

SF 2794 | LAND OFF KERESFORTH HILL ROAD, BARNSELY

ECOLOGICAL APPRAISAL REVISION B

May 2018 | For Planning

SMEEDEN FOREMAN

Landscape Architects ■ Urban Designers ■ Ecologists ■ Arboriculturists

Document check sheet

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## EXECUTIVE SUMMARY

Smeeden Foreman Limited has been commissioned to undertake an ecological appraisal of land off Keresforth Hill Road in Barnsley, South Yorkshire. The proposals involve the development of the site for residential use.

### *Designated sites*

The site contains no statutorily or non-statutorily designated nature conservation sites. Consultation with Sheffield Biological Record Centre provided information on a number of designated nature conservation sites within 2km. It is considered that due to the distance of the proposals site from these designated sites, intervening roads and built-up areas and the nature of the proposed development, no adverse impact upon these sites is anticipated.

### *Habitats*

The habitats within the proposals site are generally considered to be of limited conservation value. A hedgerow which borders the western boundary is considered to be of higher value as it is likely to be utilised by a range of wildlife. This hedgerow is to be unaffected by the proposals.

In order to protect habitats of ecological value present and ensure that the proposed development provides enhancement to wildlife, recommendations such as the protection of trees and hedgerows on site, appropriate native landscaping and a sympathetic lighting scheme have been made.

### *Species*

- Great crested newt – no adverse impact upon this species is anticipated as a result of the proposed development.
- Bats – There are no buildings or trees on site assessed as having potential for roosting bats. Features to the boundary are considered likely to be utilised by commuting and foraging bats; recommendations such as the adoption of a sympathetic lighting scheme and native buffer planting have been made to ensure the site remains attractive for use by bats.
- Breeding birds – any proposed vegetation clearance will be undertaken outside of the nesting bird period (March – August inclusive) unless checks are made by an appropriately qualified ecologist and active nests are found to be absent. Recommendations to enhance the site for nesting birds include appropriate native planting, the installation of species-specific nest boxes and sympathetic management of retained hedgerows.
- Badgers – no signs of badger were recorded on site. Due to the set back of the proposed dwellings from the woodland habitat adjacent to the north and no signs of badger being noted from the proposals site within the woodland habitat, no direct impact upon badgers is anticipated; however they are known to occur within the area and with suitable habitat adjacent to the site, precautionary working methods are recommended to ensure badgers are not harmed during proposed construction works.
- Hedgehog – the site comprises suitable habitat for use by hedgehog therefore precautionary working methods have been recommended for adoption during construction and recommendations for the provision of gaps within fences/walls within the proposed development have been made to allow free movement of hedgehog across the site.

## 1.0 INTRODUCTION

- 1.1.1 Smeeden Foreman Limited has been commissioned to undertake an Ecological Appraisal of a site located off Keresforth Hill Road in Barnsley, South Yorkshire (central grid reference: SE 326048), hereafter referred to as the 'site'.
- 1.1.2 This report will include the following information gathered by desk study and an extended phase 1 habitat survey:
- Proximity to statutory and non-statutory designated sites;
  - Proximity to existing records of protected species; and,
  - Site habitat appraisal and potential to support protected species.
- 1.1.3 A review of the above information will be made to identify any features or sites of ecological interest which may be affected by the development proposals. Where potential impacts or protected species are identified the need for mitigation measures and requirements for further surveys will be discussed.
- 1.1.4 The report has been commissioned to inform a planning application for the development of the site for residential purposes, with five dwellings proposed and an access road leading off Keresforth Hill Road.

## 2.0 SITE DESCRIPTION

- 2.1.1 The site is located approximately 3km to the south-west of Barnsley within Dodworth; it is approximately 0.5 hectares in size and comprises pasture grassland which has been subject to horse grazing. A hedgerow marks the western boundary, with fencing bordering the northern, southern and eastern boundary (refer to *Figure 01* below).



**Figure 01: Aerial view of site location**

- 2.1.2 Habitats surrounding the site include woodland, which lies adjacent to the north and part of the western boundary. A residential dwelling and its associated garden are adjacent to the remainder of the west. The M1 motorway is adjacent to the east of the site, with the verge of the motorway comprising tree and shrub planting. The southern boundary is marked by the grass verge of Keresforth Hill Road and beyond the road to the south are further areas of woodland habitat.

### 3.0 PRINCIPLE LEGISLATION AND POLICIES

3.1.1 The national nature conservation legislation and policies that may be relevant to the proposed development are listed below. A brief explanation of the principle legislation and policies relating to nature conservation, biodiversity and ecology is provided in *Appendix 01*.

#### *Principle Legislation and Policies*

- Wildlife and Countryside Act 1981 (as amended)
- EC Habitats Directive (92/43/EEC)
- EC Birds Directive (79/409/EEC)
- Countryside and Rights of Way Act 2000
- Protection of Badgers Act 1992
- United Kingdom Biodiversity Action Plan (BAP)
- Natural Environment and Rural Communities Act (NERC), 2006 – Biodiversity Duty
- Hedgerow Regulations 1997
- National Planning Policy Framework (NPPF)

### 4.0 BASELINE INFORMATION

#### 4.1 METHODOLOGY

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4.1.1 The ecological interest of the site and its surroundings has been investigated by a combination of the following:

- Field survey of the site and immediate surroundings including a phase 1 habitat survey.
- Consultation with relevant bodies to obtain existing protected species records and statutory / non-statutory designated sites information within local area within 2km of the development site: Sheffield Biological Records Centre, Sheffield Bat Group and Sheffield Badger Group.
- The UK Biodiversity Action Plan (UKBAP);
- The Barnsley Biodiversity Action plan (LBAP);
- Magic map, a government website for nature conservation information; and,
- Aerial photographs;

#### 4.2 NATURE CONSERVATION DESIGNATED SITES

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##### *Statutory Designations*

4.2.1 One statutorily designated nature conservation site lies within 2km of the proposals site boundary being Worsbrough Country Park Local Nature Reserve (LNR). This site is detailed within Table 01 below.

