absolute ecology LLP wildlife surveys

Preliminary Ecological Appraisal

Land at junction of Uttoxeter Road and Hurstons Lane,

Alton,

Staffordshire,

ST10 4BA

October 2019

Notice to readers

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The results of the survey and assessment work undertaken by Absolute Ecology are representative at the time of surveying.

Every endeavour has been made to identify the presence of protected species on site, where this falls within the agreed scope of works.

The flora and fauna detailed within this report are those noted during the field survey and from anecdotal evidence. It should not be viewed as a complete list of flora and fauna species that may frequent or exist on site at other times of the year.

Up to date standard methodologies have been used, which are accepted by Natural England and other statutory conservation bodies. No responsibility will be accepted where these methodologies fail to identify all species on-site.

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Non-technical summary

Absolute Ecology LLP was commissioned to undertake a Preliminary Ecological Appraisal of a site known as Land at junction of Uttoxeter Road and Hurstons Lane, Alton, Staffordshire, ST10 4BA, Grid Reference: SK07444196. The Preliminary Ecological Appraisal was undertaken on 8th October 2019 by Helen Staton BSc (Hons) an experienced and licensed ecologist who is an Associate member of the Chartered Institute of Ecology & Environmental Management (ACIEEM).

The survey area is situated in a rural location, within the village of Alton. The site is immediately bounded by agricultural land to the north, east and south, with a residential property to the south west and a road to the west. The site itself is dominated by improved grassland, scattered trees and hedgerows.

There are two statutory sites located within 2km of the site boundary, and seventeen non-statutory sites. All sites are well removed and isolated from the proposed development site by areas of residential housing, roads (minor and major) and watercourses. No adverse impacts, direct or indirect are envisaged as a result of the sites development.

The Preliminary Ecological Appraisal confirmed the presence or potential presence of the following (see section 5 for further details):

- **Bats** – four trees (on the western boundary) were assessed to be of value for supporting roosting bats. Any trees to be affected by the proposals (i.e. felling, pruning) should be surveyed for the presence/absence of roosting bats. Presence/absence surveys should be conducted during the optimum survey period which runs from May-September. Where bats are confirmed roosting, and where impacts are envisaged (disturbance/obstruction/destruction or roosts), a Natural England mitigation licence will be required;
- **Nesting birds** – With regards for nesting birds, the scrub and boundary trees hold a high potential for nesting birds. Therefore, any pre-construction de-vegetation and site clearance should be carried out avoiding the bird breeding season which runs March-August inclusive;
- **Badgers** – mammal paths (thought to be those of badgers) were noted across the site. No badger setts were recorded on or immediately offsite. However, as activity patterns of this species can change over a short time it is recommended that an update badger survey is undertaken prior to the commencement of works; and
- **Hedgehog** – the site has potential to support hedgehog (*Erinaceus europaeus*), the bounding hedgerow and trees in particular. Measure should be in place to avid accidental harm/injury during site clearance and construction works.

No other ecological constraints were identified. There are no anticipated constraints relating to amphibians, riparian mammals or reptiles.

Contents

Notice to readers

Non-technical summary

Contents

1.0 Introduction

Background

Site Description

2.0 Methodology

Desk Study

Habitat Survey

Fauna

Valuation of Ecological Features

Nomenclature

3.0 Legislation

4.0 Results

Desk Study – Map of sites and species shown within Appendix 1

Habitats

Fauna

5.0 Development Constraints and Recommendations

Designated Sites

6.0 References

7.0 Plans

8.0 Photographic Plates

9.0 Appendix 1: Desk Study

1.0 Introduction

Background

1.1 Absolute Ecology LLP was commissioned to undertake a Preliminary Ecological Appraisal of a site known as Land at junction of Uttoxeter Road and Hurstons Lane, Alton, Staffordshire, ST10 4BA, Grid Reference: SK07444196.

1.2 The Assessment was undertaken on the 8th October 2019 by Helen Staton BSc (Hons) an experienced ecologist who is an Associate member of the Chartered Institute of Ecology & Environmental Management (CIEEM). Helen holds a Natural England Class 1 Bat Licence and Class 1 Great Crested Newt Licence.

1.3 The scope of this appraisal has been determined in line with the proportional approach to ecological survey, assessment and subsequent recommendations for avoidance and mitigation of impacts, which is encouraged in the emerging 'BS 42020: Biodiversity – Code of practice for planning and development'. This report has been prepared with due consideration for various best-practice guidance and methodologies including those of the Chartered Institute of Ecology and Environmental Management (CIEEM (2012)) and the emerging BS 42020.

1.4 The objective of this report is to provide the client with information on any known or potential protected or rare species that may be using the site, and to outline recommendations on how to proceed with the works in a legal and ecologically sensitive manner.

1.5 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

1.6 The survey area is situated in a rural location, within the village of Alton. The site is immediately bounded by agricultural land to the north, east and south, with a residential property to the south west and a road to the west. The site itself is dominated by improved grassland, scattered trees and hedgerows.

1.7 The wider landscape presents a wide variety of ecological features including waterbodies, watercourses including The River Churnet 650m to the north, woodland, farmland, hedgerows and tree lines.

