger	SSSI
SK083418	Saltersford Lane Meadows	SSSI

4.2 There are Seventeen Local wildlife-sites within 2 km of the site.

SK057425	Shaw House Farm Fields	Local Wildlife Site
SK059439	Churnet Valley Railway	Local Wildlife Site
SK064425	Rakes Dale	Local Wildlife Site
SK068425	Toothill Wood	Retained BAS
SK063430	Rainroach Rock	Local Wildlife Site
SK063433	Lord's Bridge (north of)	Local Wildlife Site
SK065432	Barbary Gutter	Local Wildlife Site
SK076405	Jeffreymeadow (south of)	Local Wildlife Site
SK076429	Abbey Wood	Local Wildlife Site
SK079426	Castle Wood	Local Wildlife Site
SK075447	Orrils Wood & Basin Wood	Local Wildlife Site
SK080420	Saltersford Lane	Local Wildlife Site
SK085435	Alton Park	Local Wildlife Site
SK080440	Hazlehurst Brook	Retained BAS
SK090426	Crump Wood	Local Wildlife Site
SK091427	Crumpwood Fields, Caldon Canal and Park Banks Meadow	Local Wildlife Site
SK093428	The Sprink	Local Wildlife Site (SBI)

4.3 SERC provided the following records for protected and notable species within 2 km of the site boundary:

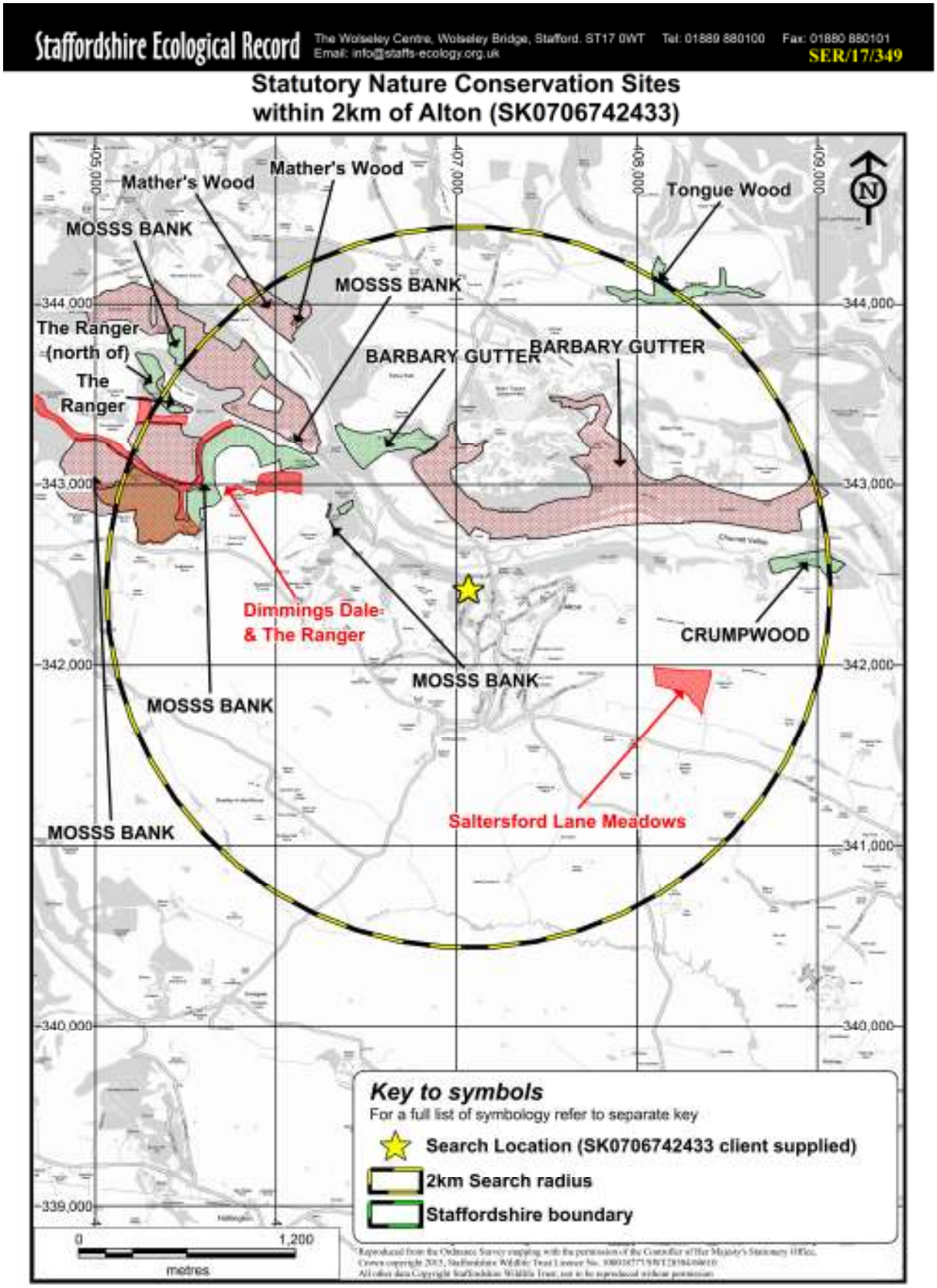
Plants –24 Records of Bluebell

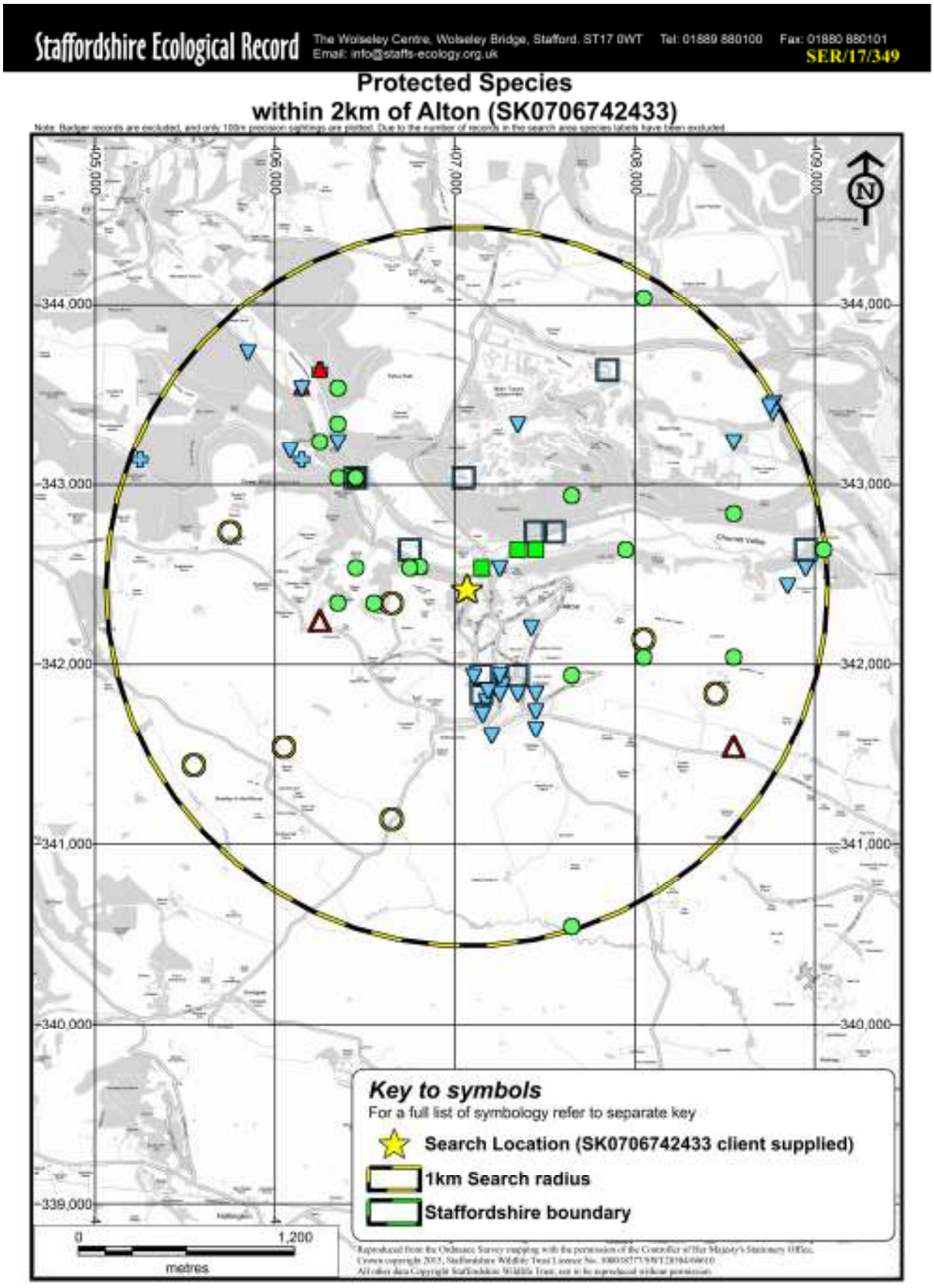
Reptiles- Grass snake (28 records), Slow worm (2 record)

