



global environmental solutions

The Burrows, Stocksbridge, South Yorkshire

Extended Phase 1 Habitat Survey

Great Crested Newt Survey

Ecological Enhancement Plan

SLR Ref: 424.04048.00001

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Moonstone Property Maintenance Ltd

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## **1.0 INTRODUCTION**

### **1.1 Terms of Reference**

SLR Consulting Limited was commissioned by Moonstone Property Maintenance to undertake an Extended Phase 1 Habitat Survey and great crested newt survey of an area of land a short distance to the north of Briery Busk Farm at Hunshelf Bank, Stocksbridge in South Yorkshire (central OS grid reference SK26689950). The land is proposed for the construction of a residential property comprising a range of unique design features that will integrate the development into the surrounding landscape. The total internal floor area of the building will be 184m<sup>2</sup>. An ecological enhancement strategy is provided within this report which builds on information obtained during the desk based study and survey work.

### **1.2 Site Context**

The site lies on the north side of the Little Don Valley, at the brow of the valley ridge. A part of it is currently used as a storage area for building materials/ products and machinery, a skip, and other debris. This is the proposed development site and is illustrated by the red line boundary (Drawing 1). Much of the remainder of the site is on steep sloping ground and consists of acidic grassland and dwarf shrub moorland heath comprising mainly heather. This moorland heath habitat extends along the ridge to the east and forms the Hunshelf Bank Local Nature Reserve. In the wider area, land use is mainly agricultural with fields to the south of Briery Busk Farm used for grazing (including horse/ pony and sheep). Immediately north of the site are several arable fields.

## 2.0 METHODOLOGY

### 2.1 Desk Study

Sheffield City Ecology Unit and Barnsley Biological Records Centre were contacted for archive data on statutory designated and non-statutory designated sites<sup>1</sup> as well as protected and notable species. The latter included national BAP or LBAP species, and/ or species of conservation concern at a national, regional and local level.<sup>2</sup> The data search was conducted for the site plus 1.5km radius.

### 2.2 Extended Phase I Habitat Survey

The habitat survey and mapping exercise was carried out by an experienced ecologist with SLR Consulting on 14 May 2012, using standard Phase 1 Habitat survey methodology (JNCC, 2007).

Habitats and features with potential to support protected and/or conservation priority fauna species, together with any field signs of such species, were recorded on the field map using target notes (relevant details are reproduced on the digitised plan in Drawing 01).

Amongst others, a search was undertaken for the following key habitats and/ or field signs for protected or conservation priority species (see Table 2-1). Ponds on, or within 500m of the site boundary were assessed for their suitability to support great crested newt using the Habitat Suitability Index (HSI) methodology developed by Oldham *et al* (2000).

**Table 2-1  
Survey methodology for key habitats & field signs of protected & priority species**

| Taxon  | Indicative Habitat(s)  | Field Signs (in addition to sightings)   |
|--------|--|--|
| Bats   | Roosts – Trees, buildings, bridges caves etc.<br><br>Foraging areas – e.g. parkland, water bodies and streams, wetlands, woodland edge, hedgerow<br><br>Commuting routes – linear features (e.g. hedgerows, water courses, tree lines) | In or on potential roost sites:<br>Droppings stuck to walls; urine spotting in roof spaces; oil from fur staining round roost entrances; feeding remains (e.g. moth wings under a feeding perch) |
| Badger | Found in most rural and many urban habitats  | Excavations and tracks: sett entrances, latrines, hairs, well worn paths; prints; scratch marks on trees   |
| Birds  | Trees, scrub, hedgerow, field margins, grassland, buildings  | Individuals. Nests; droppings below nest sites (especially in buildings of trees); tree holes  |

<sup>1</sup> Designated sites include those protected under national or international legislation, such as Sites of Special Scientific Interest (SSSI), and local sites afforded protection under the planning system, such as County Wildlife Sites (CWS) and Regionally Important Geological and Geomorphological Sites (RIGS).