4.2.2 No other European or national statutory designated sites are present within 2km of the proposed development site such as Sites of Special Scientific Interest (SSSI), Ramsar Sites, Special Protection Areas (SPA), Special Areas of Conservation (SAC) or National Nature Reserves (NNR).

**Table 01: Statutorily designated sites within 2km**

Site Name	Designation	Grid reference	Location from site	Notes
Worsbrough Country Park	Local Nature Reserve [1]	SE3503	1.8km	Comprises wetland, woodland, scrub and grassland habitat.

[1] Local Nature Reserves are designated by local authorities under the National Parks and Access to the Countryside Act 1949. They cover sites of local significance in terms of their nature conservation value and can contribute to opportunities for public education and enjoyment of wildlife. Local Authorities are required to consult English Nature regarding such designation and the criteria for site selection is published by them in 'Local Nature Reserves in England'.

*Non-statutory Designations*

4.2.3 Sheffield Biological Records Centre provided information on five non-statutorily designated sites within 2km of the proposals site. These sites are detailed in Table 02 below with additional descriptions of their corresponding designations.

**Table 02: Non-statutorily designated sites within 2km**

Site Name	Designation	Grid reference	Location from site	Notes
Worsbrough Reservoir	Local Wildlife Site <sup>(1)</sup>	SE 3503	1.8km	Comprises wetland, woodland, scrub and grassland habitat.
Falthwaite and Lowe Wood	Local Wildlife Site <sup>(1)</sup>	SE315034	1km	Site comprising woodland, grassland and scrub habitats.
Stainbrough Park	Local Wildlife Site <sup>(1)</sup>	SE324031	1.5km	Site comprising parkland, including woodland, grassland and amenity habitats
Kendal Green Scrub	Local Wildlife Site <sup>(1)</sup>	SE342038	1.75km	Scrub habitats.
Hood Green Pastures	Local Wildlife Site <sup>(1)</sup>	SE313028	2km	Grassland and hedgerow habitats.

[1] LWS are areas identified and selected locally for their wildlife value. The designation is non-statutory but is recognition of a site's significance with many LWS being of county and often regional importance for wildlife. Examples range from field ponds, streams and reed beds, to ancient woodlands, flower-rich meadows and hedgerows. This designation is used by local authorities to allow the ecological value of a site to be considered within the planning system.

4.2.4 Refer to *Appendix 02* which shows the locations of the designated sites in relation to the application site.

## 4.3 EXISTING SPECIES RECORDS

4.3.1 Existing biological records were provided following consultation with Sheffield Biological Record Centre, South Yorkshire Bat Group and South Yorkshire Badger Group. The records detailed in the following tables are those in closest proximity to the proposed development site within the 2km search area. Records provided were extensive and are therefore not included within this report but are available upon request.

**Table 03: Protected species records within 2km**

Species	Grid reference	Notes
Great Crested Newt <i>Triturus cristatus</i>	SE319031	22 records Most recent record 01/10/2011 Closest record - 1.3 km, Stainborough Park LWS, 1 near conservatory.
Noctule <i>Nyctalus noctula</i>	SE3206	1 record Most recent record - 30/05/1981 Closest record – 1.7 km, Pog Moor, Dodworth Road
Otter <i>Lutra lutra</i>	SE3303	1 record Most recent record - 14/12/1975 Closest record – 2 km Worsbrough Reservoir LWS, spraint found.
Brown Long-Eared Bat <i>Plecotus auritus</i>	SE320032	9 records Most recent record - 19/08/2004 Closest record – 2 km, Stainborough Park, Wentworth Castle St James Church, droppings found.
Adder <i>Vipera berus</i>	SE3203	2 records Most recent record - 01/06/1978 Closest record – 1.6 km Stainborough Lowe, 1 dead on road.
Common Lizard <i>Lacerta vivipara</i>	SE324036	3 records Most recent record - 03/04/2011 Closest record – 1.3 km Stainborough Park LWS, sunning on old walling next to renovated bridge.
Kingfisher <i>Alcedo atthis</i>	SE330039	1 record Most recent record - 22/04/2017 Closest record – 0.5 km Stainborough Dike, 1 bird flying upstream.
Brambling <i>Fringilla montifringilla</i>	SE3104	11 records Most recent record - 22/04/2017 Closest record – 1.3 km Dodworth, Strafford Walk, visiting garden feeders.

