WYG Ecology Phase 1 Habitat Survey Report: Former SR Gent, Dodworth Rd, Barnsley

PriceWaterhouseCoopers

Former SR Gent, Dodworth Rd, Barnsley

Ecology Phase 1 Habitat Survey

January 2009

WYG Environment part of the **WYG** Group

creative minds safe hands

www.wyg.com

WYG Ecology Phase 1 Habitat Survey Report: Former SR Gent, Dodworth Rd, Barnsley

REPORT CONTROL

Document:	Issue 1
Project:	Former SR Gent, Dodworth Road, Barnsley
Client:	PriceWaterhouseCoopers
Job Number:	A051835-2
File Origin:	N:\Projects\A051001-A052000\A051835-2\reports

Document Checking:

Primary Author	Hannah Procter Consultant Ecologist	Initialled [redacted]
Contributor	Sally Fraser Senior Ecologist	Initialled: [redacted]
Review By	Peter Harrison Regional Director	Initialled: [redacted]

Issue	Date	Status	Checked for Issue
1	Jan '09	FINAL	
2			
3			
4			

WYG Ecology Phase 1 Habitat Survey Report: Former SR Gent, Dodworth Rd, Barnsley

Contents

1 INTRODUCTION 1

1.1 SITE DESCRIPTION 1
1.2 PROPOSED DEVELOPMENT 1
1.3 SURVEY OBJECTIVES 1

2 PLANNING AND LEGISLATIVE FRAMEWORK 2

2.1 NATIONAL POLICY GUIDANCE 2
2.1.1 PPS9: Biodiversity and Geological Conservation 2
2.2 LOCAL PLANNING GUIDANCE 3
2.3 BIODIVERSITY POLICY GUIDANCE 4
2.4 DESIGNATED SITES 6
2.4.1 Statutory Designations 6
2.4.2 Non-Statutory Designations 6
2.5 PROTECTED AND NOTABLE SPECIES 7
2.6 INVASIVE SPECIES 7

3 METHODOLOGY 8

3.1 DESK STUDY 8
3.2 SITE WALKOVER 8
3.2.1 Flora 8
3.2.2 Fauna 9

4 BASELINE CONDITIONS 11

4.1 PRE-EXISITING ECOLOGICAL INFORMATION 11
4.1.1 Designated Sites 11
4.1.2 Protected and notable species records 11
4.1.3 Proximity of nearest water bodies/course to site 13

5 RESULTS 14

5.1 HABITATS 14
5.2 AMPHIBIANS 17
5.3 REPTILES 17
5.4 BIRDS 18
5.5 MAMMALS 18
5.5.1 Bats 18
5.5.2 Badgers 18
5.6 INVERTEBRATES 18
5.7 INVASIVE PLANT SPECIES 18

6 DISCUSSION OF POTENTIAL ECOLOGICAL CONSTRAINTS 20

6.1 DESIGNATED SITES 20
6.2 HABITATS 20
6.3 PROTECTED/BAP SPECIES 20
6.4 INVASIVE PLANT SPECIES 21

7 RECOMMENDATIONS FOR CONSERVATION ENHANCEMENT 22

8 REFERENCES 23

Figures

Figure 1 - Ecology Phase 1 Habitat Plan

Appendices

Appendix A - Desk Study Consultation Results
Appendix B - Target Notes
Appendix C - Habitat Suitability Index (HSI)
Appendix D - Report Conditions

WYG Ecology Phase 1 Habitat Survey Report: Former SR Gent, Dodworth Rd, Barnsley

1 INTRODUCTION

WYG Environment was commissioned by PriceWaterhouseCoopers to undertake an Ecological Extended Phase 1 Habitat Survey for a pocket of land off Dodworth Road, Barnsley, South Yorkshire (hereafter referred to as 'The Site').

1.1 SITE DESCRIPTION

The site is located off the A628 Dodworth Road in Barnsley, West Yorkshire, approximately 1 km west of Barnsley town centre and 1km east of the M1. The centre of the site is located at approximate National Grid Reference (NGR) SE330061.

The site occupies an area of approximately 4 hectares and is roughly rectangular in shape. Historically, the SR Gent factory was located on the site but this has since been demolished. Currently, the site is primarily hard-standing with areas of ephemeral/short perennial, semi-improved grassland and scrub. Several mature trees are situated towards the north west of the site.

The site is set within a predominantly residential area. The A628 Dodworth Road boarders the north of the site. Housing, amenity grassland and residential dwellings boarder the south, east and west of the site.

1.2 PROPOSED DEVELOPMENT

It is understood that the site is to be brought forward for outline planning for residential end use.

1.3 SURVEY OBJECTIVES

The principal objectives of this study were to undertake a site walkover survey to identify habitats present and to make an assessment of the site's potential to support legally protected species or other species of nature conservation importance. The survey also aimed to identify any invasive non-native plant species, e.g. Japanese knotweed *Fallopia japonica*, giant hogweed *Heracleum mantegazzianum* on the site.

Based on the results of these studies potential ecological constraints and opportunities relating to the proposed development have been identified and recommendations for further work have been made as appropriate.

2 PLANNING AND LEGISLATIVE FRAMEWORK

This section provides information on:

- National planning guidance
- Local planning guidance
- Biodiversity policy guidance
- Designated sites
- Protected and notable species
- Invasive species

2.1 NATIONAL POLICY GUIDANCE

National planning policy is governed by a range of documents including Planning Policy Statements (PPSs). The Local Authority's Structure Plan and Local Plan are local planning policy documents that reflect national policy. Other relevant documents that inform these documents (with regards to the biodiversity protection) are the UK Biodiversity Action Plan (UKBAP) and the local Biodiversity Action Plan (LBAP).

2.1.1 PPS9: Biodiversity and Geological Conservation

The document, Working with the Grain of Nature sets out the Government's broad aim that planning, construction, development and regeneration should have minimal impacts on biodiversity and enhance it wherever possible (DEFRA, 2002). This aim has been incorporated within PPS9, published in August 2005 implementing national policy with respect to the protection of biodiversity (ODPM, 2005). Key principles relevant to this report include:

1i) Development plan policies and planning decisions should be based upon up-to-date information about the environmental characteristics of their areas. These characteristics should include the relevant biodiversity and geological resources of the area. In reviewing environmental characteristics local authorities should assess the potential to sustain and enhance those resources.

1ii) Plan policies and planning decisions should aim to maintain, and enhance, restore or add to biodiversity and geological conservation interests. In taking decisions, local planning

authorities should ensure that appropriate weight is attached to designated sites of international, national and local importance; protected species; and to biodiversity and geological interests within the wider environment.