<sup>2</sup> This includes species protected under international and national legislation as well as species included in the UK and/or local Biodiversity Action Plans, Red Data Book taxa, and Red or Amber listed birds of conservation concern.

| Taxon              | Indicative Habitat(s)   | Field Signs (in addition to sightings)  |
|--------------------|---|---|
| Reptiles           | Rough grassland, log and rubble piles   | Individual animals; sloughed skins  |
| Great Crested Newt | Ponds within 500 m of suitable habitat within the site boundary. Suitable (terrestrial) habitat includes rough grassland, scrub and woodland, log and rubble piles and other debris, animal burrows   | No specific field signs   |
| Invertebrates      | All terrestrial habitats are likely to support an invertebrate assemblage, but the richest sites are ancient semi-natural habitats (e.g. woodland, grassland and heath) and some sites of anthropogenic origin, in particular those with the widest range of habitat-types, such as bare ground, ecotone (edge) habitat, wetlands etc. Such sites include former rail yards and sewage works, sand pits and quarries etc. | Few specific field signs, but could include solitary bee and wasp burrows etc |

### 2.3 Great Crested Newt Habitat Suitability Index Assessment and Presence/Absence Survey

A Habitat Suitability Index (HSI) Assessment was undertaken for two ponds: Pond 1 located 115m south of the site, and Pond 2 located 485m north east of the site. The HSI assessment follows methodology developed by Oldham *et al* (2000) and the categorisation of HSI scores is provided in Table 2-2.

**Table 2-2: Categorisation of Ponds using HSI**

| HSI Score | Pond Suitability for GCN |
|-----------|--------------------------|
| <0.5      | Poor                     |
| 0.5-0.59  | Below Average            |
| 0.6-0.69  | Average                  |
| 0.7-0.79  | Good                     |
| >0.8      | Excellent                |

The great crested newt presence/ absence survey was carried out by a suitably experience and licensed ecologist on 10<sup>th</sup>/11<sup>th</sup>, 14<sup>th</sup>/15<sup>th</sup>, 17<sup>th</sup>/18<sup>th</sup> and 21<sup>st</sup>/22<sup>nd</sup> May 2012. The survey followed nationally recognised guidelines provided by Natural England (English Nature, 2001). Pond 1 was torched, trapped and egg searched. Pond 2 was torched only.

### 2.4 Limitations

#### 2.4.1 Desk Study

Desk study data is not likely to be exhaustive and is intended mainly to set a context for the study. It is therefore possible that protected species not identified during the data search do in fact occur within the vicinity of the proposed development site.

#### **2.4.2 *Great Crested Newt Presence/ Absence Survey***

Pond 2 could only be torched from the roadside, due to access restrictions. It is located 485m north east of the development site and therefore if any great crested newts are present, they are unlikely to be affected by the proposals.

#### **2.5 Quality Assurance & Environmental Management**

The surveyor is a member of the Institute of Ecology and Environmental Management (IEEM) and follows the Institute's code of professional conduct when undertaking ecological work.

### 3.0 RESULTS

#### 3.1 Designated Sites

Table 3-1 provides details of designated sites within a 2km radius from the Burrows (SK2668 9950). No nationally or internationally designated sites are located within the study area, however there are 12 locally designated sites (Appendix C). The closest is Hunshelf Bank Local Nature Site which is located immediately south of the site. Hunshelf Bank is thought to be designated for its bird populations although a citation confirming this has not been obtained.

**Table 3-1  
Relevant designated sites**

| Site Name                      | Designation           | Reason for Designation          | Distance from site                       |
|--------------------------------|-----------------------|---------------------------------|--|
| <b>Statutory Sites</b>         |                       |                                 |  |
| N/A                            |                       |                                 |  |
| <b>Non-Statutory Sites</b>     |                       |                                 |  |
| Hunshelf Bank                  | Local Nature Site     | Not supplied by record centre   | Site lies adjacent to Hunshelf Bank area |
| Steel Valley Walk              | Local Nature Site     | "Not supplied by record centre  | 292m                                     |
| Lower Little Don, Stocksbridge | Local Nature Site     | "Not supplied by record centre  | 800m                                     |
| New Hall Wood and Brook        | Local Nature Site     | "Not supplied by record centre  | 920m                                     |
| Pot House Wood                 | Local Nature Site     | "Not supplied by record centre  | 1186m                                    |
| Underbank Reservoir            | Local Nature Site     | "Not supplied by record centre  | 1308m                                    |
| Green Lane                     | Local Nature Site     | "Not supplied by record centre  | 1342m                                    |
| Knoll Top, Stocksbridge        | Local Nature Site     | Not supplied by record centre " | 1371m                                    |
| Old Haywoods                   | Local Nature Site     | "Not supplied by record centre  | 1407m                                    |
| Black Moor Common              | Natural Heritage Site | "Not supplied by record centre  | 1465m                                    |
| Machin Lane                    | Local Nature Site     | "Not supplied by record centre  | 1690m                                    |
| East Whitwell                  | Local Nature Site     | "Not supplied by record centre  | 1885m                                    |

The nearest SSSI (Site of Special Scientific Interest) and Local Nature Reserve (LNR) is Wharncliffe Heath which lies 3.2km to the south east of the site. The Peak District/South Pennine Moors (Special Protection Area, Special Area of Conservation and SSSI) lies some 3.3km to the south west. These sites will not be affected by the proposed development.