Redwing <i>Turdus iliacus</i>	SE3306	34 records Most recent record - 08/01/2018 Closest record – 1.3 km Stainborough Park LWS, 1 bird.
Fieldfare <i>Turdus pilaris</i>	SE3203	15 records Most recent record - 08/01/2018 Closest record – 1.3 km Stainborough Park LWS, 1 bird.
Barn Owl <i>Tyto alba</i>	SE3304	4 records Most recent record - 15/04/2007 Closest record – 0.9 km Hound Hill, Dove Valley Worsbrough, near Trans Pennine Trail.
Merlin <i>Falco columbarius</i>	SE3304	2 records Most recent record - 15/12/1991 Closest record – 0.9 km Hound Hill, Dove Valley Worsbrough, Mobbed by starlings.
Leisler's Bat <i>Nyctalus leisleri</i>	SE320032	6 records Most recent record - 15/12/1991 Closest record – 2 km Hound Hill, Stainborough Park.
Hobby <i>Falco subbuteo</i>	SE3103	1 record Most recent record - 15/12/1991 Closest record – 1.7 km Stainborough (Wentworth Castle) Park.
Pipistrelle <i>Pipistrellus pipistrellus</i>	SE336053	18 records Most recent record - 05/05/2013 Closest record – 1.3 km Dodworth, 23 Trafford Walk, roost - 34 counted by owner.
Unknown Bat species	SE328051	27 records Most recent record - 31/10/2007 Closest record – 1.3 km Dodworth, Needlewood, Droppings on west gable indicates summer breeding roost.
Natterer's Bat <i>Myotis nattereri</i>	SE324035	1 record Most recent record - 20/04/1987 Closest record – 0.8 km Stainborough Park.
Water Vole <i>Arvicola terrestris</i>	SE3304	1 record Most recent record - 06/06/1991 Closest record – 0.9 km Brough Green, Brook.
Grass Snake <i>Natrix natrix</i>	SE324033	1 record Most recent record - 12/08/2015

		Closest record – 1.3 km Stainborough Park LWS, Serpentine ponds and wetlands.
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**Table 04: Bat species records within 2km**

Species	Grid reference	Notes
Common pipistrelle <i>Pipistrellus pipistrellus</i>	SE3203	53 records (2004 - 2016) Most recent/closest record - 02/07/2016 0.9 km Wentworth Castle Gardens, HSM Type Transect by Robert Bell.
Soprano pipistrelle <i>Pipistrellus pygmaeus</i>	SE3203	39 records (2000 – 2016) Most recent/closest record - 02/07/2016 0.9 km Wentworth Castle Gardens, HSM Type Transect by Robert Bell.
Nathusius' pipistrelle <i>Pipistrellus nathusii</i>	SE3403	1 record Most recent/closest record - 17/09/2010 2 km <b>Worsborough reservoir</b> , heard during transect.
Pipistrelle species <i>Pipistrellus</i>	SE3306	66 records (1979 – 2016) Most recent/closest record - 09/09/2016 2 km Summer Lane, Barnsley, bat care call.
Brown long-eared bat <i>Plecotus auritus</i>	SE3203	81 records (1979-2017) Most recent/closest record - 22/02/2016 0.9 km Keresfords Road, Dodworth.  [No. of records] [Date] [Distance from site] [Closest/most recent record] [Description of record if given]
Daubenton's bat <i>Myotis daubentonii</i>	SE3203	135 records (1979 - 2016) Most recent/closest record - 02/07/2016 0.9 km Wentworth Castle Gardens, HSM Type Transect by Robert Bell.
Natterer's Bat <i>Myotis nattereri</i>	SE3302	175 records (1979 – 2017) Most recent/closest record - 15/12/2017 1.8 km Broom Royd Wood, hibernacula roost in tunnel 15 bats.
Whiskered bat <i>Myotis mystacinus</i>	SE3203	13 records (1981 – 2016) Most recent/closest record - 02/07/2016 0.9 km Wentworth Castle Gardens, HSM Type Transect by Robert Bell.
Myotis species <i>Myotis</i>	SE3302	151 records (1979 – 2017) Most recent/closest record - 02/07/2016

		1.8 km Broom Royd Wood, hibernacula roost in tunnel.
Leisler's Bat <i>Nyctalus leisleri</i>	SE320032	5 records (1985 - 2015) Most recent/closest record - 15/07/2015 2 km Highfield Avenue, Worsbrough, Bat Care/Callout.
Noctule <i>Nyctalus noctula</i>	SE3302	56 records (1987 – 2017) Most recent/closest record - 12/12/2017 2 km Rockley Engine House, hibernacula roost 2 bats.
Noctule/Leisler's <i>Nyctalus</i>	SE3305	16 records (1978 – 2013) Most recent/closest record - 27/07/2013 0.5 km Bowden Grove, Dodsworth.
Unknown Bat species	SE3203	151 records (1997 – 2016) Most recent/closest record - 02/07/2016 0.9 km Wentworth Castle Gardens, HSM Type Transect by Robert Bell.

4.3.2 No European Protected Species Licensing Applications were identified within the 2km search area.

4.3.3 Badger have also been recorded within 2km of the proposals site (data supplied by SBRC and South Yorkshire Badger Group). Recent field records of badger have been recorded within 600m of the site with the closest sett records at 1.2km.

4.3.4 No records of non-native invasive species included on Schedule 9 of the Wildlife and Countryside Act 1981 which have been provided within 2km of the proposals site.

4.3.5 Records of priority UK Biodiversity Action Plan species within 2km of the study area were provided for the following species:

*Amphibians:* common toad

*Birds:* tree pipit, hawfinch, cuckoo, grasshopper warbler, spotted flycatcher, house sparrow, tree sparrow, grey partridge, turtle dove, ring ouzel, yellowhammer, reed bunting, wood warbler, lapwing, curlew, yellow wagtail, skylark, lesser spotted woodpecker, yellow wagtail, starling, song thrush, dunnock, bullfinch, herring gull, marsh tit.

*Insects:* white-letter hairstreak, shaded broad-bar, latticed heath, small heath, dingy skipper.

*Mammals:* harvest mouse, brown hare, hedgehog,

#### 4.4 BIODIVERSITY ACTION PLANS

##### *National Biodiversity Action Plan*

4.4.1 The UK Biodiversity Action Plan (UK BAP) identifies priority species and habitats which are those considered to be the most threatened and therefore most in need of

conservation action. The lists were updated in 2007 to include 1150 species and 65 habitats.