1iv) Plan policies should promote opportunities for the incorporation of beneficial biodiversity and geological features within the design of development.

1v) Development proposals where the principal objective is to conserve or enhance biodiversity and geological conservation interests should be permitted.

1vi) The aim of planning decisions should be to prevent harm to biodiversity and geological conservation interests. Where granting planning permission would result in significant harm to those interests, local planning authorities will need to be satisfied that the development cannot reasonably be located on any alternative sites that would result in less or no harm. In the absence of any such alternatives, local planning authorities should ensure that, before planning permission is granted, adequate mitigation measures are put in place. Where a planning decision would result in significant harm to biodiversity and geological interests which cannot be prevented or adequately mitigated against, appropriate compensation measures should be sought. If that significant harm cannot be prevented, adequately mitigated against, or compensated for, then planning permission should be refused.

PPS9 requires up-to-date information on the biodiversity present in a given site to enable planners to make an informed decision.

2.2 LOCAL PLANNING GUIDANCE

The current statutory development plan for Halifax which covers the site is the Barnsley Unitary Development Plan (UDP), which sets out the council's policies and proposals for the use and development of land and buildings. The UDP contains the following policies relating to nature conservation:

POLICY GS15 THE COUNCIL WILL SEEK TO SAFEGUARD IMPORTANT HABITATS AND SPECIES FROM ANY ACTIVITIES WHICH WOULD CAUSE DISTURBANCE, POLLUTION OR OTHER DAMAGE.

ALL DEVELOPMENT PROPOSALS SHOULD, WHERE APPROPRIATE, INCLUDE MEASURES TO CONSERVE AND ENHANCE EXISTING FEATURES OF NATURE CONSERVATION INTEREST AND TO CREATE NEW NATURE CONSERVATION AREAS.

POLICY GS16 DEVELOPMENT LIKELY TO HAVE AN ADVERSE EFFECT, EITHER DIRECTLY OR INDIRECTLY, ON THE CONSERVATION VALUE OF A NATIONAL NATURE RESERVE OR SITE OF SPECIAL SCIENTIFIC INTEREST OR ANY HABITAT OR SPECIES PROTECTED BY LAW, WILL ONLY BE PERMITTED IF IT CAN BE DEMONSTRATED THAT OTHER MATERIAL CONSIDERATIONS OUTWEIGH THE SPECIAL INTEREST OF THE SITE.

POLICY GS117 SITES WHICH ARE DESIGNATED AS OR POTENTIAL RAMSAR SITES, SPECIAL PROTECTION AREAS, OR SPECIAL AREAS OF CONSERVATION WILL BE GIVEN THE PROTECTION AFFORDED TO SITES OF SPECIAL SCIENTIFIC INTEREST. IN ADDITION, DEVELOPMENT PROPOSALS WILL BE ALLOWED ONLY IF THERE IS NO ALTERNATIVE SOLUTION AND IF THERE ARE IMPERATIVE REASONS OF OVERRIDING PUBLIC INTEREST FOR THEM. WHERE SUCH SITES HOST A PRIORITY HABITAT OR SPECIES (AS LISTED IN THE EC HABITATS DIRECTIVE) DEVELOPMENT SHOULD ONLY PROCEED IF REQUIRED FOR REASONS OF HUMAN HEALTH OR PUBLIC SAFETY.

POLICY GS18 ANY DEVELOPMENT WHICH MAY ADVERSELY AFFECT, DIRECTLY OR INDIRECTLY, A LOCAL NATURE RESERVE, A NATURAL HERITAGE SITE, ANCIENT WOODLAND, A REGIONALLY IMPORTANT GEOLOGICAL SITE OR OTHER NATURE CONSERVATION SITES IDENTIFIED ON THE PROPOSALS MAPS, WILL NOT BE APPROVED UNLESS IT CAN BE CLEARLY DEMONSTRATED THAT THERE IS A CASE FOR THE DEVELOPMENT WHICH OUTWEIGHS THE CASE FOR SAFEGUARDING THE CONSERVATION INTEREST OF THE SITE AFTER AVAILABLE MEASURES TO AVOID, MITIGATE OR COMPENSATE FOR ANY ADVERSE AFFECTS HAVE BEEN TAKEN INTO ACCOUNT, IN WHICH CASE THE COUNCIL WILL SEEK TO MINIMISE THE ADVERSE IMPACT AND/OR SECURE COMPENSATORY PROVISION INCLUDING, WHERE APPROPRIATE, THROUGH PLANNING CONDITIONS OR OBLIGATIONS.

2.3 BIODIVERSITY POLICY GUIDANCE

'Biodiversity: The UK Action Plan' (HMSO 1994; updated 2007) was developed in response to The Earth Summit, held in Rio de Janeiro in 1992. The UK Biodiversity Action Plan lists a number of priority habitats and species for conservation action in the UK. Although the Action Plan does not

confer any statutory legal protection, in practice many of the species listed already receive statutory legal protection under UK and/or European legislation. In addition, Priority Species and Habitats in the UK BAP are Species and Habitats of Principal Importance for the Conservation of Biodiversity under Section 74 of the Countryside and Rights of Way Act 2000 (CRoW 2000). This places a duty on government departments to have regard for these species and habitats when carrying out their functions, and it is now government policy under PPS 9 to consider these habitats and species when determining planning applications. Section 74 states that 'It is the duty of a listing authority to take, or to promote the taking by others of, such steps as appear to the authority to be reasonably practicable to further the conservation of the living organisms and types of habitat included in any list published by the authority under this section.'

As part of the action plan process, Local Biodiversity Action Plans (LBAPs) must also be produced for every county in the UK. Other public bodies may also produce LBAPs. These LBAPs highlight local biodiversity issues, with specific action plans being implemented for priority habitats and species where they occur.

The LBAPs set out a series of objectives for the conservation of priority species and habitats, (as identified in the UK-wide Biodiversity Action Plan of 1994), where they occur in each district, county or region.

The site falls within the Barnsley district administrative boundaries. The Barnsley Biodiversity Action Plan (BAP) includes 6 Flagship Species Action Plans, 18 Habitat Action Plans and 13 Species Action Plans (see Table 1 below).