Mammals –Common pipistrelle (29 records), Soprano pipistrelle 8 records), Daubenton's (3 record), Brown Long-eared (1 record), Brown hare (10 record), Hedgehog (2 records) Water Vole (7 records), Otter (5 records), Badger (28 records), Pole cat (5 records),

Birds – 241 records

Page 10 & 11 below shows location map of record species and protected sites within 2Km of the application area.


Staffordshire Ecological Record
The Wolseley Centre, Wolseley Bridge, Stafford. ST17 0WT
Email: info@staffs-ecology.org.uk
Tel: 01889 880100
Fax: 01880 880101
SER/17/349
Statutory Nature Conservation Sites
within 2km of Alton (SK0706742433)
405,000
407,000
408,000
409,000
344,000
343,000
342,000
341,000
340,000
339,000
Mather's Wood
Mather's Wood
Tongue Wood
MOSSS BANK
MOSSS BANK
The Ranger (north of)
The Ranger
BARBARY GUTTER
BARBARY GUTTER
Dimmings Dale & The Ranger
CRUMPWOOD
MOSSS BANK
MOSSS BANK
MOSSS BANK
Saltersford Lane Meadows
N
Key to symbols
For a full list of symbology refer to separate key
Search Location (SK0706742433 client supplied)
2km Search radius
Staffordshire boundary
0
1,200
metres


Staffordshire Ecological Record
The Wolseley Centre, Wolseley Bridge, Stafford. ST17 0WT
Email: info@staffs-ecology.org.uk
Tel: 01889 880100
Fax: 01880 880101
SER/17/349
Protected Species
within 2km of Alton (SK0706742433)
Note: Badger records are excluded, and only 100m precision sightings are plotted. Due to the number of records in the search area species labels have been excluded
405,000
406,000
407,000
408,000
409,000
344,000
343,000
342,000
341,000
340,000
339,000
N
Key to symbols
For a full list of symbology refer to separate key
Search Location (SK0706742433 client supplied)
1km Search radius
Staffordshire boundary
0
1,200
metres

Staffordshire Ecological Record
The Wolseley Centre, Wolseley Bridge,
Stafford ST17 0WT
Tel: 01889 880100 Fax: 01889 880101
Email: info@staffs-ecology.org.uk

A legend to the map showing Nature Conservation Sites and Species

Introduction

These colours are used on the site alert mapping within the SWT GIS, but SER cannot guarantee the same colours are used in any other mapping system, particularly those based on ArcView.

Statutory Designations from Natural England's web-site

- National Nature Reserves — NNR (boundary not available owing to OS restrictions)
- Sites of Special Scientific Interest — SSSI (boundary not available owing to OS restrictions)
- Local Nature Reserves — LNR (boundary not available owing to OS restrictions)

Non-statutory Designations from the Staffordshire Grading System (1995 onwards)

- Site of Biological Importance (ex Grade 1 SBI) equivalent to "Local Wildlife Site"
- Biodiversity Alert Site (ex Grade 2 SBI)
- Proposed/potential Site of Biological Importance

Geological Sites

- Regionally Important Geological/geomorphological Site (= Local Geological Site)