2.0 Methodology

Desk Study

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

2.2 Information requested was as follows:-

- Records of protected species within the 2 km of the site.
- Records of rare or notable species within the 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 were 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 the 8th October 2019 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 Target notes (TN) were used to illustrate key features of interest (i.e. over mature trees / hedgerows) or to draw attention to areas considered too small to map or for the purpose of highlighting the location of an invasive plant species. Photographic plates have also been taken to help illustrate key site features.

2.6 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

2.7 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

2.8 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.

2.9 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.

Survey Constraints

Data Search

2.10 Desk study data provides information on recorded species in the area and can be helpful for targeting survey. However, it is possible that protected species that have not been identified within the data search may occur on or adjacent to the site.

Field survey

2.11 Habitats within 50 m of the site boundary were inspected as far as access allowed. Ponds up to 500m from the site were viewed where there was public/land owner access.

2.12 Fauna species present may not always leave field signs and in addition, species may take up residence on site subsequent to the survey. If no development takes place within 12 months of this survey report, the findings should be reviewed and may need updating, and a full survey should be repeated within three years

Nomenclature

2.13 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) – this 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) – this 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 – this increases 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 - this Act 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, this act 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 – Map of sites and species shown within Appendix 1

Sites

4.1 There are two statutory designated sites within 2 km of the site;

Table 1: Statutory sites within 2km

Grid Ref.	Site Name	Status	Distance from Site
SK050429	Dimmings Dale & The Ranger	SSSI	1.5km north west
SK083418	Saltersford Lane Meadows	SSSI	520m east

Dimmings Dale & The Ranger

4.2 Dimmings Dale is a predominately wooded valley located about two miles east of Cheadle. The stream, a tributary of the River Churnet, has cut trough the underlying Bunter Sandstone exposing several outcrops of the harder Keuper rocks. It carries exceptionally clean water which hosts a rich invertebrate fauna. Remnants of ancient semi-natural oak woodland along the valley have important populations of dead-wood invertebrates and, together with the outcrops, also support a rich community of mosses and liverworts.

Saltersford Lane Meadows

4.3 Saltersford Lane Meadows is situated to the east of the village of Alton in north Staffordshire. The site encompasses two species rich meadows, both examples of a traditionally managed hay-meadow. Such hay-meadows are now uncommon in Staffordshire, having declined due to changes in agricultural practice.

4.4 There are seventeen non-statutory sites within 2 km of the site;

Table 2: Non-statutory sites within 2km

Grid Ref.	Site Name	Status
SK084399	Smalley Farm	Local Wildlife 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
SK080405	Nabb Farm (south-west of)	Local Wildlife Site
SK080420	Saltersford Lane	Local Wildlife Site
SK085435	Alton Park	Local Wildlife Site
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)

Species

4.5 SER provided the following records for protected and notable species within 2 km of the site boundary (individual records discussed in detail within the Fauna section of the report):

Bats – six species of bat recorded within the search area. All bat species are European and UK protected.

Amphibian –one UK BAP species, common toad *(Bufo bufo).*

Birds – eighty-three species of bird recorded of which eleven are European protected and twenty are UK protected.

Mammal – one EU protected species of mammal; Otter (*Lutra lutra*), three UK protected species and two UKBAP species of mammal.

Reptiles – two species of reptile recorded within the search area, both UK protected and UK BAP.

Flowering plants – one UK protected species of flowering plant; Bluebell (*Hyacinthoides non-scripta*) and four species of principle concern.

Invertebrates – fifty seven species of principle concern returned within the search area.

Habitats

4.6 The following habitats or vegetation types were identified on or immediately offsite during the course of the habitat survey;

- Improved grassland
- Hedgerow
- Scattered trees

4.7 Supporting photographic plates are shown in Section 8.0.

Improved grassland

4.8 The majority of the site comprises of species poor improved grassland, dominated by perennial ryegrass (*Lolium perenne*) with occasional herbaceous species including ribwort plantain (*Plantago lanceolata*), clover (*Trifolium* sp.), broad leaved dock (*Rumex obtusifolius*), common dandelion (*Taraxacum officinale)*, creeping buttercup (*Rananculus repens*), cranesbill (*Geranium* sp.) . The grass is mown to a short sward.

Hedgerow

4.9 The southern site boundary comprises a mature hedgerow with species recorded including hawthorn (*Crataegus monogyna*), holly (*Ilex aquifolium*), sycamore (*Acer pseudoplatanus*), Ash (*Fraxinus excelsior)* and dog rose (*Rosa canina*).

4.10 The hedgerow is intact with a dense vegetative structure. Ground flora/hedgerow bases comprises of nettle (*Urtica dioica*), hairy willow herb (*Epilobium hirsutum*), common hogweed (*Heracleum sphondylium*), cow parsley (*Anthriscus Sylvestris*), foxglove (*Digitalis purpurea*).

Scattered trees

4.11 Located along the northern boundary are planted Cherry trees (*Prunus* sp.). They are semi mature planted approx. 20 years ago.

4.12 The western boundary comprises scattered trees which form the sites boundary, the trees vary in maturity with species recorded including ash, sycamore, silver birch (*Betula pendula*) and cherry.

4.13 All trees were assessed in terms of their potential for supporting roosting bats as shown within the fauna section of the report.