Table 1 Barnsley BAP Flagship Species, Habitat and Species Action Plans

Flagship Species Action Plans	Habitat Action Plans	Species Action Plans
▪ Otter	▪ Upland oak woodland	▪ Brown hare
▪ Pipistrelle bat	▪ Upland mixed ash woodland	▪ Water vole
▪ Lapwing	▪ Wet woodland	▪ Great crested newt
▪ Barn owl	▪ Parkland	▪ White-clawed crayfish
▪ Bluebell	▪ Ancient and species-rich hedgerows	▪ Bittern
▪ Glow worm	▪ Cereal field margins	▪ Grey partridge
	▪ Floodplain grazing marsh	▪ Little ringed plover
	▪ Lowland meadows	▪ Skylark
	▪ Lowland dry acidic grassland	▪ Song thrush
	▪ Lowland heathland	▪ Tree sparrow
	▪ Upland heathland	▪ Twite
	▪ Rush pasture	▪ Linnet
	▪ Reedbeds	▪ Corn bunting
	▪ Ponds and canals	
	▪ Running water	
	▪ Standing water	
	▪ Urban-built up areas	
	▪ Post-Industrial derelict and degraded land	

2.4 DESIGNATED SITES

2.4.1 Statutory Designations

Sites with statutory designations receive varying degrees of legal protection under UK statute and European Directives. There are a number of statutory designations used for sites of high nature conservation value in the UK, which are made depending upon the importance of the site in a local, regional, national or international context.

2.4.2 Non-Statutory Designations

Non-statutory sites are afforded no statutory legal protection, but are normally recognised by local planning authorities and statutory agencies as being of local nature conservation value. The protection afforded to such sites is usually discretionary, through Local Plan Policies (see above). Non-statutory sites are designated by the local authority, usually in partnership with the County Wildlife Trust (or equivalent).

2.5 PROTECTED AND NOTABLE SPECIES

A number of species are protected under UK and international legislation. In the UK, primary protection is provided under the Wildlife and Countryside Act 1981 (as amended). Species of European importance receive additional protection under the Conservation (Natural Habitats, &c.) Regulations 1994, as amended; others may receive protection through specific legislation (such as the Protection of Badgers Act, 1992).

Species listed under Section 74 of the CRoW Act 2000, whilst not necessarily legally protected, can be a material planning consideration.

2.6 INVASIVE SPECIES

Japanese knotweed, giant hogweed and other non-native invasive plants are listed under Section 14 of the Wildlife and Countryside Act 1981 (as amended). This makes it an offence to plant them in the wild or otherwise cause them to grow. The Environmental Protection Act 1990 also lists them as 'controlled waste' to be disposed of properly. These provisions mean that if these species occur on a site proposed for development or other work which may disturb the ground, control of these species is likely to be required.

3 METHODOLOGY

3.1 DESK STUDY

There is currently no ecological records centre which covers the South Yorkshire region. West Yorkshire Ecology (specifically Paul Hillier- Ecological Records Officer, phillier@wyjs.org.uk) and the Barnsley Bat Group (Eric Bennett, eric.bats@uwclub.net) were consulted for information on the ecology of the site and its surroundings.

In addition, a search for relevant nature conservation information was made of the following websites:

- www.magic.gov.uk
- www.searchnbn.net

3.2 SITE WALKOVER

A site visit and walkover ecology survey of the site was conducted on the 14th January 2009 prior to the commencement of any site works. January is considered to be a sub-optimal time for undertaking ecological habitat/vegetation surveys as some floral species may not be present (CIRIA, 2002). However, due to the nature of this particular site, it is considered possible to identify the broad habitats present and any potential ecological constraints at this time of year.

3.2.1 Flora

Habitats on site were identified according to standard Phase 1 Habitat Survey (JNCC, 2003) definitions. Any legally protected habitats and/or other habitats of nature conservation importance, e.g. UK or Barnsley Biodiversity Action Plan (BAP) priority habitats, were recorded. The location of trees within or overhanging the site was mapped. The site was also searched for the invasive, non-native plant species Japanese knotweed and giant hogweed which are both listed in Schedule 9, Part II of the Wildlife and Countryside Act 1981 (as amended) which makes it an offence 'to plant or otherwise encourage' the growth of these plant species.

3.2.2 Fauna

In conjunction with the habitat survey, the potential for the site to support any legally protected faunal species and/or other faunal species of nature conservation importance, e.g. UK or Barnsley Biodiversity Action Plan (BAP) priority species was assessed.

A Habitat Suitability Index (HSI), developed by Oldham *et al.* (2000) was used to assess the suitability of water bodies on site to support great crested newt. This is a method by which habitat variables can be collected and used together to predict the likely presence of breeding great crested newt.

Trees and any suitable structures on site were assessed for their potential to support roosting bats using the criteria set out in Table 2 which is based on the Bat Survey Good Practice Guidelines (Bat Conservation Trust, 2007). Where the potential for roosting bats is considered negligible no further surveys are recommended. Where the bat roosting potential is considered to be between low-high, bat activity surveys are recommended with the level of survey effort dependent on the assessed value of the habitat.

Detailed faunal surveys were not undertaken at this time, rather the potential for the site to support each species / species group was assessed based on the known range of each species / species group and the suitability of the habitats within the site. In addition, field signs or sightings of such species were recorded as seen.

Table 2 Criteria for assessing the value of habitat features within the landscape for roosting bats (based on the Bat Survey Good Practice Guidelines (Bat Conservation Trust, 2007).

Value[1]	Criteria
Negligible	▪ No features visible that could be used by bats (for roosting, foraging or commuting)
Low ↓ Moderate ↓ High	▪ Small number of potential roosts, most likely less significant ones (i.e. probably not maternity roosts or hibernacula). ▪ Isolated habitat that could be used by foraging bats e.g. a lone tree or patch of scrub but not parkland. ▪ Isolated site not connected by prominent linear features (but if suitable foraging habitat is adjacent it may be valuable if it is all that is available). ▪ Several potential roosts in the buildings, trees or other structures. ▪ Habitat could be used by foraging bats e.g. trees, shrub, grassland or water. ▪ Site is connected with the wider landscape by linear features that could be used by commuting bats e.g. lines of trees and scrub or linked back gardens. ▪ Buildings, trees or other structures (such as mines, caves, tunnels, ice houses and cellars) with features of particular significance for roosting bats. ▪ Habitat of high quality for foraging bats e.g. broadleaved woodland, tree-lined watercourses and grazed parkland. ▪ Site is connected with the wider landscape by strong linear features that would be used by commuting bats e.g. river/stream valleys or hedgerows. ▪ Site is close to known roost.
Confirmed presence	▪ Evidence indicates a building, tree or other structure is used by bats e.g.: o bats seen roosting or observed flying from a roost or freely in the habitat o droppings, carcasses, feeding remains, etc. found; and/or o bats heard 'chattering' inside on a warm day or at dusk ▪ Bats recorded/observed using an area for foraging or commuting.

[1] There are no clearly defined categories of habitat value; rather there is a continuum from low-high value for bats

4 BASELINE CONDITIONS

4.1 PRE-EXISITING ECOLOGICAL INFORMATION

Desk study data was provided by West Yorkshire Ecology (see Appendix A for full results) and Barnsley Bat Group.

4.1.1 Designated Sites

Nationally Designated Sites

There are no nationally designated sites (e.g. Sits of Special Scientific Interest (SSSI), Special Protected Area (SPA) and/or Special Area of Conservation (SAC)) on and/or within 1km radius of the site.

Locally Designated Sites

There are no Sites of Scientific Interest (SSI) within a 2km search area. Redbrook Pasture is a Site of Important Nature Conservation (SINC) located approximately 1km north of the site. It is designated for its unimproved species rich neutral grassland, which is scarce in Barnsley.

Ancient woodland

There are no areas of ancient woodland on site. There is one area of ancient and semi-natural woodland near Lane Side Farm, located approximately 2km west of the site.

Grassland Inventory

There is one grassland inventory site within the search area – Redbrook Pastures classified as Type MG/U (Neutral and Acid) located approximately 1km north-west of the site.

Registered Park and Garden

There is one Registered Park and Garden, Loche Park, located approximately 1km south east of the site.

4.1.2 Protected and notable species records

Amphibians

West Yorkshire Ecology (WYE) holds no notable amphibian records for the search area.

The NBN Gateway holds no recent records of great crested newt (i.e. dated within the last 25 years) for Ordnance Survey (OS) grid square SE30.

Reptiles

The NBN Gateway holds no recent records of reptiles i.e. dated within the last 25 years, for the OS 10km grid square SE30.

Birds

The NBN Gateway holds no bird records within the SE30 OS 10km grid square.

Bats

The Barnsley Bat Group holds 13 bat records within a 2km search area. Refer to Table 3 below, no records were found from the site itself:

Table 3 Barnsley Bat Group Records

Grid Reference	Site Name	Species	Date	Roost Type/Info	Location
SE3205	Farrow Close, Dodworth	Indet	26/10/04	House	~700m west of the site
SE 321062	Dodworth Road Stables, Barnsley	Brown Long-eared *Plecotus auritus*	03/08/01	Stables	~700m north west of the site
SE 325073	Oakworth Close, Redbrook	Leislers *Nyctalus leisleri*	01/07/03	House	~1km north of the site
SE337069	Gawber Road, Old Town	Pipistrelle *Pipistrellus* sp.	31/10/88	Garden Wall	~ 1km north east of the site.
SE336067	Southwell Street, Old Town	Indet	13/10/00	House	~ 1km north east of the site
	Queens Avenue	Indet	31/7/08	House	~ 1km north east of the site
SE339073	Bond Road, Old Town	Leislers	12/07/05	House	~ 1.5km north east of the site
SE339071	Kensington Road, Barnsley	Pipistrelle	29/06/92	House	~ 1.5km north east of the site
SE338078	Melvinia Crescent, Wilthorpe	Pipistrelle	15/07/99	House	~2km north east of the site
SE336080	Monkey Tunnel, Wilthorpe	Daubentons *Myotis daubentonii*	05/09/02	Footpath tunnel	~2km north east of the site

Badger

The NBN Gateway holds no recent badger records within the SE30 OS 10km grid square (i.e dated within the last 20years).

4.1.3 Proximity of nearest water bodies/course to site

One dry pond approximately 20m^2 in size is located to the north of the site. There are no other water bodies/courses located on the site.

An OS map indicates that Dodworth Dike is the nearest watercourse located approximately 2km south west of the site.

5 RESULTS

A description of the site and assessment of its potential to support key faunal groups is given below.

5.1 HABITATS

The results of the Phase 1 Habitat Survey are shown on the Phase 1 Habitat Plan (Figure - Drawing 01) and associated Targets Notes (Appendix B), and presented below. The following habitats were recorded on site:

- Exposed rock
- Hard-standing and Buildings
- Semi-improved neutral grassland
- Scrub
- Ephemeral/Short perennial habitat
- Trees
- Dry Pond
- Introduced shrub

The site occupies an old quarry with low exposed rock faces forming the eastern and southern boundary (Target Note 10 and 11). The SR Gent factory historically used to be located on site however this has since been demolished. The majority of the site now comprises hard-standing with small amounts of semi-natural habitat (Target Note 1, Plate 1). There is also a Shell garage located to the north of the site.



Plate 1 Hard standing

Areas of semi-improved neutral grassland with patches of scrub are present on site, particularly bordering the margins (Target Note 2, Plate 2). Within the semi-improved neutral grassland, the dominant grass species present comprise cock's foot *Dactylis glomerata*, perennial rye-grass *Lolium perenne* and fescue *Festuca sp.* With other typical grassland species including creeping buttercup *Ranunculus repens*, dandelion *Taraxacum* agg., ribwort plantain *Plantago lanceolata*, broadleaved dock *Rumex obtusifolius*, ragwort *Senecio jacobaea*, colt's foot *Tussilago farfara* and yarrow *Achillea millefolium.*



Plate 2 Semi-improved grassland with scrub

The patches of scrub on site are scattered within the semi-improved neutral grassland and particularly occupy the boundaries of the site along the top and bottom of the rock faces (Target Note 3). Dominant scrub species present comprise bramble *Rubus fruticosus*, fern, rosebay willowherb *Chamerion angustifolium*, and hawthorn *Crataegus monogyna* with scattered young silver birch *Betula pendula*, sycamore *Acer pseudoplatanus*, goat willow *Salix caprea* and elder *Sambucus nigra*.

There are areas of ephemeral/short perennial habitat, located to the north and east of the site (Target Note 4, Plate 3). The vegetation here consists of a mixture of generally low-growing plants particularly ribwort plantain, clover *Trifolium* sp., creeping cinquefoil *Portentilla repens*, grass species including cock's foot and false oat grass *Arrhenatherum elatius* and taller ruderal species such as spear thistle *Cirsium vulgare*, broadleaved dock and perennial sow thistle *Sonchus palustris*.



Plate 3 Ephemeral/Short Perennial Habitat

A small number of mature and semi-mature, mostly planted, trees stand in the north of the site within the amenity and semi-improved grassland (Target Note 16). The species present include silver birch, goat willow and alder *Alnus glutinosa*.

There is a small dried up pond located in the north of the site approximately 20m^2 in size (Target Note 15, Plate 4). The pond is heavily shaded and densely covered in leaf litter. No water was present. Ornamental and introduced shrub species (Target Note 14), predominantly cotoneaster, surround the pond.



Plate 4 Dry pond

There are no other water bodies and/or courses on site.

5.2 AMPHIBIANS

All British amphibians, including the great crested newt, rely on water bodies for breeding. Outside of the breeding period amphibians spend much of their live in terrestrial habitats.

A Habitat Suitability Index (HSI) assessment was undertaken on the dry pond on site. The HSI, developed by Oldham *et al.* (2000), assesses characteristics of a water body to determine their suitability to great crested newts. The water body was assessed as having **poor** potential for supporting great crested newts (refer to Appendix C HSI Survey Results). The pond is dry, extremely shaded, and disconnected from any semi-natural habitat. The pond is therefore considered unlikely to support great crested newt.

5.3 REPTILES

Habitats favoured by reptiles tend to be sunny, open, undisturbed, well-drained and often south-facing (Froglife, 1999).

The majority of the habitat on site is hard-standing. There are limited refugia available on site and the scrub and grassland vegetation on site is limited. The site therefore is considered unfavourable for reptiles.

5.4 BIRDS

The scrub, trees and semi-improved grassland on site provide potential breeding bird habitat. It is considered however, that due to the limited extent of these habitats that only a small number of common urban bird species are likely to use the site.

5.5 MAMMALS

5.5.1 Bats

The only building present on site is a Shell garage. The building was surveyed as having **negligible potential** for supporting roosting bats due to limited access points.

No obvious gaps, crevices suitable for roosting bats were observed into any of the trees surveyed on site during the walkover. The trees were considered **negligible potential** for supporting roosting bats.

Although the potential for roosting bats to be present on site is considered to be negligible, the trees on site, particularly to the north, are considered suitable habitat for foraging bats within the area.

5.5.2 Badgers

No evidence of badger was recorded during the walkover. Badgers prefer certain habitat characteristics e.g. sloping ground and cover around the sett (http://www.badgerecology.org/BEhabitat.htm 160109). Favourable habitat for badger is limited on site as majority of the site is hard-standing. The site is considered to have limited potential to support badger.

5.6 INVERTEBRATES

The exposed rock faces on site may provide valuable habitat for some invertebrate species and holes present in the exposures may be the work of solitary mining bees.

5.7 INVASIVE PLANT SPECIES

Japanese knotweed is present on site (Plate 5). There are four notable stands recorded:

- Stand 1 (Target Note 6) ~10m x 5m – dead winter canes
- Stand 2 (Target Note 7) ~ 1m x 10m – dead winter canes
- Stand 3 (Target Note 8) ~ 3m x 4m – dead and broken winter canes
- Stand 4 (Target Note 9) ~ 3m x 2m – dead and broken winter canes



Plate 5 Japanese knotweed

6 DISCUSSION OF POTENTIAL ECOLOGICAL CONSTRAINTS

6.1 DESIGNATED SITES

There are no statutory or non statutory, locally or nationally, designated sites on site and/or within a 2km radius.

6.2 HABITATS

The exposed rock faces, and especially the soft earth parts of these, are considered valuable habitats for burrowing invertebrates. It is recommended therefore that these features are retained within the development.

Urban habitats which have developed on waste ground may provide a valuable wildlife resource and as such the Barnsley LBAP includes Urban Habitats. This site however has no extensive semi-natural habitat and is not considered an LBAP Urban Habitat. Additionally, although the site is a former industrial unit, the area is primarily hard-standing and not considered an LBAP Post Industrial or Derelict Habitat. Such habitats in this category comprise bare landscapes which have progressed over time from sparse vegetation into woodland or spectacular plant assemblages; none of which are present on this site.

6.3 PROTECTED/BAP SPECIES

Birds

There is potential for birds to nest within the semi-improved grassland, scrub and trees on site.

All wild birds in the UK are protected under Section 1 of the Wildlife and Countryside Act 1981 (as amended) which makes it an offence to intentionally kill, injure or take any wild bird or take, damage or destroy the nest (whilst being built or in use) or its eggs. Bird species listed in Schedule 1 of the 1981 Act receive further protection which makes it an offence to intentionally or recklessly disturb these species while building a nest or in, on or near a nest containing eggs or young; or to disturb dependent young of such a bird.

It is recommended that any works affecting potential bird nesting habitat, i.e any vegetation clearance, should be carried out outside the breeding season (March to September inclusive). **If**

this is not possible suitable nesting habitat should be checked for nests by a suitably qualified ecologist immediately prior to its removal. If nests are found, clearance of the relevant vegetation will need to be delayed until young have fledged and left the nest.

6.4 INVASIVE PLANT SPECIES

Japanese knotweed was recorded on site. The Wildlife and Countryside Act 1981 (as amended) provides the primary controls on the release of non-native species into the wild in Great Britain. It is an offence under section 14(2) of the Act to 'plant or otherwise cause to grow in the wild' any plant listed in Schedule 9, Part II, which includes Japanese Knotweed. This could include cutting the plant or roots and disturbing surrounding soil if not correctly managed. Japanese knotweed is classed as 'controlled waste' under the Environmental Protection Act 1990. This requires disposal at licensed landfill sites and it should not be included with normal household waste.

It should be recognised that rhizomes can extend up to 7m and therefore earthworks within this distance of a stand could potentially spread rhizome. Japanese knotweed can spread by the movement of contaminated soil (e.g. vehicle tyres, incorrect disposal, windblown fragments etc.) (Hathaway, 2000). If development is likely to disturb areas occupied by Japanese knotweed then guidelines for the control of this species will need to be followed. The Environment Agency (www.environment-agency.gov.uk) has produced a Code of Practice for the Management, Destruction and Disposal of Japanese knotweed.

Even if Japanese knotweed will not to be directly disturbed by construction there is the risk it may subsequently spread within the site potentially resulting in damage to new structures on site in the longer term.

It is recommended that further advice should be sought as soon as possible on the management of Japanese knotweed at this site taking into account the nature of site proposals and the programme of work.

7 RECOMMENDATIONS FOR CONSERVATION ENHANCEMENT

Taking the requirements of PPS9 into account (see section 2.1.1), opportunities should be sought where possible for nature conservation enhancement at this site.

It is recognised that in some locations non-native shrubs may be preferred; for example, some species or cultivars may have better growth under certain conditions, such as deep shade. However, landscaping across the site with UK native plant species should be favoured over non-native to increase local habitat heterogeneity.

Opportunities may exist to enhance the site for invertebrates through the incorporation of insect houses within the landscaped areas. Insect houses come in many designs suited to a variety of taxa, but most can be installed discreetly in shrubbery where they provide a year-round resource for different taxa, must commonly bumblebees, lacewings, and beetles. Such insects provide valuable pest control and pollination and the houses are inexpensive and relatively maintenance free (see http://www.alanaecology.com/acatalog/Insect_boxes.html).

Opportunities may also exist to enhance the site for bat and bird species by the incorporation of bat/bird boxes onto trees and/or into built structures. LBAP and UKBAP priority species such as the pipistrelle bat *Pipistrellus pipistrellus* could potentially benefit from the provision of appropriate bat boxes (see http://www.alanaecology.com/acatalog/Bat_Boxes.html). The Tree sparrow *Passer montanus* (LBAP, UKBAP, Red List) could also potentially benefit from such initiatives (see http://www.alanaecology.com/acatalog/Bird_Boxes.html). Such measures would therefore be beneficial to nature conservation and show compliance with the latest policy guidance.

8 REFERENCES

Alana Ecology – Conservation Enhancement www.alanaecology.com

Bat Conservation Trust (BCT) (2007). Bat Surveys, Good Practice Guidelines, Bat Conservation Trust, London.

Blamey, M., Fitter, R. and Fitter, A. 2003. *Domino Guides: Wild Flowers of Britain and Ireland.* A C and Black: London. 482pp

CIRIA Guidance on the optimal timing for carrying out specialist ecological surveys and mitigation http://www.ciria.org/pdf/calendar.pdf

English Nature (2001). Great Crested Newt Mitigation Guidelines. EN, Peterborough August 2001.

Froglife (1999). Reptile survey: an introduction to planning, conducting and interpreting surveys for snake and lizard conservation. Froglife Advice Sheet 10. Froglife: Halesworth.

Joint Nature Conservation Committee (JNCC). (2003). Handbook for Phase 1 Habitat Survey. A technique for environmental audit. Revised re-print. JNCC, Peterborough.

Hathaway, S. 2000. Surveys on the spread of Japanese Knotweed *Fallopia japonica* in Swansea and strategies for its control. *Aspects of Applied Biology*, 58: 55 – 62

Office of the Deputy Prime Minister (ODPM). (2005). Planning Policy Statement 9: Biodiversity and Geological Conservation. HMSO: London. 8pp

Oldham, R.S., Keeble, J., Swan, M.J.S. and Jeffcote, M. (2000). Evaluating the suitability of habitats for great crested newt (Triturus cristatus). Herpetological Journal 10 pp. 143-155.

Information about national habitat and species action plans and local biodiversity action plans www.ukbap.org.uk

The Conservation (Natural Habitats &c) Regulations 1994. S.I. 2716. HMSO London

The Environment Agency Code of Practice for the Management, Destruction and Disposal of Japanese knotweed www.environment-agency.gov.uk

The Environmental Protection Act 1990. HMSO, London.

The Wildlife and Countryside Act 1981. HMSO, London.

FIGURES

DO NOT SCALE: CONTRACTOR TO CHECK ALL DIMENSIONS AND REPORT ANY OMISSIONS OR ERRORS

KEY

- SITE BOUNDARY
- MATURE BROADLEAVED TREES
- SCATTERED SCRUB
- DENSE SCRUB
- SEMI IMPROVED GRASSLAND
- JAPANESE KNOTWEED
- INTRODUCED SHRUB
- DRY POND
- AMENITY GRASSLAND
- EPHEMERAL / SHORT PERENNIAL
- HARDSTANDING
- BUILDINGS
- EARTH MOUND
- HEDGE
- FENCE
- EXPOSED ROCK FACE
- (1) TARGET NOTE

N

0 12.5 25 37.5 50 62.5 m

SCALE 1:1250

FOR INFORMATION ONLY

REV	DESCRIPTION	BY	CHK	APP	DATE

Client:

PRICEWATERHOUSE-COOPERS

ARNDALE COURT
HEADINGLEY
LEEDS
LS6 2UJ

TEL: +44 (0)113 278 7111
FAX: +44 (0)113 275 0623
e-mail: enviro@wyg.com

Project: A051835-2

DODWORTH ROAD

Drawing Title:

PHASE 1 HABITAT PLAN

Scale @ A3	Drawn	Date	Checked	Date	Approved	Date
1:1250	CM	26.01.09	HP	02.02.09	SF	02.02.09

Project No.	Office	Type	Drawing No.	Revision
A051835-2	4104	584	01	

© WYG Group Ltd.

APPENDIX A

Desk Study Consultation Results

APPENDIX C

Habitat Suitability Index (HSI) Results

Water Body Number	Location	Area (sq m)	Pond Permanence	Water Quality	Shade (%)	Waterfowl	Fish	Pond Density	Terrestrial Habitat Quality	Macrophyte Cover (%)	HSI Sum	Final HSI Score	Prediction (Likelihood of GCN)
1	1	0.01	0.10	0.67	0.20	1.00	1.00	0.10	0.01	0.30	**0.00**	**0.18**	**Poor**

Barnsley Bat Group

Roost details for search on SE 3206

Site Name	District	Roost Type	NGR	Species	Date
Farrow Close	Dodworth	House	SE3205	Indet	26/10/04
Dodworth Road Stables	Barnsley	Stables	SE 321062	Brown Long-eared	03/08/01
Oakworth Close	Redbrook	House	SE 325073	Leislers	01/07/03
Gawber Road	Old Town	Garden Wall	SE337069	Pipistrelle	31/10/88
Southwell Street	*Old Town*	*House*	*SE336067*	*Indet*	*13/10/00*
Queens Avenue		House		Indet	31/7/08
Bond Road	Old Town	House	SE339073	Leislers	12/07/05
Kensington Road	Barnsley	House	SE339071	Pipistrelle	29/06/92
Melvinia Crescent	Wilthorpe	House	SE338078	Pipistrelle	15/07/99
Monkey Tunnel	Wilthorpe	Footpath tunnel (rly)	SE336080	Daubentons	05/09/02

NB Barn Owl seen flying across Dodworth Road north to south from the park 14/6/08

Site Name: Redbrook Pastures Parish:

Grid Reference: SE 322071 Area: 3.7 ha

SITE DESCRIPTION

Redbrook Pastures comprises two fields located south-west of Gawber at an altitude of 110 m AOD.

The fields are unimproved neutral grassland with a ridge and furrow topography, a gappy relict. The are grazed by horses. The grassland contains a diversity of meadow grasses including common bent grass (Agrostis capillaris), sweet vernal-grass (Anthoxanthum odoratum), crested dog's-tail (Cynosurus cristatus), red fescue (Festuca rubra), sheep's fescue (F. ovina) and Yorkshire fog (Holcus lanatus).

