



global environmental solutions

Land off Ellwood, Lundwood, Barnsley, South Yorkshire

Extended Phase 1 Habitat Survey & Reptile Survey Report

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September 2014

Gleeson Developments Ltd

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1.0 INTRODUCTION

1.1 Terms of Reference

SLR Consulting Ltd was commissioned by Gleeson Developments Ltd to undertake an 'Extended' Phase 1 Habitat Survey of a site known as land off Ellwood, Lundwood, Barnsley, South Yorkshire (approximate central OS grid reference SE375078).

1.2 Site Context

The proposed development area (hereafter referred to as the 'application site') is situated close to the suburb of Lundwood, on the northeast fringes of Barnsley, South Yorkshire. The application site comprises of a large field of un-managed grassland, now being encroached upon by stands of tall ruderals and scrub, extensively in places.

The site is surrounded by residential to the southwest, with commercial and more residential properties to the southeast and east; scrub and some secondary woodland abuts the site to the north, beyond which lies an extensive recreational open space comprising stands of planted woodland, scrub and grassland (known as Littleworth Public Open Space). Immediately east of the site is a former railway line, now the route of the Trans-Pennine Trail, which functions as a wildlife corridor.

2.0 METHODOLOGY

2.1 Desk Study

The Barnsley Biological Records Centre was contacted for ecological data for the application site and land within a 1.5 km radius from the centre of the application site, namely for designated sites¹ and species of conservation concern at a national, regional and/or local level².

2.2 Field Survey

The Extended Phase I Habitat Survey and mapping exercise was carried out by Mr Jim Flanagan AIEEM, an experienced Senior Field Ecologist with SLR Consulting, on 5th August 2014 using standard Phase 1 Habitat survey methodology (JNCC, 2010). In addition to general habitat classification and mapping, a botanical species list was also compiled³, with the abundance of each species being estimated using standard 'DAFOR' codes: **D**ominant, **A**bundant, **F**requent, **O**ccasional, **R**are (**L**ocally being used as a prefix where appropriate).

Habitats and features with potential to support protected and/or conservation priority fauna, together with any field signs of such species were searched for. In addition searches were undertaken to detect the presence of invasive species, including those listed on Schedule 9 of the Wildlife and Countryside Act 1981. Habitats or features of interest were recorded on the field map using target notes (see Drawing 1, Appendix A).

2.3 Reptile Presence/ Absence Survey

100 reptile refuges (a mixture of large sections of heavy-duty roofing felt; corrugated 'onduline', and metal 'tins') were deployed on site on the 5th August 2014, and subsequently inspected on seven occasions between the 12th August and the 22nd September 2014, before being removed.

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 Field Survey

Lack of evidence of a protected species at the time of survey does not necessarily preclude them from being present intermittently, or at a later date.

¹ 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).

² 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.

³ Botanical nomenclature follows Stace (1997).

3.0 RESULTS

3.1 Desk study

A complete account of the desk study information received is contained in Appendix D of this report. A summary of this information is provided below.

3.1.1 Designated sites

There were parts of two statutory designated sites present within the search area. Carlton Marsh Local Nature Reserve (LNR), located 1.4km to the northeast of the application site, contains a wide variety of habitats including dry neutral grassland, scrub, broad-leaved plantation and a range of water bodies including areas of adjoining swamp and marshy grassland. Cliff Wood, located 1.5km to the southwest of the application site, is part of the Dearne Valley Park LNR which comprises broad-leaved semi-natural woodland, neutral grassland, scrub, small water bodies, swamp and parkland.

In addition to the LNRs there were parts of two non-statutory Local Wildlife Sites (LWS) within the search area. Stairfoot Disused Railway LWS, which lies 1.4km to the south of the application site, supports grassland, scrub and woodland habitats on disused railway embankments. Sunny Bank Wood (which forms part of Sunny Bank, Horse Carr and Storrs Wood LWS), lies 1 km to the southeast of the application site, and consists of broad-leaved semi-natural woodland on an ancient woodland site.

3.1.2 Protected species

A total of 345 records of protected and notable species were provided for the desk study search area. Of these 284 were for Birds of Conservation Concern (BoCC), and 61 for other taxa. In the latter category mammals comprised 44 records. The full list is provided in Appendix D.

Non-Bird Records

Among the mammal records there were 14 records of water vole *Arvicola amphibious*, dating from 2001 and 2012 relating to Carlton Marsh and Cudworth; 11 records of at least three bat species – Natterer's bat *Myotis nattereri*, Daubenton's bat *Myotis daubentoni* and Pipistrelle *Pipistrellus* sp. dating from between 1989-2001; nine records of brown hare *Lepus europaeus* dating from 1991-2000; four records of badger *Meles meles* from 2010; and a small number of records for harvest mouse *Micromys minutus* and hedgehog *Erinaceus europaeus*.

Three amphibian records were provided, relating to common frog *Rana temporaria* and common toad *Bufo bufo*, at Carlton Marsh and Cudworth, dating from 1989 and 2001. In addition there was a single reptile record, relating to grass snake *Natrix natrix*, at Carlton Marsh, from 2001. Two recent (2012) records of white-clawed crayfish *Austropotamobius pallipes* were provided for the River Dearne. The remainder of the non-avian records relate to terrestrial invertebrates, mostly moths. None of the above 61 non-bird records relate to the application site itself.

Bird Records

The bulk of the bird records were provided for land to the northeast of the application site; in and around Cudworth and Carlton Marsh. A large proportion of the records were for wildfowl

and wading birds such as lapwing *Vanellus vanellus*, oystercatcher *Haematopus ostralegus*, snipe *Gallinago gallinago*, teal *Anas crecca* and mute swan *Cygnus olor*. Smaller numbers of records were provided for species such as barn owl *Tyto alba*, turtle dove *Streptopelia turtur*, yellow wagtail *Motacilla flava*, skylark *Alauda arvensis* and grey partridge *Perdix perdix*. There were some 85 records for starling *Sturnus vulgaris*, dunnock *Prunella modularis* and house sparrow *Passer domestica*, with nearly half of these relating to the latter species.

3.2 Habitat Descriptions

3.2.1 Overview

The results of the Phase 1 Habitat Survey are illustrated in map form (Drawing 1), provided in Appendix A.

The application site comprises of one large field of rough semi-improved grassland, along with stands of tall herb and scattered scrub (Plates 1-3). The site is devoid of mature trees, although some semi-mature specimens occur on the margins of the site. There were no ponds on site and the ditch forming the northwest boundary of the site was found to be completely dry during the Phase I and the subsequent reptile refuge inspections (undertaken throughout August and September 2014). No invasive plant species, listed on Schedule 9 Wildlife & Countryside Act (as amended), were found on or in the immediate vicinity of the application site.

3.2.2 Habitats

Poor semi-improved grassland

The majority of the poor semi-improved grassland habitat occurred in the southern half of the site (refer to Drawing 1). This comprised largely of a tall sward dominated by coarse grasses with the main species being false oat-grass *Arrhenatherum elatius*. Associated species included cock's-foot *Dactylis glomerata*, common couch *Elymus repens*, Yorkshire fog *Holcus lanatus*, and smooth meadow-grass *Poa pratensis*. Within the sward tall herbs were frequent but limited to a small range of competitive species such as rosebay willowherb *Chamaenerion angustifolium*, mugwort *Artemisia vulgaris*, common ragwort *Senecio jacobaea*, cow parsley *Anthriscus sylvestris*, hogweed *Heracleum sphondylium* and Michaelmas daisy *Aster* sp.

Semi-improved neutral grassland

This was mostly confined to the northern half of the site and was characterised by a mixed herb-rich sward containing common knapweed *Centaurea nigra*, meadow vetchling *Lathyrus pratensis*, tufted vetch *Vicia cracca*, bush vetch *Vicia sepium*, red clover *Trifolium pratense*, ribwort plantain *Plantago lanceolata*, common bird's-foot trefoil *Lotus corniculatus* and creeping cinquefoil *Potentilla reptans*, among others. As with the poor semi-improved grassland further south, there were also patches of Michaelmas daisy, cow parsley, hogweed and creeping thistle *Cirsium arvense* within the sward. Grasses comprised mostly of false oat-grass, Yorkshire fog, timothy *Phleum pratense* and meadow foxtail *Alopecurus pratensis*. Patches of field scabias *Knautia arvensis* were recorded in the extreme eastern part of the site, close to the Trans-Pennine Trail embankment.



Plate 1: View of the central part of the site from the higher ground, along the eastern boundary. The site can be seen to have a shallow valley profile with land sloping up at the northwest side.

Marshy grassland

Within the northern half of the site, and the low-lying area close to the Trans-Pennine Trail in the east, there were small areas of grassland that included locally abundant tufted hair-grass *Deschampsia cespitosa* indicative of moist to wet soil conditions. Also present within this area were other species indicative of damp ground including common fleabane *Pulicaria dysenterica*, great willowherb *Epilobium hirsutum* and field horsetail *Equisetum arvense*.

Tall herb

Tall herb within the site was patchy, but significant in places and comprised largely of stands of dense rosebay willowherb and Michaelmas daisy. Other tall herb species were less abundant or more localised in their distribution, and included creeping thistle



Plate 2: View (looking east) of the tufted hair-grass dominated marshy grassland located near to the lower parts of the site, such as the central and northern areas.

Low perennials and ephemerals

These were mostly confined to tracks, particularly the well-used track which runs along the northwest site boundary (Plate 4), where trampled and/ or bare ground was sparsely vegetated in a few small locations. Species present here include perennial rye-grass *Lolium perenne* and herbs such as red bartsia *Odonites vernus* and common bird'-foot trefoil. Some bracken *Pteridium aquilinum* also occurs alongside the footpath which runs parallel to the northern site boundary. In addition there were more acidic parts (located towards the southwest end of the site) where sheep's fescue *Festuca ovina* and wavy hair-grass *Deschampsia flexuosa* were locally frequent along with bryophytes.

Scrub

This was extensively scattered across the site and comprised mostly of hawthorn *Crataegus monogyna*, with lesser amounts of grey willow *Salix cinerea* and goat willow *Salix caprea* on damper ground, as well as elder *Sambucus nigra*, apple *Malus* sp., and some dense bramble patches. The northwest boundary of the site was bordered by continuous and extensive scrub cover, particularly formed by blackthorn *Prunus spinosa* at the northern end, accompanied by field maple *Acer campestre*, osier *Salix viminalis*, grey willow and goat willow. A wide range of other tree and shrub species were also present within this belt most having been planted, including aspen *Populus tremula* and whitebeam *Sorbus aria* (refer to Plate 4).

Secondary woodland

Secondary woodland habitat on site was located along the former railway embankment (now the Trans-Pennine Trail) which defines the eastern boundary of the site, and comprises mostly of semi-mature silver birch *Betula pendula* along with lesser amounts of semi-mature grey poplar *Populus x canescens*.



Plate 3: View (looking northeast) of the southern half of the site which overall characterises the habitats present. As can be seen in this view rosebay willowherb forms extensive stands across the major part of the site.

Invasive species

Although no invasive plant species (as defined by Section 9 of the Wildlife & Countryside Act, 1981) were recorded within the site, a small stand of dense bracken was noted to be present along the track running parallel with the northwest boundary of the site. Bracken, although not classed as an invasive, does have the potential to spread and dominate to the exclusion of most other vegetation where it occurs.



Plate 4: View (looking northeast) of a part of the track running parallel with the northwest boundary of the site (marked by a dry ditch which is located behind the rosebay willowherb on the left hand side of this picture).

3.3 Fauna

Birds

A small number of bird species were noted on the application site during the Extended Phase I habitat survey in early August, and subsequent checks of the reptile refuges throughout August and September. These included two species of Conservation Concern (BoCC), namely yellowhammer *Emberiza citronella* and bullfinch *Pyrrhula pyrrhula*. The site has extensive potential to support a range of other ground and shrub/ tree nesting birds, mainly of common passerine species.

Amphibians

The site contains no waterbodies. The ditch forming the northwest boundary of the site was found to be completely dry throughout August and September, and did not support species characteristic of wet habitats, so is likely to be dry for most of the year. Evidence from the OS 1:25,000 scale map and aerial photography shows no waterbodies to be present within a 500m radius of the site boundary. The site does not, therefore, appear to provide optimal habitat for amphibians, including great crested newt *Triturus cristatus*. No amphibians were found during any of the 'reptile refuges', checked on seven occasions throughout August and September.

Reptiles

The application site contains some damp and extensive areas of rough grassland, which superficially at least, appear suitable for reptiles.

In order to determine if reptiles (and also amphibians – see previous section) were present on site a total of 100 refuges of varying size and type (mostly 1m x 2m heavy-duty roofing felt) were deployed on the 5th of August 2014, and subsequently inspected on seven occasions between 12th August and the 22nd September 2014, before being removed.

Table 1 below contains data on weather conditions recorded for each visit.

Table 1: Weather conditions recorded for each day of reptile refuge check

Date	Start time	Temp. start	Finish time	Temp. finish	Weather
12.8.2014	10.50 hrs	16°C	12.00 hrs	16°C	Sunny intervals; cloud cover 50%; gentle breeze no rain
17.8.2014	10.15 hrs	15°C	11.45 hrs	16°C	Sunny intervals; cloud cover 50%; gentle breeze; no rain
26.8.2014	16.00 hrs	16°C	16.55 hrs	16°C	Sunny intervals; cloud cover 50%; moderate breeze; no rain
1.9.2014	10.10 hrs	16°C	11.05 hrs	16°C	Sunny intervals; cloud cover 50%; light breeze; no rain
12.9.2014	12.30 hrs	14°C	13.40 hrs	15°C	Hazy sunshine; 100% light cloud cover; no wind; no rain
16.9.2014	16.30 hrs	17°C	17.10 hrs	16°C	Sunny after hazy day earlier; cloud cover 50%; no wind; no rain
22.9.2014	11.00 hrs	13°C	12.30 hrs	14°C	Sunny intervals; cloud cover 50%; moderate breeze; no rain

No reptiles (and no amphibians) were found under any of the refuges, during any of the seven inspections.

Invertebrates

The site provides a range of habitats supporting a significant amount of invertebrate biomass and is likely to provide moderate to good bat foraging potential. Invertebrates comprise open habitat (grassland) assemblages, featuring many common and widespread species, as well as arboreal assemblages, found on scrub and young/semi-mature trees. During the Extended Phase 1 Habitat Survey eight species of butterfly were recorded, including Essex skipper *Thymelicus lineola*, a relatively new arrival in the region, as well as a number of common bug and leafhopper species including another new arrival to Yorkshire⁴, namely *Athysanus argentarius*, a leafhopper that was, until a couple of decades ago, mainly confined to the southeast of England. Other bugs included a good population of *Oncotylus viridiflavus* (first noted in Yorkshire in 2006) on the numerous stands of common knapweed

⁴ First found by the surveyor from material collected from a trapping exercise conducted during 2012 from lag fen habitat at Inkle Moor on the northern fringe of Thorne Moor, Doncaster. Now found widely across South Yorkshire in similar types of grassland habitat.

within and on the margins of the site, and the lacebug *Physatocheila dumetorum*, a species that has become more common due to an increase of lichen cover on shrubs (such as hawthorn) resulting from improvements in air quality over the past years. Also noted was the snail-killing fly *Coremacera marginalis*, a common species of open grassy habitats and brownfield-type sites. *Volucella inanis*, a hoverfly that is a commensal of social wasps in the genus *Vespula* (i.e. including common wasp *V. vulgaris*) and also another relatively recent arrival to Yorkshire, which has become more commonly found over the last few years, was also found to be present. At least four species of bumblebee were noted including *Bombus pratorum*. Ground beetles included the well-marked *Badister bullatus* a common speices occasionally seen under reptile refuges.

Other Protected Species

No other protected species were found to be present. For example, the site did not support Badger *Meles meles* setts, and no badger feeding signs, or dung pits, were recorded.

4.0 RELEVANT LEGISLATION & POLICY⁵

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 disturb⁶ 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).

Special Areas of Conservation (SAC) are strictly protected sites, designated under the Habitats Directive, which contain habitats and/or species (excluding birds) considered to be most in need of conservation at a European level.

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; intentionally or recklessly 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 while they occupy a place used for shelter or protection;
- Pick or uproot any wild plant listed under Schedule 8 of the Act.

Special Protection Areas (SPA) are strictly protected sites, designated under the Birds Directive, for rare and vulnerable birds and for regularly occurring migratory species.

4.1.3 *National Parks & Access to the Countryside Act*

National Nature Reserves (NNR's) and Local Nature Reserves (LNR's) are designated under the National Parks and Access to the Countryside Act 1949.

⁵ 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.

⁶ 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.

4.1.4 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)

The National Planning Policy Framework (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
- 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 CONCLUSIONS AND OPPORTUNITIES FOR SITE ENHANCEMENT

The application site consists mainly of neutral semi-improved grassland; in the southern part of the site this is typically species-poor, but further north it is more diverse, and of greater intrinsic ecological value. There are also lesser amounts of tall ruderal and scrubby habitats. The northern site boundary is defined by a continuous belt of scrubby woodland, separating the site from Littleworth Public Open Space; the eastern site boundary (abutting the Trans-Pennine Trail) is also fairly well-wooded.

Although superficially appearing to have potential to support reptiles, no reptiles were found during seven checks of 100 artificial refuges, during August and September 2014. It is therefore concluded that the site either does not contain reptiles, or that reptiles, ostensibly grass snake (which can be relatively mobile and far-ranging) are present intermittently, and most likely in low numbers.

The site does not contain any water bodies, and no water bodies appear to be present in close proximity to the site boundary; no great crested newt records were provided by the Barnsley Biological Records Centre, and the application site therefore does not appear to have potential to support this species.

The site does not contain any buildings or other structures, and none of the trees around the site boundary have potential to support roosting bats. The northern and eastern site boundaries, both of which are defined by belts of scrub/ scrubby woodland do have potential for foraging and/ or commuting bats, and both of these shall be retained within the proposed housing scheme.

Should any trimming of these boundary features, or removal of scattered scrub, tall grassland and/ or tall ruderal habitat be required elsewhere (to facilitate development), this shall, if possible take place outside of the main bird breeding season (which for most bird species extends between March and August inclusive). If this is not possible, that the section of hedgerow concerned should be subject to a search for nesting birds by a qualified ecologist, and any nests (if found) would be safeguarded until the nesting attempt is complete.

An area of Public Open Space (POS) shall be created along the eastern site boundary (where this abuts the Trans-Pennine Trail), as shown in Appendix D (Landscape Proposals). This POS will consist of a mixture of existing scrubby woodland, and retained semi-natural grassland. Where necessary, and appropriate, areas of herb-rich grassland located elsewhere on site, such as those supporting large amounts of knapweed and/ or Michaelmas daisy for example, will be traslocated to this area of POS, and placed in 'bare patches' of ground (including those patches impacted during construction activities). The grassland will be subject to sensitive management, involving an annual cut, in the autumn, and the arisings (grass cuttings) will be removed, so as not to smother or suppress lower-growing species, and to avoid increases in soil fertility (which could lead to dominance by more aggressive, less-desirable grass species). A further area of wildflower-rich grassland, located alongside a pathway through the POS in the east of the site, will be created, but cut up to three times a year; again, the arisings would be removed.

In order to enhance the site for breeding birds, an appropriate number of nest boxes shall erected on trees around the site boundary, principally those trees which border the site to the north and east. These shall consist of two small hole-fronted nest box (one with an entrance large enough for blue tit *Cyanistes caeruleus*, and one with an entrance large enough for great tit *Parus major*), one starling *Sturnus vulgaris* box, and two house sparrow/

tree sparrow *Passer domesticus*/ *Passer montanus* nest boxes. In addition, three wooden bat boxes will be erected on trees located on the site boundary. Furthermore, a total of ten bat 'tubes' or building-mounted bat boxes shall be installed, and these shall be positioned high up, either at eaves-level or high on gable ends; they shall not be positioned directly above doors or windows.

These site enhancement measures will ensure that the site retains its value for foraging bats, and that its potential to support roosting bats is enhanced, particularly once the houses (containing the bat 'tubes'/ boxes) are built.

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 Gleeson Developments Ltd; 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.

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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

Habitats Directive:

www.europa.eu.int/eur-lex/en/lif/dat/1992/en_392L0043

Birds Directive:

eur-lex.europa.eu/LexUriServ/site/en/consleg/1979/L/01979L0409-20070101-en

Wildlife and Countryside Act 1981:

www.opsi.gov.uk/RevisedStatutes/Acts/ukpga/1981/cukpga_19810069_en_1

Countryside and Rights of Way Act 2000:

www.legislation.hms.gov.uk/acts/acts2000/20000037

Natural Environment and Rural Communities Act 2006:

http://www.opsi.gov.uk/acts/acts2006/ukpga_20060016_en_1

Protection of Badgers Act 1992:

http://www.opsi.gov.uk/ACTS/acts1992/ukpga_19920051_en_1

National Parks and Access to the Countryside Act 1949:

http://www.opsi.gov.uk/RevisedStatutes/Acts/ukpga/1949/cukpga_19490097_en_1

National Planning Policy Framework

www.gov.uk/government/uploads/system/uploads/attachment_data/file/6077/2116950.pdf

APPENDIX A – TARGET NOTES TO EXTENDED PHASE 1 HABITAT SURVEY MAP (DRAWING 1)

Target Note	Plate	Description
1		View (looking west) of the southwest boundary of the site beyond which there is new residential development. The habitat in this corner comprises of tall herb, bramble and abundant hedge bindweed.
2		Location of an area containing frequent field scabious; the eastern side of the former railway line here consists of an east facing slope supporting a flower-rich sward and scrub
3		Location of moribund young Wych elm possibly affected by a new bout of elm disease

4		Location of a concrete main close to the moribund Wych elm.
5		Location of tufted hair-grass dominant marshy grassland on lower ground within the northern half of the site (view looking northeast)
6		Location of stand of common fleabane within the northern half of the site and indicative of the presence of moist to wet soils (view to the west)

7		View (to northeast) of track running parallel with the northwest boundary of the site (shown here on the left hand side of the track. In this view we can see a dense stand of bracken situated close to the right hand side of the track.
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APPENDIX A – DRAWING 1

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NOTES

1. MAP SUPPLIED BY CLIENT

LEGEND

— SITE BOUNDARY

1

TARGET NOTE

SI

SEMI-IMPROVED NEUTRAL GRASSLAND

SI

POOR SEMI-IMPROVED GRASSLAND

BROAD-LEAVED SECONDARY WOODLAND

TALL HERB

DENSE SCRUB

X

SCATTERED SCRUB

TREE

DRY DITCH

FOOTPATH

FENCE

WALL

GLEESON DEVELOPMENTS

SLR

STEP BUSINESS CENTRE

7 WORTLEY ROAD

DEEPCAR

SHEFFIELD S36 2UH

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LAND OFF ELLWOOD, LUNDWOOD

RESULTS OF EXTENDED PHASE 1 HABITAT SURVEY

DRAWING 1

SCALE

1:1,000@A3

DATE

AUGUST 2014

03044_00015_05.01.00 Ext Phase 1

drawing to be checked on site by between drawn and on site to be notified immediately

Ordnance Survey information provided for use in connection with the project to topographical site survey. All data to be checked against the Land Registry to commence on site and any discrepancies to be notified to ACER Architectural Limited. Scale details and boundary treatments to be notified to the Local Planning Authority.