Fauna

Bats

4.14 SER provided sixty-six records of with records ranging in date from 1982 – 2014. Of the records, twenty-two relate to roosts or possible roosts, the closest non-historic record of which is located 413m away for an unidentified bat species. Bat species recorded within the area include; common pipistrelle (*Pipistrellus pipistrellus*), soprano pipistrelle (*Pipistrellus pygmaeus*), daubenton's (*Myotis daubentonii*), brown long-eared (*Plecotus auritus*), Natterer's (*Myotis nattereri*) and Leisler's (*Nyctalus leisleri*).

4.15 There are no buildings located onsite.

4.16 The planted cherry trees located along the northern boundary are semi mature and were assessed to be of negligible value for supporting roosting bats based on the lack of natural features which bats may utilise including rot holes, lifted bark, cracked/split limbs, dead wood, trunk cavities.

4.17 Located along the western boundary are a number of trees varying in their maturity, four of which were assessed to be of potential for supporting roosting bats (T1, T2, T3 & T4);

Table 2: Bat tree assessment

Tree ref.	Description	Roost category
T1	Mature Ash tree, single stemmed. Ivy cover on the main trunk which may be a Potential Roosting Feature (PRF). Dead wood present within the canopy. One rot hole recorded on the eastern elevation. More may be present within the canopy.	High
T2	Mature Ash tree, single stemmed. Dead wood present within the canopy and extensive decay. Ivy cover on the main trunk.	High
T3	Mature Ash, single stemmed. Ivy cover on the main trunk. Dead wood present within the canopy.	Moderate
T4	Mature Ash, single stemmed. Ivy cover on the main trunk. Dead wood present within the canopy.	Moderate

Figure 1: Location of trees with bat roosting potential (red indicates high potential, orange moderate potential and yellow low potential).



4.18 The site as a whole offers good bat foraging opportunities, especially the bounding hedgerows and trees which also offer potential commuting routes.

Badgers

4.19 SER provided records of badger within 2 km of the site (locations confidential).

4.20 No badger setts were recorded on or immediately offsite. Mammal paths were noted traversing across the eastern endo the site with paths through the base of the southern hedgerow. A sett is known to be present 25m to the south east (as surveyed by Absolute Ecology 2019). No latrines were noted onsite. It is through that the site is currently used for commuting and foraging only.

4.21 As no setts are located onsite, no direct conflicts relating to badgers and development will be raised, although due to the suitability of the habitats on and immediately offsite, an update badger survey should be completed prior to the start of works, including checking of neighbouring properties (where access is permitted). If badgers are found to be within the area, and assuming the setts are well removed from the site, precautions during development will need to be implemented as a safeguard (covering open excavations/installing mammal ladders to prevent accidental harm).

Dormice

4.22 There are no records of Dormice occurring within 2 km of the site and given the dominant habitats present onsite, it is considered that dormice are likely to be absent from the site.

Water Voles and Otters

4.23 Ten records of water vole (*Arvicola amphibious*) were returned ranging in dates from 1982 – 2007 and three records of otter (*Lutra lutra*) dating 2002 - 2013. The closet of the records relate to an historic water vole record (1997) located 633m away.

4.24 As no waterbodies or water courses are present on or near the site, there are no issues relating riparian mammals and the proposed development. The nearest water feature is located 650m to the north (River Churnet) and is well removed from the application site.

Other mammals

4.25 SER returned records of hedgehog (*Erinaceus europaeus*), brown hare (*Lepus europaeus*) and polecat (*Mustela putorius*) within the search area.

4.26 Seven hedgehog records were returned including one 2015 record for a sighting 187m away from the application site. The bounding hedgerow and tree line present onsite are very derisible for this species, providing foraging, commuting and hibernation opportunities. Hedgehogs are a UK species of principle concern and precautionary measures should be incorporated into the works.

4.27 Sixteen records of brown hare were returned ranging in date from 18982-2014, and all for sightings over 1km away. The habitats onsite are generally considered unsuitable for this species, as they generally prefer more open habitats such as farmland, unimproved grassland and heathland. It is therefore considered that brown hares are likely to be absent.

4.28 Four polecat records were returned from 1993-2007. Polecats shelter within tree roots/rabbit burrows/stone walls features of which, are present on and offsite. However, given that no such features will be directly affected by the proposed works, impacts on this species are considered minimal.

Birds

4.29 A number of bird species were returned during the data search by SER. The hedgerow and trees onsite and bounding the site are of particular high value for nesting and foraging birds with a number of bird species either observed or heard on site during the survey including: robin (*Erithacus rubecula*), wren (*Troglodytes troglodytes*), blackbird (*Turdus merula*) and magpie (*Pica pica*).

Reptiles

4.30 SER provided records of two species of reptile; slow worm (*Anguis fragilis*) and grass snake (*Natrix natrix*). Of the twenty-six grass snake records, none have been recorded within the last ten years. Three slow worm records were returned of which one dates from 2012 and is for a sighting 1.6km away.

4.31 The dominant habitat type onsite of improved grassland is considered sub optimal for reptile species due to its frequent management. The bounding hedgerow does offer some shelter/cover although not extensively. Given the lack of recent records and the dominance of improved grassland, site has been assessed as low value for reptiles.