Staffordshire Wildlife Trust Sites

- SWT Nature Reserves

Other Nature Reserves

- Royal Society for the Protection of Birds

Ancient Woodland Inventory

- Ancient & Semi-natural Woodland
- Ancient Replanted Woodland

Species Information

- Mammals excluding those listed below
- Otter (Lutra lutra)
- Badger (Meles meles) - not normally supplied
- Water Vole (Arvicola terrestris)
- All bat species
- All bird species
- Any other protected species (precise to 100m)
- All Protected Species Records (precise to 1km)
- Amphibians and reptiles excluding those below
- Great Crested Newt (Triturus cristatus)
- Native Crayfish (Austropotamobius pallipes)
- Flowering plants except those below
- Bluebell (Hyacinthoides non-scripta)
- Butterflies and Moths
- BAP Species Records (precise to 100m)
- BAP Species Records (precise to 1km)

Notes:

The Local Nature Reserve and other nature reserve boundaries can overlay the current grading when both layers are actively visible

Where there are multiple species records for the same grid reference the dot for one species may obscure the dots for other species - all species records will be displayed in the accompanying spreadsheet

Not all the above categories may be present on the accompanying map

Version 2.0 July 2011

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Habitats

4.4 The following habitats or vegetation types were identified on the site during the habitat survey:

- Individual young to semi mature trees
- Scrub
- Bare ground

Individual Trees

4.5 The site provides a small amount of individual trees such as Sycamore (Acer pseudoplatanus), Ash (Fraxinus excelsior), Alder (Alnus glutinosa), Hazel (Corylus avellane) and Beech (Fagus sylvatica).

Plate 1: Showing Target note 1 tree potential for bats

Scattered Scrub

4.6 The Site comprises small area of scrub to the east of the site species present in these areas include, bramble (O), common nettle (O), cleavers (Galium aparine).

Bare Ground & Invasive Species

4.7 Majority of the site contains Himalayan balsam (D), with areas of bare ground.

Plate 2: Showing dominate Himalayan balsam

Fauna

Bats

4.8 SERC provided records of bat species within 2 km of the site. There are no buildings with exception of a small green house on site. One mature sycamore tree on site (target notes 1) provided dense ivy beneath the features may support potential bat roosting opportunities such as cracks, splits and loose bark that may provide bat roost potential. The dense ivy was too high for inspection by endoscope, and so the presence of roosting bats could not be ruled out during this daytime survey the survey should follow Bat Conservation Trust Best Practice 3rd Edition 2016 regarding assessments of trees. The site provided limiting foraging within the boundary of the site due to limiting linear features such as tree lines and extensive areas of hedgerows.

Badgers

4.9 SERC provided records of badger within 2 km of the site. There was no evidence of badger on site or within 30 m of the site boundary where access was possible.

Dormice

4.10 SERC no records of dormice occurring within 2 km of the site. The potential for the site to support dormice is low. 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

4.11 SERC provide no records of water voles occurring within 2 km of the site. No water bodies or water courses are present on the site.

Birds

4.12 SERC provided records of birds within 2 Km. During the survey, the following bird species were recorded on site: blue tit (*Cyanistes caeruleus*), song thrush (*Turdus philomelos)*, blackbird (*Turdus merula*) and blue tit (*Cyanistes caeruleus*). The small brash pile and young to semi-mature trees provide potential nesting and foraging habitat for common and widespread species of birds.

Reptiles

4.13 SERC did provide any records of reptiles within 2 km of site. The site is generally unsuitable for reptiles and lacks extensive areas of scrub with open basking areas typically associated with reptiles. There was a small brash pile that was evident on site, this was fully inspected visually with an endoscope to ascertain and evidence of reptiles or reptiles at rest no evidence was identified.

Amphibians

4.14 SERC provided no records of amphibian species within 2 km of the site. One pond was identified 253 meters to the west and pond 2, 380 meters north west of the site on OS maps access was attainable at the time of the survey, the proposed development site provided limiting habitat for

amphibians due to the bare ground and limiting areas of shelter that would support amphibians during the terrestrial stage, During the desktop study, no other ponds were identified within 500 m of the proposed development though given the lack of habitat and more favourable habitat in the wider landscape it would be unlikely the population would migrate to the application site. The Natural England risk assessment was conducted which identified Green: Offence Highly Unlikely (Please see below). Also, the identified pond 253 meter from site, was found to be mainly dry and territorialised with a small are of water measured at 3-4 cm in depth, the pond embankment was of bare soil with small clumps of grass, the pond area was dominated by overhanging trees providing dominating shade. The Habitat Suitability Index was also conducted which showed the identified pond to score 0.36 which is classed as poor. Pond 2 Showed 0.64 which is classed as average (Please see below).

