

Preliminary Ecological Appraisal

**Bismark Street, Worsbrough Common
Barnsley S70 4NA**

April 2019

Notice to readers

This report has been prepared by Absolute Ecology 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).

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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.

Absolute Ecology cannot take responsibility where Government, national bodies or industry subsequently modify standards.

Absolute Ecology cannot accept responsibility for data collected from third parties.

Reference to sections or particular paragraphs of this document taken out of context may lead to misrepresentation.

Non-technical summary

Absolute Ecology LLP was commissioned to undertake a Preliminary Ecological Appraisal of a site known as Bismark Street, Worsbrough Common Barnsley S70 4NA, Grid reference: SE 34780 05348. The Preliminary Ecological Appraisal was undertaken on 1st April 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), assisted by Sarah Higginson.

The survey area is situated in a predominantly urban location, within the town of Worsborough Common. The site is immediately bounded by roads, commercial & residential properties. The site is mainly amenity grassland, tall ruderal and a small area of scrub with individual young trees.

There are no statutory or non-statutory sites located within 1km of the site boundary, though LBAP habitats are identified within 1Km of the site given the distance to these sites and the isolation of the site it is highly unlikely that the development will impact on the LBAP habitats.

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

- **Nesting birds** – With regards for nesting birds, the habitats onsite 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-September inclusive;
- **Hedgehogs** -The scrub and hedgerows onsite are of suitability for hedgehogs offering potential shelter, foraging and hibernation. Therefore protection measures need to be put in place prior and before development works starts.
- **Badger** – Prior to any development a pre site inspection should be made.

No other ecological constraints were identified. There are no anticipated constraints relating to riparian mammals or great crested newts.

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1.0 Introduction

Background

- 1.1 Absolute Ecology LLP was commissioned to undertake a Preliminary Ecological Assessment of a site known as Bismark Street, Worsbrough Common Barnsley S70 4NA, Grid reference: SE 34780 05348
- 1.2 The Assessment was undertaken on the 1st April 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. Helen was assisted by assistant ecologist Sarah Higginson who is a Qualifying member of the Chartered Institute of Ecology & Environmental Management (QCIEEM).
- 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)¹ 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 site is immediately bounded by roads, commercial properties. The site is mainly amenity grassland, small area of scrub, young individual trees and area of tall ruderal.



Figure 1: Aerial View of the site with approximate site boundary shown by red marker

2.0 Methodology

Desk Study

- 2.1 In order to compile background information on the site and immediate surroundings Sheffield Biological Records Centre (SBRC) was contacted.
- 2.2 Information requested was as follows:-
- Records of protected species within the 1 km of the site.
 - Records of rare or notable species within the 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 were present:-
- Statutory site designations on or within 1 km of the site.
 - Statutory sites designated for bats within 1 km of the site.

Habitat Survey

- 2.4 The site was visited on the 1st April 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 The survey was undertaken early spring when not all botanical species are visible. However, given the sites dominant habitat type of species poor improved grassland, the species recorded at the time of the survey are considered representative of the habitat type present and it is considered unlikely that the time of year which the survey was conducted, would act as a constraint to the results.
- 2.13 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

- 2.14 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 –

Sites

- 4.1 There are no statutory designated sites within 1 km of the site.
- 4.2 There one no statutory site within 1 km of the site. Though LBAP habitats are identified within 1Km of the site. (Please see page 10 for location of LBAP Habitats)

Species

- 4.3 SERC provided the following records for protected and notable species within 1 km of the site boundary (individual records discussed in detail within the Fauna section of the report):

