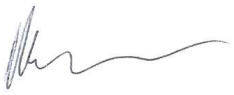
BE Brooks Ecological Ltd

# Ecological Assessment: Land off Dodworth Road, Dodworth, Barnsley

Report reference: BE-R-0138-01
January 2007

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Reviewed and approved for issue
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## Summary statement

The application site supports a very limited range of habitats that have been assessed to be of minor value for wildlife. Development of the site would be unlikely to impact upon the conservation status of protected or BAP species and is likely to have a negligible impact on local biodiversity. Re-development of the site would not be contrary to local or national nature conservation policies or objectives.

The biodiversity enhancement of species rich tree and shrub planting, retention of cliff faces and associated soft earth banks and bird and bat friendly housing design are recommended.

Attention is drawn to the presence of japanese knotweed (*Fallopia japonica*) on the site and the legal implications of this.

## Introduction

**Brooks Ecological** Ltd was commissioned to produce an ecological assessment of the land off Dodworth Road, Dodworth, Barnsely.

The assessment presented here was based upon a Phase 1 Habitat Survey, and a desk study. The purpose of the assessment was to identify potential for the site to contain important habitats or species, and consider if development would have a significant impact upon local biodiversity.

## Desk Study

A desk study was carried out to identify species or habitats that are considered important in a local context and to identify any species recorded locally that may be associated with the application site. This information can be used to help target groups that need to be considered in more detail in order to identify the ecological baseline for the application site.

### *MAGIC search*

A search of the MAGIC website was undertaken. The MAGIC site is a Geographical Information System that contains all statutory (e.g. SSSI's) as well as some non-statutorily protected habitats (e.g. SINCs, SEGI's). It is a valuable tool when considering the relationship of a potential development site with nearby important habitats.

The MAGIC search revealed that within 2km of the site there are no nationally or internationally protected sites and no Local Nature reserves.

### English Nature Natural Area

The site falls within *Area 24 Coal Measures*

There are no key nature conservation features of national significance in this Natural Area but the following are listed as being of local significance:

- Acid grassland
- Fen, marsh and swamp
- Lowland heathland
- Neutral grassland
- Rivers and streams
- Standing open water and canals
- Wet woodland

There are no significant areas of these habitats within the site though there is a very small amount of acidic grassland on the top of rock faces.

**Local Biodiversity Action Plan**

The local BAP is 'Barnsley Local Biodiversity Action Plan' under this, plans have been created for the following species

- Freshwater White-clawed Crayfish (*Austropotamobius pallipes*)
- Great Crested Newt (*Triturus cristatus*)
- Skylark (*Alauda arvensis*)
- Bittern (*Botaurus stellaris*)
- Linnet (*Carduelis cannabina*)
- Corn Bunting (*Miliaria calandra*)
- Tree Sparrow (*Passer montanus*)
- Grey Partridge (*Perdix perdix*)
- Song Thrush (*Turdus philomelos*)
- Carduelis flavirostris (*Twite*)
- Little Ringed Plover (*Charadrius dubius*)
- Bluebell (*Hyacinthoides non-scripta*)
- Glow Worm (*Lampyris noctiluca*)
- Barn Owl (*Tyto alba*)
- Vanellus vanellus (*Lapwing*)
- Water Vole (*Arvicola terrestris*)
- Brown Hare (*Lepus europaeus*)
- Otter (*Lutra lutra*)
- Pipistrelle Bat (*Pipistrellus pipistrellus*)

The site would be unlikely to support any of these species due to its urban location and lack of suitable habitat.

Action plans have also been produced for the following habitats:

- Rivers and streams
- Standing open water and canals
- Floodplain Grazing Marsh
- Parkland
- Ponds & Canals
- Post Industrial Derelict and Degraded Land
- Rush Pasture
- Urban Built-up Areas
- Ancient and/or species-rich hedgerows
- Cereal field margins
- Lowland dry acid grassland

The site would be classed as an urban built up area but does not support any of the other habitats on the local BAP.

### Data Search

Biological data for this area is held by the Barnsley Biodiversity Trust and Barnsley MBC. Both have been contacted but only Barnsley MBC have responded at the time of writing. Their records are not complete enough to be useful to this study. They have drawn our attention to a second tier grassland site nearly 2km away, it is thought that development of the proposal site will have no affect on this. A separate addendum to this report will be issued if significant data is retuned from the other data holder.