APPENDIX B – BOTANICAL SPECIES LIST AND FREQUENCY VALUES

Common Name	Latin Name	Frequency (DAFOR)
Agrimony	<i>Agrimonia eupatoria</i>	R
American willowherb	<i>Epilobium adenocaulon</i>	R
Apple	<i>Malus domestica</i>	O
Apple-mint	<i>Mentha x villosa</i>	LF
Ash	<i>Fraxinus excelsior</i>	R
Blackthorn	<i>Prunus spinosa</i>	LA
Bracken	<i>Pteridium aquilinum</i>	LF
Bramble	<i>Rubus fruticosus</i> agg.	F-LA
Broad-leaved dock	<i>Rumex obtusifolius</i>	O
Bush vetch	<i>Vicia sepium</i>	LA
Canadian goldenrod	<i>Solidago canadensis</i>	LA
Cherry	<i>Prunus</i> sp.	LF
Cleavers	<i>Galium aparine</i>	LA
Cock's-foot	<i>Dactylis glomerata</i>	F
Colt's-foot	<i>Tussilago farfara</i>	LF
Common bent	<i>Agrostis capillaris</i>	LA
Common bird's-foot trefoil	<i>Lotus corniculatus</i>	LF
Common couch	<i>Elytrigia repens</i>	F
Common fleabane	<i>Pulicaria dysenterica</i>	LA
Common goat's-beard	<i>Tragopogon pratensis</i>	R
Common knapweed	<i>Centaurea nigra</i>	LA
Common nettle	<i>Urtica dioica</i>	LF
Common ragwort	<i>Senecio jacobaea</i>	O
Cow parsley	<i>Anthriscus sylvestris</i>	O
Creeping buttercup	<i>Ranunculus repens</i>	LF
Creeping cinquefoil	<i>Potentilla repens</i>	LF
Creeping thistle	<i>Cirsium arvense</i>	F
Curled dock	<i>Rumex crispus</i>	R
Dandelion	<i>Taraxacum officinale</i> agg.	O
Dog rose	<i>Rosa canina</i> agg.	R
Dogwood	<i>Cornus sanguinea</i>	O
Elder	<i>Sambucus nigra</i>	O
False oat-grass	<i>Arrhenatherum elatius</i>	F
Field bindweed	<i>Convolvulus arvensis</i>	LF
Field horsetail	<i>Equisetum arvensis</i>	LF
Field maple	<i>Acer campestre</i>	LF
Field rose	<i>Rosa arvensis</i>	O
Field scabious	<i>Knautia arvensis</i>	LF
Goat willow	<i>Salix caprea</i>	O
Great willowherb	<i>Epilobium hirsutum</i>	LF
Greater plantain	<i>Plantago major</i>	LF
Grey willow	<i>Salix cinerea</i>	O-LF
Hawkweed	<i>Hieraceum</i> sp.	F
Hawthorn	<i>Crataegus monogyna</i>	F
Hedge bindweed	<i>Calystegia sepium</i>	LD
Hoary ragwort	<i>Senecio erucifolius</i>	LF
Hoary willowherb	<i>Epilobium parviflorum</i>	R

Common Name	Latin Name	Frequency (DAFOR)
Hogweed	<i>Heracleum sphondylium</i>	F
Japanese rose	<i>Rosa rugosa</i>	LF
Meadow buttercup	<i>Ranunculus acris</i>	O
Meadow foxtail	<i>Alopecurus pratensis</i>	LF
Meadow vetchling	<i>Lathyrus pratensis</i>	LA
Michaelmas-daisy	<i>Aster novi-belgii</i>	LD
Mugwort	<i>Artemisia vulgaris</i>	LF
Osier	<i>Salix viminalis</i>	O
Perforate St John's-wort	<i>Hypericum perforatum</i>	LF
Perennial rye-grass	<i>Lolium perenne</i>	LF-LA
Perennial sow-thistle	<i>Sonchus arvensis</i>	LF
Red bartsia	<i>Odontites vernus</i>	R
Red clover	<i>Trifolium pratense</i>	LF
Red fescue	<i>Festuca rubra</i>	LF
Ribwort plantain	<i>Plantago lanceolata</i>	LA
Rosebay willowherb	<i>Chamerion angustifolium</i>	LA-LD
Rough hawk's-beard	<i>Crepis biennis</i>	O
Rowan	<i>Sorbus aucuparia</i>	R
Sheep's fescue	<i>Festuca ovina</i>	LF
Silver birch	<i>Betula pendula</i>	LF
Smooth meadow-grass	<i>Poa pratensis</i>	A
Soapwort	<i>Saponaria officinalis</i>	LF
Sycamore	<i>Acer pseudoplatanus</i>	R
Timothy	<i>Phleum pratense</i>	LF
Tufted hair-grass	<i>Deschampsia cespitosa</i>	LA
Tufted vetch	<i>Vicia cracca</i>	LA
Wavy hair-grass	<i>Deschampsia flexuosa</i>	LF
White clover	<i>Trifolium repens</i>	LF
White poplar	<i>Populus alba</i>	R
Wych elm	<i>Ulmus glabra</i>	R
Yorkshire fog	<i>Holcus lanatus</i>	F

Key to frequency value:

D = Dominant

A = Abundant

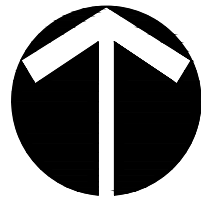
F = Frequent

O = Occasional

R = Rare

'L' denotes locally dominant, abundant etc.

APPENDIX C – LANDSCAPE PROPOSALS



This drawing is the copyright of Rosetta Landscape Design and cannot be reproduced in any form without the express consent of the company. Written and scaled dimensions to be checked on site, any discrepancies reported prior to work commencing. **If in doubt please ask.**

This drawing has been prepared for the purpose of planning approval.

Planting Notes

Topsoil shall be a minimum of 400mm depth over planting beds and graded to fall. Imported topsoil must be BS3882:2007 compliant and existing topsoil must be cultivated in accordance with BS3882:2007. No cultivation should take place in wet/waterlogged conditions.

Herbicide and cultivation: Topsoil to be treated with two applications of herbicide prior to planting, where necessary, strictly in accordance with the Control of Pesticides Regulations 1986 (as amended 1997 or, otherwise, updated/superseded legislation) and following manufacturer's instructions by qualified staff. The topsoil shall then be cultivated to 150mm depth.

Planting: All planting and turling shall conform to BS 3036: 1992 and BS 4428:1989.

Trees: Standard trees to be planted in pits 800x800x450mm or dimensions of rootball, whichever is greater. Tree to be supported by 1Nr stake (1500mm long, per tree, 600mm above ground, 75mm diameter) and 1Nr bio-degradable tie. Heavy and Extra Heavy Standard trees to be planted in pits 1000x1000x600mm or dimensions of rootball, whichever is greater. Tree to be supported by 2Nr stakes (1500mm long, 600mm above ground, 75mm diameter), cross bar (400x100x15mm) and 1Nr bio-degradable ties. Alligra soil improver and 150g Enmag (or equivalent) to be incorporated into the soil of all new tree pits. Trees to be planted centrally within a tree pit.

Container grown shrubs, transplants and whips: Shrubs and transplants shall be planted in pits 300x300x400mm (depth), and the backfill shall include 3 litres of peat-free tree and shrub compost. Where two or more shrub species are indicated within a single bed each species shall be randomly mixed throughout the bed in groups of 3/5.

Herbicide: Spot treat with herbicide throughout the maintenance period in accordance with the manufacturer's instructions.

Mulch: Planting beds to receive 75mm depth pulverized ornamental bark mulch. Native woodland/edge plants to be planted with 800g flax fibre mulch mat pinned to soil. Native hedgerow to be planted through 800g flax fibre mulch roll, edges tucked. Ensure the top of the mulch layer is a minimum of 15mm below adjacent pavements and other surfaces, to prevent spillage.

Plant position: Final position of trees and shrubs subject to confirmation of service location and approval of statutory undertakers.

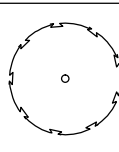
Protection to planting: Native hedgerow plants to be protected by spiral shelters. Native trees and shrubs within mixes to be protected by shelter guards as supplied by Acorn Planting Products Ltd (01508 528763), or equivalent.

Ornamental hedging: Hedges to comprise a single row of plants, 400mm wide trench excavated to take plants and topsoil cultivated to 400mm depth prior to application of fertiliser.

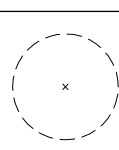
Grass: All turf/seeded areas to be cultivated and levelled as required removing any stones, rubble, subsoil, general construction waste.

Planting Season: Bare-root shrubs to be planted between mid-November and mid-March dependent upon the planting season.

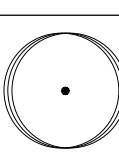
LEGEND



Existing tree
to be retained



Existing tree
to be removed



Proposed tree
Standard (Selected)



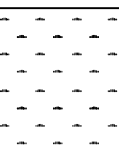
Proposed shrub bed



Proposed short sward amenity
grassland to be frequently cut.



Retained existing grassland. Sow any bare patches with species rich turf
taken from semi-improved neutral grassland elsewhere on site. Area to be
mown once a year in Autumn with arisings removed.



Retained existing wildflower grassland. Areas alongside footpath through
POS to be mown up to three times per year with arisings removed.



Proposed seating to comprise granite boulders



Proposed play equipment to comprise timber
trim trail equipment, granite boulders and timber logs

Rev B: Revised to comply with recommendations received from Ecological consultant - 03Oct14 (MP/tp)

Rev A: Revised to Acer Architectural 'Sketch Housing Layout' 1313.04.01F - 30Sep14 (MP/tp)

Base: Acer Architectural 'Sketch Housing Layout' 1313.03.01E received 11Sep14

PROJECT Ellwood, Lundwood, Barnsley

TITLE Landscape Proposals

CLIENT Gleeson Homes & Regeneration

DATE 25 Sep 14 SCALE 1 : 500 SHEET A0

DRAWN MP/jr DRAWING NO 2504/2

CHECKED MP REVISION B



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APPENDIX D – DESK STUDY DATA

Grid Ref	Location	Date	Scientific Name	Common Name	Comments
SE370090	Carlton Marsh LWS	27/05/2001	<i>Bufo bufo</i>	Common Toad	
SE370090	Carlton Marsh LWS	28/04/2001	<i>Natrix natrix</i>	Grass Snake	18 seen between Apr-Dec.
SE370090	Carlton Marsh LWS	24/07/2001	<i>Satyrium w-album</i>	White Letter Hairstreak	
SE373063	River Dearne at Grange Lane	25/10/2012	<i>Austropotamobius pallipes</i>	Freshwater Crayfish	
SE373063	River Dearne at Grange Lane	27/10/2012	<i>Austropotamobius pallipes</i>	Freshwater Crayfish	
SE381091	Bleachcroft Farm pond, Cudworth	01/04/2001	<i>Perdix perdix</i>	Grey Partridge	
SE3807	Cudworth	10/10/2003	<i>Perdix perdix</i>	Grey Partridge	
SE370090	Carlton Marsh LWS	15/07/2001	<i>Perdix perdix</i>	Grey Partridge	
SE381091	Bleachcroft Farm pond, Cudworth	17/05/1999	<i>Vanellus vanellus</i>	Lapwing	
SE381091	Bleachcroft Farm pond, Cudworth	01/05/2002	<i>Vanellus vanellus</i>	Lapwing	
SE381091	Bleachcroft Farm pond, Cudworth	01/06/2002	<i>Vanellus vanellus</i>	Lapwing	
SE370090	Carlton Marsh LWS	18/09/2001	<i>Vanellus vanellus</i>	Lapwing	
SE3808	Bleachcroft Farm, Cudworth	11/02/2012	<i>Vanellus vanellus</i>	Lapwing	
SE381091	Carlton Marsh Reserve	15/05/1996	<i>Numenius arquata</i>	Curlew	
SE370090	Carlton Marsh LWS	30/03/2001	<i>Numenius arquata</i>	Curlew	
SE370090	Carlton Marsh LWS	29/04/2001	<i>Cuculus canorus</i>	Cuckoo	
SE370090	Carlton Marsh LWS	29/04/2001	<i>Locustella naevia</i>	Grasshopper Warbler	
SE3808	Bleachcroft Farm, Cudworth	22/04/2012	<i>Locustella naevia</i>	Grasshopper Warbler	
SE370090	Carlton Marsh LWS	08/05/2001	<i>Phylloscopus sibilatrix</i>	Wood Warbler	
SE370090	Carlton Marsh LWS	01/03/2001	<i>Emberiza citrinella</i>	Yellowhammer	
SE370090	Carlton Marsh LWS	15/04/2001	<i>Emberiza schoeniclus</i>	Reed Bunting	
SE3808	Bleachcroft Farm, Cudworth	05/08/2012	<i>Emberiza schoeniclus</i>	Reed Bunting	
SE3808	Bleachcroft	28/12/1995	<i>Numenius arquata</i>	Curlew	
SE3808	Bleachcroft	04/07/1995	<i>Numenius arquata</i>	Curlew	Feeding on meadow
SE3808	Cudworth	28/12/2011	<i>Perdix perdix</i>	Grey Partridge	

SE361080	'BARNSELEY MBC'	27/01/2008	<i>Passer domesticus</i>	House Sparrow
SE3808	Cudworth	28/12/2011	<i>Passer domesticus</i>	House Sparrow
SE3808	Bleachcroft Farm, Cudworth	26/09/1995	<i>Passer domesticus</i>	House Sparrow
SE377073	'BARNSELEY MBC'	25/01/2009	<i>Passer domesticus</i>	House Sparrow
SE378080	'BARNSELEY MBC'	25/01/2009	<i>Passer domesticus</i>	House Sparrow
SE380082	'BARNSELEY MBC'	25/01/2009	<i>Passer domesticus</i>	House Sparrow
SE376070	'BARNSELEY MBC'	25/01/2009	<i>Passer domesticus</i>	House Sparrow
SE367074	'BARNSELEY MBC'	25/01/2009	<i>Passer domesticus</i>	House Sparrow
SE367075	'BARNSELEY MBC'	25/01/2009	<i>Passer domesticus</i>	House Sparrow
SE368088	'BARNSELEY MBC'	25/01/2009	<i>Passer domesticus</i>	House Sparrow
SE366069	'BARNSELEY MBC'	25/01/2009	<i>Passer domesticus</i>	House Sparrow
SE367070	'BARNSELEY MBC'	25/01/2009	<i>Passer domesticus</i>	House Sparrow
SE380082	'BARNSELEY MBC'	25/01/2009	<i>Passer domesticus</i>	House Sparrow
SE375077	'BARNSELEY MBC'	25/01/2009	<i>Passer domesticus</i>	House Sparrow
SE385088	'BARNSELEY MBC'	25/01/2009	<i>Passer domesticus</i>	House Sparrow
SE377073	'BARNSELEY MBC'	25/01/2009	<i>Passer domesticus</i>	House Sparrow
SE378080	'BARNSELEY MBC'	25/01/2009	<i>Passer domesticus</i>	House Sparrow
SE370080	'BARNSELEY MBC'	25/01/2009	<i>Passer domesticus</i>	House Sparrow
SE372065	'BARNSELEY MBC'	25/01/2009	<i>Passer domesticus</i>	House Sparrow
SE367075	'BARNSELEY MBC'	25/01/2009	<i>Passer domesticus</i>	House Sparrow
SE376070	'BARNSELEY MBC'	25/01/2009	<i>Passer domesticus</i>	House Sparrow
SE362078	'BARNSELEY MBC'	25/01/2009	<i>Passer domesticus</i>	House Sparrow
SE362078	'BARNSELEY MBC'	25/01/2009	<i>Passer domesticus</i>	House Sparrow
SE363073	'BARNSELEY MBC'	25/01/2009	<i>Passer domesticus</i>	House Sparrow
SE362074	'BARNSELEY MBC'	25/01/2009	<i>Passer domesticus</i>	House Sparrow
SE362078	'BARNSELEY MBC'	25/01/2009	<i>Passer domesticus</i>	House Sparrow
SE370080	'BARNSELEY MBC'	25/01/2009	<i>Passer domesticus</i>	House Sparrow
SE363073	'BARNSELEY MBC'	25/01/2009	<i>Passer domesticus</i>	House Sparrow
SE366069	'BARNSELEY MBC'	25/01/2009	<i>Passer domesticus</i>	House Sparrow

SE367070	'BARNSELEY MBC'	25/01/2009	<i>Passer domesticus</i>	House Sparrow	
SE367074	'BARNSELEY MBC'	25/01/2009	<i>Passer domesticus</i>	House Sparrow	
SE372065	'BARNSELEY MBC'	25/01/2009	<i>Passer domesticus</i>	House Sparrow	
SE375077	'BARNSELEY MBC'	25/01/2009	<i>Passer domesticus</i>	House Sparrow	
SE385088	'BARNSELEY MBC'	25/01/2009	<i>Passer domesticus</i>	House Sparrow	
SE368088	'BARNSELEY MBC'	25/01/2009	<i>Passer domesticus</i>	House Sparrow	
SE362074	'BARNSELEY MBC'	25/01/2009	<i>Passer domesticus</i>	House Sparrow	
SE362078	'BARNSELEY MBC'	25/01/2009	<i>Passer domesticus</i>	House Sparrow	
SE384075	Low Cudworth	04/03/2013	<i>Vanellus vanellus</i>	Lapwing	
SE3808	Bleachcroft Farm, Cudworth	01/01/1994	<i>Vanellus vanellus</i>	Lapwing	3 pairs bred producing 6 young
SE3808	Bleachcroft Meadow	01/03/1995	<i>Vanellus vanellus</i>	Lapwing	3 pairs displaying during the month.
SE3808	Bleachcroft Meadow	13/06/1995	<i>Vanellus vanellus</i>	Lapwing	A pair sheltering a chick from crows
SE3808	Bleachcroft Farm, Cudworth	11/04/2000	<i>Vanellus vanellus</i>	Lapwing	Displaying
SE3808	Bleachcroft Farm, Cudworth	21/06/1993	<i>Vanellus vanellus</i>	Lapwing	Young
SE3706	Stairfoot Railway LWS	01/01/2005	<i>Emberiza schoeniclus</i>	Reed Bunting	breeding
SE3808	Bleachcroft Farm, Cudworth	28/03/1998	<i>Passer montanus</i>	Tree Sparrow	
SE3808	Bleachcroft Farm, Cudworth	01/12/1998	<i>Passer montanus</i>	Tree Sparrow	
SE3808	Bleachcroft Farm, Cudworth	16/11/1998	<i>Passer montanus</i>	Tree Sparrow	
SE381089	Bleachcroft Farm Pond	10/07/1995	<i>Streptopelia turtur</i>	Turtle Dove	
SE3808	Bleachcroft Farm, Cudworth	23/08/1993	<i>Streptopelia turtur</i>	Turtle Dove	
SE370090	Carlton Marsh LWS	25/03/2001	<i>Carduelis cabaret</i>	Lesser Redpoll	
SE3708	East of Carlton Marsh	13/07/2002	<i>Motacilla flava</i>	Yellow Wagtail	
SE3708	East of Carlton Marsh	14/07/2002	<i>Motacilla flava</i>	Yellow Wagtail	
SE3708	East of Carlton Marsh	03/09/2002	<i>Motacilla flava</i>	Yellow Wagtail	
SE370090	Carlton Marsh LWS	05/10/2001	<i>Centaurea cyanus</i>	Cornflower	
SE368090	Monk Bretton	06/06/2012	<i>Erinaceus europaeus</i>	Hedgehog	
SE381089	Bleachcroft Farm, Cudworth	27/10/1991	<i>Erinaceus europaeus</i>	Hedgehog	
SE3808	Cudworth	30/05/2013	<i>Erinaceus europaeus</i>	Hedgehog	

SE370090	Carlton Marsh LWS	24/04/2001	<i>Lepus europaeus</i>	Brown Hare	
SE370090	Carlton Marsh LWS	06/12/2001	<i>Micromys minutus</i>	Harvest Mouse	First record since 1979.
SE370090	Carlton Marsh LWS	17/08/2001	<i>Lasiommata megera</i>	Wall	
SE370090	Carlton Marsh LWS	03/06/2001	<i>Coenonympha pamphilus</i>	Small Heath	
SE370090	Carlton Marsh LWS	15/07/2001	<i>Semiothisa clathrata</i>	Latticed Heath	
SE3808	'BARNSELEY MBC'	28/06/2014	<i>Apamea remissa</i>	Dusky Brocade	
SE3808	Cudworth	28/06/2014	<i>Apamea remissa</i>	Dusky Brocade	
SE370090	Carlton Marsh LWS	29/09/2001	<i>Rhizodra lutos</i>	Large Wainscot	
SE3808	'BARNSELEY MBC'	28/06/2014	<i>Hoplodrina blanda</i>	Rustic	
SE3808	Cudworth	28/06/2014	<i>Hoplodrina blanda</i>	Rustic	
SE3808	'BARNSELEY MBC'	28/06/2014	<i>Caradrina morpheus</i>	Mottled Rustic	
SE3808	Cudworth	28/06/2014	<i>Caradrina morpheus</i>	Mottled Rustic	
SE3608	'BARNSELEY MBC'	01/01/1992	<i>Micromys minutus</i>	Harvest Mouse	nest
SE381089	Bleachcroft Farm, Cudworth	25/04/1991	<i>Lepus europaeus</i>	Brown Hare	
SE3808	Bleachcroft	05/05/1991	<i>Lepus europaeus</i>	Brown Hare	
SE3808	Bleachcroft	17/05/1991	<i>Lepus europaeus</i>	Brown Hare	
SE381089	Bleachcroft Farm, Cudworth	25/03/1991	<i>Lepus europaeus</i>	Brown Hare	
SE3808	Bleachcroft Farm, Cudworth	22/04/1993	<i>Lepus europaeus</i>	Brown Hare	
SE3808	Bleachcroft Farm, Cudworth	28/04/1993	<i>Lepus europaeus</i>	Brown Hare	
SE3808	Bleachcroft Farm, Cudworth	22/07/2000	<i>Lepus europaeus</i>	Brown Hare	
SE3808	Bleachcroft Farm, Cudworth	25/07/2000	<i>Lepus europaeus</i>	Brown Hare	
SE3808	Bleachcroft Farm, Cudworth	28/07/2000	<i>Lepus europaeus</i>	Brown Hare	
SE3808	Carlton Marsh Reserve	26/03/1997	<i>Tyto alba</i>	Barn Owl	
SE381089	Bleachcroft Farm, Cudworth	01/01/1989	<i>Tyto alba</i>	Barn Owl	
SE370090	Carlton Marsh LWS	18/09/2001	<i>Tyto alba</i>	Barn Owl	
SE381091	Bleachcroft Farm pond, Cudworth	08/03/2001	<i>Alcedo atthis</i>	Kingfisher	
SE381091	Bleachcroft Farm pond, Cudworth	01/04/2001	<i>Alcedo atthis</i>	Kingfisher	
SE370090	Carlton Marsh LWS	01/07/2001	<i>Alcedo atthis</i>	Kingfisher	
SE381091	Carlton Marsh Reserve	05/05/1996	<i>Tringa ochropus</i>	Green Sandpiper	