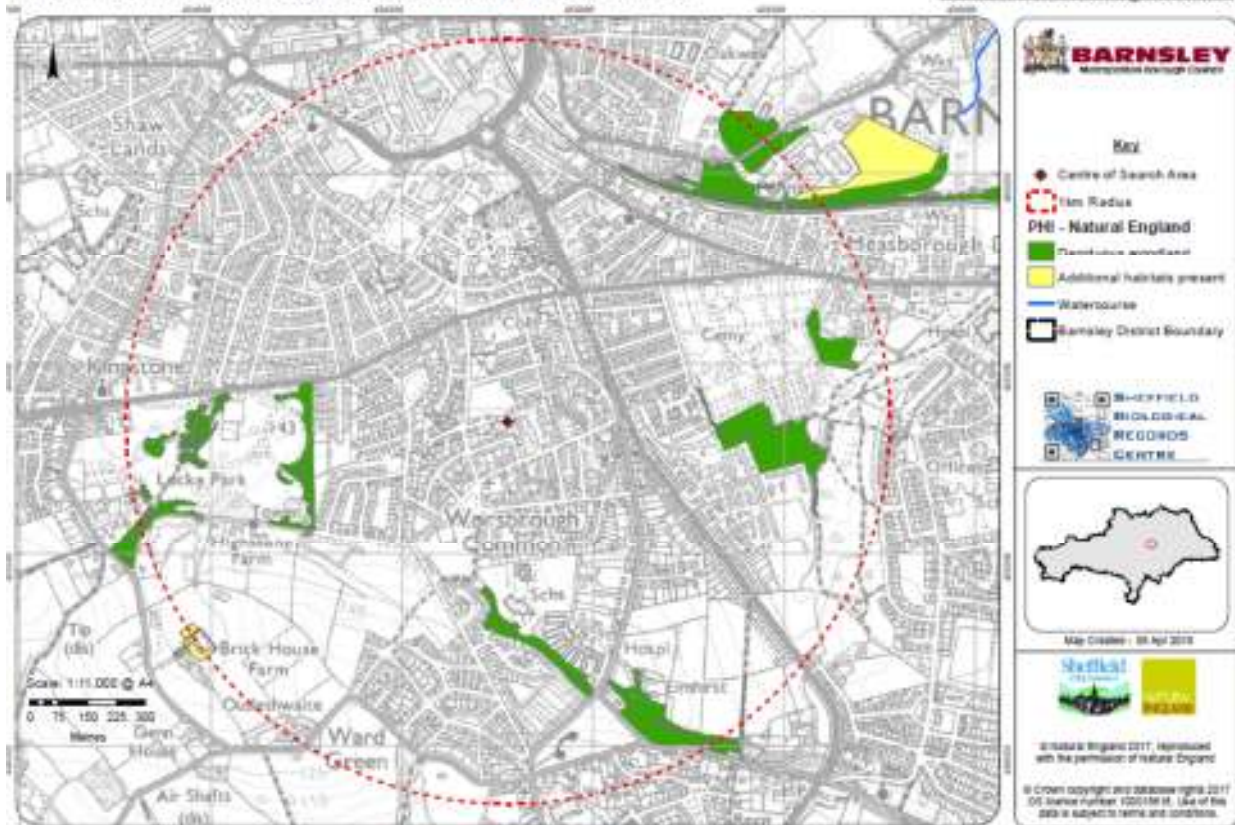
Bats – One species of bat recorded within the search. All bat species are European and UK protected.

Birds – 2013 records of species of bird have been recorded within 2km of the site, 24 species of bird recorded all either European or UK protected and 26 UKBAP species.

Amphibian – One EU and UK protected species of amphibian recorded, great crested newt (*Triturus cristatus*).

