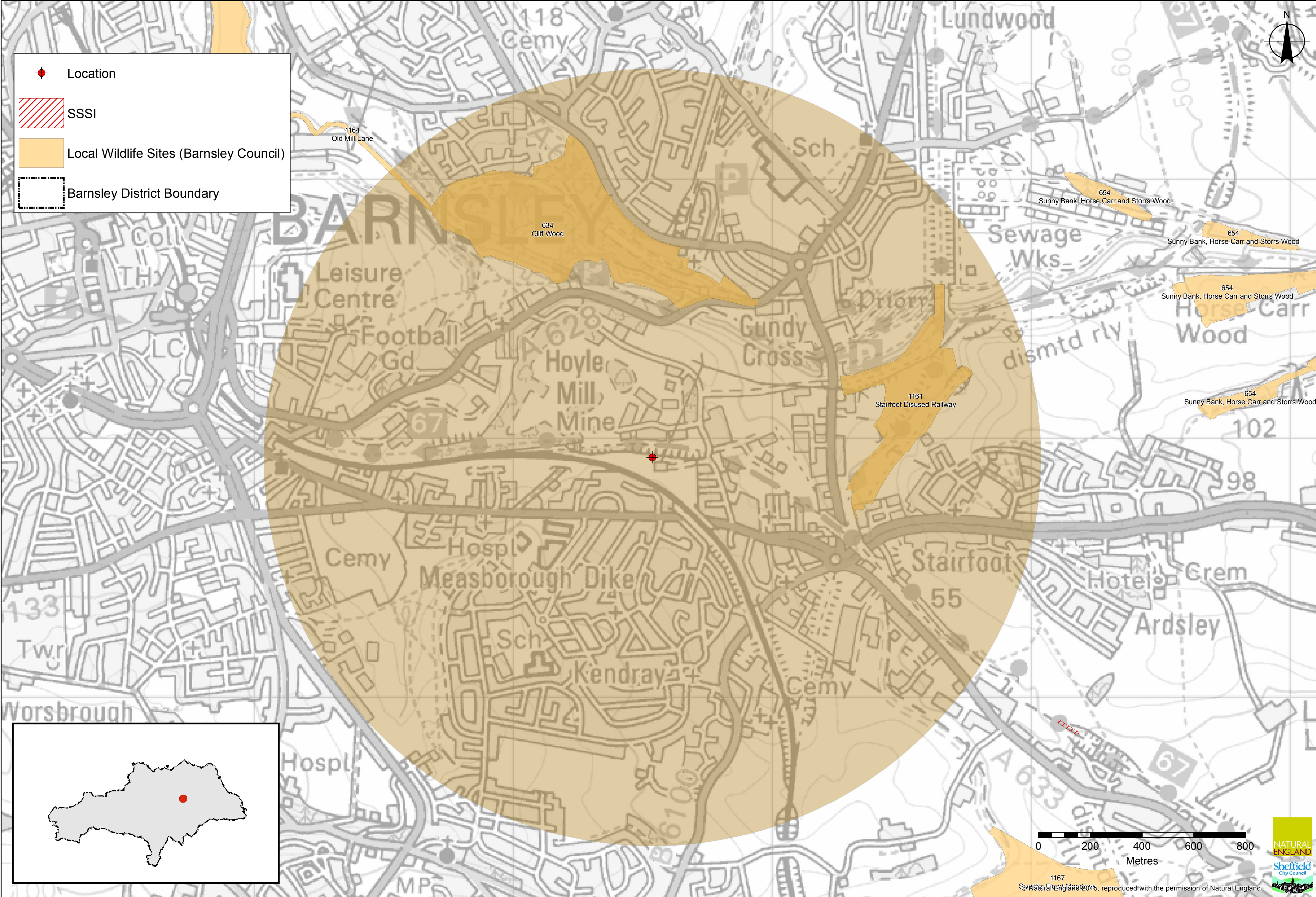






26. Cliff Wood

LWS Assessment and Phase 1 Survey

Prepared by
TEP

for

Barnsley Metropolitan Borough Council

January 2011
(Edited December 2011)

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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 (*Lamiastrum 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>Lamiastrum 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</i> agg.	Bramble	O
<i>Tanacetum vulgare</i>	Tansy	O
<i>Taraxacum</i> sp.	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 sp.</i>	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



28.Stairfoot Disused Railway

LWS Assessment and Phase 1 Survey

Prepared by
TEP

for

Barnsley Metropolitan Borough Council

January 2011
(Edited December 2011)