- 4.4.2 During the walkover survey no UK BAP species were noted, though the hedgerow to the western boundary could support priority species such as song thrush, dunnock, hedgehog and be utilised by foraging and commuting bats.

*Local Biodiversity Action Plan*

- 4.4.3 Habitat types for which action plans have been prepared for Barnsley include:

- Broadleaved, mixed and yew woodland
- Coniferous woodland
- Boundary and linear features
- Arable and horticultural
- Improved grassland
- Neutral grassland
- Acid grassland
- Calcareous grassland
- Dwarf shrub heath
- Fen, marsh, swamp
- Bog
- Standing water and canals
- Rivers and streams
- Inland rock
- Built-up areas and grassland

- 4.4.4 The site comprises a hedgerow to the western boundary, with broadleaved woodland habitat occurring adjacent to the north of the site.

- 4.4.5 Species for which action plans have been prepared for Barnsley include:

- Hedgehog
- Harvest mouse
- Water vole
- Otter
- Brown and mountain hares
- Bat species
- Lapwing
- Linnet
- Grey partridge
- Skylark
- Tree sparrow
- Yellowhammer

- Lesser spotted woodpecker
- Spotted flycatcher
- Willow tit
- Curlew
- Merlin
- Ring ouzel
- Bittern
- Lapwing
- Reed bunting
- House sparrow
- Song thrush
- Starling
- Grass snake
- Common lizard
- Slow worm
- Adder
- Common frog
- Common toad
- Great crested newt
- Smooth newt
- Palmate newt
- White-clawed crayfish

4.4.6 There is potential for habitats on site are to support species such as hedgehog, bats, tree sparrow, house sparrow and song thrush.

## 4.5 SITE SURVEY – PHASE 1 HABITAT SURVEY

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### *Methodology*

4.5.1 A walk over survey was undertaken on the 1<sup>st</sup> May 2018. Habitat types and key species were noted and are presented in the Phase 1 Habitat format proposed by the Joint Nature Conservation Committee (2010), refer to Figure 02.

### *Results*

Species-poor semi-improved grassland

4.5.2 The dominant habitat within the site is pasture grassland which has been previously horse grazed. The grassland is dominated by grass species typical of this habitat type including perennial rye-grass *Lolium perenne*, annual meadow-grass *Poa annua* and Yorkshire fog *Holcus lanatus*. Forb species were recorded rarely to frequently within the sward including common field speedwell *Veronica persica*, dandelion *Taraxacum* agg., creeping buttercup *Ranunculus repens*, common mouse-ear *Cerastium montanum*, red dead-nettle *Lamium purpureum*, daisy *Bellis perennis*, common

ragwort *Senecio jacobaea*, common nettle *Urtica dioica*, broadleaved dock *Rumex obtusifolius*, spear thistle *Cirsium vulgare*, thyme-leaved speedwell *V. serpyllifolia*, garlic mustard *Alliaria petiolata* and red clover *Trifolium pratense*.

#### Hedgerow

4.5.3 A hedgerow borders the western boundary of the site. The hedge is approximately 70m in length, 2.5-3m in height and 1.5-2m in width. A number of standard trees occur along its length. Species within the hedgerow canopy include hawthorn *Crataegus monogyna*, which is dominant, holly *Ilex aquifolium*, dog rose *Rosa canina*, elder *Sambucus nigra*, hazel *Corylus avellana*, blackthorn *Prunus spinosa* and bramble *Rubus fruticosus*. There is also some planted conifer and dogwood *Cornus sp.* within the hedge, likely to have been planted by the residents to the west to gap up the hedge. Trees within the hedgerow included semi-mature field maple *Acer campestre*, oak *Quercus sp.*, sycamore *A. pseudoplatanus* and ash *Fraxinus excelsior*. Forb species within the ground flora include planted snow drops *Galanthus sp.*, garlic mustard, common nettle, cleavers *Galium aparine*, cow parsley *Anthriscus sylvestis* and bluebell *Hyacinthoides non-scripta*, which was recorded as rare, with one flowering plant noted. Ivy *Hedera helix* was recorded at the base of the hedge.

#### Scrub

4.5.4 Small amounts of scrub occur in association with the southern boundary of the site, including elder and hawthorn. Dog's mercury *Mercurialis perennis* was recorded in association with hawthorn scrub occurring to the south-western corner of the site.

#### Broadleaf trees

4.5.5 Broadleaf trees are largely located to or beyond the site boundaries including those within the hedgerow to the western boundary (refer to section 4.5.2), trees within the motorway verge including sycamore and a semi-mature ash to the southern boundary. All trees are semi-mature in age and intact, with no potential for roosting bats.

#### Fauna

4.5.6 During the survey the following bird and invertebrate species were recorded: great tit, blackcap, green-veined white butterfly and orange tip butterfly.

#### 4.5.7 Photographs

		
Species-poor semi-improved grassland	Hedgerow to western boundary	Ash tree to southern boundary

### *Conclusion*

- 4.5.8 Habitats on site are predominantly considered to have limited ecological value, with the grassland habitat comprising common species and being widely replicated within the surrounding area. No rare or locally uncommon plant species or invasive species as listed under the Wildlife and Countryside Act 1981 (as amended) were detected at the site. The hedgerow to the western boundary is considered to be of some conservation value, comprising a number of native shrub and tree species and likely to be utilised by a number of wildlife species, such as commuting and foraging bats, nesting and foraging birds and hedgehogs. This features will be unaffected by the proposals.