Amphibians

4.32 SER returned no records of great crested newt within 2km of the site.

4.33 There are no ponds onsite. There are three ponds within 500m of the application site – Pond 1 is located 377m to the north east, Pond 2 is located 400m to the north and Pond 3 is located 413m to the south east. See Figure 2 for pond location plan.

4.34 The ponds are all located to the east of the application site, with no ponds located to the west. Therefore, should the ponds identified within 500m of the site be great crested newt breeding ponds, the likelihood of any newts dispersing westwards is considered unlikely. Additionally the habitat onsite are of sub-optimal value, dominated by managed improved grassland (offering little shelter/cover).

4.35 Using Natural England's Risk Assessment Tool, it can be demonstrated that the proposed development (measuring approx. 0.3ha) is categorised as 'Green: Offence Highly Unlikely'.

Table 3: Natural England's GCN Risk Assessment Tool

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)	0.1 - 0.5 ha lost or damaged	0.005
Individual great crested newts	No effect	0
	Maximum:	0.005
Rapid risk assessment result:	**GREEN: OFFENCE HIGHLY UNLIKELY**	

4.36 **"Green: offence highly unlikely"** indicates that the development activities are of such a type, scale and location that it is highly unlikely any offence would be committed should the development proceed. Therefore, no licence would be required and therefore no survey would be required.

Figure 2: Pond Location Plan



Invertebrates

4.37 SER did not provide any records of protected invertebrate species and 57 records of UKBAP 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 residential development. Ecological constraints and recommendations with regard to any development are discussed below.

Designated Sites

5.2 There are two statutory sites present within 2km of the site.

5.3 There are seventeen non-statutory sites within 2km of the site, no impacts are envisaged, as they are well removed and isolated from the proposed development.

Habitats

5.4 **Habitat Loss -** In accordance with the provision of Chapter 11 of the National Planning Policy Framework (Conserving and Enhancing the Natural Environment) and Local Planning Policy, biodiversity enhancement measures should be incorporated into the landscaping scheme of any proposed works to maximise the ecological value of the site. This will involve, for example, the planting of native seed/fruit bearing species which will be of value to wildlife and creation of open flower-rich habitats for bees.

5.5 There are two habitats onsite of ecological importance;

- **Hedgerow**: UK BAP Priority Habitat
- **Mature Trees/ Hedgerows**: UK BAP Priority Habitat

5.6 **Hedgerows** - Any work/alternations which may affect the south boundary hedgerow should be done under ecological guidance. Species rich native hedgerows should be retained where possible and buffered from development works by a minimum of 2m. Any loss to hedgerows should be mitigated by the planting of new native hedgerows around the site. The south boundary hedgerow is considered to be an 'important' hedgerow under the Hedgerow Regulations 1997. Should some or all of hedgerow require removal, a hedgerow removal licence will be required from the local planning authority.

5.7 **Mature Trees/ Hedgerows** – Current plans suggest that the majority of the mature trees and all hedgerows are to be retained, therefore the proposed works should have no effect on this habitat. This is with the exception of a TN2 mature Ash tree located to the north of the access gate (off Uttoxeter road). As this tree is mature, it is recommended in the first instance that it is retained.

5.8 Where retention is not possible, replacement tree planting should be incorporated into the landscaping. This tree also has bat roosting potential resulting in the requirement of further survey effort (see recommendations).

5.9 Botanically, the remainder of the site does not appear to have any rare species and it is not particularly diverse.

Potential Impacts of Works without Mitigation

5.10 The proposed site works involve the construction of five residential properties with associated gardens/parking/access. Potential impacts are likely to include the following;

Bats

5.11 Loss of a roost/s

Nesting Birds

5.12 Loss of nesting and foraging opportunities. Site clearance may directly harm nesting birds if carried out during the breeding season (March to August inclusive).

Badgers

5.13 Loss of foraging/commuting habitat.

Hedgehog

5.14 Loss of habitat. Site clearance may directly harm individual hedgehogs.

Recommendations

5.15 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

Trees

5.16 Four trees have been highlighted as having potential for supporting roosting bats (as shown in Figure 1):

- High potential – T1, T2
- Moderate potential – T3, T4

5.17 In the first instance, retention is recommended which will negate the need of any further survey effort. Although please note, retention of the trees will also include protection during and post works (with Root Protection Areas) with no alterations/modifications carried out.

5.18 Where retention is not possible, and where tree modifications are required (i.e. removal of dead wood, crown reduction, ivy removal) further surveys will need to be undertaken to establish the presence/absence of roosting bats.

5.19 Trees of low potential should be subject to one bat activity survey, trees of moderate potential subject to two (a dusk emergence and a dawn re-entry) and trees of high potential subject to three surveys (two dusk and one dawn-entry). Bat activity surveys should be carried out during the optimum survey period which runs May – September and within suitable weather conditions.

5.20 If following the surveys, no bats are recorded roosting within the moderate or high value trees, the removal of the trees can commence under a Precautionary Working Method Statement (PWMS).

5.21 If during the surveys, a bat roost(s) is recorded, and the tree cannot be retained, a Natural England mitigation licence will be required for which a mitigation strategy will need to be devised. The strategy will need to detail how the onsite bat population(s) will be maintained (through installation of new roosting features i.e. bat boxes). The level and type of mitigation requirements are dependent on the species and the number of bats roosting.