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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</i> agg.	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</i> agg.	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 agg.</i>	Bramble	F
<i>Fraxinus excelsior</i>	Ash	O
<i>Rosa canina agg.</i>	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 ssp. 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</i> sp.	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</i> agg.	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 sp.</i>	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
Fallopia japonica	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 sp.</i>	Hawkweed species	R
Impatiens glandulifera	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 sp.</i>	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
Vicia sepium	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</i> agg.	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</i> agg.	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</i> agg.	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</i> sp.	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 agg.</i>	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</i> agg.	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
Salix fragilis	Crack Willow	D
Crataegus monogyna	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</i> agg.	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:

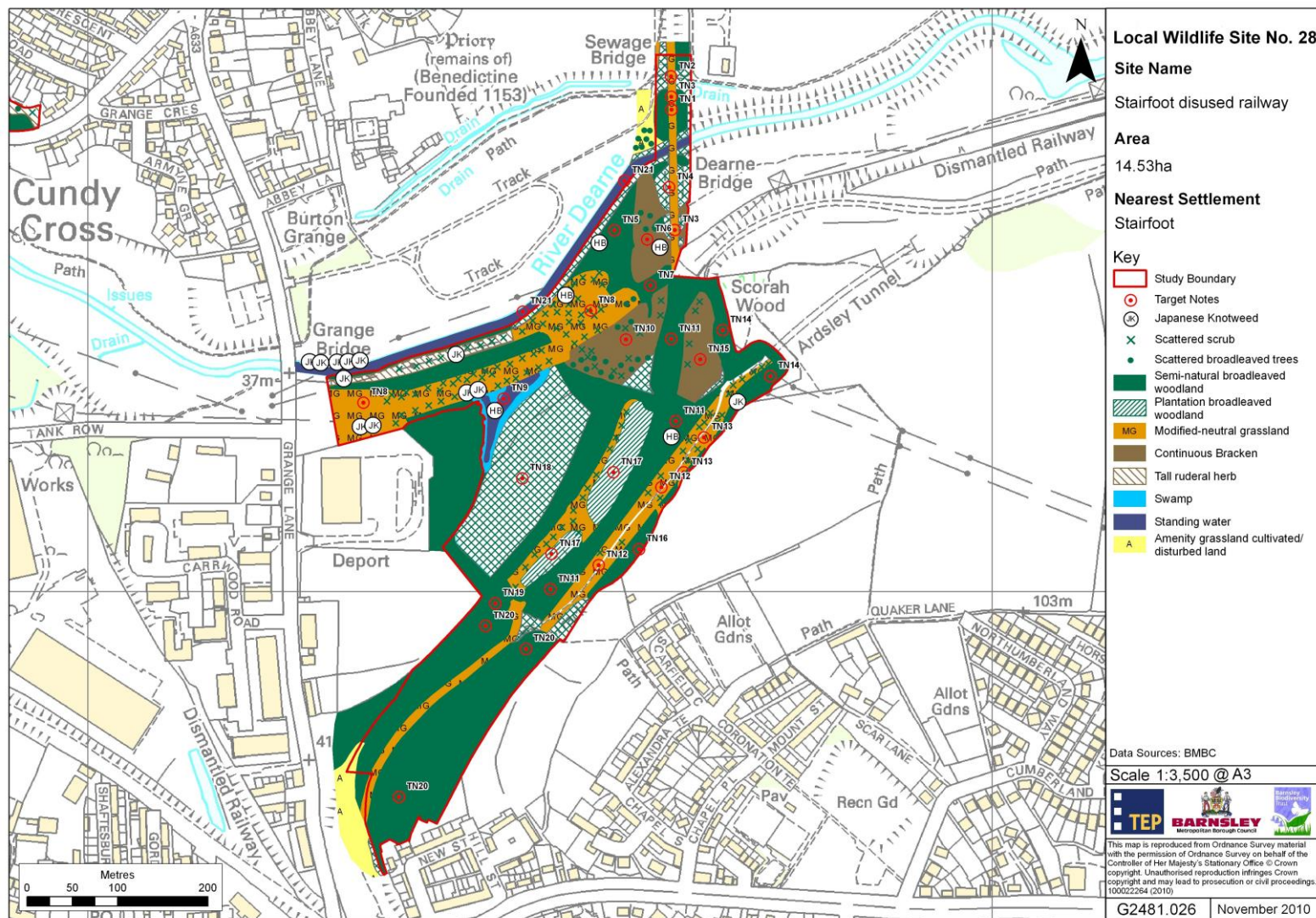
This site has large number of species present, with 150+recorded during the survey. It is a well used recreation route because of the Trans-Pennine Trail and provides access to the River Dearne.

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



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