## Extended Phase 1 Habitat Survey

### Introduction

The survey was carried out on 16th January 2007. The survey was undertaken by an experienced field ecologist and full member of the Institute of Ecology and Environmental Management (IEEM).

### Survey Method

The extended Phase 1 survey is a description of habitats based upon the plant species present and also includes evidence of or potential for the presence of legally protected or notable faunal species/groups (e.g. invertebrates). The survey followed a Phase 1 habitat survey methodology (JNCC, 1993) and was extended to assess faunal potential. This involves walking the site, mapping and describing different habitats (for example: woodland, grassland, scrub). Evidence of fauna and faunal habitat is also recorded (for example droppings, tracks or specialist habitat such as ponds for breeding amphibians). This modified approach to the Phase 1 survey is in accordance with the approach recommended by the Guidelines for Baseline Ecological Assessment (IEA, 1995).

### Results

The site is situated on the outskirts of Barnsley close to the A628 and is surrounded by housing on most sides with small pockets of amenity grass and arable land. The site occupies an old quarry and has low rock faces that form the eastern and southern boundary. Most of the site is occupied by two large building complexes and associated hard standing but a small amount of semi-natural habitat is also present. The following habitats were found within the application site:

- Scrub
- Standard trees
- Semi-improved neutral grassland
- Exposed rock
- Buildings and hard-standing

*Scrub*

Small pockets of scrub occupy the boundaries of the site along the top or bottom of rock faces. The scrub comprises predominantly hawthorn (*Crataegus monogyna*), with young / semi-mature sycamore (*Acer pseudoplatanus*), elder (*Sambucus nigra*), goat willow (*Salix caprea*), and silver birch (*Betula pendula*).

Where the scrub is well developed below rock faces a cover of broad buckler fern (*Dryopteris dilatata*) has established along with stands of bramble (*Rubus fruticosus* agg.), willowherb (*Chamerion angustifolium*) and canadian goldenrod (*Solidago canadensis*).

Two stands of Japanese knotweed (*Fallopia japonica*) are present with a large clump of around 5 x 5 m on the southern margin of the site (TN2) and a very small clump of around 2 x 2 m close to the site gatehouse (TN1).

*Standard trees*

There are a small number of mature to semi-mature trees mostly planted in amenity areas along the northwestern and northern boundaries. These consist of a range of native and non-native species including *Robinia* sp. silver birch, willows (*Salix* sp.), italian alder (*Alnus cordata*), maples (*Acer* spp) and cherries (*Prunus* spp.).

*Semi-improved neutral grassland*

Such grassland occurs in small pockets throughout the site either on the margins or between access roads. It is typified by a short sward, re-colonising in places after past disturbance. Typical species include red fescue (*Festuca rubra*), common bent (*Agrostis capillaris*), ribwort plantain (*Plantago lanceolata*), creeping buttercup (*Ranunculus repens*), creeping cinquefoil (*Potentilla reptans*), white clover (*Trifolium repens*), hawkbits (*Leontodon* spp.), ragwort (*Senecio jacobaea*) and dandelion (*Taraxacum officinale*). In places the grassland is coarser with species such as false-oat grass (*Arrhenatherum elatius*), cock's-foot (*Dactylis glomerata*), Yorkshire fog (*Holcus lanatus*) and creeping thistle (*Cirsium arvense*).

*Exposed rock*

Low rock faces composed of Westphalian (coal measures) sandstone and sandy subsoil are present on the north, eastern and southern boundaries.

*Buildings and hard-standing*

The bulk of the site is occupied by large areas of concrete or bitmac hard-standing surrounding and between two large building complexes. The buildings constructed of brick and block with a corrugated sheet metal roof and cladding and prefabricated concrete roofs. These buildings were assessed for bat roosting potential using the critera set out in table 1.