Component	**Likely effect** (select one for each component; select the most harmful option if more than one is likely; lists are in order of harm, top to bottom)	**Notional offence probability score**
Great crested newt breeding pond(s)	No effect	0
Land within 100m of any breeding pond(s)	No effect	0
Land 100-250m from any breeding pond(s)	No effect	0
Land >250m from any breeding pond(s)	0.01 - 0.1 ha lost or damaged	0.001
Individual great crested newts	No effect	0
	Maximum:	0.001
Rapid risk assessment result:	**GREEN: OFFENCE HIGHLY UNLIKELY**	

Date HSI assessment undertaken		
Pond ref	Pond1	Pond 2
SI1 - Location	1	1
SI2 - Pond area	0.2	0.4
SI3 - Pond drying	0.1	1
SI4 - Water quality	0.33	0.67
SI4 - Shade	0.4	1
SI6 - Fowl	0.67	0.67
SI7 - Fish	0.67	0.67
SI8 - Ponds	0.1	0.1
SI9 - Terr'l habitat	1	1
SI10 - Macrophytes	0.3	0.9
HSI	0.36	0.64

Figure 3: Showing Habitat Suitability Index

Plate 5: Showing pond 1

Plate 2: Showing pond 2

Invertebrates

4.15 SERC 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 are three designated statutory sites within 2 km of the site though there are seventeen wildlife sites within 2 Km of site. Given the physical distances between them and considering the geographical features that also separate them, including open farmland built development and roads; it is very unlikely that the proposed development would affect any of these areas.

Habitats

5.3 Botanically, the site itself does not appear to have any rare species and it is not particularly diverse.

Potential Impact of Works

5.4 There are plans for the site; however, if residential development is undertaken in the future, potential impacts are likely to include the following.

Birds

5.5 There may be impacts on nesting birds if vegetation removal (Brash piles, scrub & trees) is undertaken during the breeding season.

Bats

5.6 The semi mature Sycamore tree also known as Target note 1 was covered in dense ivy which may harbour potential for bat if this is to be removed then potential impact on roosting bats if present.

Badgers

5.7 Although no badger setts were observed 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 ground works and vegetation removal and badgers could be harmed.

Recommendations

5.8 The following are general recommendations that are likely to be a minimum requirement for any future development of the site.

5.9 Any landscaping relating to the proposed development should also take into consideration bats and other wildlife, and it is recommended that only native tree and shrub species are planted. In particular, no plant species listed on Schedule 9 of the Wildlife and Countryside Act 1981 should be planted during the landscaping of this development. For further details of Schedule 9 plants, visit the Defra website: www.defra.gov.uk/wildlife-pets/non-native.

5.10 Standing trees should be retained where possible, and any new planting should contain native species of trees.

Table 3: List of native tree species

	Species	**Planting Time**
Native Tree Species	Ash (*Fraxinus excelsior)*	January/February
	Aspen (*Populus tremula)*	January/February
	Field maple (*Acer campestre*)	January/February
	Bird Cherry (*Prunus padus*)	January/February
	English Elm(*Ulmus minor* var *vulgaris*)	January/February
	Oak (*Quercus robur*)	January/February

5.11 Smaller scale plantings that will be included within the landscape planting design should endeavour to resemble niche habitats. For example, native ferns and other plants that thrive in low light (e.g. Ivy, Holly, and a variety of grasses and mosses) can be used. Species should be chosen according to moisture and sunlight availability, but also with regard to their wildlife value. Many grasses will offer cover and breeding places for invertebrates as well as food for some birds. More open but sheltered areas within the development site are particularly suitable for colourful plants that thrive in full sun. These can function as bee and butterfly gardens, supplying a rich source of nectar from spring to autumn. Shrubs such as Buddleia, Broom *Cytisus scoparius*, Lavender *Lavendula* sp. and Gorse *Ulex europaeus*, and herbs such as Willowherb *Epiloobium* sp., Michaelmas Daisy *Aster* sp., Soapwort, Mullein *Verbascum* sp. and Thyme *Thymus vulgaris* all enjoy a sunny position and provide significant nectaring resources for invertebrates.