SE381091	Bleachcroft Farm pond, Cudworth	31/12/1999	<i>Tringa ochropus</i>	Green Sandpiper	
SE370090	Carlton Marsh LWS	26/08/2001	<i>Tringa ochropus</i>	Green Sandpiper	
SE3808	Bleachcroft Farm, Cudworth	15/05/1994	<i>Tringa glareola</i>	Wood Sandpiper	
SE381091	Carlton Marsh Reserve	01/05/1996	<i>Tringa nebularia</i>	Greenshank	
SE370090	Carlton Marsh LWS	05/08/2001	<i>Tringa nebularia</i>	Greenshank	
SE370090	Carlton Marsh LWS	06/10/2001	<i>Anas acuta</i>	Pintail	
SE370090	Carlton Marsh LWS	22/10/2001	<i>Anser anser</i>	Greylag Goose	
SE3808	Cudworth	01/06/2002	<i>Pandion haliaetus</i>	Osprey	
SE370090	Carlton Marsh LWS	27/10/2001	<i>Turdus pilaris</i>	Fieldfare	
SE370090	Carlton Marsh LWS	27/10/2001	<i>Turdus iliacus</i>	Redwing	
SE370090	Carlton Marsh LWS	23/10/2001	<i>Fringilla montifringilla</i>	Brambling	
SE3808	Bleachcroft Farm, Cudworth	15/05/1995	<i>Tyto alba</i>	Barn Owl	
SE3808	Bleachcroft Farm, Cudworth	17/05/1995	<i>Tyto alba</i>	Barn Owl	
SE3808	Bleachcroft Farm, Cudworth	19/11/1998	<i>Fringilla montifringilla</i>	Brambling	
SE3808	Cudworth	28/12/2011	<i>Turdus pilaris</i>	Fieldfare	
SE3808	Bleachcroft Farm, Cudworth	13/04/1993	<i>Tringa ochropus</i>	Green Sandpiper	
SE3808	Cudworth	28/12/2011	<i>Anser anser</i>	Greylag Goose	
SE3808	Cudworth Park	01/10/1991	<i>Falco columbarius</i>	Merlin	
SE3808	Cudworth	28/12/2011	<i>Turdus iliacus</i>	Redwing	
SE3808	Bleachcroft	09/09/1995	<i>Philomachus pugnax</i>	Ruff	On the flooded meadow
SE381089	Bleachcroft Farm Pond	09/05/1995	<i>Numenius phaeopus</i>	Whimbrel	
SE3808	Bleachcroft Farm, Cudworth	15/05/1994	<i>Tringa glareola</i>	Wood Sandpiper	
SE370090	Carlton Marsh LWS	20/04/2001	<i>Charadrius dubius</i>	Little Ringed Plover	
SE370090	Carlton Marsh LWS	11/06/2001	<i>Triturus vulgaris</i>	Smooth Newt	
SE3808	Cudworth	03/05/1989	<i>Rana temporaria</i>	Common Frog	
SE370090	Carlton Marsh LWS	13/03/2001	<i>Rana temporaria</i>	Common Frog	
SE370090	Carlton Marsh LWS	28/04/2001	<i>Myotis daubentoni</i>	Daubenton's Bat	
SE378063	Ardsley	09/07/1994	<i>Myotis daubentoni</i>	Daubenton's Bat	
SE378063	Ardsley	11/10/1994	<i>Myotis daubentoni</i>	Daubenton's Bat	visual in crevices

SE370090	Carlton Marsh LWS	19/04/2001	<i>Pipistrellus pipistrellus</i>	Pipistrelle
SE378063	'BARNSELEY MBC'	07/07/1994	<i>Pipistrellus pipistrellus</i>	Pipistrelle
SE378063	'BARNSELEY MBC'	29/09/1990	<i>Pipistrellus pipistrellus</i>	Pipistrelle
SE3608	'BARNSELEY MBC'	24/05/1994	<i>Pipistrellus pipistrellus</i>	Pipistrelle
SE3808	Bleachcroft Farm, Cudworth	04/05/1995	<i>Charadrius dubius</i>	Little Ringed Plover
SE3808	Bleachcroft Farm, Cudworth	06/05/1995	<i>Charadrius dubius</i>	Little Ringed Plover
SE3708	Monk Bretton	12/04/1990	<i>Tadorna tadorna</i>	Shelduck
SE370090	Carlton Marsh LWS	07/08/2001	<i>Falco tinnunculus</i>	Kestrel
SE381091	Carlton Marsh Reserve	24/05/1996	<i>Haematopus ostralegus</i>	Oystercatcher
SE370090	Carlton Marsh LWS	16/04/2001	<i>Haematopus ostralegus</i>	Oystercatcher
SE370090	Carlton Marsh LWS	17/01/2001	<i>Pluvialis apricaria</i>	Golden Plover
SE381091	Carlton Marsh Reserve	05/05/1996	<i>Gallinago gallinago</i>	Snipe
SE381091	Carlton Marsh Reserve	12/05/1996	<i>Gallinago gallinago</i>	Snipe
SE370090	Carlton Marsh LWS	11/02/2001	<i>Gallinago gallinago</i>	Snipe
SE370090	Carlton Marsh LWS	21/01/2001	<i>Scolopax rusticola</i>	Woodcock
SE381091	Carlton Marsh Reserve	28/05/1996	<i>Tringa totanus</i>	Redshank
SE3808	Bleachcroft Farm, Cudworth	01/04/1994	<i>Tringa totanus</i>	Redshank
SE370090	Carlton Marsh LWS	02/04/2001	<i>Tringa totanus</i>	Redshank
SE3808	Bleachcroft Farm, Cudworth	01/04/1994	<i>Tringa totanus</i>	Redshank
SE3808	Bleachcroft	03/12/1995	<i>Tringa totanus</i>	Redshank
SE370090	Carlton Marsh LWS	29/04/2001	<i>Larus fuscus</i>	Lesser Black-Backed Gull
SE370090	Carlton Marsh LWS	11/02/2001	<i>Larus argentatus</i>	Herring Gull
SE3808	Cudworth	28/12/2011	<i>Larus argentatus</i>	Herring Gull
SE381091	Carlton Marsh Reserve	01/05/1996	<i>Columba oenas</i>	Stock Dove
SE381091	Bleachcroft Farm pond, Cudworth	26/04/2001	<i>Columba oenas</i>	Stock Dove
SE370090	Carlton Marsh LWS	01/10/2001	<i>Columba oenas</i>	Stock Dove
SE370090	Carlton Marsh LWS	01/02/2001	<i>Picus viridis</i>	Green Woodpecker
SE3708	East of Carlton Marsh	27/07/2002	<i>Alauda arvensis</i>	Skylark
SE370090	Carlton Marsh LWS	16/10/2001	<i>Alauda arvensis</i>	Skylark

SE370090	Carlton Marsh LWS	29/08/2001	<i>Hirundo rustica</i>	Swallow
SE3808	Cudworth	16/10/2002	<i>Delichon urbica</i>	House Martin
SE370090	Carlton Marsh LWS	19/08/2001	<i>Delichon urbica</i>	House Martin
SE370090	Carlton Marsh LWS	12/04/2001	<i>Riparia riparia</i>	Sand Martin
SE30T	BTO, Barnsley	01/04/1989	<i>Parus montanus</i>	Willow Tit
SE370090	Carlton Marsh LWS	01/04/2001	<i>Parus montanus</i>	Willow Tit
SE370090	Carlton Marsh LWS	22/07/2001	<i>Turdus viscivorus</i>	Mistle Thrush
SE370090	Carlton Marsh LWS	01/04/2001	<i>Turdus philomelos</i>	Song Thrush
SE370090	Carlton Marsh LWS	11/10/2001	<i>Saxicola torquata</i>	Stonechat
SE3708	East of Carlton Marsh	14/07/2002	<i>Phoenicurus phoenicurus</i>	Redstart
SE3708	South of Carlton Marsh Reserve	02/08/2002	<i>Phoenicurus phoenicurus</i>	Redstart
SE3708	East of Carlton Marsh	03/09/2002	<i>Phoenicurus phoenicurus</i>	Redstart
SE381091	Bleachcroft Farm pond, Cudworth	22/08/2004	<i>Phoenicurus phoenicurus</i>	Redstart
SE370090	Carlton Marsh LWS	26/04/2001	<i>Phoenicurus phoenicurus</i>	Redstart
SE370090	Carlton Marsh LWS	26/04/2001	<i>Phylloscopus trochilus</i>	Willow Warbler
SE370090	Carlton Marsh LWS	17/02/2001	<i>Prunella modularis</i>	Dunnock
SE370090	Carlton Marsh LWS	24/03/2001	<i>Anthus pratensis</i>	Meadow Pipit
SE381091	Bleachcroft Farm pond, Cudworth	01/05/1999	<i>Motacilla cinerea</i>	Grey Wagtail
SE381091	Bleachcroft Farm pond, Cudworth	01/04/2001	<i>Motacilla cinerea</i>	Grey Wagtail
SE381091	Bleachcroft Farm pond, Cudworth	01/03/2002	<i>Motacilla cinerea</i>	Grey Wagtail
SE3808	Bleachcroft Farm, Cudworth	01/01/2012	<i>Motacilla cinerea</i>	Grey Wagtail
SE3808	Bleachcroft Farm, Cudworth	03/11/2012	<i>Motacilla cinerea</i>	Grey Wagtail
SE381091	Bleachcroft Farm pond, Cudworth	01/03/2002	<i>Motacilla cinerea</i>	Grey Wagtail
SE381091	Bleachcroft Farm pond, Cudworth	01/04/2002	<i>Motacilla cinerea</i>	Grey Wagtail
SE381091	Bleachcroft Farm pond, Cudworth	06/05/2002	<i>Motacilla cinerea</i>	Grey Wagtail
SE381091	Bleachcroft Farm pond, Cudworth	15/05/2004	<i>Motacilla cinerea</i>	Grey Wagtail
SE381091	Bleachcroft Farm pond, Cudworth	15/05/2004	<i>Motacilla cinerea</i>	Grey Wagtail
SE370090	Carlton Marsh LWS	31/03/2001	<i>Motacilla cinerea</i>	Grey Wagtail
SE381091	Bleachcroft Farm pond, Cudworth	22/08/2004	<i>Motacilla flava</i>	Yellow Wagtail

SE3708	farmland E of Carlton Marsh Reserve	13/07/2002	<i>Motacilla flava</i>	Yellow Wagtail
SE3708	farmland E of Carlton Marsh Reserve	14/07/2002	<i>Motacilla flava</i>	Yellow Wagtail
SE3708	farmland E of Carlton Marsh Reserve	03/09/2002	<i>Motacilla flava</i>	Yellow Wagtail
SE370090	Carlton Marsh LWS	12/04/2001	<i>Motacilla flava</i>	Yellow Wagtail
SE363074	'BARNSELEY MBC'	25/01/2009	<i>Sturnus vulgaris</i>	Starling
SE367074	'BARNSELEY MBC'	25/01/2009	<i>Sturnus vulgaris</i>	Starling
SE3808	Bleachcroft Farm, Cudworth	08/02/2012	<i>Sturnus vulgaris</i>	Starling
SE3808	Bleachcroft Farm, Cudworth	26/06/2012	<i>Sturnus vulgaris</i>	Starling
SE3808	Bleachcroft Farm, Cudworth	25/10/2012	<i>Sturnus vulgaris</i>	Starling
SE3808	Bleachcroft Farm, Cudworth	28/10/2012	<i>Sturnus vulgaris</i>	Starling
SE375077	'BARNSELEY MBC'	25/01/2009	<i>Sturnus vulgaris</i>	Starling
SE385088	'BARNSELEY MBC'	25/01/2009	<i>Sturnus vulgaris</i>	Starling
SE368088	'BARNSELEY MBC'	25/01/2009	<i>Sturnus vulgaris</i>	Starling
SE362074	'BARNSELEY MBC'	25/01/2009	<i>Sturnus vulgaris</i>	Starling
SE362078	'BARNSELEY MBC'	25/01/2009	<i>Sturnus vulgaris</i>	Starling
SE370080	'BARNSELEY MBC'	25/01/2009	<i>Sturnus vulgaris</i>	Starling
SE370090	Carlton Marsh LWS	07/05/2001	<i>Sturnus vulgaris</i>	Starling
SE369080	'BARNSELEY MBC'	27/01/2008	<i>Sturnus vulgaris</i>	Starling
SE361080	'BARNSELEY MBC'	27/01/2008	<i>Sturnus vulgaris</i>	Starling
SE377073	'BARNSELEY MBC'	25/01/2009	<i>Sturnus vulgaris</i>	Starling
SE380082	'BARNSELEY MBC'	25/01/2009	<i>Sturnus vulgaris</i>	Starling
SE372065	'BARNSELEY MBC'	25/01/2009	<i>Sturnus vulgaris</i>	Starling
SE370090	Carlton Marsh LWS	01/08/2001	<i>Carduelis cannabina</i>	Linnet
SE370090	Carlton Marsh LWS	01/03/2001	<i>Pyrrhula pyrrhula</i>	Bullfinch
SE370090	Carlton Marsh LWS	14/01/2001	<i>Anas crecca</i>	Teal
SE3808	Bleachcroft Farm, Cudworth	24/11/2012	<i>Anas crecca</i>	Teal
SE370090	Carlton Marsh LWS	05/02/2001	<i>Aythya ferina</i>	Pochard
SE370090	Carlton Marsh LWS	11/02/2001	<i>Lymnocyptes minimus</i>	Jack Snipe
SE370090	Carlton Marsh LWS	22/09/2001	<i>Anas penelope</i>	Wigeon

SE370090	Carlton Marsh LWS	22/08/2001	<i>Anas clypeata</i>	Shoveler
SE370090	Carlton Marsh LWS	22/09/2001	<i>Anas strepera</i>	Gadwall
SE3808	Bleachcroft Farm pond, Cudworth	23/02/1999	<i>Anser brachyrhyncus</i>	Pink-Footed Goose
SE3808	Bleachcroft Farm pond, Cudworth	01/04/1999	<i>Anser brachyrhyncus</i>	Pink-Footed Goose
SE381091	Bleachcroft Farm pond, Cudworth	01/05/1999	<i>Anser brachyrhyncus</i>	Pink-Footed Goose
SE370090	Carlton Marsh LWS	14/02/2001	<i>Anser brachyrhyncus</i>	Pink-Footed Goose
SE3808	Carlton Marsh LWS	11/01/2012	<i>Anser brachyrhyncus</i>	Pink-Footed Goose
SE370090	Carlton Marsh LWS	14/01/2001	<i>Larus canus</i>	Common Gull
SE370090	Carlton Marsh LWS	28/04/2001	<i>Sterna paradisaea</i>	Arctic Tern
SE3706	Stairfoot Railway LWS	01/01/2005	<i>Pyrrhula pyrrhula</i>	Bullfinch
SE373064	Monk Bretton	21/02/2013	<i>Pyrrhula pyrrhula</i>	Bullfinch
SE381089	Bleachcroft Farm, Cudworth	08/02/1991	<i>Calidris alpina</i>	Dunlin
SE3706	Stairfoot Railway LWS	01/01/2005	<i>Prunella modularis</i>	Dunnock
SE3808	Cudworth	28/12/2011	<i>Prunella modularis</i>	Dunnock
SE381089	Bleachcroft Farm Pond	16/10/1995	<i>Anas strepera</i>	Gadwall
SE381089	Bleachcroft Farm Pond	17/10/1995	<i>Anas strepera</i>	Gadwall
SE381089	Bleachcroft Farm Pond	20/10/1995	<i>Anas strepera</i>	Gadwall
SE3808	Bleachcroft Meadow	06/12/1995	<i>Pluvialis apricaria</i>	Golden Plover
SE3808	Bleachcroft Meadow	08/12/1995	<i>Pluvialis apricaria</i>	Golden Plover
SE3808	Bleachcroft Meadow	09/12/1995	<i>Pluvialis apricaria</i>	Golden Plover
SE3808	Bleachcroft Meadow	03/08/1995	<i>Pluvialis apricaria</i>	Golden Plover
SE381089	Bleachcroft Farm, Cudworth	01/01/1991	<i>Delichon urbica</i>	House Martin
SE3808	Cudworth	28/12/2011	<i>Falco tinnunculus</i>	Kestrel
SE3808	Bleachcroft Chimney	22/03/1991	<i>Falco tinnunculus</i>	Kestrel
SE3808	Bleachcroft Chimney	06/07/1991	<i>Falco tinnunculus</i>	Kestrel
SE3808	Bleachcroft Chimney	01/02/1994	<i>Falco tinnunculus</i>	Kestrel
SE3808	Bleachcroft	01/03/1998	<i>Falco tinnunculus</i>	Kestrel
SE381089	Bleachcroft Farm, Cudworth	10/08/1993	<i>Falco tinnunculus</i>	Kestrel
SE3706	Stairfoot Railway LWS	01/01/2005	<i>Carduelis cannabina</i>	Linnet

SE387070	Low Cudworth	04/03/2013	<i>Carduelis cannabina</i>	Linnet
SE386073	Low Cudworth	04/03/2013	<i>Turdus viscivorus</i>	Mistle Thrush
SE375077	'BARNSELEY MBC'	25/01/2009	<i>Turdus viscivorus</i>	Mistle Thrush
SE375077	'BARNSELEY MBC'	25/01/2009	<i>Turdus viscivorus</i>	Mistle Thrush
SE3808	Bleachcroft Farm, Cudworth	03/04/1993	<i>Haematopus ostralegus</i>	Oystercatcher
SE381089	Bleachcroft Farm Pond	16/03/1994	<i>Aythya ferina</i>	Pochard
SE381089	Bleachcroft Farm Pond	12/10/1994	<i>Aythya ferina</i>	Pochard
SE381089	Bleachcroft Farm Pond	04/12/1994	<i>Aythya ferina</i>	Pochard
SE381089	Bleachcroft Farm Pond	01/03/1994	<i>Aythya ferina</i>	Pochard
SE381089	Bleachcroft Farm Pond	06/03/1994	<i>Aythya ferina</i>	Pochard
SE381089	Bleachcroft Farm Pond	11/03/1994	<i>Aythya ferina</i>	Pochard
SE381089	Bleachcroft Farm Pond	02/10/1995	<i>Aythya ferina</i>	Pochard
SE381089	Bleachcroft Farm Pond	07/11/1995	<i>Aythya ferina</i>	Pochard
SE381089	Bleachcroft Farm Pond	25/09/1995	<i>Aythya ferina</i>	Pochard
SE381089	Bleachcroft Farm Pond	29/09/1995	<i>Aythya ferina</i>	Pochard
SE3808	Bleachcroft Farm, Cudworth	01/04/1993	<i>Tringa totanus</i>	Redshank
SE3808	Bleachcroft Farm, Cudworth	16/01/1995	<i>Tadorna tadorna</i>	Shelduck
SE3706	Stairfoot Railway LWS	01/01/2005	<i>Turdus philomelos</i>	Song Thrush
SE373064	Monk Bretton	21/02/2013	<i>Turdus philomelos</i>	Song Thrush
SE378065	Lundwood Sewage Treatment Works	21/02/2013	<i>Turdus philomelos</i>	Song Thrush
SE386073	Low Cudworth	04/03/2013	<i>Turdus philomelos</i>	Song Thrush
SE3808	Cudworth	19/05/1994	<i>Tringa erythropus</i>	Spotted Redshank
SE3808	Bleachcroft Farm, Cudworth	29/05/1994	<i>Sturnus vulgaris</i>	Starling
SE3808	Bleachcroft Farm, Cudworth	09/05/1995	<i>Sturnus vulgaris</i>	Starling
SE3808	Bleachcroft Chimney	01/01/1991	<i>Columba oenas</i>	Stock Dove
SE3808	Bleachcroft Farm, Cudworth	01/01/2000	<i>Columba oenas</i>	Stock Dove
SE379066	Lundwood Sewage Treatment Works	04/03/2013	<i>Anas crecca</i>	Teal
SE380066	Lundwood Sewage Treatment Works	21/02/2013	<i>Anas crecca</i>	Teal
SE382068	Lundwood Sewage Treatment Works	21/02/2013	<i>Anas crecca</i>	Teal

SE3808	Bleachcroft	16/06/1995	<i>Anas crecca</i>	Teal
SE3808	Bleachcroft Farm, Cudworth	21/10/1994	<i>Anas penelope</i>	Wigeon
SE3808	Bleachcroft	26/10/1995	<i>Anas penelope</i>	Wigeon
SE3808	Bleachcroft	14/11/1995	<i>Anas penelope</i>	Wigeon
SE3808	Bleachcroft	15/11/1995	<i>Anas penelope</i>	Wigeon
SE3808	Bleachcroft	16/11/1995	<i>Anas penelope</i>	Wigeon
SE370080	'BARNSELEY MBC'	25/01/2009	<i>Larus canus</i>	Common Gull
SE370080	'BARNSELEY MBC'	25/01/2009	<i>Larus canus</i>	Common Gull
SE362078	'BARNSELEY MBC'	25/01/2009	<i>Prunella modularis</i>	Hedge Accentor
SE363074	'BARNSELEY MBC'	25/01/2009	<i>Prunella modularis</i>	Hedge Accentor
SE370080	'BARNSELEY MBC'	25/01/2009	<i>Prunella modularis</i>	Hedge Accentor
SE363074	'BARNSELEY MBC'	25/01/2009	<i>Prunella modularis</i>	Hedge Accentor
SE367070	'BARNSELEY MBC'	25/01/2009	<i>Prunella modularis</i>	Hedge Accentor
SE364070	'BARNSELEY MBC'	25/01/2009	<i>Prunella modularis</i>	Hedge Accentor
SE380082	'BARNSELEY MBC'	25/01/2009	<i>Prunella modularis</i>	Hedge Accentor
SE380082	'BARNSELEY MBC'	25/01/2009	<i>Prunella modularis</i>	Hedge Accentor
SE372065	'BARNSELEY MBC'	25/01/2009	<i>Prunella modularis</i>	Hedge Accentor
SE376070	'BARNSELEY MBC'	25/01/2009	<i>Prunella modularis</i>	Hedge Accentor
SE362074	'BARNSELEY MBC'	25/01/2009	<i>Prunella modularis</i>	Hedge Accentor
SE362078	'BARNSELEY MBC'	25/01/2009	<i>Prunella modularis</i>	Hedge Accentor
SE364070	'BARNSELEY MBC'	25/01/2009	<i>Prunella modularis</i>	Hedge Accentor
SE362074	'BARNSELEY MBC'	25/01/2009	<i>Prunella modularis</i>	Hedge Accentor
SE376070	'BARNSELEY MBC'	25/01/2009	<i>Prunella modularis</i>	Hedge Accentor
SE370080	'BARNSELEY MBC'	25/01/2009	<i>Prunella modularis</i>	Hedge Accentor
SE372065	'BARNSELEY MBC'	25/01/2009	<i>Prunella modularis</i>	Hedge Accentor
SE367070	'BARNSELEY MBC'	25/01/2009	<i>Prunella modularis</i>	Hedge Accentor
SE362078	'BARNSELEY MBC'	25/01/2009	<i>Sturnus vulgaris</i>	Common Starling
SE363074	'BARNSELEY MBC'	25/01/2009	<i>Sturnus vulgaris</i>	Common Starling
SE362074	'BARNSELEY MBC'	25/01/2009	<i>Sturnus vulgaris</i>	Common Starling