#### 3.2 Protected Species

Relevant protected, and conservation priority taxa with the potential to occur in the general area are listed in Table 3-2. Inclusion in this table is based upon:

- a) Presence of suitable habitat for a species and a national distribution which suggests its presence is likely;
- b) Confirmed field evidence of individual species (e.g. presence of badger setts); and

- c) Records returned during the desk study, which confirm the presence of the species in the local area.

**Table 3-2**  
**Key protected species**

| Species  | Legal Protection/ Conservation Priority Status <sup>3</sup> | Present in Desk Study Results | Suitable Habitat Within or Near Site | Evidence Within or Near Site   | Notes |
|--|---|-------------------------------|--------------------------------------|--|-------|
| <b>Bats</b>  |   |                               |                                      |  |       |
| Common pipistrelle<br><i>Pipistrellus pipistrellus</i> | HR, WCA   | Yes                           | Some low foraging potential          | New Hall Farm, Stochsbridge (2003)<br>Rundal Road and Newhall Crescent, Stochsbridge (2008)          |       |
| <b>Other Mammals</b>                                   |   |                               |                                      |  |       |
| Water vole   | UKBAP, WCA  | Yes                           | No                                   | Dean Head, Hunshelf (2007)   |       |
| <b>Birds</b>   |   |                               |                                      |  |       |
| Fieldfare<br><i>Turdus pilaris</i>                     | WCA, Red  | Yes                           | Winter only                          | Whitwell Moor, Stochsbridge (2005, 2008, 2010)   |       |
| Quail<br><i>Coturnix coturnix</i>                      | WCA, Amber  | Yes                           | Y                                    | Whitwell Moor, Stochsbridge (2010)   |       |
| Redwing<br><i>Turdus iliacus</i>                       | WCA, Red  | Yes                           | Winter only                          | Green Moor, Stochsbridge (2002, 2010)  |       |
| Cuckoo<br><i>Cuculus canorus</i>                       | UKBAP, Red  | Yes                           | Where suitable hosts nest            | Barnsley MBC (2010)  |       |
| Curlew<br><i>Numenius arquata</i>                      | UKBAP, Amber  | Yes                           | Foraging                             | Barnsley MBC (2009, 2010)<br>Whitwell Moor (2010)  |       |
| Grey Partridge<br><i>Perdix perdix</i>                 | UKBAP, Red  | Yes                           | Y                                    | Green Moor (2007)<br>Barnsley MBC (2010)   |       |
| House sparrow<br><i>Passer domesticus</i>              | UKBAP, Red  | Yes                           | Y                                    | Stochsbridge (2003, 2009)<br>Barnsley MBC (2010)   |       |
| Lapwing<br><i>Vanellus vanellus</i>                    | UKBAP, Red  | Yes                           | Y                                    | Cubley (2002)<br>Barnsley MBC (2008, 2010, 2011)<br>Whitwell Moor, Stochsbridge (2008, 2010)         |       |
| Reed bunting<br><i>Emberiza schoeniclus</i>            | UKBAP, Amber  | Yes                           | Y                                    | Barnsley MBC (2009)  |       |
| Tree sparrow<br><i>Passer montanus</i>                 | UKBAP, Red  | Yes                           | Y                                    | Barnsley MBC (2010)  |       |
| Yellowhammer<br><i>Emberiza citrinella</i>             | UKBAP, Red  | Yes                           | Y                                    | Don Valley Thurgoland bridge to Oxspring (2006)<br>Barnsley MBC (2009, 2010)<br>Hunshelf Bank (2012) |       |
| Blackbird  | LBAP  | Yes                           | Y                                    | Barnsley MBC (2008, 2009,  |       |

<sup>3</sup> See Section 4 on relevant legislation and policy for further information on the terms used here.