5.12 The use of climbing plants to enhance the design and aesthetic elements is generally an accepted practice. The process of allowing and encouraging plants to grow on and up walls allows the natural environment to be extended within the site. From an ecological perspective, green walls will provide resting and feeding places for birds, invertebrates and small mammals. Climbers provide nesting habitats for birds such as Wrens, Blackbirds, Song Thrushes and House Sparrows. Species such as Cotoneaster, Ivy, Climbing Roses and Honeysuckles are all important fruit resources for birds. Equally, climbing plants such as Virginia Creeper and Ivy form important habitats for invertebrates. Although native species are more likely to attract wildlife, some exotic species are also effective in this respect. Within the site grounds it may be more productive to use a combination of native and exotic species to maximise the range of annual

and perennial, deciduous and evergreen foliage, and flowering, climbing and creeping species. This latter plant type provides a selection of plants suitable for green walls. The aspect of a climbing plant on a wall can have significant ancillary effects, such as insulation and moisture retention. For example, north-facing walls are more suitable for supporting native herbs and a wider range of plants. This is due to the higher moisture regime. Further structural benefits of the space between the wall and the climbing plants include pockets to collect leaf litter and provision of nesting sites, as well as baffles to trap rising warm air.

5.13 It is recommended that the use of artificial lighting follows the protocols outlined in the Institute for Lighting Engineers document "Guidance for the Reduction of Obtrusive Lighting" (2005) and BCT's "Artificial Lighting and Wildlife Interim Guidance: Recommendations to Help Minimise the Impact of Artificial Lighting" (2014) to minimise disturbance and light-spill onto the boundaries. This should be made a condition of any planning consent. There is also an opportunity to create a species rich hedgerow around the boundary of the site which would provide habitat for wildlife but also pleasing to the new residents of the proposed development but also in keeping within the rest of the landscape.

Table 4: List of species for two types of hedgerow deemed suitable for these areas, which can be planted for conservation or to provide a thorn-less barrier.

	Species	**Planting Time**
Conservation Hedgerow	Hawthorn (*Corylus avellana*)	January/February
	Blackthorn (*Prunus spinosa*)	January/February
	Field maple (*Acer campestre*)	January/February
	Spindle (*Euonymus europaeus*)	January/February
	Hazel (*Corylus avellana*)	January/February
	Dog rose (*Rosa canina* agg.)	January/February
	Wayfaring tree (*Viburnun lantana*)	January/February
	Oak (*Quercus robur*)	January/February
Thorn-less Hedgerow	Field maple (*Acer campestre*)	January/February
	Common dogwood (*Cornus sanguinea*)	January/February
	Guelder rose (*Viburnum opulus*)	January/February
	Wild privet (*Ligustrum vulgare*)	January/February
	Hornbeam (*Carpinus betulus)*	January/February

Birds

5.14 Where possible, habitats suitable for nesting and foraging birds should be retained, enhanced or created within any new development.

5.15 Nesting birds may be present, during the bird breeding season (March to August inclusive). If vegetation removal is 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.

5.16 It would be of conservation benefit to install a variety of nesting boxes for different bird species within the site in future (buildings and trees where suitable) to enhance the site for nesting birds and encourage bird diversity. Information on bird nesting boxes can be found at http://www.rspb.org.uk/advice/helpingbirds/nestboxes/. Enhancing existing hedgerows or

planting new hedgerows and shrubs within any new development can benefit birds if a wide range of native species are used.

Bats

5.17 The habitats for foraging bats are limited within the development area of the site. Loss of grassland or scrub is unlikely to significantly impact local bat populations, given the abundance of similar habitat within the area and taking into account that any new residential development will also include gardens which can be used by foraging bats.

5.18 It is recommended that the use of artificial lighting follows the protocols outlined in the Institute for Lighting Engineers document “Guidance for the Reduction of Obtrusive Lighting” (2005) and BCT’s “Artificial Lighting and Wildlife Interim Guidance: Recommendations to Help Minimise the Impact of Artificial Lighting” (2014) to minimise disturbance and light-spill onto the boundaries. This should be made a condition of any planning consent.