SE375077	'BARNSELEY MBC'	25/01/2009	<i>Sturnus vulgaris</i>	Common Starling	
SE380082	'BARNSELEY MBC'	25/01/2009	<i>Sturnus vulgaris</i>	Common Starling	
SE385088	'BARNSELEY MBC'	25/01/2009	<i>Sturnus vulgaris</i>	Common Starling	
SE377073	'BARNSELEY MBC'	25/01/2009	<i>Sturnus vulgaris</i>	Common Starling	
SE370080	'BARNSELEY MBC'	25/01/2009	<i>Sturnus vulgaris</i>	Common Starling	
SE372065	'BARNSELEY MBC'	25/01/2009	<i>Sturnus vulgaris</i>	Common Starling	
SE367074	'BARNSELEY MBC'	25/01/2009	<i>Sturnus vulgaris</i>	Common Starling	
SE368088	'BARNSELEY MBC'	25/01/2009	<i>Sturnus vulgaris</i>	Common Starling	
	'BARNSELEY MBC'	29/09/2010	<i>Meles meles</i>	Badger	Tracks through the site
	'BARNSELEY MBC'	29/09/2010	<i>Meles meles</i>	Badger	Tracks through the site
	'BARNSELEY MBC'	29/09/2010	<i>Meles meles</i>	Badger	Signs in scrub habitat
	'BARNSELEY MBC'	29/09/2010	<i>Meles meles</i>	Badger	Signs of activity
SE377081	'BARNSELEY MBC'	04/07/2002	Chiroptera	Bats	Roost of bats entering under fascia.
SE378063	Ardsley	29/09/1990	Chiroptera	Bats	
SE378063	Ardsley	29/09/1992	Chiroptera	Bats	
SE378063	Ardsley	01/10/1989	<i>Myotis nattereri</i>	Natterer's Bat	visual in crevices
SE370090	Carlton Marsh LWS	28/01/2001	<i>Arvicola terrestris</i>	Water Vole	
SE3893007419	'BARNSELEY MBC'	13/05/2012	<i>Arvicola terrestris</i>	Water Vole	Burrow
SE3893107421	'BARNSELEY MBC'	13/05/2012	<i>Arvicola terrestris</i>	Water Vole	Burrow
SE3899207680	'BARNSELEY MBC'	13/05/2012	<i>Arvicola terrestris</i>	Water Vole	Burrow
SE3898807706	'BARNSELEY MBC'	13/05/2012	<i>Arvicola terrestris</i>	Water Vole	Burrow
SE3898407756	'BARNSELEY MBC'	13/05/2012	<i>Arvicola terrestris</i>	Water Vole	Burrow
SE3701109216	'BARNSELEY MBC'	24/07/2012	<i>Arvicola terrestris</i>	Water Vole	Burrow
SE3894007382	'BARNSELEY MBC'	13/05/2012	<i>Arvicola terrestris</i>	Water Vole	Feeding pile
SE3893007419	'BARNSELEY MBC'	13/05/2012	<i>Arvicola terrestris</i>	Water Vole	Latrine
SE3898707707	'BARNSELEY MBC'	13/05/2012	<i>Arvicola terrestris</i>	Water Vole	Latrine
SE3702609213	'BARNSELEY MBC'	24/07/2012	<i>Arvicola terrestris</i>	Water Vole	Latrine
SE3701609216	'BARNSELEY MBC'	24/07/2012	<i>Arvicola terrestris</i>	Water Vole	Latrine
SE3897607783	'BARNSELEY MBC'	13/05/2012	<i>Arvicola terrestris</i>	Water Vole	Burrow

SE3897007797	'BARNSELY MBC'	13/05/2012	<i>Arvicola terrestris</i>	Water Vole	Burrow
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26. Cliff Wood

LWS Assessment and Phase 1 Survey

Genesis Centre
Birchwood Science Park
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WA3 7BH

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Prepared by

TEP

for

Site Name:	Cliff Wood
Site Area:	32.27ha
Survey Date:	August 2010
Nearest Settlement:	Cundy Cross, Monk Bretton
Grid Reference at Centre:	SE36220, 06805
Surveyor(s)	VG, LAC

Site Description:

Cliff Wood is located within Dearne Valley Park. It lies to the north of the River Dearne between Old Mill Lane, in the west, and Cundy Cross, to the east. The River Dearne flows in a generally easterly direction forming the southern boundary of Cliff Wood in places (TN8, TN11). Dearne Valley Park was established in 1980 and was designated as a Local Nature Reserve in 1996. This designation includes Cliff Wood, as it lies within the park. The site lies on a south-facing valley slope, ranging between approximately 35 and 75 metres above sea level.

Cliff Wood is underlain by coal measures sandstones, sedimentary rocks dating from the Carboniferous period, with outcrops in various spots throughout the site. The majority of the broadleaved woodland is dominated by oak and birch, with smaller amounts of other native species such as ash (*Fraxinus excelsior*), hawthorn (*Crataegus monogyna*), holly (*Ilex aquifolium*), hazel (*Corylus avellana*) and field maple (*Acer campestre*). Many of the specimens are stunted and multi-stemmed, both as a result of the thin acidic soils but also partly due to local collection of wood for fuel during various miners' strikes. The habitats are a mixture of semi-natural oak/birch woodland (TN2), diverse mixed plantations of native species (TN4, TN6) developed in the 1980's and an area of wet willow-dominated woodland.

There are also areas of open neutral grassland (TN1, TN3) and scrub, bodies of standing water with associated swamp habitat (TN5) and areas of parkland along the base of River Dearne valley.

The whole broad area is well-served by footpaths and provides a wild open space in close proximity to a large urban population.

Important Species:

Sessile oak (*Quercus petraea*), wood speedwell (*Veronica montana*), bluebell (*Hyacinthoides non-scripta*), broadleaved helleborine (*Epipactis helleborine*), yellow archangel (*Lamium galeobdolon*), small-leaved lime (*Tilia cordata*) and wood horsetail (*Equisetum sylvaticum*) are all present on the site. These species are considered as ancient woodland indicator species within South Yorkshire.

The Schedule 9 invasive alien species Japanese knotweed (*Fallopia japonica*) is present on the site, in addition to giant hogweed (*Heracleum mantegazzianum*) and Himalayan balsam (*Impatiens glandulifera*).

The site contains UKBAP breeding birds such as: willow tit (*Poecile montanus*), dunnock (*Prunella modularis*), bullfinch (*Pyrrhula pyrrhula*) and song thrush (*Turdus philomelos*).

Target Note:	TN1	
Habitat:	Semi-improved neutral grassland	
Species List:		
Scientific Name	Common Name	Frequency
<i>Arrhenatherum elatius</i>	False Oat-grass	D
<i>Calystegia silvatica</i>	Large Bindweed	O
<i>Cirsium arvense</i>	Creeping Thistle	O
<i>Epilobium hirsutum</i>	Great Willowherb	O
<i>Heracleum sphondylium</i>	Hogweed	O
<i>Rumex obtusifolius</i>	Broad-leaved Dock	O
<i>Tanacetum vulgare</i>	Tansy	O
<i>Urtica dioica</i>	Nettle	O
<i>Arctium minus</i>	Lesser Burdock	R
<i>Artemisia absinthium</i>	Wormwood	R
<i>Centaurea nigra</i>	Knapweed	R
<i>Lamium album</i>	White Dead-nettle	R

<i>Linaria vulgaris</i>	Common Toadflax	R
<i>Rubus fruticosus</i> agg.	Bramble	R
D = Dominant, A = Abundant, F = Frequent, O = Occasional, R = Rare		

Target Note:	TN2	
Habitat:	Semi-natural broadleaved woodland	
Species List:		
Scientific Name	Common Name	Frequency
<i>Betula pendula</i>	Silver Birch	A
<i>Holcus mollis</i>	Creeping Soft-grass	A
<i>Quercus petraea</i>	Sessile Oak	A
<i>Pteridium aquilinum</i>	Bracken	F
<i>Arrhenatherum elatius</i>	False Oat-grass	O
<i>Corylus avellana</i>	Hazel	O
<i>Crataegus monogyna</i>	Hawthorn	O
<i>Deschampsia flexuosa</i>	Wavy Hair-grass	O
<i>Elymus caninus</i>	Bearded Couch	O
<i>Hedera helix</i>	Ivy	O
<i>Hyacinthoides non-scripta</i>	Bluebell	O
<i>Moss</i> sp.	Moss species	O
<i>Quercus robur</i>	English Oak	O
<i>Rubus fruticosus</i> agg.	Bramble	O
<i>Teucrium scorodonium</i>	Woodsage	O
<i>Veronica montana</i>	Wood Speedwell	O
<i>Acer campestre</i>	Field Maple	R
<i>Acer pseudoplatanus</i>	Sycamore	R

<i>Aesculus hippocastanum</i>	Horse-chestnut	R
<i>Alliaria petiolata</i>	Garlic Mustard	R
<i>Alnus incana</i>	Grey Alder	R
<i>Arum maculatum</i>	Lords-and-Ladies	R
<i>Crepis capillaris</i>	Smooth Hawk's-beard	R
<i>Dryopteris dilatata</i>	Broad Buckler-fern	R
<i>Dryopteris filix-mas</i>	Male-fern	R
<i>Epipactis helleborine</i>	Broad-leaved Helleborine	R
<i>Fraxinus excelsior</i>	Ash	R
<i>Geranium robertianum</i>	Herb-Robert	R
<i>Geum urbanum</i>	Wood Avens	R
<i>Hypericum pulchrum</i>	Slender St John's-wort	R
<i>Ilex aquifolium</i>	Holly	R
<i>Lamium galeobdolon</i>	Yellow Archangel	R
<i>Lonicera periclymenum</i>	Honeysuckle	R
<i>Populus alba</i>	White Poplar	R
<i>Populus candicans</i>	Balsam Poplar	R
<i>Rosa canina</i> agg.	Dog Rose	R
<i>Salix alba</i>	White Willow	R
<i>Sambucus nigra</i>	Elder	R
<i>Sorbus aucuparia</i>	Rowan	R
<i>Stachys sylvatica</i>	Hedge Woundwort	R
<i>Tilia cordata</i>	Small-leaved Lime	R
<i>Viburnum opulus</i>	Guelder-rose	R

D = Dominant, A = Abundant, F = Frequent, O = Occasional, R = Rare

Target Note:	TN3
Habitat:	Modified neutral grassland, scattered scrub
Species List:	

Scientific Name	Common Name	Frequency
<i>Arrhenatherum elatius</i>	False Oat-grass	D
<i>Cirsium arvense</i>	Creeping Thistle	F
<i>Centaurea nigra</i>	Knapweed	O
<i>Dactylis glomerata</i>	Cock's-foot	O
<i>Equisetum arvense</i>	Field Horsetail	O
<i>Heracleum sphondylium</i>	Hogweed	O
<i>Holcus lanatus</i>	Yorkshire-fog	O
<i>Lolium perenne</i>	Ryegrass	O
<i>Poa annua</i>	Annual Meadow-grass	O
<i>Poa trivialis</i>	Rough Meadow-grass	O
<i>Pteridium aquilinum</i>	Bracken	O
<i>Rubus fruticosus agg.</i>	Bramble	O
<i>Tanacetum vulgare</i>	Tansy	O
<i>Taraxacum sp.</i>	Dandelion	O
<i>Trifolium pratense</i>	Red Clover	O
<i>Trifolium repens</i>	White Clover	O
<i>Crepis capillaris</i>	Smooth Hawk's-beard	R
<i>Cytisus scoparius</i>	Broom	R
<i>Hypericum perforatum</i>	Perforate St John's-wort	R
<i>Hypochaeris radicata</i>	Common Cat's-ear	R
<i>Odontites verna</i>	Red Bartsia	R
<i>Plantago lanceolata</i>	Ribwort Plantain	R
<i>Plantago major</i>	Greater Plantain	R
<i>Rumex obtusifolius</i>	Broad-leaved Dock	R

D = Dominant, A = Abundant, F = Frequent, O = Occasional, R = Rare

Target Note:	TN4
Habitat:	Broadleaved plantation

Species List:		
Scientific Name	Common Name	Frequency
<i>Agrostis stolonifera</i>	Creeping Bent	A
<i>Agrostis capillaris</i>	Common Bent	F
<i>Arrhenatherum elatius</i>	False Oat-grass	F
<i>Dactylis glomerata</i>	Cock's-foot	F
<i>Fallopia japonica</i>	Japanese Knotweed	F
<i>Impatiens glandulifera</i>	Himalayan Balsam	F
<i>Quercus robur</i>	English Oak	F
<i>Salix alba</i>	White Willow	F
<i>Artemisia vulgaris</i>	Mugwort	O
<i>Calystegia</i> sp.	Bindweed species	O
<i>Cirsium arvense</i>	Creeping Thistle	O
<i>Elymus caninus</i>	Bearded Couch	O
<i>Fraxinus excelsior</i>	Ash	O
<i>Geum urbanum</i>	Wood Avens	O
<i>Plantago major</i>	Greater Plantain	O
<i>Prunus avium</i>	Wild Cherry	O
<i>Ranunculus repens</i>	Creeping Buttercup	O
<i>Rubus fruticosus</i> agg.	Bramble	O
<i>Scrophularia nodosa</i>	Common Figwort	O
<i>Symphytum x uplandicum</i>	Russian Comfrey	O
<i>Urtica dioica</i>	Nettle	O
<i>Acer</i> sp.	Maple species	R
<i>Alnus glutinosa</i>	Alder	R
<i>Arctium minus</i>	Lesser Burdock	R
<i>Centaurea nigra</i>	Knapweed	R
<i>Cirsium vulgare</i>	Spear Thistle	R
<i>Crataegus monogyna</i>	Hawthorn	R
<i>Epilobium montanum</i>	Broad-leaved Willowherb	R
<i>Equisetum sylvaticum</i>	Wood Horsetail	R

<i>Lamium album</i>	White Dead-nettle	R
<i>Lathyrus pratensis</i>	Meadow Vetchling	R
<i>Malus domestica</i>	Apple	R
<i>Phleum pratense</i>	Timothy	R
<i>Plantago lanceolata</i>	Ribwort Plantain	R
<i>Potentilla reptans</i>	Creeping Cinquefoil	R
<i>Rumex conglomeratus</i>	Clustered Dock	R
<i>Silene dioica</i>	Red Campion	R
<i>Solidago virgaurea</i>	Goldenrod	R
<i>Sorbus aucuparia</i>	Rowan	R
<i>Stachys sylvatica</i>	Hedge Woundwort	R
<i>Tanacetum vulgare</i>	Tansy	R

D = Dominant, A = Abundant, F = Frequent, O = Occasional, R = Rare

Target Note:	TN5	
Habitat:	Swamp, scattered scrub	
Species List:		
Scientific Name	Common Name	Frequency
<i>Typha latifolia</i>	Greater Reedmace	D
<i>Berula erecta</i>	Lesser Water-parsnip	F
<i>Epilobium hirsutum</i>	Great Willowherb	F
<i>Fallopia japonica</i>	Japanese Knotweed	F
<i>Iris pseudacorus</i>	Yellow Flag Iris	F
<i>Juncus inflexus</i>	Hard Rush	F
<i>Mentha aquatica</i>	Water Mint	F
<i>Agrostis stolonifera</i>	Creeping Bent	O
<i>Carex otrubae</i>	False Fox-sedge	O
<i>Crataegus monogyna</i>	Hawthorn	O
<i>Deschampsia cespitosa</i>	Tufted Hair-grass	O

<i>Fagus sylvatica</i>	Beech	O
<i>Hypochaeris radicata</i>	Common Cat's-ear	O
<i>Juncus effusus</i>	Soft Rush	O
<i>Lycopus europaeus</i>	Gypsywort	O
<i>Plantago lanceolata</i>	Ribwort Plantain	O
<i>Quercus robur</i>	English Oak	O
<i>Rosa canina</i> agg.	Dog Rose	O
<i>Salix alba</i>	White Willow	O
<i>Salix caprea</i>	Goat Willow	O
<i>Salix fragilis</i>	Crack Willow	O
<i>Phleum pratense</i>	Timothy	R
<i>Scrophularia auriculata</i>	Water Betony	R

D = Dominant, A = Abundant, F = Frequent, O = Occasional, R = Rare

Target Note:	TN6	
Habitat:	Broadleaved plantation	
Species List:		
Scientific Name	Common Name	Frequency
<i>Crataegus monogyna</i>	Hawthorn	D
<i>Prunus spinosa</i>	Blackthorn	A
<i>Acer campestre</i>	Field Maple	O

<i>Corylus avellana</i>	Hazel	O
<i>Betula pendula</i>	Silver Birch	R
D = Dominant, A = Abundant, F = Frequent, O = Occasional, R = Rare		

Target Note:	TN7	
Habitat:	Broadleaved plantation	
Species List:		
Scientific Name	Common Name	Frequency
<i>Tilia sp.</i>	Lime species	A
<i>Acer pseudoplatanus</i>	Sycamore	O
<i>Aesculus hippocastanum</i>	Horse-chestnut	O
<i>Alnus incana</i>	Grey Alder	O
<i>Fagus sylvatica</i>	Beech	O
<i>Populus alba</i>	White Poplar	O
D = Dominant, A = Abundant, F = Frequent, O = Occasional, R = Rare		

Target Note:	TN8	
Habitat:	Scattered trees, scattered scrub, running water	
Species List:		
Scientific Name	Common Name	Frequency
<i>Alnus glutinosa</i>	Alder	A
<i>Crataegus monogyna</i>	Hawthorn	F
<i>Salix caprea</i>	Goat Willow	F
<i>Acer pseudoplatanus</i>	Sycamore	F
<i>Betula pendula</i>	Silver Birch	O
<i>Hyacinthoides non-scripta</i>	Bluebell	O

<i>Prunus avium</i>	Wild Cherry	O
<i>Quercus petraea</i>	Sessile Oak	O
<i>Quercus robur</i>	English Oak	O
<i>Salix cinerea</i>	Grey Willow	O
<i>Salix fragilis</i>	Crack Willow	O
<i>Salix viminalis</i>	Osier	O
<i>Sambucus nigra</i>	Elder	O
<i>Sorbus aucuparia</i>	Rowan	O
<i>Viburnum opulus</i>	Guelder-rose	O

D = Dominant, A = Abundant, F = Frequent, O = Occasional, R = Rare

Target Note:	TN11	
Habitat:	Scattered trees, scattered scrub, running water	
Species List:		
Scientific Name	Common Name	Frequency
<i>Acer pseudoplatanus</i>	Sycamore	A
<i>Acer platanoides</i>	Norway Maple	F
<i>Alnus glutinosa</i>	Alder	F
<i>Prunus avium</i>	Wild Cherry	F
<i>Alnus incana</i>	Grey Alder	O
<i>Prunus sp.</i>	Cherry species	O

<i>Quercus robur</i>	English Oak	O
<i>Quercus rubra</i>	Red Oak	O
<i>Salix caprea</i>	Goat Willow	O
<i>Salix fragilis</i>	Crack Willow	O
<i>Salix viminalis</i>	Osier	O
<i>Sambucus nigra</i>	Elder	O
<i>Sorbus aucuparia</i>	Rowan	O
<i>Acer sp.</i>	Maple species	R

D = Dominant, A = Abundant, F = Frequent, O = Occasional, R = Rare

Management Issues:

Under the past 'Fuelling a Revolution' programme, a plan for woodland restoration and access improvement was completed which restored woodland habitats and maximised educational and recreational potential. Areas of closed tree canopy are being opened up by selective felling, allowing light to reach the woodland floor to encourage growth of woodland wildflowers and young trees, particularly of native species typical of ancient semi-natural broad-leaved woodlands.

Barnsley Council is also maintaining and improving the footpath network and wheelchair access, as part of a plan to raise awareness of the history and natural history, recreational potential, interpretation and management of the site.

Invasive species are present in the site including Japanese knotweed, giant hogweed and Himalayan balsam.

Diversity:

The old established woodlands on this acidic slope hold a wide range of locally native species. Newer plantations have added a wider range of native trees and shrubs to the site. Both species and structural diversity are enhanced by the mix of open grassy areas, developing scrub, stands of tall ruderal herbs, swampy areas and both still and running water habitats.

Parts of the woodlands appear to have considerable age as well as a complex

history of past use, all adding to the levels of diversity within the site.

Naturalness:

The sloping woodlands are generally quite natural in character. Most of the plantation areas are in the flatter valley bottom. Human intervention is much more evident here, with waterbodies created and the river course managed as well as areas maintained as grassland.

The river banks in particular support a range of non-native species, including the invasive alien Japanese knotweed (*Fallopia japonica*), giant hogweed (*Heracleum mantegazzianum*) and Himalayan balsam (*Impatiens glandulifera*).

Rare or Exceptional Features:

The range of semi-natural broadleaved woodlands and the species that they support form a major asset of this site. The topography and location of this site also makes it ideal for gaining an overview of the Dearne Valley and the nearby centre of Barnsley beyond. The rock outcrops allow a view of the underlying geology.

Fragility:

Woodland has survived on this site for many centuries and is a robust habitat in this location. Management plans should help prevent typical species being lost through the canopy becoming too dense and shading.

In the event of economic down turn, it is quite possible that the woodland may once again be called on to provide domestic fuel for local people, although the proportion of houses with open fires is now much reduced.

The proximity of large residential areas also enhances the possibility of fly-tipping and other damage, but good management locally appears to control much of this.

The river course is always open to potential contamination from activities along its banks

Typicalness:

The semi-natural woodlands on the site's slopes appear to be typical of local acidic conditions, mainly being a mix of W16 oak species-birch species-wavy hairgrass (*Deschampsia flexuosa*) community and W10 oak (*Quercus robur*) – bracken (*Pteridium aquilinum*) - bramble (*Rubus fruticosus*) community.

The range of habitats here, both semi-natural and man-made, are typical for developed parts of the Dearne valley.

Recorded History & Cultural Associations:

The history of Cliff Wood can be linked back to the Cluniac and Benedictine monks who inhabited Monk Bretton priory, just over 1km downstream from this site, from the 12th century up to the dissolution.

Timber from the wood has long been used in local coal mining and iron ore production. Numerous collieries developed along this stretch of the River Dearne and they were associated with large numbers of railway lines running from all points of the compass, curving and crossing one another to reach each colliery. One of the largest collieries locally was the Barnsley Oaks Colliery, whose disused site can be seen just south of the River Dearne.