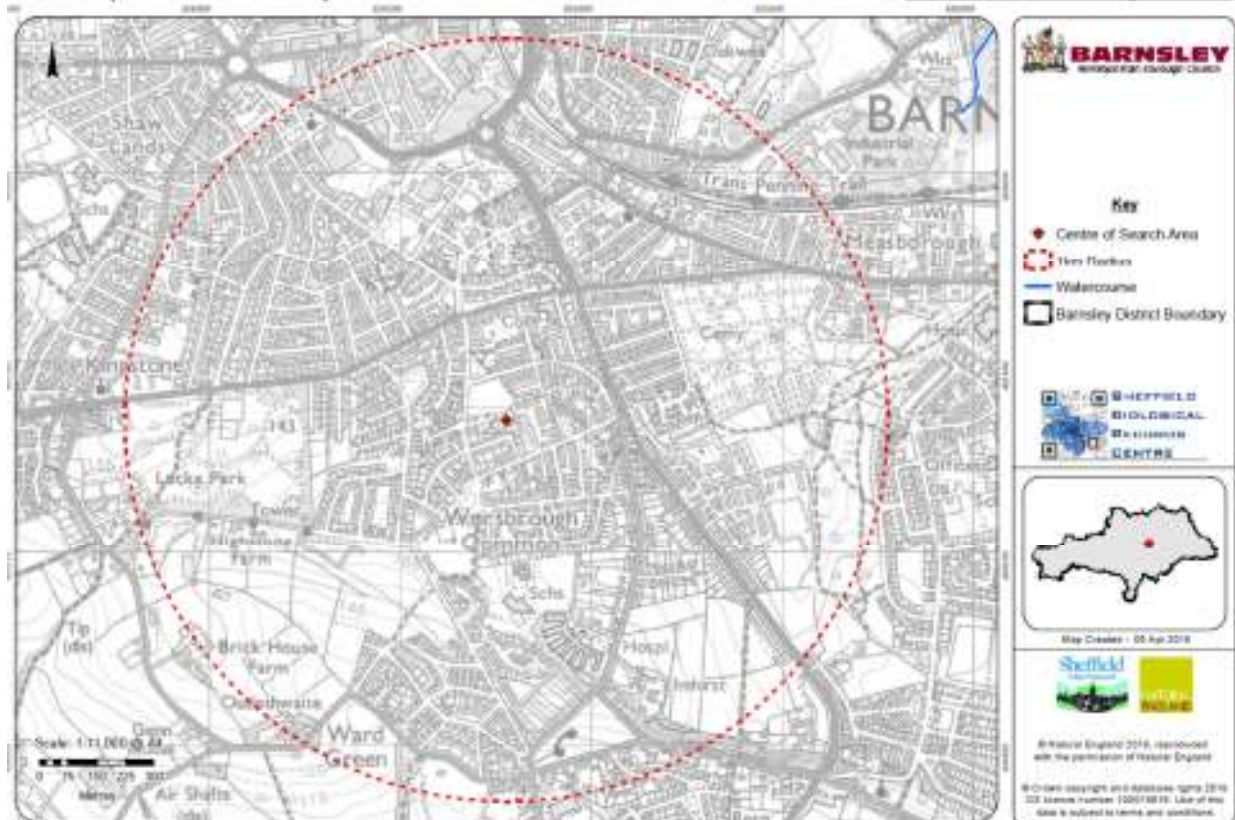
Known Distribution of LBAP Habitats within the Search Area

Bismark St. Worsbrough Common



Statutory and Non Statutory Local Wildlife Sites Within the Search Area

Bismark Street, Worsbrough Common



Habitats

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

- A2 - Scrub
- A3 - Scattered trees
- J1.2 - Amenity grassland
- C3.2- Tall ruderal

A2 - Scrub

4.5 Located to the north east is a small section of bramble, nettle and dock it was found to be continuous or particularly dense.



Plate 1: Showing a small area of scrub

A3 - Scattered trees

4.6 Located within the western garden area are a number of scattered trees including Sycamore, Elder and willow.

4.7 All trees were assessed in terms of their bat roosting potential as shown within the fauna section of the report.



Plate 2: Showing individual tree on site.

J1.2 - Amenity grassland

- 4.8 Majority of the site was found to be mainly amenity grassland which showed little in the way of any ecological interest, species such as Sheperds purse (*Capsella bursa-pastoris*), Perennial ryegrass (*Lolium perenne*), common daisy (*Bellis perennis*) and broad-leaved dock (*Rumex obtusifolius*).



plate 3: Showing amenity grassland on site.

C3.2 – Tall ruderal

- 4.9 Within the site is a small area of tall ruderal which includes broad-leaved plantain (*Plantago major*), nettle (*Urtica dioica*), cleavers (*Galium aparine*), Pineapple weed (*Matricaria discoidea*)



Plate 4: Showing a small section of tall ruderal.