## 5.0 IMPLICATIONS/RECOMMENDATIONS

### 5.1 NATURE CONSERVATION DESIGNATED SITES

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There is one statutorily designated site within 2km of the proposals site being Worsborough Country Park LNR which is both a statutorily designated site (Local Nature Reserve) and a non-statutorily designated site (Local Wildlife Site). In addition there are also another four LWS within 2km. It is considered that due to the distance of the proposals site and intervening roads and built-up areas, and the nature of the proposed development, there is no adverse impact anticipated upon these designated sites.

### 5.2 HABITATS

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- 5.2.1 The habitats within the proposals site are generally considered to be of limited conservation value, predominantly comprising species-poor semi-improved grassland. The hedgerow to the western boundary of the site is considered to be of some conservation value, providing suitable habitat for breeding and roosting bird species, bats and small mammals such as hedgehogs.
- 5.2.2 In order to protect habitats of ecological value present and ensure that the proposed development provides enhancement to wildlife, the following is recommended:
- The retention of the trees and boundary hedgerow at the site where feasible;
  - Use of temporary protective demarcation fencing to protect retained areas/features. The fencing must be in accordance with BS5837:2012 'Trees in Relation to Design, Demolition and Construction', extend outside the canopy of the retained trees, and remain in position until construction is complete;
  - Use of directional lighting during construction, which will not shine upon the site boundaries, hedgerows or trees within the site;
  - Implementation of a lighting scheme within proposals that minimises illumination of trees and areas of new planting to the boundaries of the site. Reference can be made to the Bat Conservation Trust publication 'Artificial Lighting and Wildlife' (2014);
  - Native tree and shrub planting to include appropriate species to the local area. Such planting is proposed to the eastern boundary to provide a buffer to the adjacent motorway.

## 5.3 PROTECTED SPECIES

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5.3.1 Refer to *Appendix 03* for relevant species legislation.

### *Great Crested Newts*

5.3.2 No areas of standing water occur within the site and habitats present are largely considered to be unsuitable for amphibian species during their terrestrial phase, predominantly comprising close-cropped pasture grassland; however, areas of hedgerow and dense scrub provide potential opportunities for amphibians during their terrestrial phase, such as refuge, cover and hibernation habitat. From consulting an OS base of the site and surrounding areas there are no ponds within 500m. Consultation with Sheffield Biological Record Centre provided records of great crested newts, however, these are located beyond 500m from the proposals site. No adverse impact upon great crested newt is anticipated as a result of the proposed development.

### *Bats*

5.3.3 Bat species recorded within 2km of the proposals site include field and roost records relating to noctule, brown long-eared, soprano pipistrelle, leisler's bat, common pipistrelle, *Nyctalus* bat species, Natterer's, Daubenton's, whiskered, *Myotis* bat species, Nathusius pipistrelle, pipistrelle species and unidentified bat species.

5.3.4 Habitats to and adjacent to the site boundaries including a hedgerow, woodland and tree and shrub planting provide suitable habitat for foraging and commuting bats, acting as potential flight corridors and connecting the site to other suitable areas adjacent to site. Features to the site boundaries are to be unaffected by the proposals and further tree and shrub planting is proposed to the eastern boundary as a buffer to the adjacent motorway This would aim to enhance the site in terms of habitat availability for foraging and commuting bats.

5.3.5 To reduce indirect impacts of artificial lighting it is recommended that a sympathetic lighting scheme that minimises illumination of trees and areas of new planting to the boundaries of the site as detailed in section 5.2.2 of the report. It is recommended that proposed external lighting specified on the proposed dwellings is close offset accent lighting as this causes less light pollution. This type of lighting is more specific and can be designed to avoid bat sensitive areas, and better highlights the features of the subject of illumination. Low wattage lamps are preferable (<70W or LED equivalent) as they minimise impacts on bats. These lights would ideally be fitted with movement sensors so the lights will be illuminated only when needed reducing the amount of time lit. This information has been taken from the document *Bats and Lighting: Overview of current evidence and mitigation* (Stone, E.L., 2013) in regards to recommended types of security lighting. In addition, the proposed dwellings are generally set back from the boundaries of the site, which should reduce the impact of any artificial lighting on bats which may utilise the site boundaries for foraging and/or commuting purposes.

5.3.6 Trees on site were assessed as having no potential to support roosting bats, being intact with no potential bat roosting features.

### *Breeding Birds*

5.3.7 Bird species recorded during the walkover survey included great tit and blackcap. Hedgerows, trees and scrub on site are likely to be used by these species and local breeding and roosting bird populations in general.

- 5.3.8 All wild birds are protected under the Wildlife and Countryside Act 1981 (as amended) during breeding. It is therefore recommended that any vegetation clearance takes place outside the bird nesting period (March – August inclusive) unless checks by an appropriately qualified ecologist find active nests to be absent immediately prior to clearance works. If nesting birds are identified advice will be sought. The advising ecologist will issue guidance in relation to the protection of the nesting birds in conjunction with the scheduled works. Measures such as applying a set boundary around the nest may be necessary until the young birds have fledged.
- 5.3.9 Proposed tree and shrub planting to the eastern boundary of the site will aim to enhance the site for nesting birds. In addition, consideration could be given to the installation of species-specific boxes upon suitable trees and proposed buildings. The installation of nest boxes on suitable trees/buildings including species-specific boxes for UKBAP bird species would provide nesting opportunities for local bird populations.
- 5.3.10 Sympathetic management of the existing hedgerow and proposed tree and shrub planting should be considered to avoid disturbance to breeding birds. This involves the avoidance of management during the active season March – August and preferably only to be carried out during January and February when the berry crop is mostly finished to benefit species during winter.