The collieries have left their impact on the landscape in the form of linear earthworks that have often become the route for new footpaths throughout the area. In the case of this site, this is also true for the course of the Dearne and Barnsley Canal; the route of the in-filled canal forms a grassy glade now used as a footpath curving through the site's woodlands.

Connectivity within the Landscape:

Dense residential development dominates the whole of the long northern boundary of the site, with the southern edge being bounded by the course of the River Dearne. There are close links to the urban and suburban habitats to the north of the site and the Dearne Valley provides links to wider areas east and west of the site, with the valley comprising a major wildlife corridor.

There are also many links within the site, up and down the slopes and along the valley bottom, interlinking the range of habitat types present here. South of the river, there are wide swathes of post-industrial land forming developing areas of open space.

Value for appreciation of Nature and Learning:

This site is very close to centres of population and is very accessible with various options for parking and good internal access. One major path (accessible to people in wheelchairs) leads north from the Pontefract Road car park across the River Dearne and past the lakes of Dearne Valley Park to the southern edge of Cliff Wood. For access to the northern part of the site, there is parking in various side streets off Rotherham Road.

A network of paths gives good access to the great majority of the site. Access in the southern, flatter half of the site is generally straightforward but some paths towards the northern edge of the site can be steep in places. The flat, wide, grassy route of the old canal route provides easy access from west to east through the centre of the site.

Educational use of the site is facilitated by a range of available information packs covering a wide range of subject areas and Key Stages. The Dearne Way follows the river course from east to west, linking into a local network of public footpaths, giving good pedestrian access into and throughout the site.

Recommendations:

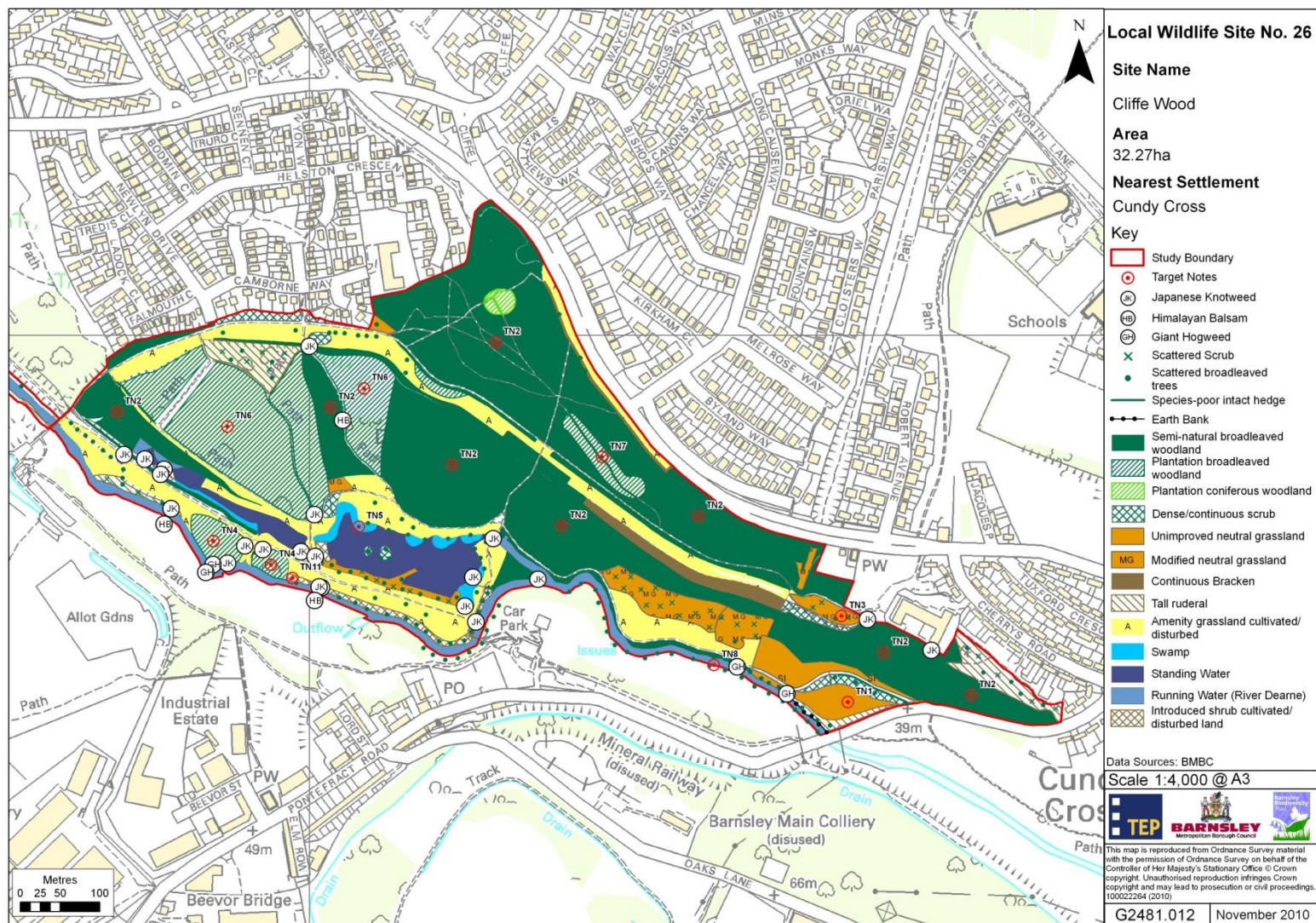
This site contains a number of ancient woodland indicator species and has been subject to improved management and a programme of interpretation.

Its size and wealth of flora and historical interest indicate that this site is an important part of the Borough's biodiversity resource and should be considered as such.

Action:

Retain as a Local Wildlife Site

Seek to control the invasive/alien species that are on the site





27. Carlton Marsh

LWS Assessment and Phase 1 Survey

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Prepared by

TEP

for

Site Name:	Carlton Marsh
Site Area:	26.22ha
Survey Date:	August 2010
Nearest Settlement:	Carlton, Cudworth
Grid Reference at Centre:	SE37901, 09709
Surveyor(s)	VG, LAC

Site Description:

This site lies to the north-east of Barnsley centre between Carlton, in the west, and Cudworth to the south-east. The western site boundary is marked by a mineral line and the eastern by the course of Cudworth Dike. The remains of other disused railway lines cross through the site, on embankments through this low-lying area.

This area, until disrupted by the rail embankments, forms a shallow valley at around 50m above sea-level. The route of the disused rail embankment running through the centre of the site has been largely restored for nature conservation, but it does split the site longitudinally. To the west, the site is mainly dry and dominated by neutral grassland (TN1, TN3, TN6). There are areas of broadleaved plantation here too (TN2), associated with development of the site as a nature reserve. Scattered scrub and tree growth occurs as well as some developed scrub and woodland patches with much silver birch (*Betula pendula*). Also in the west half of the site are some small waterbodies (TN14) linked by a ditch (TN12) and tall ruderal is also present.

The eastern side of the site is much wetter with extensive swamp and standing water. A very large pond is present in the north of the site with extensive swamp vegetation (TN15) to the south of it. There is also swamp habitat in the southern extremity of the site (TN11). Neutral grassland habitat is also extensive on this eastern side of the site (TN7, TN16) as well as marshy grassland (TN4, TN10). As in the west, these eastern grasslands and also the swampy area have scattered scrub and tree regeneration occurring. There is dense scrub development and some established woodland along the course of Cudworth Dike and on the former rail bank (TN8, TN9) with a ditch and hedgerow habitat in the north-eastern corner of the site.

None of the woodland on site is on the register of ancient woodlands. Overall this

narrow site provides a very diverse range of habitats within an urban fringe setting. It was designated as a Local Nature Reserve by BMBC in 1980.

Important Species:

Water vole (*Arvicola terrestris*) has been recorded on this site in 2009/2010 and is thought to have been present since at least 2003.

The site is important for a number of bird species and in particular wintering bittern (*Botaurus stellaris*), a schedule 1 species and UKBAP species. Other UKBAP species include grey partridge (*Perdix perdix*), yellowhammer (*Emberiza citronella*), reed bunting (*Emberiza schoeniclus*), grasshopper warbler (*Locustella naevia*), willow tit (*Poecile montanus*), dunnoek (*Prunella modularis*), bullfinch (*Pyrrhula pyrrhula*) and song thrush (*Turdus philomelos*).

Ancient woodland indicator plant species for South Yorkshire that were noted here during 2010 fieldwork include remote sedge (*Carex remota*), wood horsetail (*Equisetum sylvaticum*), yellow archangel (*Lamium galeobdolon*), wood melick (*Melica uniflora*), dog's mercury (*Mercurialis perennis*) and sessile oak (*Quercus petraea*).

Target Note:	TN1	
Habitat:	Modified neutral grassland	
Species List:		
Scientific Name	Common Name	Frequency
<i>Festuca rubra</i>	Red Fescue	D
<i>Arrhenatherum elatius</i>	False Oat-grass	A
<i>Dactylis glomerata</i>	Cock's-foot	F
<i>Lotus corniculatus</i>	Bird's-foot Trefoil	F
<i>Sanguisorba minor</i>	Salad Burnet	F

<i>Betula pendula</i>	Silver Birch	O
<i>Quercus robur</i>	English Oak	O
<i>Salix species</i>	Willow species	O
<i>Cirsium arvense</i>	Creeping Thistle	O
<i>Agrostis stolonifera</i>	Creeping Bent	O
<i>Centaurea nigra</i>	Knapweed	O
<i>Vicia cracca</i>	Tufted Vetch	O
<i>Plantago lanceolata</i>	Ribwort Plantain	O
<i>Cerastium fontanum</i>	Common Mouse-ear	O
<i>Trifolium pratense</i>	Red Clover	O
<i>Medicago lupulina</i>	Black Medick	O
<i>Galium verum</i>	Lady's Bedstraw	O
<i>Lathyrus pratensis</i>	Meadow Vetchling	O
<i>Centaurea scabiosa</i>	Greater Knapweed	O
<i>Phleum pratense</i>	Timothy	O
<i>Taraxacum officinale</i> agg.	Dandelion	O
<i>Ranunculus acris</i>	Meadow Buttercup	O
<i>Holcus lanatus</i>	Yorkshire-fog	O
<i>Trifolium repens</i>	White Clover	O
<i>Ranunculus repens</i>	Creeping Buttercup	O
<i>Linaria vulgaris</i>	Common Toadflax	R
<i>Hypericum perforatum</i>	Perforate St John's-wort	R
<i>Silene vulgaris</i>	Bladder Campion	R
<i>Trifolium medium</i>	Zigzag Clover	R
<i>Heracleum sphondylium</i>	Hogweed	R
<i>Achillea millefolium</i>	Yarrow	R
<i>Anthriscus sylvestris</i>	Cow Parsley	R
<i>Daucus carota</i>	Wild Carrot	R
<i>Senecio erucifolius</i>	Hoary Ragwort	R
<i>Deschampsia cespitosa</i>	Tufted Hair-grass	R

D = Dominant, A = Abundant, F = Frequent, O = Occasional, R = Rare

Target Note:	TN2	
Habitat:	Broadleaved plantation	
Species List:		
Scientific Name	Common Name	Frequency
<i>Populus x canescens</i>	Grey Poplar	A
<i>Crataegus monogyna</i>	Hawthorn	A
<i>Populus nigra italica</i>	Lombardy Poplar	F
<i>Sorbus aucuparia</i>	Rowan	F
<i>Corylus avellana</i>	Hazel	F
<i>Acer platanoides</i>	Norway Maple	F
<i>Betula pendula</i>	Silver Birch	F
<i>Prunus avium</i>	Wild Cherry	F
<i>Fagus sylvatica</i>	Beech	O
<i>Acer pseudoplatanus</i>	Sycamore	O
<i>Salix caprea</i>	Goat Willow	O
<i>Quercus robur</i>	English Oak	O
<i>Acer campestre</i>	Field Maple	O
D = Dominant, A = Abundant, F = Frequent, O = Occasional, R = Rare		

Target Note:	TN3
Habitat:	Modified neutral grassland, tall ruderal herb
Species List:	

Scientific Name	Common Name	Frequency
<i>Chamerion angustifolium</i>	Rosebay Willowherb	F
<i>Tanacetum vulgare</i>	Tansy	F
<i>Bromus hordeaceus</i>	Soft Brome	O
<i>Odontites verna</i>	Red Bartsia	O
<i>Potentilla reptans</i>	Creeping Cinquefoil	O
<i>Knautia arvensis</i>	Field Scabious	O
<i>Hieracium</i> sp.	Hawkweed species	O
<i>Tragopogon pratensis</i>	Goat's-beard	R
<i>Teucrium scorodonium</i>	Woodsage	R
<i>Campanula rotundifolia</i>	Harebell	R
<i>Origanum vulgare</i>	Marjoram	R
<i>Linaria repens</i>	Pale Toadflax	R
<i>Reseda luteola</i>	Weld	R
D = Dominant, A = Abundant, F = Frequent, O = Occasional, R = Rare		

Target Note:	TN4	
Habitat:	Modified neutral grassland	
Species List:		
Scientific Name	Common Name	Frequency
<i>Phalaris arundinacea</i>	Reed Canary-grass	A
<i>Cirsium arvense</i>	Creeping Thistle	F
<i>Urtica dioica</i>	Nettle	F
<i>Dactylis glomerata</i>	Cock's-foot	F
<i>Rubus fruticosus</i> agg.	Bramble	F
<i>Epilobium hirsutum</i>	Great Willowherb	F
<i>Deschampsia flexuosa</i>	Wavy Hair-grass	F
<i>Heracleum sphondylium</i>	Hogweed	O
<i>Festuca rubra</i>	Red Fescue	O
<i>Galium aparine</i>	Cleavers	O

<i>Impatiens glandulifera</i>	Himalayan Balsam	O
<i>Dipsacus fullonum</i>	Teasel	R
<i>Equisetum arvense</i>	Field Horsetail	R
<i>Angelica sylvestris</i>	Wild Angelica	R
<i>Lathyrus pratensis</i>	Meadow Vetchling	R
<i>Rumex sanguineus</i>	Wood Dock	R
<i>Stachys sylvatica</i>	Hedge Woundwort	R
<i>Lotus pedunculatus</i>	Marsh Bird's-foot Trefoil	R
<i>Juncus inflexus</i>	Hard Rush	R

D = Dominant, A = Abundant, F = Frequent, O = Occasional, R = Rare (within the target note area).

Target Note:	TN5		
Habitat:	Swamp, scattered trees along ditchline		
Species List:			
Scientific Name	Common Name	Frequency	
<i>Epilobium hirsutum</i>	Great Willowherb	A	
<i>Alnus glutinosa</i>	Alder	F	
<i>Urtica dioica</i>	Nettle	F	
<i>Salix fragilis</i>	Crack Willow	O	
<i>Callitriche</i> sp.	Water Starwort species	O	
<i>Lythrum salicaria</i>	Purple Loosestrife	O	
<i>Impatiens glandulifera</i>	Himalayan Balsam	O	
<i>Salix alba</i>	White Willow	O	
D = Dominant, A = Abundant, F = Frequent, O = Occasional, R = Rare (within the target note area).			

Target Note:	TN6	
Habitat:	Modified neutral grassland	
Species List:		
Scientific Name	Common Name	Frequency
<i>Festuca rubra</i>	Red Fescue	A
<i>Arrhenatherum elatius</i>	False Oat-grass	A
<i>Vicia cracca</i>	Tufted Vetch	F
<i>Rumex acetosa</i>	Common Sorrel	F
<i>Senecio erucifolius</i>	Hoary Ragwort	F
<i>Plantago lanceolata</i>	Ribwort Plantain	F
<i>Sanguisorba minor</i>	Salad Burnet	F
<i>Trifolium pratense</i>	Red Clover	F
<i>Lotus corniculatus</i>	Bird's-foot Trefoil	F
<i>Centaureum erythraea</i>	Common Centaury	O
<i>Phragmites australis</i>	Reed	O
<i>Achillea millefolium</i>	Yarrow	O
<i>Centaurea nigra</i>	Knapweed	O
<i>Phleum pratense</i>	Timothy	O
<i>Heracleum sphondylium</i>	Hogweed	O
<i>Prunella vulgaris</i>	Selfheal	O
<i>Lathyrus pratensis</i>	Meadow Vetchling	O
<i>Trifolium repens</i>	White Clover	O
<i>Equisetum arvense</i>	Field Horsetail	O
<i>Agrostis stolonifera</i>	Creeping Bent	O
<i>Poa pratensis</i>	Smooth Meadow-grass	O
<i>Convolvulus arvensis</i>	Field Bindweed	O
<i>Tussilago farfara</i>	Colt's-foot	O
<i>Primula veris</i>	Cowslip	O
<i>Holcus lanatus</i>	Yorkshire-fog	O
<i>Cerastium fontanum</i>	Common Mouse-ear	O
<i>Betula pendula</i>	Silver Birch	O

<i>Hypochaeris radicata</i>	Common Cat's-ear	O
<i>Crataegus monogyna</i>	Hawthorn	O
<i>Potentilla reptans</i>	Creeping Cinquefoil	O
<i>Taraxacum officinale</i> agg.	Dandelion	O
<i>Cirsium arvense</i>	Creeping Thistle	O
<i>Deschampsia cespitosa</i>	Tufted Hair-grass	O
<i>Hypericum perforatum</i>	Perforate St John's-wort	O
<i>Dactylis glomerata</i>	Cock's-foot	O
<i>Ranunculus acris</i>	Meadow Buttercup	O
<i>Melilotus albus</i>	White Melilot	O
<i>Trifolium medium</i>	Zigzag Clover	O
<i>Elytrigia repens</i>	Common Couch	R
<i>Centaurea scabiosa</i>	Greater Knapweed	R
<i>Rosa arvensis</i>	Field Rose	R
<i>Linum catharticum</i>	Purging Flax	R
<i>Daucus carota</i>	Wild Carrot	R
<i>Rubus fruticosus</i> agg.	Bramble	R
<i>Ulex europaeus</i>	Gorse	R
<i>Artemisia vulgaris</i>	Mugwort	R
<i>Leucanthemum vulgare</i>	Oxeye daisy	R
<i>Medicago lupulina</i>	Black Medick	R
<i>Cytisus scoparius</i>	Broom	R
<i>Vicia tetrasperma</i>	Smooth Tare	R
<i>Linaria vulgaris</i>	Common Toadflax	R
<i>Quercus</i> sp.	Oak species	R
<i>Cynosurus cristatus</i>	Crested Dog's-tail	R
<i>Odontites verna</i>	Red Bartsia	R
<i>Pulicaria dysenterica</i>	Fleabane	R
<i>Silene vulgaris</i>	Bladder Campion	R
<i>Cirsium vulgare</i>	Spear Thistle	R
<i>Anthriscus sylvestris</i>	Cow Parsley	R

<i>Dactylorhiza sp.</i>	Marsh-orchid	R
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D = Dominant, A = Abundant, F = Frequent, O = Occasional, R = Rare

Target Note:	TN7	
Habitat:	Semi-improved neutral grassland	
Species List:		
Scientific Name	Common Name	Frequency
<i>Holcus lanatus</i>	Yorkshire-fog	A
<i>Agrostis stolonifera</i>	Creeping Bent	A
<i>Arrhenatherum elatius</i>	False Oat-grass	F
<i>Festuca rubra</i>	Red Fescue	F
<i>Angelica sylvestris</i>	Wild Angelica	F
<i>Ranunculus repens</i>	Creeping Buttercup	F
<i>Persicaria maculosa</i>	Redshank	O
<i>Galeopsis sp.</i>	Hemp-nettle species	O
<i>Rumex crispus</i>	Curled Dock	O
<i>Poa trivialis</i>	Rough Meadow-grass	O
<i>Rumex obtusifolius</i>	Broad-leaved Dock	O
<i>Deschampsia cespitosa</i>	Tufted Hair-grass	O
<i>Anthoxanthum odoratum</i>	Sweet Vernal-grass	O
<i>Lotus corniculatus</i>	Bird's-foot Trefoil	O
<i>Equisetum arvense</i>	Field Horsetail	O
<i>Plantago lanceolata</i>	Ribwort Plantain	O
<i>Trifolium repens</i>	White Clover	O
<i>Lathyrus pratensis</i>	Meadow Vetchling	O
<i>Agrostis capillaris</i>	Common Bent	O
<i>Centaurea nigra</i>	Knapweed	O
<i>Senecio erucifolius</i>	Hoary Ragwort	O
<i>Heracleum sphondylium</i>	Hogweed	R
<i>Betula pendula</i>	Silver Birch	D

<i>Acer pseudoplatanus</i>	Sycamore	F
<i>Glechoma hederacea</i>	Ground-ivy	O
<i>Rubus fruticosus</i> agg.	Bramble	O
<i>Corylus avellana</i>	Hazel	O
<i>Sorbus aucuparia</i>	Rowan	O
<i>Sambucus nigra</i>	Elder	O
<i>Crataegus monogyna</i>	Hawthorn	O
<i>Prunus spinosa</i>	Blackthorn	O
<i>Stachys sylvatica</i>	Hedge Woundwort	O
<i>Populus tremula</i>	Aspen	O
<i>Urtica dioica</i>	Nettle	O
<i>Dryopteris dilatata</i>	Broad Buckler-fern	R
<i>Quercus robur</i>	English Oak	R

D = Dominant, A = Abundant, F = Frequent, O = Occasional, R = Rare

Target Note:	TN9	
Habitat:	Semi-improved broadleaved woodland	
Species List:		
Scientific Name	Common Name	Frequency
<i>Rubus fruticosus</i> agg.	Bramble	D
<i>Alnus glutinosa</i>	Alder	A
<i>Hedera helix</i>	Ivy	F
<i>Alliaria petiolata</i>	Garlic Mustard	F
<i>Urtica dioica</i>	Nettle	F
<i>Mercurialis perennis</i>	Dog's Mercury	F
<i>Quercus petraea</i>	Sessile Oak	F
<i>Quercus robur</i>	English Oak	F
<i>Sorbus aria</i>	Whitebeam	O
<i>Sorbus aucuparia</i>	Rowan	O
<i>Betula pendula</i>	Silver Birch	O

<i>Acer pseudoplatanus</i>	Sycamore	O
<i>Sambucus nigra</i>	Elder	O
<i>Prunus avium</i>	Wild Cherry	O
<i>Equisetum arvense</i>	Field Horsetail	O
<i>Fraxinus excelsior</i>	Ash	O
<i>Heracleum sphondylium</i>	Hogweed	O
<i>Dryopteris filix-mas</i>	Male-fern	O
<i>Lamiasstrum galeobdolon</i>	Yellow Archangel	O
<i>Salix caprea</i>	Goat Willow	O
<i>Salix fragilis</i>	Crack Willow	O
<i>Alnus incana</i>	Grey Alder	O
<i>Crataegus monogyna</i>	Hawthorn	O
<i>Cornus sanguinea</i>	Dogwood	R
<i>Stachys sylvatica</i>	Hedge Woundwort	R
<i>Deschampsia cespitosa</i>	Tufted Hair-grass	R
<i>Malus domestica</i>	Apple	R
<i>Tamus communis</i>	Black Bryony	R
<i>Valeriana officinalis</i>	Valerian	R
<i>Geum urbanum</i>	Wood Avens	R
<i>Melica uniflora</i>	Wood Melick	R
<i>Teucrium scorodonium</i>	Woodsage	R
<i>Corylus avellana</i>	Hazel	R
<i>Verbascum blattaria</i>	Moth Mullein	R
<i>Primula veris</i>	Cowslip	R