Fauna

Bats

SBRC provided records of bat species within 1 km of the site from foraging to roosting bats a total of one species was identified using the ecological record centre information.

Trees

- 4.10 All trees within the red line boundary were assessed in terms of their bat roosting potential. No trees were assessed to be of value as they lacked (i.e. rot holes/lifted bark/dead wood/split limbs).

Foraging

- 4.11 The site provides low value foraging opportunities, given the location and the high density of lighting surrounding the site, though it may be used at times for some foraging/feeding bat activity

Badgers

- 4.12 SBRC provided no records of badger within 1 km of the site.
- 4.13 No badger setts were recorded on or immediately offsite. No mammal paths were observed, and the site is isolated from any habitat that would support badgers.

Dormice

- 4.14 There are no records of Dormice occurring within 1 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

- 4.15 There are no records of water vole or otter within 1 km. No watercourses or waterbodies are present on or immediately offsite, impacts on this species is considered negligible.

Other mammals

- 4.16 SBRC returned no other records within the search area.

Birds

- 4.17 SBRC returned 2013 records of bird species during the data search.
- 4.18 The habitats of scrub, and trees onsite are considered to be valuable to nesting birds given the trees and areas of scrub.

Reptiles

- 4.19 SBRC returned no records of grass snake, the site itself provided limiting resources for reptiles such as grassland extensive dense scrub and other refugia, given the isolation of the site from other habitats that may support reptiles it is considered highly unlikely that the development would have an impact on reptile species.

Amphibians

- 4.20 SBRC returned a total of two records of great crested newts and toad in the area. The closest record is 900 meters from site.
- 4.21 There are no waterbodies present onsite or within 250 meters of the site, the site is isolated by road and commercial properties which are enough to be major barriers to migrating GCN

Invertebrates

- 4.22 SBRC returned no records of UK and European protected 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 no statutory sites present within 1km of the site.
- 5.3 There are no non-statutory sites within 1km of the site.
- 5.4 LBAP habitats are identified within 1Km of the site.
- 5.5 No direct impacts are envisaged, as they are well removed and isolated from the proposed development.

Potential Impacts of Works without Mitigation

- 5.6 If residential development is undertaken in the future, potential impacts are likely to include the following;

Nesting Birds

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

Hedgehog

- 5.8 Loss of habitat. Site clearance may directly harm individual hedgehogs.

Recommendations

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

Badgers

- 5.10 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.
- 5.11 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.

Birds

- 5.12 With regards for nesting birds, the habitats onsite (scrub, hedgerows, trees) 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.
- 5.13 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/>.

Hedgehogs

- 5.14 The scrub and hedgerows onsite are of suitability for hedgehogs offering potential shelter, foraging and hibernation.
- 5.15 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.
- 5.16 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;
 - 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.
- Anon (2004) *Reptiles: Guidelines for Developers*. English Nature, Peterborough.
- Foster, J. (2001) *Great Crested Newt Mitigation Guidelines*. English Nature, Peterborough.
- Gent, T. & Gibson, S. (1998) *Herpetofauna Workers Manual*. Joint Nature Conservation Committee, Peterborough.
- Hundt L (2012) *Bat Surveys: Good Practice Guidelines*, 2nd edition, Bat Conservation Trust.
- 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>

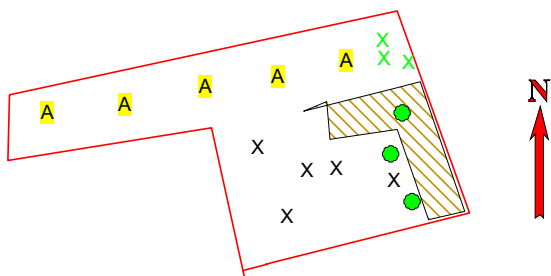
Protection of Badgers Act 1992:
http://www.opsi.gov.uk/ACTS/acts1992/ukpga_19920051_en_1

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



KEY	
	Amenity Grassland
	Tall ruderal
	Individual trees
X	Short Ephemeral/Perennial