#### *Badger*

- 5.3.11 No signs of badger were recorded within the site during the survey. No access was available to the adjacent woodland habitat to the north of the proposals site, however proposed construction works are located approximately 25m to the south of the woodland, and from looking into the woodland from the proposed development site no obvious tracks lead between the woodland into the site and no signs of badger activity were noted within the woodland. Due to the presence of suitable habitat in the surrounding local area and records of badger provided within 2km of the proposals site, it is anticipated that this species may access the site for foraging and commuting purposes. Precautionary working methods are therefore recommended to be adopted during construction works, which will include the covering, or providing a means of escape to any trenches and capping any open pipework at the end of each working day to prevent accidental harm to badger, or other mammals which may access the site. With the adoption of these methods, no adverse impact upon badgers is anticipated as a result of the proposed development.

#### *Other protected species*

- 5.3.12 Due to the lack of suitable habitat within and adjacent to the site for reptiles, water vole, otter and white-clawed crayfish the presence of these species is considered unlikely. No adverse impact upon such species is anticipated as a result of the proposed development.

## **5.4 NOTABLE SPECIES**

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#### *Hedgehog*

- 5.4.1 Records within 2km of the site included hedgehog and some habitats on site are considered to be suitable for this species. Precautionary working methods will therefore be adopted to ensure hedgehogs are not harmed/killed during works. Such works would include the removal of any tree/shrub cuttings from site, once vegetation

is cut so as to avoid the creation of brash piles; these may be attractive to hedgehogs, which could subsequently be harmed if the brash pile is burnt or removed with machinery. In addition, any trenches created on site will be covered or a means of escape shall be provided and any open pipe work will be capped at the end of each working day.

- 5.4.2 To enhance the site for hedgehog, it is recommended that small gaps (0.15m) are left under sections of new fencing/walls within the development to allow passage of hedgehog and maintain connectivity across the site.

## 6.0 CONCLUSIONS

- 6.1.1 Being predominantly composed of species-poor semi-improved grassland the site is generally considered to be of low ecological value, with a hedgerow to the western site boundary considered to be of greater ecological value. This hedgerow will be unaffected by the proposed development.
- 6.1.2 Provided the recommendations detailed in *Section 5.0* are implemented at the site it is considered there will be no significant adverse impact with regards to ecology.
- 6.1.3 Being predominantly composed of species-poor semi-improved grassland the development offers the opportunity to provide a net gain in the value of the site for wildlife, by incorporating bat roosting and bird nesting features and native trees and shrubs.

## 7.0 REFERENCES

Wildlife and Countryside Act (1981). H.M.S.O., London.

Conservation (Natural Habitats, &c.) Regulations 2017 (S. I 1012) [accessible at <http://www.opsi.gov.uk>]

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## FIGURES

Figure 01: Aerial photograph

Figure 02: Phase 1 Habitat Map

FIGURE 02: PHASE 1 HABITAT MAP



## APPENDICES

Appendix 01: Principle Legislation and Policies

Appendix 02: Designated Site map

Appendix 03: Protected Species Legislation

## APPENDIX 01: PRINCIPLE LEGISLATION AND POLICIES

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### Principle Legislation

#### ***Wildlife and Countryside Act 1981 (as amended)***

This is the primary legislation for nature conservation in England and Wales. It confers varying degrees of protection on selected species according to their conservation status, ranging from making it an offence to take a species from the wild for profit, to full protection of a species and its habitat. The Act also gives guidance and instruction on statutory sites, such as sites of Special Scientific Interest (SSSI). License exempting specific works can be granted by Natural England. Such licenses are only granted once a full assessment has been made and an appropriate, sustainable mitigation package devised.

#### ***Protection of Badgers Act 1992***

Allied to the Wildlife and Countryside Act, 1981 are subsidiary Acts such as the Protection of Badgers Act, 1992 which consolidated and added to previous legislation. According to the PBA it is an offence to wilfully kill, injure or maim a badger. Badger setts are also protected from interference unless such activities are licensed through Natural England. Any mitigation packages devised for badgers found on development sites must be agreed by Natural England and all mitigation activities must be fully licensed.

#### ***Countryside and Rights of Way Act 2000***

As well as providing measures to improve countryside access for walkers, ramblers and horse riders, this Act also strengthens the protection of species and designated sites made in the Wildlife and Countryside Act 1981. This Act also gives the importance of biodiversity conservation statutory basis requiring government departments to have regard for biodiversity in carrying out their functions, and to take positive steps to further the conservation of listed species and habitats.

#### ***Natural Environment and Rural Communities Act (NERC), 2006 – Biodiversity Duty***

NERC received royal assent in March 2006. Section 40 of the Act replaces and extends a duty, from Section 74 of the Countryside and Rights Of Way Act 2000, on Ministers and Government which already requires them to have regard to the purpose of conserving biodiversity. Section 40(1) states that, "*Every public authority must, in exercising its functions, have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity.*"

#### ***EC Habitats Directive (92/43/EEC)***

This Directive aims to give Europe-wide protection to certain rare and threatened habitats on land and at sea. It builds on legislation already established under the Birds Directive of 1979, and aims to establish a series of protected sites known as Natura 2000 series. These sites are intended to protect the unique and special wildlife of Europe and to preserve it for future generations. In Britain these Natura 2000 sites include those areas designated as Special Areas of Conservation (SACs) and Special Protection Areas (SPAs). The Habitats Directive is implemented in the UK through the Conservation of Habitats and Species Regulations 2010.

#### ***EC Birds Directive (79/409/EEC)***

The Directive provides a framework for the conservation and management of, and human interactions with, wild birds in Europe. It sets broad objectives for a wide range of activities, although the precise legal mechanisms for their achievements are at the discretion of each Member State (in the UK delivery is via several different statutes). The Directive applies to the UK and to its overseas territory of Gibraltar.

The main provisions of the Directive include:

The maintenance of the favourable conservation status of all wild bird species across their distributional range with the encouragement of various activities to that end;

The identification and classification of Special Protection Areas (SPAs) for the rare and vulnerable species listed in Annex I of the Directive, as well as for all regularly occurring migratory species, paying particular attention to the protection of wetlands of international importance;

The establishment of a general scheme of protection for all wild birds; Restrictions on the sale and keeping of wild birds.

### ***The Hedgerow Regulations 1997***

The Hedgerow Regulations 1997 were made under Section 97 of the Environment Act 1995 and came into force in 1997. They introduced new arrangements for local planning authorities in England and Wales to protect important hedgerows in the countryside, by controlling their removal through a system of notification. Important hedgerows are defined by complex assessment criteria, which draw on biodiversity features, historical context and the landscape value of the hedgerow.

For species-specific legislation, please refer to **Appendix 03** for further information.

## **Policy**

### ***National Planning Policy Framework (2012)***

The National Planning Policy Framework replaces Planning Policy Statement 9 (PPS 9) Biodiversity and Geological Conservation but the accompanying guidance document (ODPM 06/2005: Biodiversity and Geological Conservation-Statutory Obligations and their impact within the Planning System) has not been withdrawn.

The NPPF sets out the Government's policies on the protection of biodiversity and sites of geological interest through the planning system. It required local planning authorities, when taking decisions, to ensure that appropriate weight is attached to designated sites of international, national and local importance, protected species and to biodiversity and sites of recognised geological interest within the wider environment. It states:

"The planning system should contribute to and enhance the natural and local environment by:

Protecting and enhancing values landscapes, geological conservation interests and soils;

Recognising the wider benefits of ecosystem services;

Minimising impacts on biodiversity and providing net gains in biodiversity where possible, contributing to the Government's commitment to halt the overall decline in biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures."

"When determining planning applications, local planning authorities should aim to conserve and enhance biodiversity by applying the following principles:

If significant harm resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused."

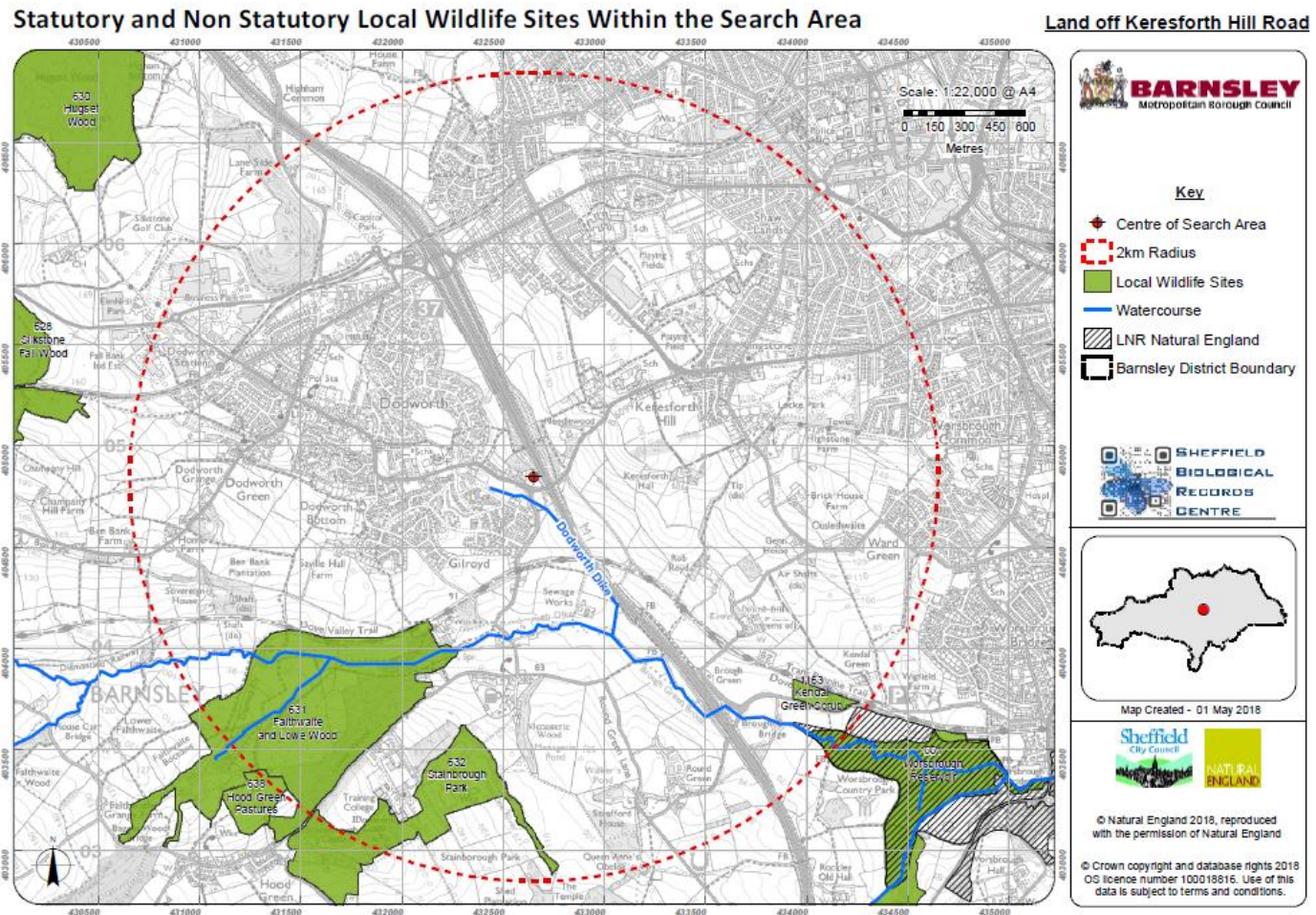
### ***Biodiversity Action Plan (BAP)***

In 1993, the UK government consulted over three hundred organisations throughout the UK and held a two day seminar to debate the key issues raised at the Convention of Biological Diversity. The product of this was the launch of Biodiversity: the UK Action Plan in 1994 which outlined the UK Biodiversity Action Plan for dealing with biodiversity conservation in response to the Rio Convention.

The UK Biodiversity Steering Group was created in 1994 and published Biodiversity: the UK Steering Group Report – meeting the Rio challenge. This established the framework and criteria for identifying species and habitat types of conservation concern.

From this list, action plans for 391 species and 45 broad habitat types were produced. As well as having national priorities and targets, action was also taken at a local level. The Steering Group drew up a set of guidelines that were discussed with the Local Authority Association and the Local Government Board. Today there are 162 Local Biodiversity Action Plans in the UK. A review of the UK BAP was undertaken between 2003 and 2006.

APPENDIX 02: STATUTORY & NON-STATUTORY LOCAL WILDLIFE SITES



## APPENDIX 03: PROTECTED SPECIES LEGISLATION

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### *Bats*

Bats and their roosts are afforded full legal protection under both UK and European legislation. The Conservation (Natural Habitats & c.) Regulations 1994 (as amended, 2017) transpose the Habitats Directive into UK law, making it an offence to:

- deliberately disturb a bat;
- deliberately kill, injure or capture a bat;
- damage, destroy or obstruct access to a breeding site or resting place (note this applies to both deliberate and reckless actions).

The Wildlife and Countryside Act 1981 (as amended) (Schedule 5) made it an offence to:

- intentionally kill, injure or take a bat ;
- damage, destroy or obstruct a bat roost \*;
- disturb a bat at a roost \*;
- possess or control a bat or any part thereof;
- sell, offer for sale, possess or transport for sale any bat or part thereof;
- set traps for catching, killing or injuring bats;
- possess articles for the purposes of committing offences against bats;

[\*= intentional and reckless offences covered].

This protection applies whether bats are present within the roost at the time or not.

### *Great crested newts*

The Wildlife and Countryside Act 1981 (as amended) transposes into UK law and the Convention on the Conservation of European and Wildlife and Natural Habitats (commonly referred to as the 'Bern Convention'). The 1981 Act was amended by the Countryside and Rights of Way ['CRoW'] Act 2000.

The great crested newt is listed on Schedule 5 of the 1981 Act, and is therefore subject to the provisions of Section 9, which make it an offence to:

- Intentionally kill, injure or take a great crested newt [Section 9 (1)];
- Possess or control any live or dead specimen or anything derived from a great crested newt [Section 9 (2)];
- Intentionally or recklessly damage, destroy or obstruct access to any structure or place used for shelter or protection by a great crested newt [Section 9 (4)(a)];
- Intentionally or recklessly disturb a great crested newt while it is occupying a structure or place which it uses for that purpose [Section 9(4)(b)].

The Conservation (Natural Habitats & Countryside.) Regulations 1994 (the Habitats Regulations, as amended, 2017) transpose into the UK law Council Directive 92/43/EEC of 21<sup>st</sup> May 1992 on the conservation of Natural Habitats and of Wild Fauna and Flora (often referred to as the 'Habitats [and Species] Directive'). The great crested newt is listed on Annex II and Annex IV of the Directive. The former Annex relates to the designation of Special Areas of Conservation (SACs) for this species; even where great crested newts occur outside SACs, the inclusion on Annex II serves to underline their conservation significance. Inclusion of the Annex IV ('European Protected Species') means that member states are required to put in place a system of strict protection as outlined in Article 12, and this is done through inclusion on Schedule 2 of the Regulations. Regulation 39 makes it an offence to:

- Deliberately capture or kill a great crested newt [Regulation 39 (1)(a)];
- Deliberately disturb a great crested newt [Regulation 39(1)(b)];
- Deliberately take or destroy the eggs of a great crested newt [Regulation 39 (1)(c)];
- Damage or destroy a breeding site or resting place of a great crested newt [Regulation 39(1)(d)].

The legislation applies to all life stages of great crested newts.

### *Breeding birds*

The Wildlife and Countryside Act 1981 (as amended) makes it an offence to:

- kill, injure, or take any wild bird;
- take, damage or destroy the nest of any wild bird while that nest is in use or being built or,
- take or destroy an egg of any wild bird.

This protection applies from the moment the nest is being built. Additional protection against disturbance on the nest or of dependent young is provided for birds included on Schedule 1.

### *Badger*

Badgers and their setts are protected by the Protection of Badgers Act 1992. Under the Act it is illegal to:

- Wilfully kill, injure or take a badger or attempt to do so;
- Cruelly ill-treat a badger; and,
- Interfere with a sett by doing any of the following:
  - (i) damaging a badger sett or any part of it;
  - (ii) destroying a badger sett;
  - (iii) obstructing access to a badger sett;
  - (iv) causing a dog to enter a sett; and,
  - (v) disturbing a badger while it is occupying a sett.