5.19 Single semi mature tree on site (target notes 1) show moderate potential for use by roosting bats, and presence/absence could not be established through a Preliminary Roost Assessment alone. BCT Good Practice Guidelines therefore recommend two presence/absence surveys between May and August/September, in order to establish whether a roost is present or not. These consist of one dusk emergence survey and a separate dawn re-entry survey, spaced several weeks apart. Should a bat roost be discovered, then further survey effort will be required in order to apply to Natural England for a licence to carry out the proposed development.

Badgers

5.20 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 contractors working on site be briefed regarding the potential for badgers to occur on site, and that a check for evidence of badger activity be carried out immediately prior to works commencing. Should such activity be found (at any time), then works must cease and the advice of a suitably qualified ecology sought.

Himalayan balsam

5.21 Himalayan balsam seedlings were recorded dominating the site. This species is listed on Schedule 9 of the Wildlife and Countryside Act 1981(as amended) and must not be caused to spread into the wild. A recommendation is made in Section 6. Therefore, Works must not cause Himalayan balsam to spread into the wild. Prior to any development of the site, the Himalayan balsam should be controlled and eliminated. It is illegal to cause the spread of this. Himalayan balsam can spread very quickly, so control and elimination should be carried out as soon as possible.

6.0 References

BSBI (2011). *BSBI 2007 List.* [Online]. Available at: http://www.bsbi.org.uk/html/database.html [accessed on 27th September 2011].

The Conservation of Habitats and Species Regulations 2010, SI 2010/490.

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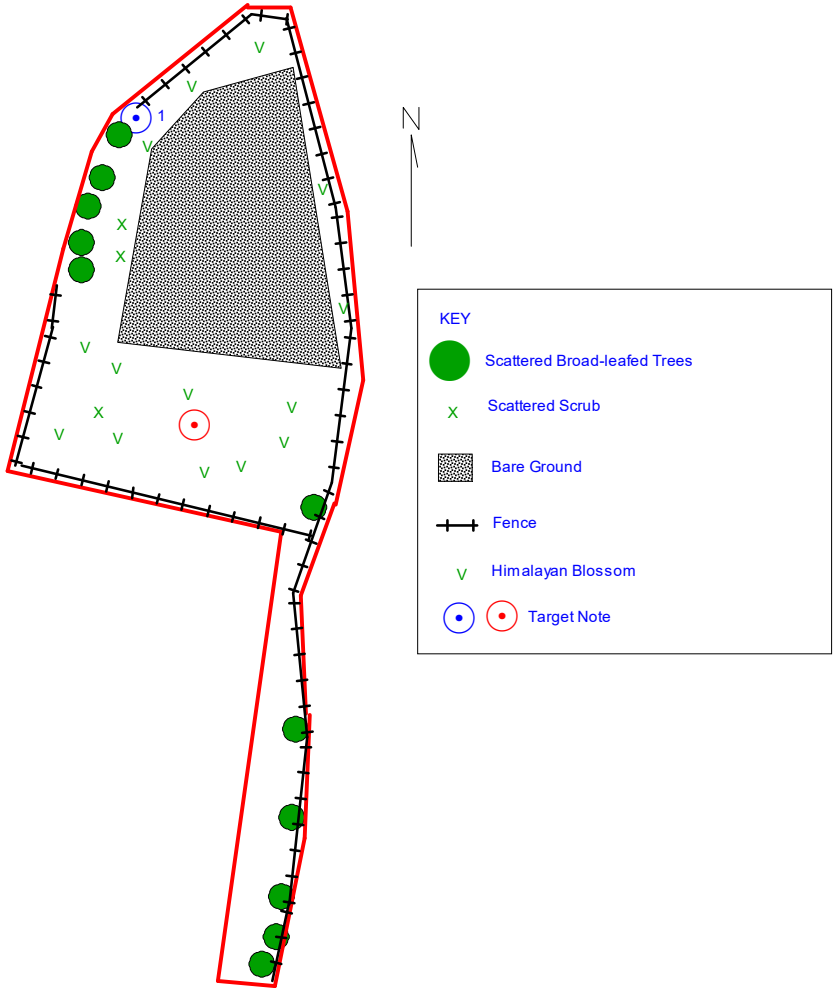
7.0 Plans

Phase I Habitat Map



APPENDIX 1: Target Notes

Table 3: Target Notes which are mapped on the Phase 1 Habitat plan

Number	Target Note
1	Sycamore tree potential roosting for bats.
2	Himalayan balsam dominates most of the site.