Hedgerows

5.22 The hedgerow onsite should be retained where possible as they are of high foraging/commuting benefit for bats and their loss may have a significant impact on the local bat population.

5.23 Where retention is not possible, or where major severance is predicted, bat transect surveys may be required.

Lighting

5.24 Particular consideration should be given to potential light spill that can affect the foraging and commuting strategy of many species and should be avoided onto nearby trees, hedges and woodland and should not exceed 200 lumens (150 watts). Particular attention is made regarding following ilp-guidance-note-8-bats-and-artificial-lighting-oct-18-compressed Guidelines.

5.25 Where possible, any security lighting should be on a timer setting and faced down to prevent spillage onto nearby habitats. Height of any lighting columns around the development should not exceed eight metres to further reduce any ecological impact of light pollution. Low-pressure sodium lamps (SOX) fitted with hoods are recommended to direct light below the horizontal plane to minimize upward light spill.

Scaffolding

5.26 As a further precautionary measure, it is recommended that no plastic sheeting or mesh be used on any scaffolding erection during the housing development, to prevent potential snaring and entanglement of volant bats.

Biodiversity enhancement

5.27 It is recommended that external bat boxes be fitted, in order to provide additional roosting opportunities. These should be incorporated into the landscaping of the development, being fitted to mature trees around the boundary edges where possible.

5.28 Bat boxes should be sited along a north-east and a south-east elevation where possible. These should be sited ca. 4-6m in elevation. Recommended commercially available woodcrete Bat boxes, such as Schwegler 1FFH and the improved treble crevice bat box (The Nest Box company) for example, are considered to be suitable receptors for crevice-dwelling bats.

5.29 Further information of providing access for roosting bats can be found on: Bat Conservation Trust website: www.bats.org.uk/pages/new_build.html. The Nest Box Company: www.nestbox.co.uk/Improved-Treble-Crevice-Bat-Box.html NHBS: www.nhbs.com/schwegler_bat_boxes_eqcat_422.html

5.30 It is encouraged that any landscaping relating to the proposed development should encompass native tree and shrub species to encourage foraging potential for species. No plant species listed on Schedule 9 of the Wildlife and Countryside Act 1981 should be planted during any landscaping within this development. For further details of Schedule 9 plants visit the Defra website: www.defra.gov.uk/wildlife-pets/non-native.

Birds

5.31 With regards for nesting birds, the habitats onsite (trees, hedgerows) are of high value for nesting and foraging birds. Therefore, any pre construction de-vegetation/site clearance works should be done outside of the bird breeding season which runs March-August inclusive. Where this is not possible and works are to be scheduled during the bird breeding season, a nesting bird check should be carried out by a competent surveyor. Should active nests be present, an exclusion zone will need to be established around the nest(s) and works within this area will need to be avoided until the young have fledged.

5.32 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/.

Badgers

5.33 Although no badger setts were observed on or immediately offsite at the time of the survey, activity patterns of this species can change over a short time. It is therefore recommended that an update badger survey is undertaken prior to the commencement of works. Badger surveys can be undertaken at any time of year and to allow sufficient time to obtain a Natural England badger mitigation licence (should a sett be discovered on or immediately offsite) the survey should be scheduled three months prior to the commencement of works.

5.34 Additionally, during construction works, excavations should be left closed overnight or a mammal ladder installed. The ladder needs to be of a size suitable for badgers and can be constructed out of a piece of wood/timber.

Hedgehogs

5.35 The hedgerow and tree line onsite are of suitability for hedgehogs offering potential shelter, foraging and hibernation.

5.36 Hedgehogs are protected in England under Schedule 6 of the Wildlife and Countryside Act (1981) and are also listed under Section 41 of the Natural Environment and Rural Communities (NERC) Act (2006). This lists English species that were formerly identified as requiring action under the UK Biodiversity Action Plans and which continue to be regarded as conservation priorities under the current UK Post-2010 Biodiversity Framework.

5.37 Precautions should be in place to avoid accidental killing/injury of this species, and measures should be incorporated into the development to maintain/enhance the value of the site:

- Contractors made aware of the potential presence of hedgehogs;
- Vegetation clearance to be carried out by hand, slowly and methodically, particularly any areas of scrub;
- Should any hedgehogs be discovered onsite, they should be picked up (with a gloved hand) and relocated offsite, away from the working areas. They should be placed under a hedgerow/vegetation;
- If any hibernating hedgehogs are discovered during the works, they must be recovered with vegetation and works must temporarily cease in that area. Site contractors should contact an ecologist, who will visit site to ensure that suitable replacement refugia (e.g. leaf litter pile or accumulation of material most resembling what the hedgehog has been found in) can be constructed in an undisturbed part of the site that will remain unaffected for the rest of the winter, likely beneath one of the hedgerows. The ecologist, wearing suitable thick gloves, will then carefully translocate the hedgehog to the hibernacula. If there is any doubt over translocating the hedgehog to a different part of the site, or if the hedgehog appears to be harmed or underweight, the ecologist will take the hedgehog into care and will contact the local wildlife hospital (likely the RSPCA's Stapeley Grange Wildlife Centre) for advice.