| Species                                      | Legal Protection/ Conservation Priority Status <sup>3</sup> | Present in Desk Study Results | Suitable Habitat Within or Near Site | Evidence Within or Near Site   | Notes |
|--|---|-------------------------------|--------------------------------------|--|-------|
| <i>Turdus merula</i>                         |   |                               |                                      | 2010)<br>Black Moor (2009)<br>Steel Valley Park (2009)                       |       |
| Black-headed gull<br><i>Larus ridibundus</i> | Amber   | Yes                           | N                                    | Underbank Reservoir (2009, 2010)   |       |
| Bullfinch<br><i>Pyrrhula pyrrhula</i>        | UKBAP, Amber  | Yes                           | Y                                    | Green Moor (2002)<br>Barnsley MBC (2010)                                     |       |
| Common snipe<br><i>Gallinago gallinago</i>   | Amber   | Yes                           | N                                    | Stone Moor (2007)<br>Whitwell Moor (2010)                                    |       |
| Dunnock<br><i>Prunella modularis</i>         | UKBAP, Amber  | Yes                           | Y                                    | Barnsley MBC (2009, 2010)  |       |
| Eurasian teal<br><i>Anas crecca</i>          | Amber   | Yes                           | Y                                    | Underbank Reservoir (2010)   |       |
| Green woodpecker<br><i>Picus viridis</i>     | Amber   | Yes                           | Y                                    | Barnsley MBC (2009, 2010)  |       |
| Grey wagtail<br><i>Motacilla cinerea</i>     | Amber   | Yes                           | N                                    | Underbank Reservoir (2009)<br>Black Moor (2009)<br>Barnsley MBC (2009, 2010) |       |
| House martin<br><i>Delichon urbica</i>       | Amber   | Yes                           | Y                                    | Whitwell Moor (2008)<br>Barnsley MBC (2010)<br>Stocksbridge (2010)           |       |
| Kestrel<br><i>Falco tinnunculus</i>          | Amber   | Yes                           | Y                                    | Underbank Reservoir (2010)<br>Barnsley MBC (2010)                            |       |
| Linnet<br><i>Carduelis cannabina</i>         | UKBAP, Red  | Yes                           | Y                                    | Barnsley MBC (2010)  |       |
| Meadow pipit<br><i>Anthus pratensis</i>      | Amber   | Yes                           | Y                                    | Barnsley MBC (2008, 2010)<br>Hunshelf Bank (2012)                            |       |
| Common gull<br><i>Larus canus</i>            | Amber   | Yes                           | N                                    | Underbank Reservoir (2009)   |       |
| Mistle thrush<br><i>Turdus viscivorus</i>    | Amber   | Yes                           | N                                    | Barnsley MBC (2009, 2010)  |       |
| Skylark<br><i>Alauda arvensis</i>            | UKBAP, Red  | Yes                           | Y                                    | Whitwell Moor (2006)<br>Barnsley MBC (2009, 2010)                            |       |
| Song thrush<br><i>Turdus philomelos</i>      | UKBAP, Red  | Yes                           | Y                                    | Stocksbridge (2002, 2003)<br>Barnsley MBC (2009, 2010)                       |       |
| Starling<br><i>Sturnus vulgaris</i>          | UKBAP, Red  | Yes                           | Y                                    | Barnsley MBC (2008, 2009, 2010)  |       |
| Stock dove<br><i>Columba oenas</i>           | Amber   | Yes                           | Y                                    | Barnsley MBC (2010)  |       |
| Swallow<br><i>Hirundo rustica</i>            | Amber   | Yes                           | Y                                    | Stocksbridge (2008)<br>Barnsley MBC (2008, 2009, 2010)                       |       |

| Species   | Legal Protection/ Conservation Priority Status <sup>3</sup> | Present in Desk Study Results | Suitable Habitat Within or Near Site | Evidence Within or Near Site                   | Notes              |
|---|---|-------------------------------|--------------------------------------|--|--------------------|
| Willow warbler<br><i>Phylloscopus trochilus</i> | Amber   | Yes                           | Y                                    | Green Moor (2006)<br>Barnsley MBC (2009, 2010) |                    |
| <b>Reptiles</b>                                 |   |                               |                                      |  |                    |
| Grass snake <i>Natrix natrix</i>                | WCA, UKBAP  | Yes                           | N                                    | Green Moor (2006)<br>Hunshelf Bank (2009)      |                    |
| Adder <i>Vipera berus</i>                       | WCA, UKBAP  | No                            | N                                    |  |                    |
| Common lizard<br><i>Zootoca vivipara</i>        | WCA, UKBAP  | No                            | Y                                    |  |                    |
| Slow worm <i>Anguis fragilis</i>                | WCA, UKBAP  | No                            | N                                    |  |                    |
| <b>Amphibians</b>                               |   |                               |                                      |  |                    |
| Great crested newt<br><i>Triturus cristatus</i> | HR, WCA, UKBAP  | No                            | Y                                    | N  | Surveys undertaken |

Key to protection/status:

- HR Habitat Regulations
- WCA Wildlife & Countryside Act
- UKBAP UK Biodiversity Action Plan
- LBAP Local (or Regional) Biodiversity Action Plan
- Red Red list bird of conservation concern (Eaton *et al.*, 2009)
- Amber Amber list bird of conservation concern (Eaton *et al.*, 2009)

### 3.3 Field Survey: Habitat Descriptions

#### 3.3.1 Overview

The results of the Phase 1 Habitat Survey are illustrated in map form (Drawing 01) with associated target notes listed in Appendix A.