D = Dominant, A = Abundant, F = Frequent, O = Occasional, R = Rare

Target Note:	TN10
Habitat:	Marshy grassland, scattered scrub

Species List:		
Scientific Name	Common Name	Frequency
<i>Alopecurus geniculatus</i>	Marsh Foxtail	D
<i>Agrostis stolonifera</i>	Creeping Bent	A
<i>Juncus articulatus</i>	Jointed Rush	F
<i>Ranunculus repens</i>	Creeping Buttercup	F
<i>Juncus effusus</i>	Soft Rush	F
<i>Poa trivialis</i>	Rough Meadow-grass	F
<i>Glyceria fluitans</i>	Floating Sweet-grass	O
<i>Juncus inflexus</i>	Hard Rush	O
<i>Bidens tripartita</i>	Trifid Bur-marigold	O
<i>Ranunculus flammula</i>	Lesser Spearwort	O
<i>Ranunculus sceleratus</i>	Celery-leaved Buttercup	R
<i>Dipsacus fullonum</i>	Teasel	R
<i>Dactylorhiza sp.</i>	Marsh-orchid	R
<i>Deschampsia cespitosa</i>	Tufted Hair-grass	R
D = Dominant, A = Abundant, F = Frequent, O = Occasional, R = Rare		
Target Note:	TN11	
Habitat:	Swamp, scattered scrub	
Species List:		
Scientific Name	Common Name	Frequency
<i>Typha latifolia</i>	Greater Reedmace	A
<i>Sparganium erectum</i>	Branched Bur-reed	A
<i>Phalaris arundinacea</i>	Reed Canary-grass	F
<i>Filipendula ulmaria</i>	Meadowsweet	O
<i>Lycopus europaeus</i>	Gypsywort	O
D = Dominant, A = Abundant, F = Frequent, O = Occasional, R = Rare		

Target Note:	TN12
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Habitat:	Swamp, ditchline	
Species List:		
Scientific Name	Common Name	Frequency
<i>Epilobium hirsutum</i>	Great Willowherb	D
<i>Juncus inflexus</i>	Hard Rush	F
<i>Phalaris arundinacea</i>	Reed Canary-grass	F
<i>Equisetum telmateia</i>	Great Horsetail	O
<i>Moss sp.</i>	Moss species	O
<i>Urtica dioica</i>	Nettle	O
<i>Juncus effusus</i>	Soft Rush	O
<i>Rubus fruticosus agg.</i>	Bramble	O
<i>Solanum dulcamara</i>	Bittersweet	O
<i>Epilobium palustre</i>	Marsh Willowherb	O
Carex remota	Remote Sedge	O
<i>Typha latifolia</i>	Greater Reedmace	O
<i>Rumex acetosa</i>	Common Sorrel	O
<i>Galium aparine</i>	Cleavers	O
<i>Lycopus europaeus</i>	Gypsywort	O
<i>Galium palustre</i>	Marsh Bedstraw	O
<i>Angelica sylvestris</i>	Wild Angelica	O
<i>Dryopteris filix-mas</i>	Male-fern	R
D = Dominant, A = Abundant, F = Frequent, O = Occasional, R = Rare		

Target Note:	TN13		
Habitat:	Species-poor hedge with trees		
Species List:			
Scientific Name	Common Name		Frequency

<i>Rubus fruticosus</i> agg.	Bramble	D
<i>Crataegus monogyna</i>	Hawthorn	D
<i>Fraxinus excelsior</i>	Ash	F
<i>Sambucus nigra</i>	Elder	O
<i>Sorbus aucuparia</i>	Rowan	O
<i>Salix caprea</i>	Goat Willow	O
<i>Prunus domestica</i>	Plum	O
<i>Rosa canina</i> agg.	Dog Rose	R
<i>Alliaria petiolata</i>	Garlic Mustard	R
<i>Solanum dulcamara</i>	Bittersweet	R
<i>Equisetum sylvaticum</i>	Wood Horsetail	R

D = Dominant, A = Abundant, F = Frequent, O = Occasional, R = Rare

Target Note:	TN14	
Habitat:	Standing water, marshy grassland	
Species List:		
Scientific Name	Common Name	Frequency
<i>Juncus inflexus</i>	Hard Rush	F
<i>Juncus effusus</i>	Soft Rush	F
<i>Agrostis stolonifera</i>	Creeping Bent	F
<i>Lythrum salicaria</i>	Purple Loosestrife	F
<i>Eleocharis palustris</i>	Common Spike-rush	F
<i>Moss sp.</i>	Moss species	O
<i>Carex otrubae</i>	False Fox-sedge	O
<i>Hypochaeris radicata</i>	Common Cat's-ear	O
<i>Alopecurus geniculatus</i>	Marsh Foxtail	O
<i>Tripleurospermum inodorum</i>	Scentless Mayweed	O

<i>Juncus articulatus</i>	Jointed Rush	O
<i>Potamogeton sp.</i>	Pondweed species	O
<i>Equisetum arvense</i>	Field Horsetail	O
<i>Salix cinerea ssp. cinerea</i>	Grey Willow	O
<i>Alisma plantago-aquaticum</i>	Water-plantain	O
<i>Iris pseudacorus</i>	Yellow Flag Iris	O
<i>Juncus conglomeratus</i>	Compact Rush	R
<i>Ranunculus flammula</i>	Lesser Spearwort	R

D = Dominant, A = Abundant, F = Frequent, O = Occasional, R = Rare

Target Note:	TN15	
Habitat:	Swamp, scattered scrub and trees	
Species List:		
Scientific Name	Common Name	Frequency
<i>Phragmites australis</i>	Reed	D
<i>Phalaris arundinacea</i>	Reed Canary-grass	A
<i>Deschampsia cespitosa</i>	Tufted Hair-grass	O
<i>Angelica sylvestris</i>	Wild Angelica	O
<i>Salix cinerea ssp. cinerea</i>	Grey Willow	O
<i>Salix fragilis</i>	Crack Willow	O
<i>Salix viminalis</i>	Osier	O
<i>Filipendula ulmaria</i>	Meadowsweet	O
<i>Lythrum salicaria</i>	Purple Loosestrife	O
<i>Typha latifolia</i>	Greater Reedmace	O
<i>Solanum dulcamara</i>	Bittersweet	O
D = Dominant, A = Abundant, F = Frequent, O = Occasional, R = Rare		

Target Note:	TN16	
Habitat:	Modified neutral grassland	
Species List:		
Scientific Name	Common Name	Frequency
<i>Arrhenatherum elatius</i>	False Oat-grass	D
<i>Cirsium arvense</i>	Creeping Thistle	F
<i>Centaurea nigra</i>	Knapweed	F
<i>Holcus lanatus</i>	Yorkshire-fog	F
<i>Hypochaeris radicata</i>	Common Cat's-ear	F
<i>Ranunculus acris</i>	Meadow Buttercup	O
<i>Chamerion angustifolium</i>	Rosebay Willowherb	O
<i>Heracleum sphondylium</i>	Hogweed	O
<i>Crataegus monogyna</i>	Hawthorn	O
<i>Rumex acetosa</i>	Common Sorrel	O
<i>Dactylis glomerata</i>	Cock's-foot	O
<i>Senecio jacobaea</i>	Ragwort	O
<i>Filipendula ulmaria</i>	Meadowsweet	O
<i>Rubus fruticosus agg.</i>	Bramble	O
<i>Angelica sylvestris</i>	Wild Angelica	R
D = Dominant, A = Abundant, F = Frequent, O = Occasional, R = Rare		

Management Issues:

An ecological site management plan has been put into effect by Barnsley Council and has included past excavation and enlargement of ponds as well as creation of meadow habitats and plantations. The majority of the site is managed mainly as a bird reserve and popular with local bird watchers. Recent management (2009) has included cleaning up of oil from Cudworth Dike and this is an ongoing occasional problem due to the nearby scrap-yards.

The neutral grasslands are generally quite species-rich, but over much of the area there is scattered scrub and tree growth. If left unmanaged, this scrub will extend potentially valuable bird breeding habitat, but at the cost of diminishing the grassland area and value.

Some stands of Himalayan balsam (*Impatiens glandulifera*) were noted in the north of site.

Diversity:

During the course of the 2010 fieldwork 157 species of plants were recorded. This site is also known to have a rich bird fauna as well as a diversity of invertebrates.

In addition to its species-diversity, the site possesses great structural diversity, with habitats ranging from woodland to dry grasslands, damp grasslands to waterbodies and large areas of swamp.

Naturalness:

Although this site has been much affected by railway construction in the nineteenth Century, there has been managed habitat creation more recently. Conditions have been created for large numbers of plant and animal species to colonise naturally and thrive in this publically accessible nature reserve.

Natural processes of plant succession can be observed on site and the bulk of the species present are native plants. A natural watercourse forms the eastern boundary, though in the west the natural drainage pattern has been disrupted by the former railway construction.

Five of the plants recorded in 2010 are on the list of indicator species for ancient woodlands in the South Yorkshire area.

Rare or Exceptional Features:

The main asset of this site is its mosaic of wetland sites, grasslands and scrub/woodland habitats. Plants of importance in the Barnsley context, recorded in previous surveys, include Adder's tongue (*Ophioglossum vulgatum*) and Hare's tail cotton-grass (*Eriophorum vaginatum*). Both the bird and the invertebrate fauns are also ecologically significant.

Fragility:

The diverse eastern side of the site in particular is susceptible to water-borne contamination. This occurred for some time prior to 2009, when debris and oil affected Cudworth Dike, downstream from the Boulder Bridge Lane industrial estate. By April 2009 the pollution incidents had intensified and Environment Agency contractors put out floating booms to absorb oil and collected as much debris as possible.

The reserve is also accessible by road and therefore affected by fly-tipping. The site is bordered by industrial land, post-industrial land and agricultural land; from any of which potentially damaging pollution could originate.

The range of habitats is quite dynamic, but given that pollution can be kept at bay, the site should long support a diverse array of habitats.

Typicalness:

The site is ecologically rich and stands out as unusual in this past industrial area. It has an atypically diverse mix of typical grassland, woodland, swamp and aquatic communities.

Recorded History & Cultural Associations:

Details of the complex network of railways constructed in and around this site would be interesting to research. One mineral line, down the western side of the site, still appears to be operational, linking to the large industrial complex at West Green. This site is located in an area with a noted long history in metal and coal mining.

Just to the south of the site Bleach Croft Farm is possibly a significant name, indicating local involvement in the textile industry.

Connectivity within the Landscape:

Development of scrub and tree growth along the routes of disused railway lines and watercourses all around and through the site gives strong ecological connectivity. Strong links are formed with both the neighbouring countryside and the urban fringe sites and habitats.

Value for appreciation of Nature and Learning:

This site is a valued reserve, especially for local bird watchers and it is managed to conserve and enhance its natural diversity. There is a small car park off Shaw Lane to the north, so it is accessible by road as well as by footpath.

A branch of the Trans-Pennine Trail runs along the western side of the mineral line down the western side of the site, linking to the Dearne Way in the south. There is a public footpath crossing the southern part of the site from east to west, linking into the Trans Pennine Trail and a series of informal paths along the complex of disused railway embankments.

Recommendations:

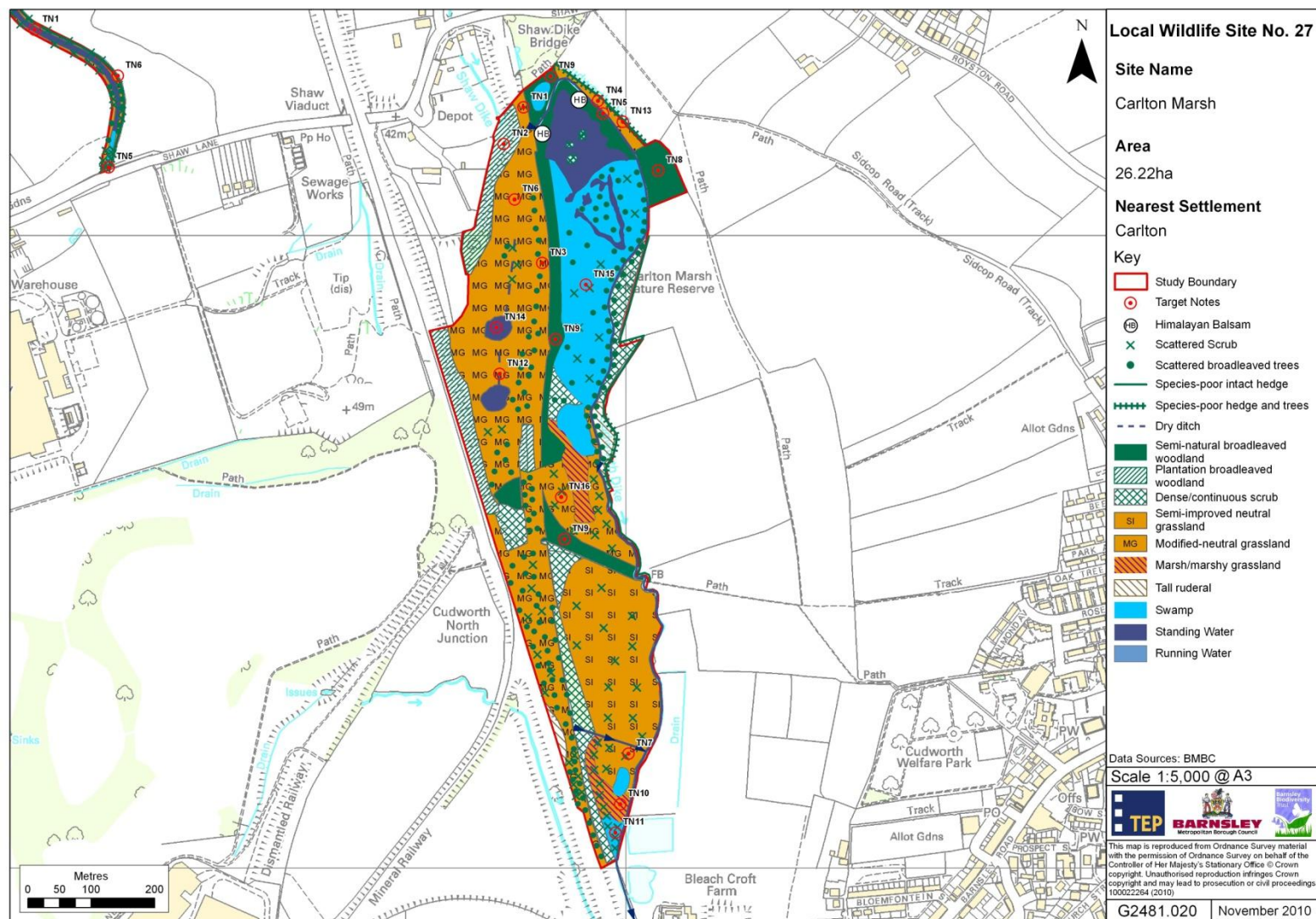
This site is clearly an important element within Barnsley's biodiversity resource, in terms of its floral (157 species recorded in 2010) and faunal interest. The added presence of water vole means that this site satisfies the site selection criteria.

In addition to this, the continued use and recent investment in the site illustrates its value to the surrounding communities. The site is well linked to the wider habitat network by the adjacent railway corridor. Carlton Marsh should be retained as a Local Wildlife Site.

Action:

Retain as a Local Wildlife Site

Continue management of the site





28.Stairfoot Disused Railway

LWS Assessment and Phase 1 Survey

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Prepared by

TEP

for

Site Name:	Stairfoot Disused Railway
Site Area:	14.52ha
Survey Date:	September 2010
Nearest Settlement:	Between Stairfoot and Cundy Cross
Grid Reference at Centre:	SE37517, 06145
Surveyor(s)	PG

Site Description:

This is a complex area where the routes of former railway lines and the course of the River Dearne meet up, in an area bounded on the west by the A633 Grange Lane. The site lies within the floodplain south of the Dearne and the disused railways are marked by embankments crossing through and sub-dividing the area.

The range of habitats is diverse with south-facing slopes, shaded slopes and low areas between the railway banks supporting a range of species-rich grasslands, scrub, woodland, bracken stands, swamp and open water. Much woodland has regenerated naturally since closure of the railways and of the former coal workings. Some of the woodland is now quite mature and the mix of oak and birch forms some good examples of W16a type, the oak sub-community of oak-birch-wavy hair-grass woodland type.

This type is found over areas TN11, TN14 and TN16 but naturally regenerated scrub/woodland is also found in areas TN1, TN5, TN7, TN19, TN20 and TN21. Significant areas of scrub were noted in areas TN2, TN8, TN13 and TN18. Some of the scrub and woodland has developed over the disused railway embankments but large areas of neutral grass/herb development are also found along these features, often with much scattered scrub (TN4, TN8, TN12 and TN17).

The north-south running embankment of area TN8 has a particularly diverse mix of herb-rich swards, scrub and woodland development. Between the embankments in the eastern part of the site there are low lying areas dominated by dense growths of bracken (TN6, TN10, and TN15) whilst the lower area in the west of the site (TN9) has developed swampy vegetation around standing open water.

There has been some management of this site, with a network of surfaced footpath routes created and some planting of native tree and shrub species (notably in area TN17). However, large areas of the site have no current management and not all former footpath routes are now passable. These quieter areas remain diverse and are likely to provide a significant haven for bird, mammal and invertebrate fauna in this urban fringe location.

Important Species:

Great woodrush (*Luzula sylvatica*), butch vetch (*Vicia sepium*) & sessile oak (*Quercus petraea*), bluebell (*Hyacinthoides non-scripta*), dog's Mercury (*Mercurialis perennis*) and wood millet (*Milium effusum*), species which are indicators of ancient woodland in South Yorkshire, were noted in the site.

UKBAP breeding bird species include linnet (*Carduelis cannabina*), reed bunting (*Emberiza schoeniclus*), dunnoek (*Prunella modularis*), bullfinch (*Pyrrhula pyrrhula*) and song thrush (*Turdus philomelos*).

Target Note:	TN1	
Habitat:	Semi-natural broadleaved woodland, on rail bank	
Species List:		
Scientific Name	Common Name	Frequency
<i>Fraxinus excelsior</i>	Ash	D
<i>Crataegus monogyna</i>	Hawthorn	F
<i>Rubus fruticosus agg.</i>	Bramble	F
<i>Anthriscus sylvestris</i>	Cow Parsley	O
<i>Arrhenatherum elatius</i>	False Oat-grass	O
<i>Cirsium arvense</i>	Creeping Thistle	O
<i>Salix caprea</i>	Goat Willow	O
<i>Sambucus nigra</i>	Elder	O
<i>Urtica dioica</i>	Nettle	O
<i>Corylus avellana</i>	Hazel	R
<i>Elymus caninus</i>	Bearded Couch	R
<i>Rosa canina agg.</i>	Dog Rose	R
D = Dominant, A = Abundant, F = Frequent, O = Occasional, R = Rare.		

Target Note:	TN2	
Habitat:	Continuous scrub, on railway embankment	
Species List:		
Scientific Name	Common Name	Frequency

<i>Crataegus monogyna</i>	Hawthorn	D
<i>Rubus fruticosus</i> agg.	Bramble	F
<i>Calystegia silvatica</i>	Large Bindweed	O
<i>Cirsium arvense</i>	Creeping Thistle	O
<i>Fraxinus excelsior</i>	Ash	O
<i>Prunus</i> sp.	Cherry species	O
<i>Rosa canina</i> agg.	Dog Rose	O
<i>Sambucus nigra</i>	Elder	O
<i>Urtica dioica</i>	Nettle	O
<i>Artemisia vulgaris</i>	Mugwort	R

D = Dominant, A = Abundant, F = Frequent, O = Occasional, R = Rare.

Target Note:	TN3	
Habitat:	Modified neutral grassland, along former rail-bed	
Species List:		
Scientific Name	Common Name	Frequency
<i>Festuca rubra</i>	Red Fescue	A
<i>Arrhenatherum elatius</i>	False Oat-grass	A
<i>Trifolium repens</i>	White Clover	F
<i>Dactylis glomerata</i>	Cock's-foot	F
<i>Lotus corniculatus</i>	Bird's-foot Trefoil	F
<i>Vicia sepium</i>	Bush Vetch	O
<i>Centaurea nigra</i>	Knapweed	O
<i>Trifolium pratense</i>	Red Clover	O
<i>Tanacetum vulgare</i>	Tansy	O
<i>Odontites verna</i>	Red Bartsia	O
<i>Plantago lanceolata</i>	Ribwort Plantain	O
<i>Lolium perenne</i>	Ryegrass	O
<i>Taraxacum officinale</i> agg.	Dandelion	O

<i>Vicia cracca</i>	Tufted Vetch	O
<i>Hypericum perforatum</i>	Perforate St John's-wort	O
<i>Arctium minus</i>	Lesser Burdock	R
<i>Artemisia absinthium</i>	Wormwood	R
<i>Senecio jacobaea</i>	Ragwort	R
<i>Silene vulgaris</i>	Bladder Campion	R
<i>Trifolium medium</i>	Zigzag Clover	R
<i>Artemisia vulgaris</i>	Mugwort	R
<i>Chamerion angustifolium</i>	Rosebay Willowherb	R
<i>Rubus fruticosus agg.</i>	Bramble	R
<i>Cirsium vulgare</i>	Spear Thistle	R
<i>Reseda luteola</i>	Weld	R
<i>Plantago major</i>	Greater Plantain	R
<i>Heracleum sphondylium</i>	Hogweed	R
<i>Leontodon autumnalis</i>	Autumn Hawkbit	R
<i>Potentilla reptans</i>	Creeping Cinquefoil	R
<i>Knautia arvensis</i>	Field Scabious	R
<i>Melilotus altissimus</i>	Tall Melilot	R
<i>Medicago lupulina</i>	Black Medick	R
<i>Lepidium draba</i>	Hoary Cress	R

D = Dominant, A = Abundant, F = Frequent, O = Occasional, R = Rare.

Target Note:	TN4		
Habitat:	Continuous scrub		
Species List:			
Scientific Name	Common Name		Frequency

<i>Crataegus monogyna</i>	Hawthorn	A
<i>Pteridium aquilinum</i>	Bracken	F
<i>Rubus fruticosus</i> agg.	Bramble	F
<i>Fraxinus excelsior</i>	Ash	O
<i>Rosa canina</i> agg.	Dog Rose	O
<i>Sambucus nigra</i>	Elder	O

D = Dominant, A = Abundant, F = Frequent, O = Occasional, R = Rare.