The northern field is a short grassland of the above species with quaking grass (Briza media) and patches of longer vegetation dominated by Yorkshire fog. The field contains an abundance of meadow flowers including rough hawkbit (Leontodon hispidus), bird's foot trefoil (Lotus corniculatus), meadow buttercup (Ranunculus acris), field poppy (Papaver rhoeas), red clover (Trifolium pratense), bush vetch (Vicia sepium), meadow vetchling (Lathyrus pratensis), sorrel (Rumex acetosa), self-heal (Prunella vulgaris), yarrow (Achillea millefolium), cat's-ear (Hypochaeris radicata) and hawkweeds (Hieracium species). The field is surrounded by hedges of hawthorn (Crataegus monogyna).

The southern field is a grassland with the above meadow grasses and an abundance of heath grass (Danthonia decumbens). The neutral grassland contains a diversity of meadow flowers including an abundance of betony (Stachys officinalis) and devil's-bit scabious (Succisa pratensis) and yarrow, lesser knapweed (Centaurea nigra), cat's-ear, bird's-foot trefoil and self-heal. The field grades to a more acidic grassland to the south-east with sheep's fescue and heath bedstraw (Galium saxatile) and some tree and scrub cover. The grassland is edged by scrub to the west. The garden of an adjacent property in the north-eastern corner of this field is excluded from the site.

SITE EVALUATION

Criteria

Size: The two fields are of average to small size.

Diversity: The site has a diversity of grass and herb meadow species.

Naturalness: The fields are both grazed by horses. They are remnants of old ridge and furrow system.

Rarity: Unimproved, species-rich neutral grasslands are scarce in Barnsley.

Fragility: The grasslands are vulnerable to agricultural improvement such as the application of fertiliser or ploughing. Hawthorn scrub is invading the northern field.

Typicalness: The northern field is an example of unimproved neutral grassland. Without further, more detailed survey, it is not possible to classify it as a particular grassland type. The southern field is a very good example of a Centaurea nigra-Cynosurus cristatus grassland Danthonia decumbens sub-community (J. Lunn pers. comm.).

Evaluation of important features

Site Feature		Importance
1.	Habitat type	District
	Grassland	High*
	Scrub	Low

* Requires survey to verify current status.

Existing site designations: Grassland Inventory (R01 SE 30), NHS

Site justifications: Redbrook Pastures is a species-rich, unimproved neutral grassland site, a rare and vulnerable habitat in Barnsley. The fields contain a diversity of meadow grasses and flowers, some in great abundance. The southern field represents a very good example of a typical neutral grassland type.

Barnsley Biodiversity Action Plan
HAP 8 Lowland Meadows

SITE MANAGEMENT

Management objective:

To maintain the present nature of the grasslands.

Initial Management:

Remove hawthorn seedlings from northern field.

Ongoing management:

Monitor invasion of northern field by hawthorn and remove as necessary.

Constraints:

Vulnerable site which could very easily be lost through agricultural improvements such as ploughing or application of fertiliser.

Opportunities:

Liaison with landowner through FWAG.

SITE CONSTRAINTS AND OPPORTUNITIES

Constraints:

Change of ownership may result in improvement of field.
Consider alerting landowner to special value of land and its fragility.

Opportunities:

DEFRA EIA Regulations may apply.

REVIEW OF BARNSLEY NHS SITES – FEBRUARY/MARCH 2003

Redbrook Pastures

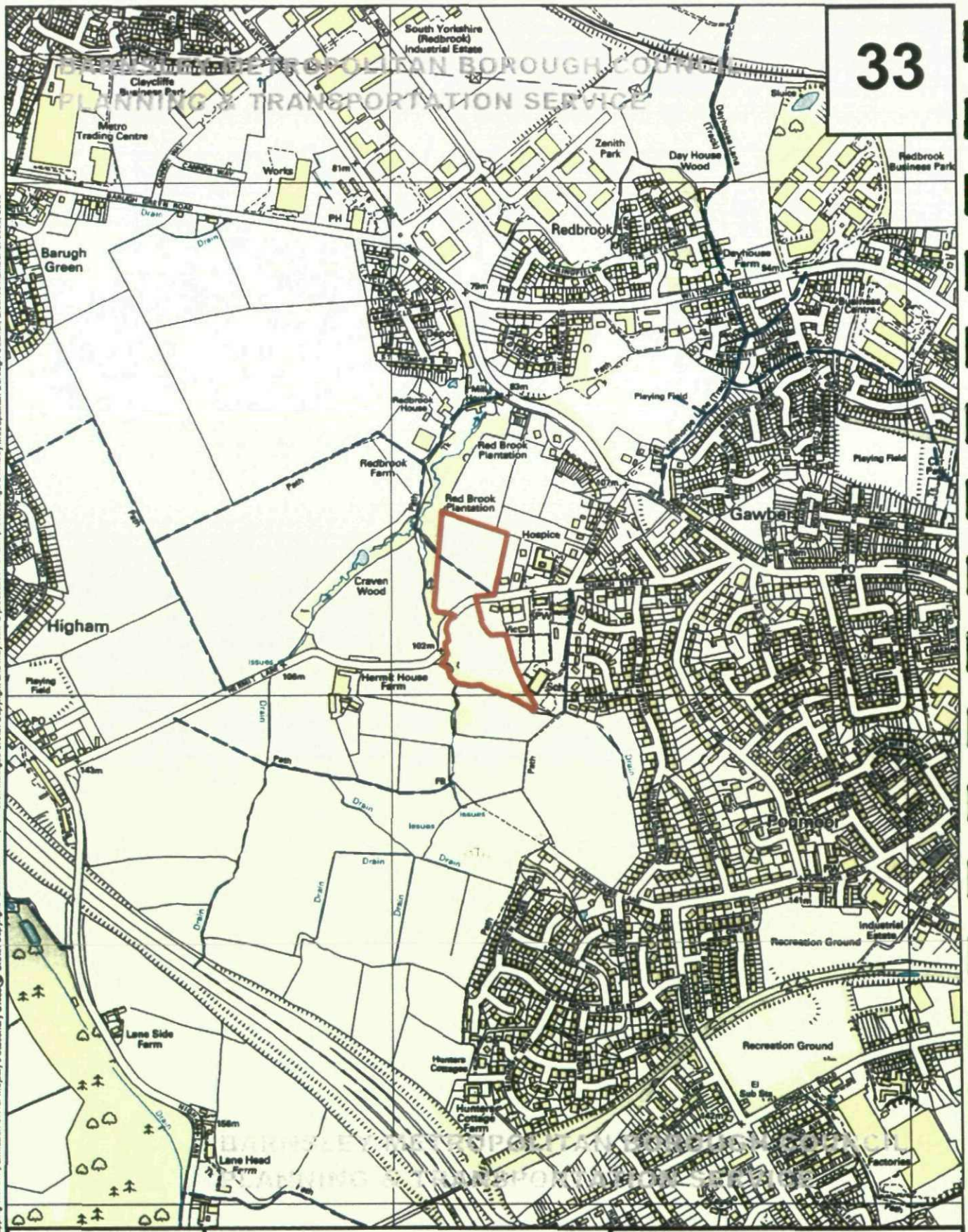
1. Site Boundaries
The site boundaries, as shown on the 1990 Survey map, were confirmed as being correct, except that a small area has been fenced off in the north-eastern part of the southern field and is now a mixture of garden and rough grassland. This should be excluded from the site.