- During construction works, any excavations left open overnight should be installed with a mammal ladder (piece of wood) to allow any hedgehogs (or other mammals including badger) an ease of escape;

- As the site's redevelopment may result in the loss of shelter opportunities for this species, and as any new properties and gardens will fragment the site, inhibiting easy mammal dispersal, it is recommended that in accordance with the Hedgehog Street Scheme (http://www.hedgehogstreet.org), the new fence lines are constructed containing a small hole within the base to allow continued movement. The gap needs to be 13x13cm or 5 inches square and so will be too small for most pets. Alternatively, a pre-made hedgehog friendly gravel board can be installed at the base of the fences (http://www.jarrettfencing.co.uk/product/hedgehog-gravel-board/). This will not only maintain any value of the site for hedgehogs, but will also enhance the site.

6.0 References

Anon (1995) *Guidelines for Baseline Ecological Assessment*. Institute of Environmental Assessment. Chapman & Hall.

Anon (1995) *The UK Biodiversity Action Plan*. Joint Nature Conservation Committee, Peterborough.

Anon (1999) *Advice Sheet 10: Reptile Survey*. Froglife, Peterborough.

Anon (2002) *Badgers and Development*. English Nature, Peterborough.

Anon (2003) *Handbook for Phase 1 Habitat Survey – A Technique for Environmental Audit* (Revised reprint). Joint Nature Conservancy Council, Peterborough.

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Foster, J. (2001) *Great Crested Newt Mitigation Guidelines*. English Nature, Peterborough.

Gent, T. & Gibson, S. (1998) *Herpetofauna Workers Manual*. Joint Nature Conservation Committee, Peterborough.

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Mitchell-Jones, A.J. (2004). *Bat Mitigation Guidelines*. English Nature, Peterborough.

Mitchell-Jones, A.J. & McLeish, A.P. [Eds.] (2004). *The Bat Workers Manual* (3rd edition). Joint Nature Conservancy Council, Peterborough.

Rose, F. (1991). *The Wild Flower Key*. Frederick Warne, London.

Websites used:

Protected Sites: www.magic.gov.uk

Protected Species: http://data.nbn.org.uk/

Rotherham Biodiversity Action Plan:
http://www.rotherham.gov.uk/info/1009/wildlife/946/biodiversity_action_plan/1

UKBAP: http://jncc.defra.gov.uk/page-5155

www.rspb.org.uk

www.streetmap.co.uk

www.maps.google.co.uk

www.bing.com/maps

Web addresses for access to full UK legislation and policy text:

Conservation (Natural Habitats &c.) Regulations 1994:
http://www.opsi.gov.uk/si/si1994/uksi_19942716_en_1

Conservation (Natural Habitats &c.) (Amendment) Regulations 2007:
http://www.opsi.gov.uk/si/si2007/uksi_20071843_en_1

Conservation (Natural Habitats &c.) (Amendment) Regulations 2009:
http://www.legislation.gov.uk/uksi/2009/6/pdfs/uksi_20090006_en.pdf

Habitats Directive:
http://ec.europa.eu/environment/nature/legislation/habitatsdirective/index_en.htm

Wildlife and Countryside Act 1981:
http://www.legislation.gov.uk/ukpga/1981/69

Countryside and Rights of Way Act 2000:
http://www.legislation.gov.uk/ukpga/2000/37/contents

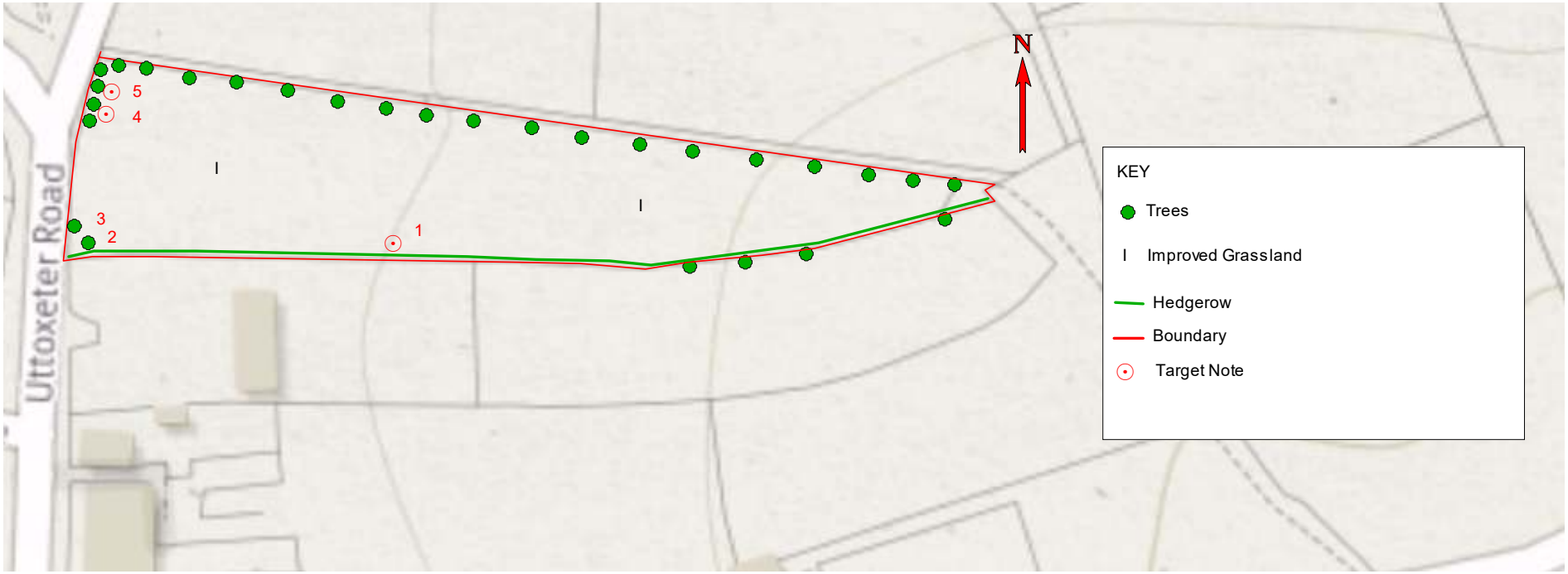
Protection of Badgers Act 1992:
http://www.opsi.gov.uk/ACTS/acts1992/ukpga_19920051_en_1

Natural Environment and Rural Communities Act 2006:
http://www.legislation.gov.uk/ukpga/2006/16/contents

National Planning Policy Framework 2012:
http://www.communities.gov.uk/publications/planningandbuilding/nppf

7.0 Plans

Phase I Habitat Survey Map



8.0 Photographic Plates

Plate 1: View of the site looking east, showing improved grassland and southern boundary hedgerow



Plate 2: View of the site looking north east showing improved grassland and planted cherry trees



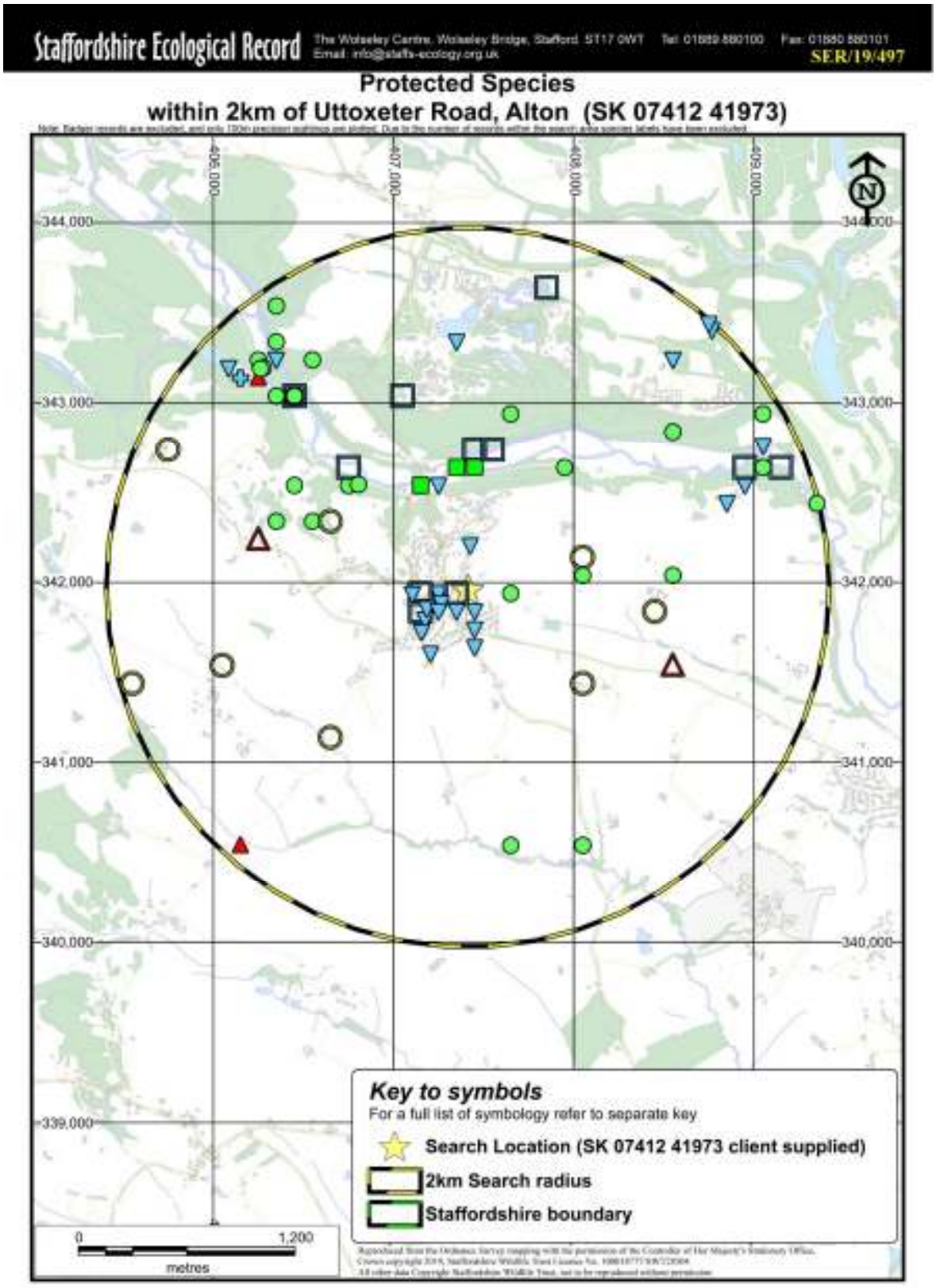
Plate 3: Hedgerow along the southern boundary