Target Note:	TN5	
Habitat:	Semi-natural broadleaved woodland , on rail bank	
Species List:		
Scientific Name	Common Name	Frequency
<i>Crataegus monogyna</i>	Hawthorn	D
<i>Sambucus nigra</i>	Elder	F
<i>Pteridium aquilinum</i>	Bracken	F
<i>Betula pendula</i>	Silver Birch	F
<i>Chamerion angustifolium</i>	Rosebay Willowherb	O
<i>Alnus glutinosa</i>	Alder	O
<i>Salix cinerea</i> ssp. <i>cinerea</i>	Grey Willow	O
<i>Impatiens glandulifera</i>	Himalayan Balsam	O
<i>Acer pseudoplatanus</i>	Sycamore	O
<i>Quercus robur</i>	English Oak	R

D = Dominant, A = Abundant, F = Frequent, O = Occasional, R = Rare.

Target Note:	TN6	
Habitat:	Continuous bracken	
Species List:		
Scientific Name	Common Name	Frequency

<i>Pteridium aquilinum</i>	Bracken	D
<i>Holcus mollis</i>	Creeping Soft-grass	F
<i>Betula pendula</i>	Silver Birch	O
<i>Agrostis capillaris</i>	Common Bent	O
<i>Chamerion angustifolium</i>	Rosebay Willowherb	O
<i>Quercus robur</i>	English Oak	R
<i>Crataegus monogyna</i>	Hawthorn	R
<i>Lathyrus linifolius</i>	Bitter-vetch	R
<i>Hieracium</i> sp.	Hawkweed species	R
<i>Impatiens glandulifera</i>	Himalayan Balsam	R
<i>Cytisus scoparius</i>	Broom	R

D = Dominant, A = Abundant, F = Frequent, O = Occasional, R = Rare.

Target Note:	TN7	
Habitat:	Semi-natural broadleaved woodland, on rail bank	
Species List:		
Scientific Name	Common Name	Frequency
<i>Betula pendula</i>	Silver Birch	D
<i>Crataegus monogyna</i>	Hawthorn	A
<i>Rubus fruticosus</i> agg.	Bramble	A
<i>Pteridium aquilinum</i>	Bracken	F
<i>Holcus mollis</i>	Creeping Soft-grass	F
<i>Dactylis glomerata</i>	Cock's-foot	O
<i>Quercus petraea</i>	Sessile Oak	O
<i>Quercus robur</i>	English Oak	O
<i>Sambucus nigra</i>	Elder	O
<i>Chamerion angustifolium</i>	Rosebay Willowherb	O
<i>Salix caprea</i>	Goat Willow	O
<i>Cytisus scoparius</i>	Broom	O

<i>Arrhenatherum elatius</i>	False Oat-grass	O
<i>Hieracium sp.</i>	Hawkweed species	R
<i>Lathyrus linifolius</i>	Bitter-vetch	R
<i>Deschampsia cespitosa</i>	Tufted Hair-grass	R

D = Dominant, A = Abundant, F = Frequent, O = Occasional, R = Rare.

Target Note:	TN8	
Habitat:	Modified neutral grassland, scattered scrub, continuous scrub	
Species List:		
Scientific Name	Common Name	Frequency
<i>Crataegus monogyna</i>	Hawthorn	A
<i>Holcus lanatus</i>	Yorkshire-fog	A
<i>Rubus fruticosus agg.</i>	Bramble	A
<i>Arrhenatherum elatius</i>	False Oat-grass	F
<i>Dactylis glomerata</i>	Cock's-foot	F
<i>Festuca rubra</i>	Red Fescue	F
<i>Salix caprea</i>	Goat Willow	F
<i>Trifolium pratense</i>	Red Clover	F
<i>Achillea millefolium</i>	Yarrow	O
<i>Agrostis capillaris</i>	Common Bent	O
<i>Alnus glutinosa</i>	Alder	O
<i>Calystegia silvatica</i>	Large Bindweed	O
<i>Centaurea nigra</i>	Knapweed	O
<i>Cerastium fontanum</i>	Common Mouse-ear	O
<i>Chamerion angustifolium</i>	Rosebay Willowherb	O
<i>Cirsium arvense</i>	Creeping Thistle	O
<i>Cytisus scoparius</i>	Broom	O
<i>Equisetum arvense</i>	Field Horsetail	O
<i>Fraxinus excelsior</i>	Ash	O

<i>Heracleum sphondylium</i>	Hogweed	O
<i>Hypochaeris radicata</i>	Common Cat's-ear	O
<i>Lotus corniculatus</i>	Bird's-foot Trefoil	O
<i>Medicago lupulina</i>	Black Medick	O
<i>Odontites verna</i>	Red Bartsia	O
<i>Plantago lanceolata</i>	Ribwort Plantain	O
<i>Ranunculus repens</i>	Creeping Buttercup	O
<i>Rosa canina</i> agg.	Dog Rose	O
<i>Rumex obtusifolius</i>	Broad-leaved Dock	O
<i>Salix fragilis</i>	Crack Willow	O
<i>Tanacetum vulgare</i>	Tansy	O
<i>Trifolium repens</i>	White Clover	O
<i>Ulex europaeus</i>	Gorse	O
<i>Urtica dioica</i>	Nettle	O
<i>Angelica sylvestris</i>	Wild Angelica	R
<i>Anthriscus sylvestris</i>	Cow Parsley	R
<i>Armoracia rusticana</i>	Horse-radish	R
<i>Artemisia absinthium</i>	Wormwood	R
<i>Artemisia vulgaris</i>	Mugwort	R
<i>Aster</i> sp.	Michaelmas-daisy species	R
<i>Conium maculatum</i>	Hemlock	R
<i>Corylus avellana</i>	Hazel	R
<i>Deschampsia cespitosa</i>	Tufted Hair-grass	R
<i>Digitalis purpurea</i>	Foxglove	R
<i>Dipsacus fullonum</i>	Teasel	R
<i>Dryopteris filix-mas</i>	Male-fern	R
<i>Elytrigia repens</i>	Common Couch	R
<i>Epilobium hirsutum</i>	Great Willowherb	R
<i>Fallopia japonica</i>	Japanese Knotweed	R
<i>Filipendula ulmaria</i>	Meadowsweet	R
<i>Galega officinalis</i>	Goat's-rue	R

<i>Glechoma hederacea</i>	Ground-ivy	R
<i>Heracleum mantegazzianum</i>	Giant Hogweed	R
<i>Hieracium</i> sp.	Hawkweed species	R
<i>Impatiens glandulifera</i>	Himalayan Balsam	R
<i>Lathyrus pratensis</i>	Meadow Vetchling	R
<i>Leucanthemum vulgare</i>	Oxeye daisy	R
<i>Linaria vulgaris</i>	Common Toadflax	R
<i>Lupinus x regalis</i>	Lupin	R
<i>Medicago sativa</i>	Lucerne	R
<i>Ononis repens</i>	Restharrow	R
<i>Picris hieracioides</i>	Hawkweed Ox-tongue	R
<i>Prunus avium</i>	Wild Cherry	R
<i>Pyracantha coccinea</i>	Firethorn	R
<i>Pyrus communis</i>	Pear	R
<i>Ranunculus acris</i>	Meadow Buttercup	R
<i>Reseda luteola</i>	Weld	R
<i>Rubus idaeus</i>	Raspberry	R
<i>Salix alba</i>	White Willow	R
<i>Silene dioica</i>	Red Campion	R
<i>Silene vulgaris</i>	Bladder Campion	R
<i>Solanum dulcamara</i>	Bittersweet	R
<i>Sorbus aucuparia</i>	Rowan	R
<i>Sorbus intermedia</i>	Swedish Whitebeam	R
<i>Spiraea</i> sp.	Spiraea species	R
<i>Stachys sylvatica</i>	Hedge Woundwort	R
<i>Symphytum x uplandicum</i>	Russian Comfrey	R
<i>Tragopogon pratensis</i>	Goat's-beard	R
<i>Trifolium medium</i>	Zigzag Clover	R
<i>Trisetum flavescens</i>	Golden Oat-grass	R
<i>Tussilago farfara</i>	Colt's-foot	R
<i>Veronica beccabunga</i>	Brooklime	R

<i>Vicia cracca</i>	Tufted Vetch	R
<i>Vicia hirsuta</i>	Hairy Tare	R
<i>Vicia sepium</i>	Bush Vetch	R

D = Dominant, A = Abundant, F = Frequent, O = Occasional, R = Rare.

Target Note:	TN9	
Habitat:	Swamp, standing water	
Species List:		
Scientific Name	Common Name	Frequency
<i>Lemna minor</i>	Common Duckweed	A
<i>Typha latifolia</i>	Greater Reedmace	A
<i>Agrostis stolonifera</i>	Creeping Bent	F
<i>Juncus effusus</i>	Soft Rush	F
<i>Potentilla anserina</i>	Silverweed	F
<i>Epilobium hirsutum</i>	Great Willowherb	O
<i>Equisetum fluviatile</i>	Water Horsetail	O
<i>Filipendula ulmaria</i>	Meadowsweet	O
<i>Impatiens glandulifera</i>	Himalayan Balsam	O
<i>Lycopus europaeus</i>	Gypsywort	O
<i>Ranunculus repens</i>	Creeping Buttercup	O
<i>Rumex conglomeratus</i>	Clustered Dock	O
<i>Salix cinerea</i> ssp. <i>cinerea</i>	Grey Willow	O
<i>Sparganium erectum</i>	Branched Bur-reed	O
<i>Angelica sylvestris</i>	Wild Angelica	R

<i>Deschampsia cespitosa</i>	Tufted Hair-grass	R
<i>Ranunculus sceleratus</i>	Celery-leaved Buttercup	R
<i>Scutellaria galericulata</i>	Skullcap	R
<i>Solanum dulcamara</i>	Bittersweet	R
<i>Stachys palustris</i>	Marsh Woundwort	R

D = Dominant, A = Abundant, F = Frequent, O = Occasional, R = Rare.

Target Note:	TN10	
Habitat:	Continuous bracken	
Species List:		
Scientific Name	Common Name	Frequency
<i>Pteridium aquilinum</i>	Bracken	D
<i>Holcus mollis</i>	Creeping Soft-grass	F
<i>Agrostis capillaris</i>	Common Bent	O
<i>Lathyrus linifolius</i>	Bitter-vetch	O
<i>Impatiens glandulifera</i>	Himalayan Balsam	O
<i>Tussilago farfara</i>	Colt's-foot	R
<i>Poa annua</i>	Annual Meadow-grass	R
<i>Stellaria media</i>	Chickweed	R
<i>Hypochaeris radicata</i>	Common Cat's-ear	R
<i>Rumex acetosella</i>	Sheep's Sorrel	R
<i>Filipendula ulmaria</i>	Meadowsweet	R
<i>Dactylis glomerata</i>	Cock's-foot	R
D = Dominant, A = Abundant, F = Frequent, O = Occasional, R = Rare.		

Target Note:	TN11	
Habitat:	Semi-natural broadleaved woodland	
Species List:		
Scientific Name	Common Name	Frequency

<i>Betula pendula</i>	Silver Birch	D
<i>Salix caprea</i>	Goat Willow	D
<i>Crataegus monogyna</i>	Hawthorn	F
<i>Rubus fruticosus</i> agg.	Bramble	F
<i>Acer pseudoplatanus</i>	Sycamore	O
<i>Chamerion angustifolium</i>	Rosebay Willowherb	O
<i>Cirsium arvense</i>	Creeping Thistle	O
<i>Corylus avellana</i>	Hazel	O
<i>Dactylis glomerata</i>	Cock's-foot	O
<i>Deschampsia flexuosa</i>	Wavy Hair-grass	O
<i>Dryopteris filix-mas</i>	Male-fern	O
<i>Festuca rubra</i>	Red Fescue	O
<i>Fraxinus excelsior</i>	Ash	O
<i>Holcus lanatus</i>	Yorkshire-fog	O
<i>Polytrichum juniperinum</i>	Moss species	O
<i>Quercus robur</i>	English Oak	O
<i>Ranunculus repens</i>	Creeping Buttercup	O
<i>Rosa canina</i> agg.	Dog Rose	O
<i>Salix cinerea</i> ssp. <i>cinerea</i>	Grey Willow	O
<i>Sambucus nigra</i>	Elder	O
<i>Urtica dioica</i>	Nettle	O
<i>Artemisia vulgaris</i>	Mugwort	R
<i>Centaurea nigra</i>	Knapweed	R
<i>Epilobium montanum</i>	Broad-leaved Willowherb	R
<i>Heracleum sphondylium</i>	Hogweed	R
<i>Hieracium</i> sp.	Hawkweed species	R
<i>Hypochaeris radicata</i>	Common Cat's-ear	R
<i>Impatiens glandulifera</i>	Himalayan Balsam	R
<i>Lathyrus pratensis</i>	Meadow Vetchling	R
<i>Linaria vulgaris</i>	Common Toadflax	R
<i>Lotus corniculatus</i>	Bird's-foot Trefoil	R

<i>Pilosella officinarum</i>	Mouse-ear Hawkweed	R
<i>Plantago major</i>	Greater Plantain	R
<i>Prunus spinosa</i>	Blackthorn	R
<i>Tanacetum vulgare</i>	Tansy	R
<i>Taraxacum officinale agg.</i>	Dandelion	R
<i>Trifolium pratense</i>	Red Clover	R
<i>Trifolium repens</i>	White Clover	R
<i>Ulex europaeus</i>	Gorse	R
<i>Viola riviniana</i>	Wood-dog-violet	R

D = Dominant, A = Abundant, F = Frequent, O = Occasional, R = Rare.

Target Note:	TN12	
Habitat:	Modified neutral grassland, scattered scrub	
Species List:		
Scientific Name	Common Name	Frequency
<i>Arrhenatherum elatius</i>	False Oat-grass	D
<i>Festuca rubra</i>	Red Fescue	A
<i>Achillea millefolium</i>	Yarrow	F
<i>Centaurea nigra</i>	Knapweed	F
<i>Plantago lanceolata</i>	Ribwort Plantain	F
<i>Trifolium repens</i>	White Clover	F
<i>Agrostis capillaris</i>	Common Bent	O
<i>Cerastium fontanum</i>	Common Mouse-ear	O
<i>Chamerion angustifolium</i>	Rosebay Willowherb	O
<i>Cirsium arvense</i>	Creeping Thistle	O
<i>Hypericum perforatum</i>	Perforate St John's-wort	O
<i>Linaria vulgaris</i>	Common Toadflax	O
<i>Lotus corniculatus</i>	Bird's-foot Trefoil	O
<i>Potentilla reptans</i>	Creeping Cinquefoil	O

<i>Rubus fruticosus agg.</i>	Bramble	O
<i>Senecio jacobaea</i>	Ragwort	O
<i>Tanacetum vulgare</i>	Tansy	O
<i>Vicia cracca</i>	Tufted Vetch	O
<i>Aesculus hippocastanum</i>	Horse-chestnut	R
<i>Artemisia absinthium</i>	Wormwood	R
<i>Centaurea scabiosa</i>	Greater Knapweed	R
<i>Convolvulus arvensis</i>	Field Bindweed	R
<i>Crataegus monogyna</i>	Hawthorn	R
<i>Heracleum sphondylium</i>	Hogweed	R
<i>Trifolium medium</i>	Zigzag Clover	R
<i>Ulex europaeus</i>	Gorse	R

D = Dominant, A = Abundant, F = Frequent, O = Occasional, R = Rare.

Target Note:	TN13	
Habitat:	Continuous scrub, modified neutral grassland	
Species List:		
Scientific Name	Common Name	Frequency
<i>Arrhenatherum elatius</i>	False Oat-grass	A
<i>Festuca rubra</i>	Red Fescue	A
<i>Rubus fruticosus agg.</i>	Bramble	A
<i>Agrostis capillaris</i>	Common Bent	F
<i>Betula pendula</i>	Silver Birch	F
<i>Crataegus monogyna</i>	Hawthorn	F
<i>Dactylis glomerata</i>	Cock's-foot	F
<i>Salix caprea</i>	Goat Willow	F
<i>Centaurea nigra</i>	Knapweed	O
<i>Chamerion angustifolium</i>	Rosebay Willowherb	O
<i>Cirsium arvense</i>	Creeping Thistle	O

<i>Heracleum sphondylium</i>	Hogweed	O
<i>Linaria vulgaris</i>	Common Toadflax	O
<i>Phleum pratense</i>	Timothy	O
<i>Quercus robur</i>	English Oak	O
<i>Tanacetum vulgare</i>	Tansy	O
<i>Teucrium scorodonium</i>	Woodsage	O
<i>Trifolium medium</i>	Zigzag Clover	O
<i>Agrostis canina</i>	Velvet Bent	R
<i>Convolvulus arvensis</i>	Field Bindweed	R
<i>Fallopia japonica</i>	Japanese Knotweed	R
<i>Hieracium sp.</i>	Hawkweed species	R
<i>Hypochaeris radicata</i>	Common Cat's-ear	R
<i>Knautia arvensis</i>	Field Scabious	R
<i>Lotus corniculatus</i>	Bird's-foot Trefoil	R
<i>Malus domestica</i>	Apple	R
<i>Plantago major</i>	Greater Plantain	R

D = Dominant, A = Abundant, F = Frequent, O = Occasional, R = Rare.

Target Note:	TN14	
Habitat:	Semi-natural broadleaved woodland	
Species List:		
Scientific Name	Common Name	Frequency
<i>Betula pendula</i>	Silver Birch	D
<i>Holcus mollis</i>	Creeping Soft-grass	A
<i>Deschampsia flexuosa</i>	Wavy Hair-grass	F

<i>Pteridium aquilinum</i>	Bracken	F
<i>Quercus robur</i>	English Oak	F
<i>Digitalis purpurea</i>	Foxglove	O
<i>Stachys sylvatica</i>	Hedge Woundwort	O
<i>Cytisus scoparius</i>	Broom	R
<i>Heracleum sphondylium</i>	Hogweed	R
<i>Ilex aquifolium</i>	Holly	R
<i>Luzula sylvatica</i>	Great Woodrush	R
<i>Plantago major</i>	Greater Plantain	R
<i>Rosa canina</i> agg.	Dog Rose	R
<i>Sonchus oleraceus</i>	Smooth Sow-thistle	R
<i>Sorbus aucuparia</i>	Rowan	R
<i>Tussilago farfara</i>	Colt's-foot	R

D = Dominant, A = Abundant, F = Frequent, O = Occasional, R = Rare.

Target Note:	TN15
Habitat:	Continuous bracken
Species List:	
Similar to TN6 and TN10	
No species list compiled for this target note area	

Target Note:	TN16		
Habitat:	Semi-natural broadleaved woodland		
Species List:			
Scientific Name	Common Name	Frequency	

<i>Betula pendula</i>	Silver Birch	D
<i>Deschampsia flexuosa</i>	Wavy Hair-grass	A
<i>Agrostis capillaris</i>	Common Bent	F
<i>Quercus robur</i>	English Oak	F
<i>Holcus lanatus</i>	Yorkshire-fog	O
<i>Polytrichum juniperinum</i>	Moss species	O
<i>Teucrium scorodonium</i>	Woodsage	O
<i>Alnus glutinosa</i>	Alder	R
<i>Calluna vulgaris</i>	Heather	R
<i>Convolvulus arvensis</i>	Field Bindweed	R
<i>Cotoneaster sp.</i>	Cotoneaster species	R
<i>Crataegus monogyna</i>	Hawthorn	R
<i>Hieracium sp.</i>	Hawkweed species	R
<i>Linaria vulgaris</i>	Common Toadflax	R
<i>Polytrichum sp.</i>	Moss species	R
<i>Prunus avium</i>	Wild Cherry	R
<i>Rosa canina agg.</i>	Dog Rose	R

D = Dominant, A = Abundant, F = Frequent, O = Occasional, R = Rare.

Target Note:	TN17	
Habitat:	Broadleaved plantation, modified neutral grassland, scattered scrub	
Species List:		
Scientific Name	Common Name	Frequency

<i>Betula pendula</i>	Silver Birch	A
<i>Crataegus monogyna</i>	Hawthorn	A
<i>Alnus glutinosa</i>	Alder	F
<i>Arrhenatherum elatius</i>	False Oat-grass	F
<i>Centaurea nigra</i>	Knapweed	F
<i>Cornus sanguinea</i>	Dogwood	F
<i>Festuca rubra</i>	Red Fescue	F
<i>Prunus spinosa</i>	Blackthorn	F
<i>Quercus robur</i>	English Oak	F
<i>Rosa canina</i> agg.	Dog Rose	F
<i>Salix caprea</i>	Goat Willow	F
<i>Trifolium repens</i>	White Clover	F
<i>Achillea millefolium</i>	Yarrow	O
<i>Chamerion angustifolium</i>	Rosebay Willowherb	O
<i>Cytisus scoparius</i>	Broom	O
<i>Dactylis glomerata</i>	Cock's-foot	O
<i>Holcus lanatus</i>	Yorkshire-fog	O
<i>Hypericum perforatum</i>	Perforate St John's-wort	O
<i>Lathyrus pratensis</i>	Meadow Vetchling	O
<i>Lotus corniculatus</i>	Bird's-foot Trefoil	O
<i>Medicago lupulina</i>	Black Medick	O
<i>Plantago lanceolata</i>	Ribwort Plantain	O
<i>Tanacetum vulgare</i>	Tansy	O
<i>Trifolium pratense</i>	Red Clover	O
<i>Trisetum flavescens</i>	Golden Oat-grass	O
<i>Artemisia vulgaris</i>	Mugwort	R
<i>Carex flacca</i>	Glaucous Sedge	R
<i>Centaureum erythraea</i>	Common Centaury	R
<i>Dipsacus fullonum</i>	Teasel	R
<i>Hypochaeris radicata</i>	Common Cat's-ear	R
<i>Leontodon autumnalis</i>	Autumn Hawkbit	R
<i>Odontites verna</i>	Red Bartsia	R

<i>Picris echioides</i>	Bristly Ox-tongue	R
<i>Pilosella officinarum</i>	Mouse-ear Hawkweed	R
<i>Potentilla reptans</i>	Creeping Cinquefoil	R
<i>Silene vulgaris</i>	Bladder Campion	R
<i>Tussilago farfara</i>	Colt's-foot	R
<i>Vicia hirsuta</i>	Hairy Tare	R

D = Dominant, A = Abundant, F = Frequent, O = Occasional, R = Rare.

Target Note:	TN18	
Habitat:	Continuous scrub	
Species List:		
Scientific Name	Common Name	Frequency
<i>Crataegus monogyna</i>	Hawthorn	D
<i>Dryopteris filix-mas</i>	Male-fern	O
<i>Fraxinus excelsior</i>	Ash	O
<i>Hedera helix</i>	Ivy	O
<i>Rubus fruticosus agg.</i>	Bramble	O
<i>Sambucus nigra</i>	Elder	O
<i>Conocephalum conicum</i>	Liverwort species	R
<i>Corylus avellana</i>	Hazel	R
<i>Hyacinthoides non-scripta</i>	Bluebell	R
<i>Hypericum androsaemum</i>	Tutsan	R
<i>Ilex aquifolium</i>	Holly	R
<i>Mercurialis perennis</i>	Dog's Mercury	R
<i>Milium effusum</i>	Wood Millet	R
<i>Solanum dulcamara</i>	Bittersweet	R

D = Dominant. A = Abundant. F = Frequent. O = Occasional. R = Rare.