2. Main Habitat Components
The main habitat components, as shown on the 1990 Habitat map, were confirmed as being correct. A thin line of hawthorn scrub is present in the northern field and was omitted from the 1990 Habitat map.

3. Habitat Change/Loss
The fenced off garden area in the southern field has been lost from the site (see (1) above).

4. Notable/Rare Species
No rare species mentioned, but the MG5 neutral grassland habitat is a rare habitat of unimproved pastureland in Barnsley District.

5. Potential Threats
None as far as could be seen.



Reproduced from the Ordnance Survey mapping with the permission of Her Majesty's Stationery Office © Crown Copyright. Unauthorised reproduction infringes Crown Copyright and may lead to prosecution or civil proceedings. Barnsley Metropolitan Borough Council. Licence number 0766090. 2003

APPENDIX B

Target Notes

TARGET NOTES

Target Number	Target Note
1	Hard-standing dominates the majority of the site where the SR Gent factory buildings used to stand.
2	Semi-improved grassland with cock's foot *Dactylis glomerata*, wavy hair grass *Deschampsia flexuosa*, perennial rye grass *Lolium perenne*, creeping buttercup *Ranunculs repens*, fescue *Festuca* sp., dandelion, *Taraxacum* agg., ribwort plantain *Plantago lanceolata*, broadleaved dock *Rumex obtusifolius*, ragwort *Senecio jacobaea*, *Tussilago farfara*, yarrow *Achillea millefolium*.
3	Scrub dominated by silver birch *Betula pendula*, sycamore *Acer pseudoplatanus*, goat willow *Salix Caprea* and elder *Sambucus nigra* trees.
4	Ephemeral/short perennial grass with plant species including: ribwort plantain, mugwort *Artemisia vulgaris*, cleavers *Galium aparine*, clover *Trifolium* sp., spear thistle *Cirsium vulgare*, broadleaved dock, moss Moss sp. perennial sow thistle *Sonchus palustris*, creeping cinquefoil *Portentilla repens*, cock's foot and false oat grass *Arrhenatherum elatius*.
5	Mature trees, silver birch, goat willow and alder *Alnus glutinosa*.
6	Stand of Japanese knotweed ~10m x 5m, winter canes.
7	Stand of Japanese knotweed ~1m x 10m, winter canes.
8	Stand of Japanese knotweed ~3m x 4m, broken winter canes.
9	Stand of Japanese knotweed ~3m x 2m, broken winter canes.
10	Bare rock face – suitable for invertebrates.
11	Bare rock face – suitable for invertebrates.
12	Mound of semi-improved grassland.
13	Band of fir trees forming a hedge.
14	Ornamental/introduced shrub – cotoneaster.
15	Dried garden pond ~20m^2.
16	Amenity grassland to the north of the site with scattered mature trees.
17	Earth mound.

APPENDIX C

Habitat Suitability Index (HSI) Results

Water Body Number	Location	Area (sq m)	Pond Permanence	Water Quality	Shade (%)	Waterfowl	Fish	Pond Density	Terrestrial Habitat Quality	Macrophyte Cover (%)	HSI Sum	Final HSI Score	Prediction (Likelihood of GCN)
1	1	0.01	0.10	0.67	0.20	1.00	1.00	0.10	0.01	0.30	**0.00**	**0.18**	***Poor***

APPENDIX D

Report Conditions

WYG Environment Planning Transport Ltd

C1 – Report Conditions

ECOLOGY PHASE 1 HABITAT SURVEY REPORT- FORMER SR GENT, DODWORTH ROAD, BARNSLEY

This report is produced solely for the benefit of PriceWaterhouseCoopers and no liability is accepted for any reliance placed on it by any other party unless specifically agreed in writing otherwise.

This report is prepared for the proposed uses stated in the report and should not be used in a different context without reference to WYG. In time improved practices, fresh information or amended legislation may necessitate a re-assessment. Opinions and information provided in this report are on the basis of WYG using due skill and care in the preparation of the report.

This report refers, within the limitations stated, to the environment of the site in the context of the surrounding area at the time of the inspections. Environmental conditions can vary and no warranty is given as to the possibility of changes in the environment of the site and surrounding area at differing times.

This report is limited to those aspects reported on, within the scope and limits agreed with the client under our appointment. It is necessarily restricted and no liability is accepted for any other aspect. It is based on the information sources indicated in the report. Some of the opinions are based on unconfirmed data and information and are presented as the best obtained within the scope for this report.

Reliance has been placed on the documents and information supplied to WYG by others but no independent verification of these has been made and no warranty is given on them. No liability is accepted or warranty given in relation to the performance, reliability, standing etc of any products, services, organisations or companies referred to in this report.

Whilst skill and care have been used, no investigative method can eliminate the possibility of obtaining partially imprecise, incomplete or not fully representative information. Any monitoring or survey work undertaken as part of the commission will have been subject to limitations, including for example timescale, seasonal and weather related conditions.

Although care is taken to select monitoring and survey periods that are typical of the environmental conditions being measured, within the overall reporting programme constraints, measured conditions may not be fully representative of the actual conditions. Any predictive or modelling work, undertaken as part of the commission will be subject to limitations including the representativeness of data used by the model and the assumptions inherent within the approach used. Actual environmental conditions are typically more complex and variable than the investigative, predictive and modelling approaches indicate in practice, and the output of such approaches cannot be relied upon as a comprehensive or accurate indicator of future conditions.

The potential influence of our assessment and report on other aspects of any development or future planning requires evaluation by other involved parties.

The performance of environmental protection measures and of buildings and other structures in relation to acoustics, vibration, noise mitigation and other environmental issues is influenced to a large extent by the degree to which the relevant environmental considerations are incorporated into the final design and specifications and the quality of workmanship and compliance with the specifications on site during construction. WYG accept no liability for issues with performance arising from such factors

November 2008
WYG Environment Planning Transport Ltd