#### Habitats

##### *Moorland heath and acidic grassland*

The larger part of the area within the red-line boundary comprises dry, well-drained heath habitat on steep slopes. Heath is mostly on ground located below the area which is proposed for development. The heath comprises largely of heather *Calluna vulgaris* with bilberry *Vaccinium vitis-idaea* only very rarely present. Much of the heather is mature with small patches of Gorse *Ulex europaeus* and broom *Cytisus scoparius* mainly along heath edges. There is occasional birch *Betula* sp. saplings also present. Acidic grassland mostly comprises a rough sward which is largely herb poor in most areas, with heath bedstraw *Galium saxatile* being the main component. The sward is mostly a mix of fescues – sheep's fescue *Festuca ovina* and red fescue *Festuca rubra*, common bent *Agrostis capillaris* and some wavy hair-grass *Deschampsia flexuosa*. In areas where the heath and grassland combine to form a mosaic the diversity and cover of herbs increases to include foxglove *Digitalis purpurea*, mouse-ear hawkweed *Pilosella officinalis* and other hawkweeds *Hieraceum* sp.

##### *Modified/ Improved grassland and tall herb*

This occurs mainly around areas containing building stores/ machinery and debris that has been subject to disturbance (Photograph 1). Grassland is less characteristically acidic and

includes such species as cock's-foot *Dactylis glomerata* and perennial rye-grass *Lolium perenne* with herb species including clovers *Trifolium sp.* and dandelion *Taraxacum officinale agg.* Bluebell *Hyacinthoides non-scripta* with creeping soft-grass *Holcus mollis* is very frequent in some areas. A low raised bank along the brow of the slope within the site is vegetated with broom scrub, tall herb (mostly comprising common nettle *Urtica dioica*) and herb-rich stands that comprise thistles *Cirsium sp.*, rosebay willowherb *Chamerion angustifolium*, Sow thistle *Sonchus sp.* and foxglove.

**Photograph 1: Typical view of the site looking west**



### *Scrub and trees*

A small number of young birch trees are present along the main track leading to the site. Most scrub is also in the same area and comprises mainly hawthorn *Crataegus monogyna*, elder *Sambucus nigra* and goat willow *Salix caprea*.

### *Water bodies*

There are no water bodies or water courses within the application site. Two ponds are located within 500 metres of the application site boundary. One of these ponds (Pond P1) is located a short distance to the south east of the main domestic residence at Briery Busk Farm at OS grid reference SK265699430 (Photograph 2). This appears to be a man-made dew pond of circular shape and about 8m in width. It is dominated by bulrush *Typha latifolia* but also contains some open water on the surface. It is deep (i.e. more than 1m in depth) due, in part, to recent high rainfall levels within April and early May 2012. A second pond (Pond P2) is located to the northeast, situated on the north side of Hunshelf Hall Lane at OS grid reference SK27129977. This is a field pond part of which was contained within a small field enclosure running parallel with the lane. Further information regarding these ponds is provided in the 'Great Crested Newt' Section below.

**Photograph 2: Pond 1**



**Amphibian survey**

The results of the HSI Assessment are provided in Table 3-3. Both ponds are classed as having 'Good' potential to support GCN.

**Table 3-3: HSI Assessment Table**

| Category            | Pond 1           | Pond 2           |
|---------------------|------------------|------------------|
| Map Location        | A                | A                |
| Surface Area        | 64m <sup>2</sup> | 80m <sup>2</sup> |
| Dessication Rate    | Rarely           | Never            |
| Water Quality       | Moderate         | Moderate         |
| Shade               | 0%               | 0%               |
| Waterfowl           | Absent           | Minor            |
| Fish Population     | Absent           | Absent           |
| Pond Density        | 2                | 1                |
| Terrestrial Habitat | Good             | Moderate         |
| Marcophyte Cover    | 90%              | 80%              |
| <b>HSI Score</b>    | <b>0.79</b>      | <b>0.70</b>      |

A total of four surveys visits were undertaken on the following dates 10<sup>th</sup>/11<sup>th</sup>, 14<sup>th</sup>/15<sup>th</sup>, 17<sup>th</sup>/18<sup>th</sup> and 21<sup>st</sup>/22<sup>nd</sup> May 2012. All surveys were undertaken during appropriate weather conditions (Table 3-4). The results of the surveys are summarised in Table 3-5.