Target Note:	TN19	
Habitat:	Willow dominated semi-natural broadleaved woodland	
Species List:		
Scientific Name	Common Name	Frequency
<i>Salix fragilis</i>	Crack Willow	D
<i>Crataegus monogyna</i>	Hawthorn	F
D = Dominant, A = Abundant, F = Frequent, O = Occasional, R = Rare.		

Target Note:	TN20	
Habitat:	Semi-natural broadleaved woodland	
Species List:		
Scientific Name	Common Name	Frequency
<i>Betula pendula</i>	Silver Birch	A
<i>Rubus fruticosus agg.</i>	Bramble	A
<i>Salix caprea</i>	Goat Willow	A
<i>Crataegus monogyna</i>	Hawthorn	F
<i>Arrhenatherum elatius</i>	False Oat-grass	O
<i>Brachythecium rutabulum</i>	Moss species	O
<i>Dactylis glomerata</i>	Cock's-foot	O
<i>Festuca rubra</i>	Red Fescue	O
<i>Galium aparine</i>	Cleavers	O
<i>Hedera helix</i>	Ivy	O

<i>Heracleum sphondylium</i>	Hogweed	O
<i>Holcus lanatus</i>	Yorkshire-fog	O
<i>Quercus robur</i>	English Oak	O
<i>Salix cinerea</i> ssp. <i>cinerea</i>	Grey Willow	O
<i>Urtica dioica</i>	Nettle	O
<i>Achillea millefolium</i>	Yarrow	R
<i>Agrostis capillaris</i>	Common Bent	R
<i>Anthriscus sylvestris</i>	Cow Parsley	R
<i>Centaurea nigra</i>	Knapweed	R
<i>Chamerion angustifolium</i>	Rosebay Willowherb	R
<i>Cirsium arvense</i>	Creeping Thistle	R
<i>Convolvulus arvensis</i>	Field Bindweed	R
<i>Cornus sanguinea</i>	Dogwood	R
<i>Dryopteris filix-mas</i>	Male-fern	R
<i>Epilobium montanum</i>	Broad-leaved Willowherb	R
<i>Fraxinus excelsior</i>	Ash	R
<i>Geranium molle</i>	Dove's-foot Cranesbill	R
<i>Geum urbanum</i>	Wood Avens	R
<i>Hieracium</i> sp.	Hawkweed species	R
<i>Ligustrum vulgare</i>	Wild Privet	R
<i>Lonicera periclymenum</i>	Honeysuckle	R
<i>Odontites verna</i>	Red Bartsia	R
<i>Plantago lanceolata</i>	Ribwort Plantain	R
<i>Plantago major</i>	Greater Plantain	R
<i>Prunus avium</i>	Wild Cherry	R
<i>Prunus spinosa</i>	Blackthorn	R
<i>Pteridium aquilinum</i>	Bracken	R
<i>Scrophularia nodosa</i>	Common Figwort	R
<i>Solanum dulcamara</i>	Bittersweet	R
<i>Sorbus aucuparia</i>	Rowan	R
<i>Tanacetum vulgare</i>	Tansy	R

<i>Taxus baccata</i>	Yew	R
<i>Tragopogon pratensis</i>	Goat's-beard	R
<i>Trifolium medium</i>	Zigzag Clover	R
<i>Trifolium pratense</i>	Red Clover	R
<i>Tussilago farfara</i>	Colt's-foot	R

D = Dominant, A = Abundant, F = Frequent, O = Occasional, R = Rare.

Target Note:	TN21
Habitat:	The River Dearne and surrounding habitats
Species List:	
TN8 and TN5 represent the habitat and species present along the River Dearne. Himalayan balsam, Japanese knotweed and giant hogweed are present on the banks of the river.	
No species list compiled for this target note area	

Management Issues:

Once the colliery had shut down and the railway lines through the area closed there seems to have been no management input into this topographically complex site along the southern bank of the River Dearne. This lack of management led to natural regeneration of a wide range of habitats and species, many of them exotics, within this residential/industrial interface.

Natural processes continue over much of the area and habitats are changing. Without management of scrub growth, for example, current areas of quite species-rich grassland will be shaded out, but on the other hand the area of naturally regenerated woodland will therefore continue to increase.

Management has so far been concentrated along the eastern side of the site, from the north-east to the south-west, with paths laid out and mown strips maintained along appropriate stretches. Apart from this the only other management has taken place along the routes of overhead lines.

It is debateable whether management input should take place to keep areas free of scrub development, as once started this will need to be continuous. Management of some of the exotic species here, notably the invasive alien plants Himalayan balsam, giant hogweed and Japanese knotweed, may be advisable, particularly along the banks of the River Dearne.

Diversity:

At the time of survey, in 2010, this site exhibits a wide diversity of habitats and species, with 156 vascular plant species recorded overall. However, it could be seen that the natural processes of scrub and woodland development are taking place, with these habitat types increasing in area and proportion of cover.

In the short term this will lead to some diminution of plant diversity, as illustrated by the dearth of species below the dense hawthorn scrub of TN18 and the extensive goat willow dominated sections of TN20 area.

However, the site is so complex that it is most likely that there will always be a wide range of different niches available on this site for plants and other wildlife.

Naturalness:

The natural process of vegetation succession, with scrub growth invading grassland areas and subsequently developing into woodland, can readily be observed over many parts of this site. There are also examples of quite old-established semi-natural woodland (e.g. TN14) within the site boundaries. Though some of the 156 types of vascular plant noted are exotic species, the majority are locally native, so this site provides a good area to see a wide range of local plants. The River Dearne appears to run in its natural channel here and the banks are not managed, providing a natural feature along the northern site boundary

Rare or Exceptional Features:

There are no old hedgerows or ancient trees within this site, but the Dearne is of geographical and ecological value.

Fragility:

Vegetation across this site is very robust, but much of the eastern area is in a dynamic state with natural processes causing an inexorable shift from open grassland communities towards climax woodland vegetation. There is little to threaten this situation, unless large scale redevelopment is proposed.

The river may be susceptible to pollution incidents from beyond the site boundaries.

The swamp and open water of TN9 area could be damaged by pollution from outside, perhaps the waste disposal recycling site immediately to its west.

Typicalness:

This range of vegetation types and species is fairly typical of unmanaged areas of post industrial, brownfield, land in this part of Yorkshire, although this site is perhaps more species diverse than most.

Recorded History & Cultural Associations:

The history of local railways is fairly well documented and it should be worthwhile to track down details of the lines that passed through this area and largely helped to create this landscape along the southern side of the River Dearne.

For example the open central area within the mature woodland of TN14 marks the former route of one of the railways before it entered the Ardsley Tunnel, heading towards the north-east. Railways locally are closely associated with coal mining, a past industry directly impacting this site and the general area around.

Connectivity within the Landscape:

A narrow lobe of agricultural land abuts the south-eastern edge of the site, extending westwards, between the River Dearne and Stairfoot, from open countryside further to the east. The river running along the northern site boundary reinforces the links with habitats beyond the immediate location, which is mainly a mix of residential, transport infrastructure, industrial and post-industrial land.

The site benefits from the diversity of these links. The largely unmanaged land south of the River Dearne provides a much greater range of structural and species-diversity than the parkland developed on the opposite northern bank. However the very existence of this more managed type increases local diversity overall.

Value for appreciation of Nature and Learning:

Access is readily gained from the public park on the northern river bank and the Trans Pennine Trail crosses the river on an old railway viaduct (part of TN3) and passes through the south-eastern side of the site. The Dearne Way runs from west to east along the northern bank of the River Dearne, making a junction with the Trans Pennine Trail.

There is also a public right of way along the southern bank of the river, north of the TN8 railway embankment, but this is overgrown and very difficult to follow. Because of its accessibility and diversity this site does have value as an example of ecological richness in the urban fringe.

Apart from signage for the Trans Pennine Trail, there is no other site interpretation apparent here. However accessibility from the north-west, via the managed parkland, is rendered doubly useful as the former monastic site, after which Monk Bretton gets its name, lies immediately at the northern edge of the park, very close to the site.

The combination of historic and ecologically rich features should make this area of great interest to local schools in the residential areas that lie to the south, west and north of the site.

Recommendations:

This site has large number of species present, with 150+recorded during the survey. It is a well used recreation route because of the Trans-Pennine Trail and provides access to the River Dearne.

It is also part of a natural network that connects to the river and Sunny Bank, Horse Carrs and Storrs Wood and Edderthorpe Ings Local Wildlife Sites. There is potential to extend this site eastwards towards Sunny Bank and encompass the land between the River Dearne and the Trans-Pennine Trail.

Action:

Retain as a Local Wildlife Site

Extend site boundary eastwards to encompass the land south of the river



31. Sunny Bank, Horse Carr and Storrs Wood

LWS Assessment and Phase 1 Survey

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Prepared by

TEP

for

Barnslev Metropolitan Borough Council

Site Name:	Sunny Bank, Horse Carr and Storrs Wood
Site Area:	22.7ha
Survey Date:	September 2010
Nearest Settlement:	Ardsley, Cudworth and Lundwood
Grid Reference at Centre:	SE40279, 06835
Surveyor(s)	LAC, VG

Site Description:

The Sunny Bank, Horse Carr and Storrs Wood site comprises five separate areas of broadleaved semi-natural woodland which are connected through tree lined fields, tracks and disused railways. The areas of woodland lie in an agricultural landscape, close to the eastern edge of Barnsley with residential developments north, west and south of the site and industrial developments northeast of the site.

All five areas are on the register of ancient woodland sites. Sunny Bank Wood is separated by the Dearne Valley Way into two areas (TN3, TN4). The west area of Sunny Bank Wood (TN3) is dominated by English oak (*Quercus robur*) and diggings were noted in this wood which could be indicative of badger (*Meles meles*). Silver birch (*Betula pendula*) and sessile oak (*Quercus petraea*) are abundant in the east portion of Sunny Bank Wood (TN4). Bluebell (*Hyacinthoides non-scripta*) is present throughout the wood and there are three stands of Himalayan balsam (*Impatiens glandulifera*).

Horse Carr Wood is also separated into two areas of woodland. English oak is abundant in the canopy in the northern section (TN2), with sycamore (*Acer pseudoplatanus*) and silver birch (*Betula pendula*) both frequent as would be expected in a typical W16 woodland community. This wood becomes more open to the west, with sycamore occurring less frequently. As the canopy thins here, there are areas of unimproved neutral grassland where creeping soft grass (*Holcus mollis*) is abundant. The southern section of Horse Carr Wood is typical of W10 woodland community and bluebells are present throughout.

Storrs Wood (TN6) is the largest and most easterly area of the woodland blocks within the site, incorporating Hollins Wood at its western end. This is mainly of W10 type, apart from in the northeast, where W16 community prevails. The northern site boundary borders a dismantled railway and rock exposures run through the wood from west to east, along the sides of an old railway cutting. The River Dearne forms part of the northern edge of this woodland. There is a stand of Himalayan balsam along the old cutting and four more stands of Himalayan balsam in the north-eastern part of the woodland.

Important Species:

Wood millet (*Milium effusum*), yellow archangel (*Lamium galeobdolon*), wood sorrel (*Oxalis acetosella*), bluebell (*Hyacinthoides non-scripta*), dog's mercury

(*Mercurialis perennis*), great Wood rush (*Luzula sylvatica*) and greater stitchwort (*Stellaria holostea*) are all ancient woodland indicator species in South Yorkshire.

This site also contains Japanese knotweed (*Fallopia japonica*) as well as the Himalayan balsam

Kingfisher (*Alcedo atthis*) is a Schedule 1 species which breeds on the River

Dearne at these sites and otter (*Lutra lutra*), a UKBAP species, pass along the river exploring new territories. UKBAP breeding birds include dunnock (*Prunella modularis*), bullfinch (*Pyrrhula pyrrhula*) and song thrush (*Turdus philomelos*).

Target Note:	TN1	
Habitat:	Semi-natural broadleaved woodland	
Species List:		
Scientific Name	Common Name	Frequency
<i>Holcus mollis</i>	Creeping Soft-grass	A
<i>Pteridium aquilinum</i>	Bracken	A
<i>Quercus robur</i>	English Oak	A
<i>Rubus fruticosus</i> agg.	Bramble	A
<i>Acer pseudoplatanus</i>	Sycamore	F
<i>Betula pendula</i>	Silver Birch	F
<i>Deschampsia flexuosa</i>	Wavy Hair-grass	F
<i>Milium effusum</i>	Wood Millet	F
<i>Sambucus nigra</i>	Elder	F
<i>Chamerion angustifolium</i>	Rosebay Willowherb	O
<i>Crataegus monogyna</i>	Hawthorn	O
<i>Hyacinthoides non-scripta</i>	Bluebell	O
<i>Quercus petraea</i>	Sessile Oak	O
<i>Stachys sylvatica</i>	Hedge Woundwort	O
<i>Stellaria media</i>	Chickweed	O
<i>Urtica dioica</i>	Nettle	O
<i>Agrostis capillaris</i>	Common Bent	R
<i>Corylus avellana</i>	Hazel	R

<i>Dactylis glomerata</i>	Cock's-foot	R
<i>Digitalis purpurea</i>	Foxglove	R
<i>Dryopteris dilatata</i>	Broad Buckler-fern	R
<i>Fallopia japonica</i>	Japanese knotweed	R
<i>Fraxinus excelsior</i>	Ash	R
<i>Galeopsis tetrahit</i>	Common Hemp-nettle	R
<i>Luzula sylvatica</i>	Great Woodrush	R
<i>Oxalis acetosella</i>	Wood Sorrel	R
<i>Rosa canina</i> agg.	Dog Rose	R
<i>Salix caprea</i>	Goat Willow	R
<i>Sorbus aucuparia</i>	Rowan	R
<i>Teucrium scorodonium</i>	Woodsage	R

D = Dominant, A = Abundant, F = Frequent, O = Occasional, R = Rare.

Target Note:	TN2	
Habitat:	Semi-natural broadleaved woodland	
Species List:		
Scientific Name	Common Name	Frequency
<i>Quercus robur</i>	English Oak	D
<i>Holcus mollis</i>	Creeping Soft-grass	A
<i>Pteridium aquilinum</i>	Bracken	A
<i>Hyacinthoides non-scripta</i>	Bluebell	F
<i>Ilex aquifolium</i>	Holly	F
<i>Betula pendula</i>	Silver Birch	O
<i>Hedera helix</i>	Ivy	O
<i>Quercus petraea</i>	Sessile Oak	O
<i>Rubus fruticosus</i> agg.	Bramble	O
<i>Sambucus nigra</i>	Elder	O

<i>Sorbus aucuparia</i>	Rowan	O
<i>Urtica dioica</i>	Nettle	O
<i>Crataegus monogyna</i>	Hawthorn	R
<i>Digitalis purpurea</i>	Foxglove	R
<i>Sorbus intermedia</i>	Swedish Whitebeam	R
<i>Ulmus glabra</i>	Wych Elm	R

D = Dominant, A = Abundant, F = Frequent, O = Occasional, R = Rare.

Target Note:	TN3	
Habitat:	Semi-natural broadleaved woodland – two parcels of woodland with a similar mix of species.	
Species List:		
Scientific Name	Common Name	Frequency
<i>Betula pendula</i>	Silver Birch	A
<i>Quercus petraea</i>	Sessile Oak	A
<i>Deschampsia flexuosa</i>	Wavy Hair-grass	F
<i>Holcus mollis</i>	Creeping Soft-grass	F
<i>Pteridium aquilinum</i>	Bracken	F
<i>Quercus robur</i>	English Oak	F
<i>Rubus fruticosus</i> agg.	Bramble	F
<i>Urtica dioica</i>	Nettle	F
<i>Acer pseudoplatanus</i>	Sycamore	O
<i>Agrostis capillaris</i>	Common Bent	O
<i>Anthriscus sylvestris</i>	Cow Parsley	O
<i>Crataegus monogyna</i>	Hawthorn	O
<i>Digitalis purpurea</i>	Foxglove	O
<i>Hedera helix</i>	Ivy	O
<i>Heracleum sphondylium</i>	Hogweed	O
<i>Hyacinthoides non-scripta</i>	Bluebell	O
<i>Ilex aquifolium</i>	Holly	O

<i>Mercurialis perennis</i>	Dog's Mercury	O
<i>Sambucus nigra</i>	Elder	O
<i>Chamerion angustifolium</i>	Rosebay Willowherb	R
<i>Juncus effusus</i>	Soft Rush	R
<i>Luzula sp.</i>	Woodrush species	R
<i>Milium effusum</i>	Wood Millet	R
<i>Sorbus aucuparia</i>	Rowan	R
<i>Ulmus glabra</i>	Wych Elm	R

D = Dominant, A = Abundant, F = Frequent, O = Occasional, R = Rare.

Target Note:	TN4		
Habitat:	Semi-natural broadleaved woodland		
Species List:			
Scientific Name	Common Name	Frequency	
<i>Betula pendula</i>	Silver Birch	A	
<i>Quercus robur</i>	English Oak	A	
<i>Agrostis capillaris</i>	Common Bent	F	
<i>Deschampsia flexuosa</i>	Wavy Hair-grass	F	
<i>Holcus mollis</i>	Creeping Soft-grass	F	
<i>Pteridium aquilinum</i>	Bracken	F	
<i>Quercus petraea</i>	Sessile Oak	F	
<i>Rubus fruticosus</i> agg.	Bramble	F	
<i>Crataegus monogyna</i>	Hawthorn	O	
<i>Dryopteris dilatata</i>	Broad Buckler-fern	O	
<i>Dryopteris filix-mas</i>	Male-fern	O	
<i>Epilobium montanum</i>	Broad-leaved Willowherb	O	
<i>Fraxinus excelsior</i>	Ash	O	
<i>Galeopsis tetrahit</i>	Common Hemp-nettle	O	

<i>Hedera helix</i>	Ivy	O
<i>Hyacinthoides non-scripta</i>	Bluebell	O
<i>Lamiastrum galeobdolon</i>	Yellow Archangel	O
<i>Moss sp.</i>	Moss species	O
<i>Polytrichum sp.</i>	Moss species	O
<i>Silene dioica</i>	Red Campion	O
<i>Stellaria holostea</i>	Greater Stitchwort	O
<i>Urtica dioica</i>	Nettle	O
<i>Arum maculatum</i>	Lords-and-Ladies	R
<i>Blechnum spicant</i>	Hard Fern	R
<i>Corylus avellana</i>	Hazel	R
<i>Crepis capillaris</i>	Smooth Hawk's-beard	R
<i>Cytisus scoparius</i>	Broom	R
<i>Hieracium sp.</i>	Hawkweed species	R
<i>Ilex aquifolium</i>	Holly	R
<i>Impatiens glandulifera</i>	Himalayan Balsam	R
<i>Milium effusum</i>	Wood Millet	R
<i>Phyllitis scolopendrium</i>	Hart's-tongue	R
<i>Populus tremula</i>	Aspen	R
<i>Rubus idaeus</i>	Raspberry	R
<i>Salix cinerea ssp. cinerea</i>	Grey Willow	R
<i>Sambucus nigra</i>	Elder	R
<i>Viburnum opulus</i>	Guelder-rose	R
<i>Viola riviniana</i>	Wood-dog-violet	R

D = Dominant, A = Abundant, F = Frequent, O = Occasional, R = Rare.

Management Issues:

The proximity of Sunny Bank Wood to the sewage works and residential areas has led to some incidences of fly tipping. The riverside location of Sunny Bank and Storrs Woods has led to some quite large-scale colonisation by Himalayan balsam and there is a stand of Japanese knotweed (*Fallopia japonica*) at the western end of

the northern section of Horse Carr Wood (TN2).

Management of the nuisances of tipping and invasive alien species needs to be put into effect to protect these ancient woodland fragments.

Some areas have very dense canopy with little understorey or groundflora and would benefit from thinning to allow more light through.

Major Wood, between the southern part of Horse Carr Wood and Hollins Wood, is also on the register of ancient woodlands and should be included in woodland management plans for this site. Increasing the connectivity of these small woodlands would be ecologically advantageous.

Diversity:

The site is more-or-less uniformly woodland habitat and there is not much structural diversity within the stands. The course of the river and the railway cuttings do add some diversity.

During the course of 2010 fieldwork a total of 58 species was recorded, seven of which are indicative of ancient woodland habitats in South Yorkshire.

Naturalness:

Although constricted to narrow strips across an active agricultural land, these woodlands represent natural vegetation surviving from a formerly much more widespread habitat type.

Watercourses through the area generally still follow their natural routes but there has been past disturbance, as evidenced by the now disused railway routes through most of the woods.

Rare or Exceptional Features:

Surviving ancient woodland, along with possible surviving invertebrate fauna, is the most notable feature of this site.

Fragility:

This site appears to be susceptible to fly tipping where there is road access, otherwise the woodland habitat is quite robust. There is potential for damage to the site by water-borne contamination or possibly prolonged flooding of the Dearne valley.

Typicalness:

The woodland appears to be typical of surviving small areas of ancient woodland in the Barnsley area. As a designated Local Wildlife Site, it is relatively unusual in being fragmented into five separated areas.

Recorded History & Cultural Associations:

The western parts of this site lie less than 1km east of Monk Bretton Priory, established in 1154 in what was then the wooded valley of the Dearne. The monks and lay brothers would have undoubtedly exploited the woodlands for various purposes.

There appears to be little evidence of past woodland management activities remaining in these small stands, though the name Hollins Wood could derive from former usage of pollarding holly to feed to stock in winter.

There is more evidence of industrial history, with remains of former railway routes crossing through the area.

The site is now owned by Barnsley Council, after its purchase from the Talbot family in the 1930s.

Connectivity within the Landscape:

This woodland habitat is quite isolated within arable farmland, but there is some minor linkage via scattered hedgerows and the wooded banks of disused railways. The Dearne Valley is a major landscape link in the wider sense, but is no longer as wooded as in the days of the monks at Monk Bretton.

Value for appreciation of Nature and Learning:

The Dearne Way snakes through the site, following the course of the river. A close network of other public footpaths links the various elements of the site with each other (with the exception of the eastern portion of Sunny Bank Wood) and also to the local settlements of Lundwood, Cudworth and Ardsley.

There are schools in each of these areas, making these ecologically valuable ancient woodlands very accessible.

Recommendations:

This site appears on the Natural England Ancient Woodland Inventory and seven species associated with ancient woodland were recorded during the 2010 survey. Further survey, earlier in the year, may reveal a larger number of species.

Management to diversify structure of the woodlands may improve

As part of the Ancient Woodland Inventory, this site qualifies under the site assessment criteria and should be retained as a Local Wildlife Site. Consideration should also be given to the possibility of surveying the adjoining Saville, Major and Pearson Woods and consider their inclusion as Local Wildlife Site, subject to survey and approval.

The site would benefit from improvement and diversification delivered through ecological management.

Action:

Retain as a Local Wildlife Site

Survey adjoining wooded areas