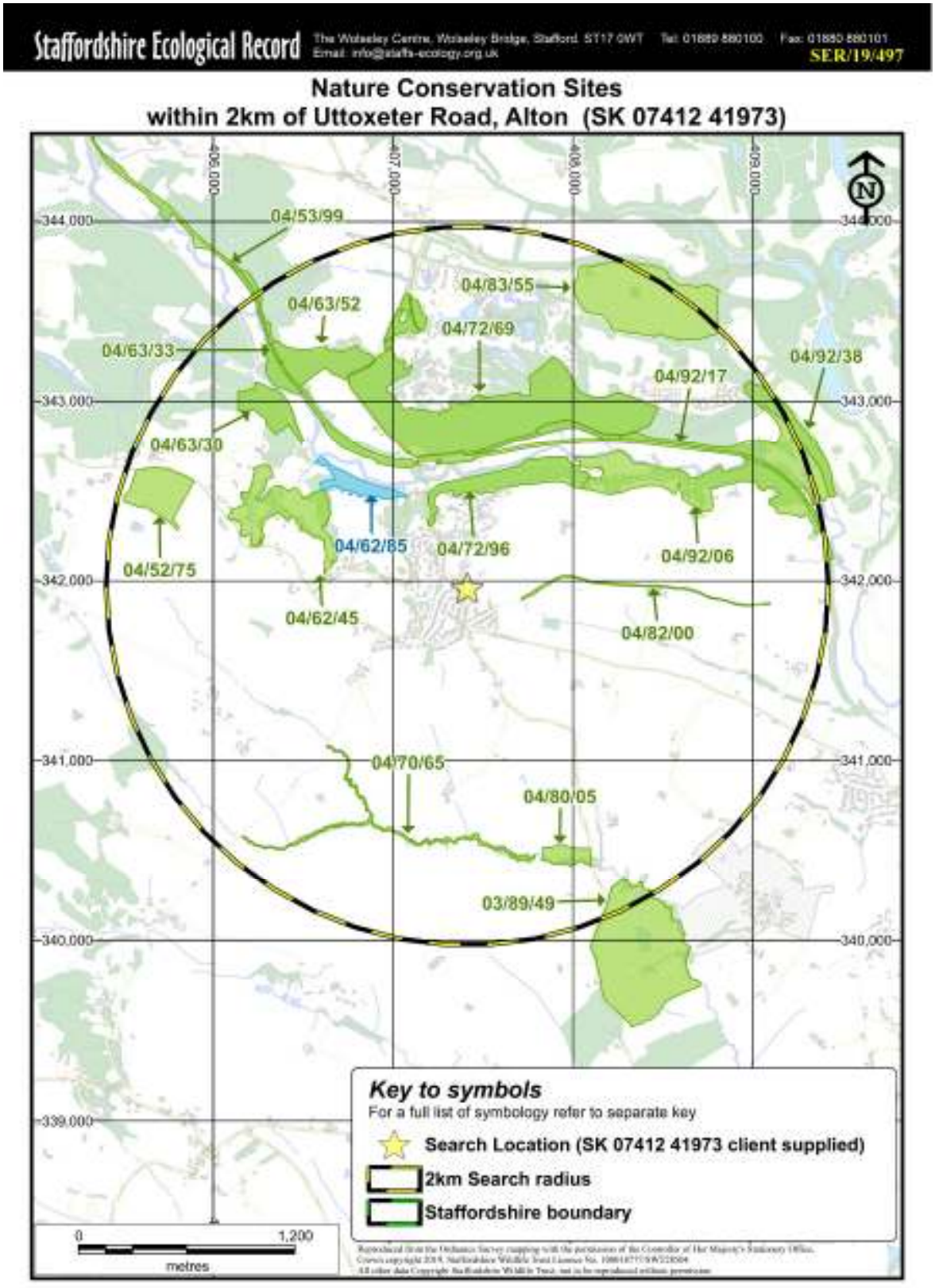


Plate 4: Tree line on western boundary



9.0 Appendix 1: Desk Study




Staffordshire Ecological Record
The Wolseley Centre, Wolseley Bridge, Stafford. ST17 0WT Tel: 01889 880100 Fax: 01889 880101
Email: info@staffs-ecology.org.uk
SER/19/497
Nature Conservation Sites
within 2km of Uttoxeter Road, Alton (SK 07412 41973)
406,000
407,000
408,000
409,000
344,000
343,000
342,000
341,000
340,000
339,000
N
04/53/99
04/83/55
04/63/52
04/72/69
04/63/33
04/92/38
04/92/17
04/63/30
04/62/85
04/72/96
04/92/06
04/52/75
04/62/45
04/82/00
04/70/65
04/80/05
03/89/49
Key to symbols
For a full list of symbology refer to separate key
Search Location (SK 07412 41973 client supplied)
2km 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
- Sites of Special Scientific Interest
- Local Nature Reserves
- NNR (boundary not available owing to OS restrictions)
- SSSI (boundary not available owing to OS restrictions)
- 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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