**Table 1:** Bat roosting potential in buildings

| Roosting potential | Criteria |
|---|---|
| *Good* | Buildings that have many areas suitable for roosting with a large number of potential access points. These are normally in sheltered locations and subject to low variation in temperature. Buildings with good potential could be used for a whole range of roosts including maternity roosts. |
| *Moderate* | Buildings with a smaller number of areas suitable for roosting, but still supporting features that could be attractive to bats and potentially support maternity roosts. |
| *Limited* | Buildings with limited roosting opportunities. These may be in locations that are subject to wide temperature fluctuations and drafts. They could be used as occasional or transient roosts, but are unsuitable for maternity roosts. Buildings that would otherwise be moderate to good potential but have reduced value due to other factors such as exposed location, separation from nearby foraging, or presence of strong lighting. |
| *Very Limited* | Buildings that have no obvious places for bats to roost, but could be used on an occasional basis for solitary or small groups of bats. |
| *None* | Buildings which appear unsuitable for roosting bats due to clear lack of roosting spaces such as voids etc and/or absence of suitable access points. Such buildings in practice are rare. |

All buildings and associated structures were assessed as being of very limited bat roosting potential and no evidence of use by bats was noted. Due to the limited roosting potential no further surveys were considered necessary.

The bat recorder for Barnsley has been contacted and has supplied details of local records. The nearest significant record is over 1km from the site.

**Fauna**

*Amphibians*

A small garden pond is located close to the entry of the site. This is of recent origin and is heavily shaded by mature tree and shrub planting and is not connected to any semi-natural habitat. These factors will make the pond of limited value to amphibians and it is considered extremely unlikely that the pond will support great crested newt.

*Bats*

The buildings on the site have very limited potential to support roosting bats due to the nature of their construction and no evidence of bat use was recorded during the survey. None of the trees on site appeared to offer good bat roosting potential. This site is likely to be used by bats to forage above scrub and grassland areas though the site is unlikely to be of key importance to local bat populations.

*Birds*

The site supports very little bird nesting habitat and will not be of high value to birds. Only a small number of common urban species are likely to nest in scrub areas associated with the margins of the site.

*Invertebrates*

Unconsolidated earth and clay exposures (TN3) lying above hard rock faces support a number of holes, probably made by solitary mining bees such as *Adrena* spp. Such soft cliffs make good invertebrate habitats, though the number and species that use them can not be identified at this time of year. Other than the soft earth habitat thee is no other good invertebrate habitat on site.

**Evaluation and Recommendations**

The site is considered to be of low ecological value as, considering its size, it supports a small range of habitats and is unlikely to be of importance to any protected or otherwise important species. Most of the site is occupied by buildings or hard standing and all of the species found in the remaining habitats are common in a local and national context. On this basis it is concluded that the development would be unlikely to impact upon important habitats or species. Re-development of the site would therefore not be contrary to local or national nature conservation policies or objectives.

The rock faces and especially the soft earth part of these, support burrowing invertebrates and it is recommended that these exposures are retained as a feature of the development.

The buildings on site have very limited potential to support roosting bats. Although no further survey work is deemed necessary, demolition contractors should always be aware of the potential to find bats in buildings even if they have not been assessed as having high bat roosting potential. If a bat is found during demolition, works should stop immediately and a professional ecologist

and/or the bat helpline on 0845 1300 228 should be contacted. The local office of English Nature should also be contacted to seek advice.

Although the site does not support substantial nesting habitat all nesting birds are protected by law whilst the nest is active and therefore, should any vegetation clearance be carried out between end February and end August an inspection should first be undertaken to determine the presence of any active nests. Clearance of vegetation outside of the nesting season is not considered to have any significant ecological impact.

The areas of Japanese knotweed should be eradicated using Environment Agency approved techniques prior to site works. It is an offence under the Wildlife and Countryside Act 1981 to facilitate the spread of Japanese knotweed.

The UK government's latest guidance on nature conservation in relation to development (PPS9) makes it clear that opportunities should be sought through their planning system to use development as an opportunity to enhance sites for wildlife where possible and this has been reinforced in The Natural Environment and Rural Communities Act 2006. It is therefore recommended that the design for the site incorporates features that would benefit wildlife. Suggested, but not prescriptive examples would include landscaping the site with UK native tree and shrub species to increase its diversity or planting species rich native hedgerows along the boundaries adjacent to open land. The design of buildings for the site could also incorporate features that may attract nesting birds and roosting bats. Purpose built bat roosting boxes and nesting features are available from a number of suppliers and these can be easily and discretely be incorporated into new buildings.