No great crested newts were found at any point in the survey using any of the methods described. Two species of amphibians were found in Pond 1: these being smooth newt *Lissotriton vulgaris* and common toad *Bufo bufo*. No amphibian species were found in Pond 2 although a complete survey of the pond could not be undertaken due to access restrictions.

**Table 3-4: Weather Conditions**

| Visit No. | Date                                   | Weather                                   |
|-----------|--|---|
| 1         | 10 <sup>th</sup> /11 <sup>th</sup> May | Blustery, no rain, but rain earlier, 12°C |
| 2         | 14 <sup>th</sup> /15 <sup>th</sup> May | Squally rain and strong winds, 8°C        |
| 3         | 17 <sup>th</sup> /18 <sup>th</sup> May | Overcast with low to moderate winds 10°C  |
| 4         | 21 <sup>st</sup> /22 <sup>nd</sup> May | Still with no rain 12°C                   |

**Table 3-5: Survey Results**

| Pond No. | Visit No. | Methods used                   | Amphibian Species |         |    |    |      |
|----------|-----------|--------------------------------|-------------------|---------|----|----|------|
|          |           |                                | SN male           | SN fem. | CT | CF | Fish |
| 1        | 1         | Torch, Bottle trap, Egg search | 7                 | 3       | 1  | 0  | 0    |
| 1        | 2         | Torch, Bottle trap, Egg search | 9                 | 3       | 0  | 0  | 0    |
| 1        | 3         | Torch, Bottle trap, Egg search | 15                | 2       | 0  | 0  | 0    |
| 1        | 4         | Torch, Bottle trap, Egg search | 17                | 14      | 0  | 0  | 0    |
| 2        | 1         | Torch                          | 0                 | 0       | 0  | 0  | 0    |
| 2        | 2         | Torch                          | 0                 | 0       | 0  | 0  | 0    |
| 2        | 3         | Torch                          | 0                 | 0       | 0  | 0  | 0    |
| 2        | 4         | Torch                          | 0                 | 0       | 0  | 0  | 0    |

**Key**

|         |                     |
|---------|---------------------|
| SN male | Smooth newt, male   |
| SN fem. | Smooth newt, female |
| CT      | Common toad         |
| CF      | Common frog         |
| √       | Indicates presence  |
| T       | Torchlight counts   |
| B       | Bottle trapping     |
| N       | Netting             |
| E       | Egg searching       |

## **4.0 RELEVANT LEGISLATION & POLICY<sup>4</sup>**

### **4.1 Legislation**

#### **4.1.1 Habitat Regulations**

The Conservation of Habitats and Species Regulations 2010 transpose Council Directive 92/43/EEC on the Conservation of Natural Habitats and Wild Flora and Fauna (Habitats Directive) into English law, making it an offence to deliberately capture, kill or disturb<sup>5</sup> wild animals listed under Schedule 2 of the Regulations. It is also an offence to damage or destroy a breeding site or resting place of such an animal (even if the animal is not present at the time).

#### **4.1.2 Wildlife & Countryside Act**

The Wildlife and Countryside Act 1981, as amended by the Countryside and Rights of Way Act (CROW) 2000 and the Natural Environment and Rural Communities Act (NERC) 2006, consolidates and amends existing national legislation to implement the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) and Council Directive 79/409/EEC on the Conservation of Wild Birds (Birds Directive), making it an offence to:

- Intentionally kill, injure or take any wild bird or their eggs or nests (with certain exceptions) and disturb any bird species listed under Schedule 1 to the Act, or its dependent young while it is nesting;
- Intentionally kill, injure or take any wild animal listed under Schedule 5 to the Act; damage, destroy or obstruct any place used for shelter or protection by any wild animal listed under Schedule 5 to the Act; intentionally or recklessly disturb certain Schedule 5 animal species;
- Pick or uproot any wild plant listed under Schedule 8 of the Act.

#### **4.1.3 Natural Environment & Rural Communities Act**

The NERC 2006 places a duty on authorities to have due regard for biodiversity and nature conservation during the course of their operations.

### **4.2 Policy**

#### **4.2.1 National Planning Policy Framework (NPPF)**

Planning Policy Statement 9 (PPS9) was superseded by the National Planning Policy Framework (NPPF) in March 2012.

The NPPF states that the planning system should contribute to and enhance the natural and local environment by:

- Recognising the wider benefits of ecosystem services; and

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<sup>4</sup> Please note that this legal information is a summary and intended for general guidance only. The original legal documents should be consulted for definitive information. Web addresses providing access to the full text of these documents are given in the References & Bibliography section.

<sup>5</sup> Disturbance, as defined by the Conservation of Habitats and Species Regulations 2010, includes in particular any action which impairs the ability of animals to survive, breed, rear their young, hibernate or migrate (where relevant); or which affects significantly the local distribution or abundance of the species.

- 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.

Other key principles of the NPPF relating to biodiversity are:

- The conservation of International and National statutorily designated sites;
- Protection of ancient woodland and veteran trees;
- The creation, protection, enhancement and management of networks of biodiversity and green infrastructure;
- The preservation, restoration and recreation of priority habitats and ecological networks; and
- The recovery of priority species populations.

#### **4.2.2 Biodiversity Action Plans**

The UK Biodiversity Action Plan (UKBAP) (Anon, 1995) was organised to fulfil the Rio Convention on Biological Diversity in 1992, to which the UK is a signatory. A list of national priority species and habitats has been produced with all listed species/habitats having specific action plans defining the measures required to ensure their conservation. Regional and local BAPs have also been organised to develop plans for species/habitats of nature conservation importance at regional and local levels.

#### **4.2.3 Local Structure Plans**

County, District and Local Councils have Structure Plans and other policy documents that include targets and policies which aim to maintain and enhance biodiversity. These are used by Planning Authorities to inform planning decisions.

## **5.0 DISCUSSION & RECOMMENDATIONS**

### **5.1.1 General Site Habitats**

The proposed development will not affect any nationally or internationally designated sites. Hunshelf Bank Local Nature Site is located immediately south although this will not be significantly affected by the proposed works. The proposed development will on the contrary aim to complement existing habitats via a comprehensive Ecological Enhancement Strategy (Appendix B).

### **5.1.2 Breeding Birds**

The proposed development is unlikely to affect breeding bird populations on site. The site currently offers sub-optimal habitats compared with those at Hunshelf Bank Local Nature Site and within the surrounding landscape. It is recommended that any vegetation clearance be undertaken between the months of September and February (i.e. outside the bird breeding season), or, if this is not possible, that vegetation removal is supervised by a qualified ecologist.

### **5.1.3 Great Crested Newts**

The surveys undertaken on two water bodies resulted in no evidence of great crested newt. No further surveys are recommended for this species.

### **5.1.4 Reptiles**

The site was thought to have potential for reptiles, particularly common lizard; within the desk study search there was a recent record of grass snake occurring within the 2km search area. It is therefore recommended that prior to clearance works taking place a destructive search be undertaken involving a manual search of potential refuges on the ground and in rough grassland sward and heather, in order to move any reptiles to a safe area, should any be found. The search is recommended only for the area of the site to be directly affected by the proposed works. An Ecological Enhancement Strategy is included within this report in Appendix B.

### **5.1.5 Ecological Enhancement Strategy**

In order to go beyond minimum planning requirements and create a residential dwelling that is in keeping with the surrounding landscape, an Ecological Enhancement Strategy has been developed for inclusion within the detailed design (Appendix B). The Ecological Enhancement Strategy aims to further minimise the impact of the development and provide long term enhancements. The features contained within the Ecological Enhancement Strategy have been agreed with both the client (Peter Needham, Moonstone Property Maintenance) and with the architect (Paul Testa Architecture).

## **6.0 CLOSURE**

This report has been prepared by SLR Consulting Limited with all reasonable skill, care and diligence, and taking account of the manpower and resources devoted to it by agreement with the client. Information reported herein is based on the interpretation of data collected and has been accepted in good faith as being accurate and valid.

This report is for the exclusive use of Moonstone Property Maintenance; no warranties or guarantees are expressed or should be inferred by any third parties. This report may not be relied upon by other parties without written consent from SLR.

SLR disclaims any responsibility to the client and others in respect of any matters outside the agreed scope of the work.

## REFERENCES & BIBLIOGRAPHY

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- Stace, C. (1997) *New Flora of the British Isles* (2nd edition). Cambridge University Press, Cambridge.

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

Conservation of Habitats and Species Regulations 2010:

[http://www.opsi.gov.uk/si/si2010/uksi\\_20100490\\_en\\_1](http://www.opsi.gov.uk/si/si2010/uksi_20100490_en_1)

Wildlife and Countryside Act 1981:

[www.opsi.gov.uk/RevisedStatutes/Acts/ukpga/1981/cukpga\\_19810069\\_en\\_1](http://www.opsi.gov.uk/RevisedStatutes/Acts/ukpga/1981/cukpga_19810069_en_1)

Countryside and Rights of Way Act 2000:

[www.legislation.hmsso.gov.uk/acts/acts2000/20000037](http://www.legislation.hmsso.gov.uk/acts/acts2000/20000037)

Natural Environment and Rural Communities Act 2006:

[http://www.opsi.gov.uk/acts/acts2006/ukpga\\_20060016\\_en\\_1](http://www.opsi.gov.uk/acts/acts2006/ukpga_20060016_en_1)

## **DRAWINGS**

### **Extended Phase 1 Habitat Plan**



NOTES

LEGEND

- Site boundary
- Dry stone wall
- Scattered scrub
- Target notes
- Young trees
- A Arable
- Builders' debris - palettes, building materials etc.
- Bund
- Bare ground
- Hard standing
- Dwarf shrub heath
- SI Poor semi-improved modified grassland (with bluebell)
- SI Poor acid grassland



**SLR** STEP BUSINESS CENTRE  
 7 WORTLEY ROAD  
 DEEPCAR  
 SHEFFIELD S36 2UH  
 T: 0114 2903628  
 F: 0114 2903629  
 www.slrc consulting.com

THE BURROWS

PHASE 1 HABITAT SURVEY

PHASE 1 HABITAT MAP

**DRAWING 01**

SCALE 1:500 @ A3

DATE MAY 2012

## APPENDIX A – TARGET NOTES

| Number | Note   |
|--------|--|
| 1      | Area of the site containing bare/rough ground with some building supplies/debris stores.   |
| 2      | A row of planted conifers  |
| 3      | Area used for storing building supplies and construction maintenance equipment   |
| 4      | An artificially created raised bank on the edge of the area proposed for development containing a variety of vegetation including broom scrub and tall herbs (including common nettle) |

## **APPENDIX B- OUTLINE ECOLOGICAL ENHANCEMENT STRATEGY**

The site occupies a prominent position along a valley ridge. The development proposals involve the partial excavation of the hill-side to accommodate a single storey structure set back away from the ridge edge.

### **Development Footprint and Building Structure**

One of the main features of the development will be the incorporation of a green roof design. This would support vegetation similar and characteristic of the surrounding area (i.e. heath habitat and heath bedstraw-rich acidic grassland). This would be established on a reinforced roof structure in line with current safety and building design guidelines. During site preparation, the top soil (containing the seed bank) will first be removed and material containing a heather seed mix will be appropriately stored to preserve the seed for use on the green roof. The existing seed bank will also be supplemented with a heather-rich seed mix.

At least half of the site (i.e. land within the redline boundary) will be left 'wild'. No significant ground works will be undertaken here and the site will be kept as a wild garden. Log and rubble piles will be left within this area to create refuges for reptile, amphibian and invertebrate species. A more formal patio will be created immediately adjacent to the site to further minimise human disturbance.

Gaps will be left in the stone parapet walls on the roof of the building to create refuges for reptile species. The gaps will be created between stones by leaving them un-mortared and will be left at a variety of heights, particularly at ground level. All gaps will face the green roof.

### **Ponds**

The existing pond is currently choked with bulrush. At least 80% of the introduced bulrush will be cleared during the winter months to ensure that the pond continues to provide suitable habitat for the existing amphibians populations.

A new pond will be constructed within the undeveloped land (i.e. the wild garden) to the west of the development. The pond will be 5m x 10m and will have a depth of approximately 1m. The margins of the pond will be shallow to allow easy access by amphibians and other wildlife. It will be planted with non-invasive, native species.

### **Surrounding Landscape**

Surrounding soils will be of low fertility to encourage the establishment of naturally acidic conditions supporting a mosaic of heather moorland and acidic grassland. Sloping ground with a southerly aspect will be maintained and will include the incorporation of bare rock (forming refuges and basking sites for reptiles) and some bare ground (for mining bees).

A total of five bird boxes will be erected within the trees surrounding the site. These will all be within land owned by the client.

## **APPENDIX C - DESIGNATED SITES WITHIN 2KM BUFFER OF THE BURROWS**