**References**

IEA. (1995). *Guidelines for Baseline Ecological Assessment*. Chapman and Hall

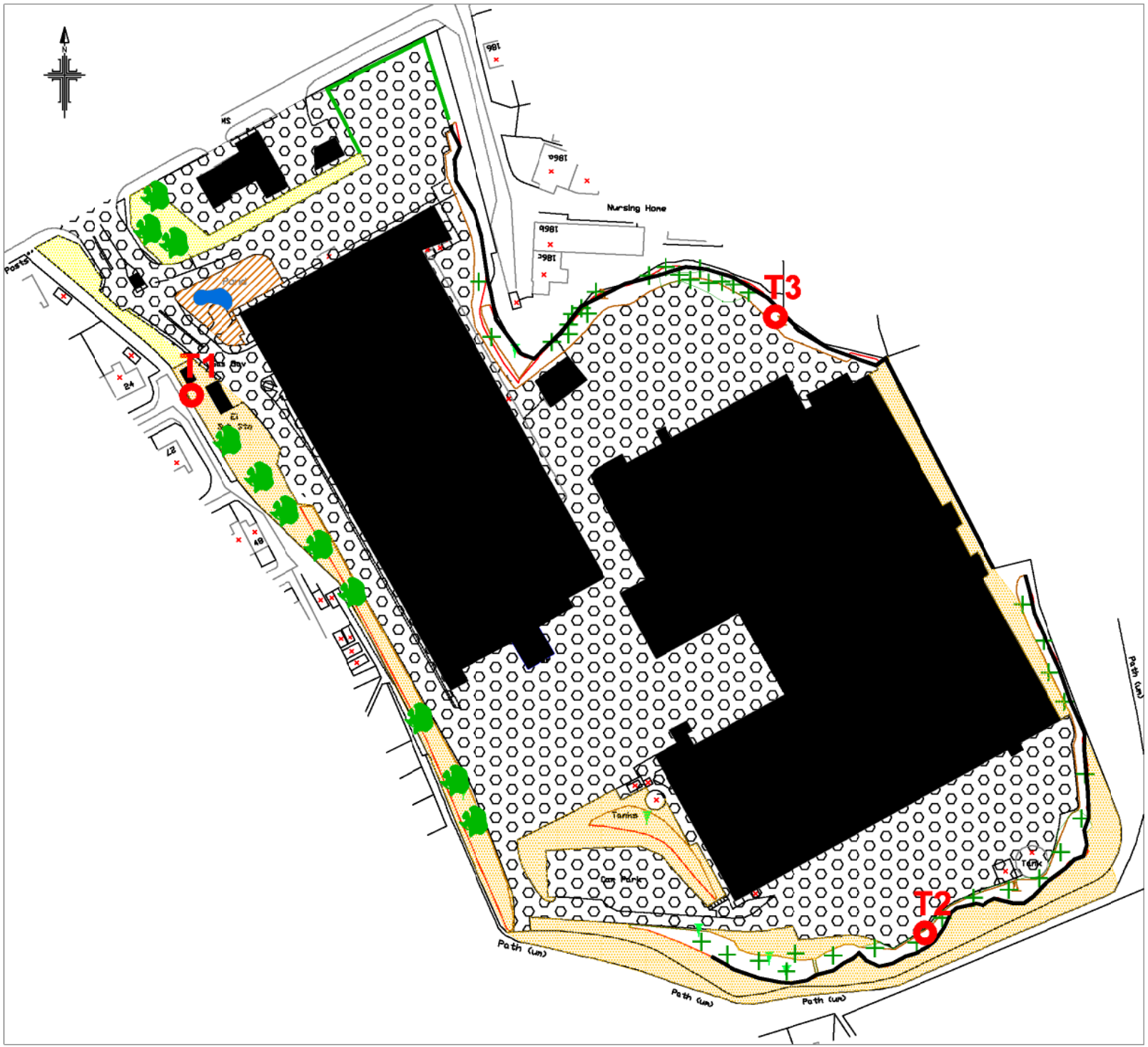
Nature Conservation Committee (1990). *Handbook for Phase 1 Habitat Survey: A technique for environmental audit*. NCC

**Figure BE-D-0138-01 Phase 1 Habitat Plan**

**Target Notes**

T1 – T2 Japanese knotweed

T 3 Soft earth cliff with invertebrate holes.




Semi-improved grass

Scrub

Standard trees

Buildings and hard standing

Target note

Rockface (black line)

Introduced shrubs

Pond

Amenity grass

Hedge

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Site: Dodworth Road, Barnsley
Title: Phase 1 Habitat Plan

Drawing Number: BE/D/0138-01

Scale: Do not scale | Date: Jan 2007

Revision: