

Appendix 7.4 – Desk Study



31. Sunny Bank, Horse Carr and Storrs Wood

LWS Assessment and Phase 1 Survey

Prepared by
TEP

for

Barnsley Metropolitan Borough Council

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

Site Description:

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

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

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

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

Important Species:

Wood millet (*Milium effusum*), yellow archangel (*Lamium galeobdolon*), wood sorrel (*Oxalis acetosella*), bluebell (*Hyacinthoides non-scripta*), dog's mercury (*Mercurialis perennis*), great Wood rush (*Luzula sylvatica*) and greater stitchwort (*Stellaria holostea*) are all ancient woodland indicator species in South Yorkshire. This site also contains Japanese knotweed (*Fallopia japonica*) as well as the Himalayan balsam

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

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

Target Note:	TN1	
Habitat:	Semi-natural broadleaved woodland	
Species List:		
Scientific Name	Common Name	Frequency
<i>Holcus mollis</i>	Creeping Soft-grass	A
<i>Pteridium aquilinum</i>	Bracken	A
<i>Quercus robur</i>	English Oak	A
<i>Rubus fruticosus</i> agg.	Bramble	A
<i>Acer pseudoplatanus</i>	Sycamore	F
<i>Betula pendula</i>	Silver Birch	F
<i>Deschampsia flexuosa</i>	Wavy Hair-grass	F
<i>Milium effusum</i>	Wood Millet	F
<i>Sambucus nigra</i>	Elder	F
<i>Chamerion angustifolium</i>	Rosebay Willowherb	O
<i>Crataegus monogyna</i>	Hawthorn	O
<i>Hyacinthoides non-scripta</i>	Bluebell	O
<i>Quercus petraea</i>	Sessile Oak	O
<i>Stachys sylvatica</i>	Hedge Woundwort	O
<i>Stellaria media</i>	Chickweed	O
<i>Urtica dioica</i>	Nettle	O
<i>Agrostis capillaris</i>	Common Bent	R
<i>Corylus avellana</i>	Hazel	R
<i>Dactylis glomerata</i>	Cock's-foot	R
<i>Digitalis purpurea</i>	Foxglove	R
<i>Dryopteris dilatata</i>	Broad Buckler-fern	R
<i>Fallopia japonica</i>	Japanese knotweed	R
<i>Fraxinus excelsior</i>	Ash	R
<i>Galeopsis tetrahit</i>	Common Hemp-nettle	R
<i>Luzula sylvatica</i>	Great Woodrush	R
<i>Oxalis acetosella</i>	Wood Sorrel	R
<i>Rosa canina</i> agg.	Dog Rose	R
<i>Salix caprea</i>	Goat Willow	R
<i>Sorbus aucuparia</i>	Rowan	R
<i>Teucrium scorodonium</i>	Woodsage	R

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

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

<i>Digitalis purpurea</i>	Foxglove	R
<i>Sorbus intermedia</i>	Swedish Whitebeam	R
<i>Ulmus glabra</i>	Wych Elm	R

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

Target Note:	TN3	
Habitat:	Semi-natural broadleaved woodland – two parcels of woodland with a similar mix of species.	
Species List:		
Scientific Name	Common Name	Frequency
<i>Betula pendula</i>	Silver Birch	A
<i>Quercus petraea</i>	Sessile Oak	A
<i>Deschampsia flexuosa</i>	Wavy Hair-grass	F
<i>Holcus mollis</i>	Creeping Soft-grass	F
<i>Pteridium aquilinum</i>	Bracken	F
<i>Quercus robur</i>	English Oak	F
<i>Rubus fruticosus</i> agg.	Bramble	F
<i>Urtica dioica</i>	Nettle	F
<i>Acer pseudoplatanus</i>	Sycamore	O
<i>Agrostis capillaris</i>	Common Bent	O
<i>Anthriscus sylvestris</i>	Cow Parsley	O
<i>Crataegus monogyna</i>	Hawthorn	O
<i>Digitalis purpurea</i>	Foxglove	O
<i>Hedera helix</i>	Ivy	O
<i>Heracleum sphondylium</i>	Hogweed	O
<i>Hyacinthoides non-scripta</i>	Bluebell	O
<i>Ilex aquifolium</i>	Holly	O
<i>Mercurialis perennis</i>	Dog's Mercury	O
<i>Sambucus nigra</i>	Elder	O
<i>Chamerion angustifolium</i>	Rosebay Willowherb	R
<i>Juncus effusus</i>	Soft Rush	R
<i>Luzula</i> sp.	Woodrush species	R
<i>Milium effusum</i>	Wood Millet	R
<i>Sorbus aucuparia</i>	Rowan	R
<i>Ulmus glabra</i>	Wych Elm	R

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

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

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

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

Management Issues:

The proximity of Sunny Bank Wood to the sewage works and residential areas has led to some incidences of fly tipping. The riverside location of Sunny Bank and Storrs Woods has led to some quite large-scale colonisation by Himalayan balsam and there is a stand of Japanese knotweed (*Fallopia japonica*) at the western end of the northern section of Horse Carr Wood (TN2).

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

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

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

Diversity:

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

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

Naturalness:

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

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

Rare or Exceptional Features:

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

Fragility:

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

Typicalness:

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

Recorded History & Cultural Associations:

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

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

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

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

Connectivity within the Landscape:

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

Value for appreciation of Nature and Learning:

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

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

Recommendations:

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

Management to diversify structure of the woodlands may improve

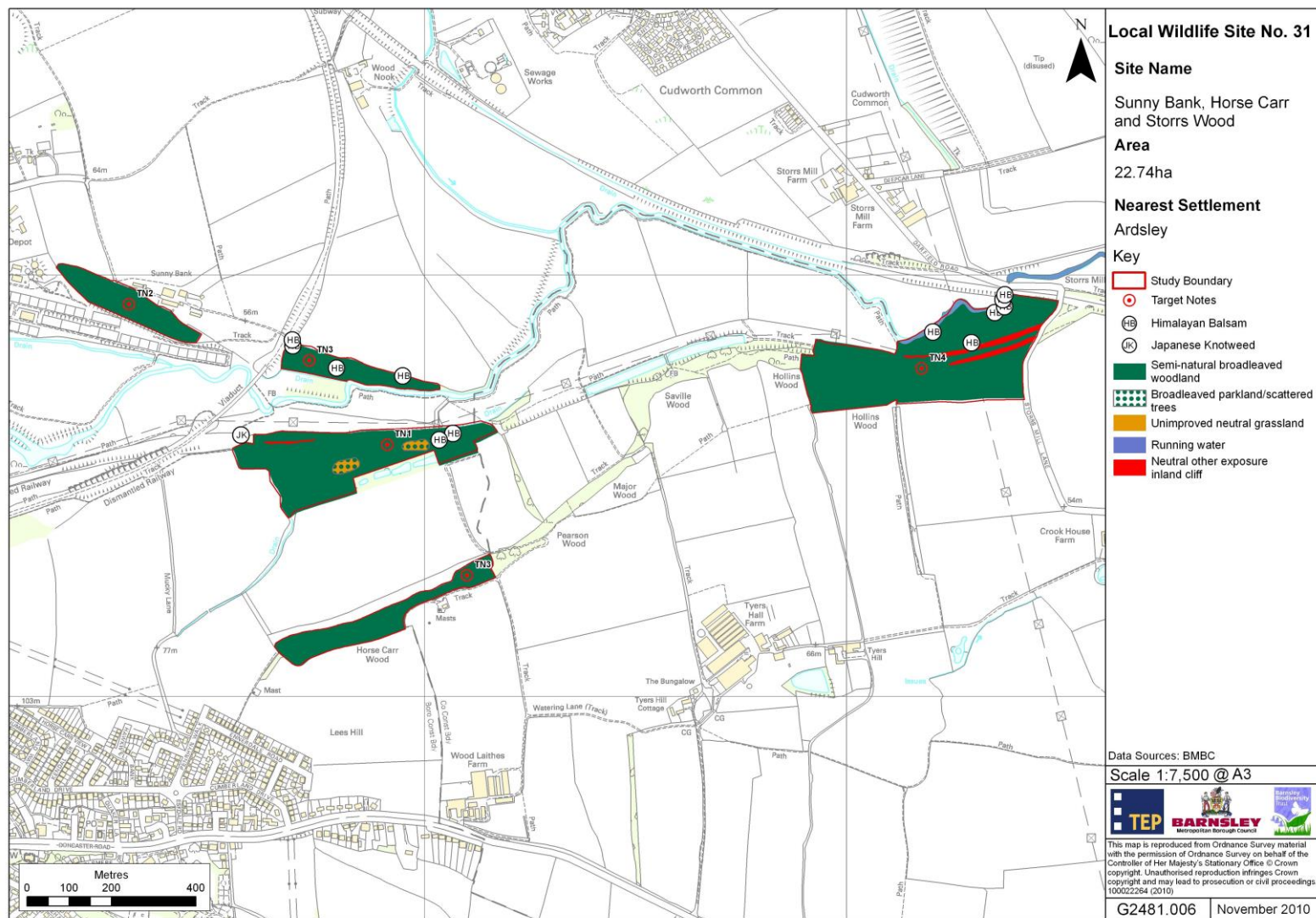
As part of the Ancient Woodland Inventory, this site qualifies under the site assessment criteria and should be retained as a Local Wildlife Site. Consideration should also be given to the possibility of surveying the adjoining Saville, Major and Pearson Woods and consider their inclusion as Local Wildlife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

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

Action:

Retain as a Local Wildlife Site

Survey adjoining wooded areas



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34. West Haigh Woods

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Site Name:	West Haigh Woods
Site Area:	69.73ha
Survey Date:	August and September 2010
Nearest Settlement:	Grimethorpe
Grid Reference at Centre:	SE42594, 08496
Surveyor(s)	PG, VG

Site Description:

This is a large and overwhelmingly wooded site existing in two separate sections. The larger northern and eastern section (West Haigh Wood) was surveyed on 6 August 2010 and the smaller area in the southwest (Rakes Wood) was surveyed on 16 September.

Most of the larger section (TN9, TN10, TN12, TN13, TN14 and TN15) is on the register of ancient and semi-natural woodlands; the remaining areas, to the east and southwest, are not. These areas outside the ancient woodland area formerly consisted of the more-open landscape of Houghton Common. However, a lack of management has resulted in a mix of silver birch (*Betula pendula*) and downy birch (*B. pubescens*) colonising the former common over the years. Oaks have also spread into this area. Patently, the traditional grazing typical of common land was not carried out intensively enough to prevent woodland establishment, so today the greater proportion of the area is dominated by a rapidly closing canopy.

Despite the difference in ages, samples of the woodland vegetation from both West Haigh Wood and the former Houghton Common both show very close matches to W16a woodland. This is the oak species (*Quercus robur* and *Q. petraea*) sub-community of oak-birch-wavy hairgrass woodland community, typical of acidic soil conditions.

Bracken (*Pteridium aquilinum*) is most abundant over the eastern part of the former common (TN2, TN3, TN5), which was probably the latest area to be subsumed under woodland advancing from the west. Some areas still outside the woodland canopy are bracken dominated, including strips cleared along the route of overhead lines. Bracken is also still present in large amounts over the remainder of the entire woodland site, with some very dense areas also occurring in the western parts (TN10, TN11).

In the older woodlands, west of the former Houghton Common, oaks are more frequent and found as larger and more mature specimens. The older, denser canopy has produced a groundflora that is generally less bracken-dominated but also generally sparse and species-poor in the prevailing shaded and acidic condition. However, groundflora species typical of established woodlands are scattered sparsely through this large area. The most diverse woodland groundflora is found in the small southeast extension of TN14, where a stream course forms part of the site boundary.

West Haigh Wood is generally quite dry, but there is a small pond (TN12) in the south-eastern quarter, with a small stream flowing south from here.

A system of informal, but probably very long-established, footpaths spreads through the woodland, some of them following old banks and in one instance, the remains of a stone wall within the woodland.

Rakes Wood is separated from West Haigh Wood and is located to the southwestern this site. Although separate, it is a continuation of the same W16a oak and birch woodland type found over West Haigh Wood and the former Houghton Common. However, this section, just south of Grimethorpe, is more disturbed than the rest of the site's woodland. There is much bare shale ground and signs of use of off-road vehicles on the numerous tracks which throughout this part of the woodland. Broad bare tracks make a much denser network through these woods than the footpaths in West Haigh Wood.

Where there has been loss of trees, in the north (TN27) of Rakes Wood, a mosaic of bare ground, acid grassland, heather heath and regrowth of trees is found. Elsewhere there is typical W16a mixed oak and birch woodland with sparse species-poor groundflora dominated by a mix of bracken, bramble (*Rubus fruticosus*), Yorkshire fog (*Holcus lanatus*) and wavy hair-grass (*Deschampsia flexuosa*). This part of the site is not on the register of ancient woodlands, but has a small array of typical woodland groundflora species scattered throughout.

Important Species:

Bluebell (*Hyacinthoides non-scripta*), great woodrush (*Luzula sylvatica*), wood millet (*Milium effusum*), sessile oak (*Quercus petraea*), greater Stitchwort (*Stellaria holostea*), remote sedge (*Carex remota*), wood melick (*Melica uniflora*), great woodrush (*Luzula sylvatica*) and dog's mercury (*Mercurialis perennis*) are all found on this site. These are ancient woodland indicator species for South Yorkshire.

UKBAP species found on the site are breeding dunnoek (*Prunella modularis*), bullfinch (*Pyrrhula pyrrhula*) and song thrush (*Turdus philomelos*) and common lizard (*Zootoca vivipara*).

Target Note:	TN1	
Habitat:	Continuous bracken, plantation, scattered scrub	
Species List:		
Scientific Name	Common Name	Frequency
<i>Fagus sylvatica</i>	Beech	D
<i>Pteridium aquilinum</i>	Bracken	A
<i>Rubus fruticosus</i> agg.	Bramble	F
<i>Anthriscus sylvestris</i>	Cow Parsley	O
<i>Arrhenatherum elatius</i>	False Oat-grass	O
<i>Chamerion angustifolium</i>	Rosebay Willowherb	O
<i>Crataegus monogyna</i>	Hawthorn	O
<i>Dactylis glomerata</i>	Cock's-foot	O
<i>Deschampsia flexuosa</i>	Wavy Hair-grass	O
<i>Holcus lanatus</i>	Yorkshire-fog	O
<i>Holcus mollis</i>	Creeping Soft-grass	O
<i>Urtica dioica</i>	Nettle	O
<i>Acer pseudoplatanus</i>	Sycamore	R
<i>Achillea millefolium</i>	Yarrow	R
<i>Arctium minus</i>	Lesser Burdock	R
<i>Artemisia vulgaris</i>	Mugwort	R
<i>Betula pendula</i>	Silver Birch	R
<i>Cirsium arvense</i>	Creeping Thistle	R
<i>Cirsium vulgare</i>	Spear Thistle	R
<i>Heracleum sphondylium</i>	Hogweed	R
<i>Ilex aquifolium</i>	Holly	R
<i>Lamium album</i>	White Dead-nettle	R
<i>Plantago lanceolata</i>	Ribwort Plantain	R
<i>Plantago major</i>	Greater Plantain	R
<i>Polygonum aviculare</i>	Knotgrass	R

Quercus petraea	Sessile Oak	R
<i>Quercus robur</i>	English Oak	R
<i>Rosa canina</i> agg.	Dog Rose	R
<i>Sambucus nigra</i>	Elder	R
Stellaria holostea	Greater Stitchwort	R
<i>Taraxacum</i> sp.	Dandelion species	R
<i>Torilis japonica</i>	Upright Hedge-parsley	R

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

Target Note:	TN2	
Habitat:	Continuous bracken	
Species List:		
Scientific Name	Common Name	Frequency
<i>Pteridium aquilinum</i>	Bracken	D
<i>Calystegia silvatica</i>	Large Bindweed	F
<i>Anthriscus sylvestris</i>	Cow Parsley	O
<i>Arrhenatherum elatius</i>	False Oat-grass	O
<i>Chamerion angustifolium</i>	Rosebay Willowherb	O
<i>Galium aparine</i>	Cleavers	O
<i>Heracleum sphondylium</i>	Hogweed	O
<i>Holcus lanatus</i>	Yorkshire-fog	O
<i>Poa trivialis</i>	Rough Meadow-grass	O
<i>Rubus fruticosus</i> agg.	Bramble	O
<i>Achillea millefolium</i>	Yarrow	R
<i>Arctium minus</i>	Lesser Burdock	R
<i>Artemisia vulgaris</i>	Mugwort	R
<i>Betula pendula</i>	Silver Birch	R
<i>Cirsium arvense</i>	Creeping Thistle	R
<i>Convolvulus arvensis</i>	Field Bindweed	R
<i>Crataegus monogyna</i>	Hawthorn	R
<i>Elytrigia repens</i>	Common Couch	R
Fallopia japonica	Japanese Knotweed	R
<i>Galeopsis tetrahit</i>	Common Hemp-nettle	R
<i>Glechoma hederacea</i>	Ground-ivy	R
<i>Hypochaeris radicata</i>	Common Cat's-ear	R
<i>Lapsana communis</i>	Nipplewort	R
Mercurialis perennis	Dog's Mercury	R
<i>Plantago major</i>	Greater Plantain	R
<i>Quercus robur</i>	English Oak	R
<i>Ranunculus acris</i>	Meadow Buttercup	R
<i>Ranunculus repens</i>	Creeping Buttercup	R
<i>Rubus idaeus</i>	Raspberry	R
<i>Rumex acetosa</i>	Common Sorrel	R
<i>Rumex obtusifolius</i>	Broad-leaved Dock	R
<i>Sambucus nigra</i>	Elder	R
<i>Senecio jacobaea</i>	Ragwort	R
<i>Silene latifolia</i>	White Campion	R
<i>Silene vulgaris</i>	Bladder Campion	R
<i>Stellaria media</i>	Chickweed	R
<i>Torilis japonica</i>	Upright Hedge-parsley	R
<i>Trifolium repens</i>	White Clover	R
<i>Ulex europaeus</i>	Gorse	R
<i>Urtica dioica</i>	Nettle	R
D = Dominant, A = Abundant, F = Frequent, O = Occasional, R = Rare		

Target Note:	TN3	
Habitat:	Semi-natural broadleaved woodland	
Species List:		
Scientific Name	Common Name	Frequency
<i>Betula pendula</i>	Silver Birch	D
<i>Pteridium aquilinum</i>	Bracken	A
<i>Rubus fruticosus</i> agg.	Bramble	F
<i>Betula pubescens</i>	Downy Birch	O
<i>Chamerion angustifolium</i>	Rosebay Willowherb	O
<i>Deschampsia flexuosa</i>	Wavy Hair-grass	O
<i>Holcus mollis</i>	Creeping Soft-grass	O
<i>Quercus robur</i>	English Oak	O
<i>Ulex europaeus</i>	Gorse	O
<i>Arrhenatherum elatius</i>	False Oat-grass	R
<i>Calystegia silvatica</i>	Large Bindweed	R
<i>Cirsium palustre</i>	Marsh Thistle	R
<i>Deschampsia cespitosa</i>	Tufted Hair-grass	R
<i>Digitalis purpurea</i>	Foxglove	R
<i>Epilobium hirsutum</i>	Great Willowherb	R
<i>Galium aparine</i>	Cleavers	R
<i>Juncus conglomeratus</i>	Compact Rush	R
<i>Juncus effusus</i>	Soft Rush	R
<i>Malus domestica</i>	Apple	R
<i>Rubus idaeus</i>	Raspberry	R
<i>Salix cinerea</i>	Grey Willow	R
<i>Sambucus nigra</i>	Elder	R
<i>Solanum dulcamara</i>	Bittersweet	R
<i>Sonchus arvensis</i>	Perennial Sow-thistle	R
<i>Urtica dioica</i>	Nettle	R
<i>Viburnum opulus</i>	Guelder-rose	R
D = Dominant, A = Abundant, F = Frequent, O = Occasional, R = Rare		

Target Note:	TN4	
Habitat:	Semi-natural broadleaved woodland	
Species List:		
Scientific Name	Common Name	Frequency
<i>Quercus robur</i>	English Oak	D
<i>Crataegus monogyna</i>	Hawthorn	F
<i>Pteridium aquilinum</i>	Bracken	F
<i>Urtica dioica</i>	Nettle	F
<i>Betula pendula</i>	Silver Birch	O
<i>Poa trivialis</i>	Rough Meadow-grass	O
<i>Sambucus nigra</i>	Elder	O
<i>Stachys sylvatica</i>	Hedge Woundwort	O
<i>Alliaria petiolata</i>	Garlic Mustard	R
<i>Glechoma hederacea</i>	Ground-ivy	R
D = Dominant, A = Abundant, F = Frequent, O = Occasional, R = Rare		

Target Note:	TN5	
Habitat:	Semi-natural broadleaved woodland, continuous bracken, modified neutral grassland	
Species List:		
Scientific Name	Common Name	Frequency
<i>Crataegus monogyna</i>	Hawthorn	A
<i>Rubus fruticosus</i> agg.	Bramble	A
<i>Pteridium aquilinum</i>	Bracken	F
<i>Quercus robur</i>	English Oak	F
<i>Acer pseudoplatanus</i>	Sycamore	O
<i>Anthriscus sylvestris</i>	Cow Parsley	O
<i>Arrhenatherum elatius</i>	False Oat-grass	O
<i>Chamerion angustifolium</i>	Rosebay Willowherb	O
<i>Festuca rubra</i>	Red Fescue	O
<i>Heracleum sphondylium</i>	Hogweed	O
<i>Rosa canina</i> agg.	Dog Rose	O
<i>Sambucus nigra</i>	Elder	O
<i>Ulex europaeus</i>	Gorse	O
<i>Urtica dioica</i>	Nettle	O
<i>Arctium minus</i>	Lesser Burdock	R
<i>Cirsium arvense</i>	Creeping Thistle	R
<i>Fraxinus excelsior</i>	Ash	R
<i>Malus domestica</i>	Apple	R
<i>Quercus petraea</i>	Sessile Oak	R
<i>Senecio jacobaea</i>	Ragwort	R
<i>Silene dioica</i>	Red Campion	R
<i>Stachys sylvatica</i>	Hedge Woundwort	R
<i>Torilis japonica</i>	Upright Hedge-parsley	R
<i>Tragopogon pratensis</i>	Goat's-beard	R
D = Dominant, A = Abundant, F = Frequent, O = Occasional, R = Rare		

Target Note:	TN6	
Habitat:	Semi-natural broadleaved woodland	
Species List:		
Scientific Name	Common Name	Frequency
<i>Quercus robur</i>	English Oak	D
<i>Acer pseudoplatanus</i>	Sycamore	F
<i>Fraxinus excelsior</i>	Ash	F
<i>Hedera helix</i>	Ivy	F
<i>Rubus fruticosus</i> agg.	Bramble	F
<i>Urtica dioica</i>	Nettle	F
<i>Alliaria petiolata</i>	Garlic Mustard	O
<i>Anthriscus sylvestris</i>	Cow Parsley	O
<i>Crataegus monogyna</i>	Hawthorn	O
<i>Galium aparine</i>	Cleavers	O
<i>Hyacinthoides non-scripta</i>	Bluebell	O
<i>Ilex aquifolium</i>	Holly	O
<i>Mercurialis perennis</i>	Dog's Mercury	O
<i>Prunus spinosa</i>	Blackthorn	O
<i>Sambucus nigra</i>	Elder	O
<i>Arrhenatherum elatius</i>	False Oat-grass	R
<i>Cirsium arvense</i>	Creeping Thistle	R
<i>Elymus caninus</i>	Bearded Couch	R
<i>Pteridium aquilinum</i>	Bracken	R
<i>Rosa canina</i> agg.	Dog Rose	R
<i>Rumex sanguineus</i>	Wood Dock	R
<i>Stachys sylvatica</i>	Hedge Woundwort	R
<i>Stellaria media</i>	Chickweed	R
<i>Torilis japonica</i>	Upright Hedge-parsley	R
D = Dominant, A = Abundant, F = Frequent, O = Occasional, R = Rare		

Target Note:	TN7	
Habitat:	Semi-natural broadleaved woodland	
Species List:		
Scientific Name	Common Name	Frequency
<i>Betula pendula</i>	Silver Birch	A
<i>Pteridium aquilinum</i>	Bracken	A
<i>Acer pseudoplatanus</i>	Sycamore	F
<i>Crataegus monogyna</i>	Hawthorn	F
<i>Fraxinus excelsior</i>	Ash	F
<i>Hedera helix</i>	Ivy	F
<i>Quercus robur</i>	English Oak	F
<i>Rubus fruticosus</i> agg.	Bramble	F
<i>Urtica dioica</i>	Nettle	F
<i>Arrhenatherum elatius</i>	False Oat-grass	O
<i>Calystegia silvatica</i>	Large Bindweed	O
<i>Chamerion angustifolium</i>	Rosebay Willowherb	O
<i>Cirsium arvense</i>	Creeping Thistle	O
<i>Galium aparine</i>	Cleavers	O
<i>Heracleum sphondylium</i>	Hogweed	O
<i>Sambucus nigra</i>	Elder	O
<i>Sonchus arvensis</i>	Perennial Sow-thistle	O
<i>Alliaria petiolata</i>	Garlic Mustard	R
<i>Artemisia vulgaris</i>	Mugwort	R
<i>Elytrigia repens</i>	Common Couch	R
<i>Epilobium hirsutum</i>	Great Willowherb	R
<i>Rumex obtusifolius</i>	Broad-leaved Dock	R
<i>Senecio jacobaea</i>	Ragwort	R
<i>Solanum dulcamara</i>	Bittersweet	R
<i>Sonchus asper</i>	Prickly Sow-thistle	R
<i>Sorbus aucuparia</i>	Rowan	R
<i>Stachys sylvatica</i>	Hedge Woundwort	R
<i>Taraxacum</i> sp.	Dandelion species	R
<i>Ulex europaeus</i>	Gorse	R
D = Dominant. A = Abundant. F = Frequent. O = Occasional. R = Rare		

Target Note:	TN8	
Habitat:	Semi-natural broadleaved woodland	
Species List:		
Scientific Name	Common Name	Frequency
<i>Betula pendula</i>	Silver Birch	D
<i>Pteridium aquilinum</i>	Bracken	A
<i>Quercus robur</i>	English Oak	A
<i>Deschampsia flexuosa</i>	Wavy Hair-grass	O
<i>Galium aparine</i>	Cleavers	O
<i>Holcus mollis</i>	Creeping Soft-grass	O
<i>Rubus fruticosus agg.</i>	Bramble	O
<i>Agrostis capillaris</i>	Common Bent	R
<i>Anthriscus sylvestris</i>	Cow Parsley	R
<i>Buddleja davidii</i>	Buddleia	R
<i>Chamerion angustifolium</i>	Rosebay Willowherb	R
<i>Cirsium arvense</i>	Creeping Thistle	R
<i>Crataegus monogyna</i>	Hawthorn	R
<i>Dactylis glomerata</i>	Cock's-foot	R
<i>Fagus sylvatica</i>	Beech	R
<i>Fumaria officinalis</i>	Common Fumitory	R
<i>Geranium robertianum</i>	Herb-Robert	R
<i>Glechoma hederacea</i>	Ground-ivy	R
<i>Heracleum sphondylium</i>	Hogweed	R
<i>Holcus lanatus</i>	Yorkshire-fog	R
<i>Lamiastrum galeobdolon</i>	Yellow Archangel	R
<i>Milium effusum</i>	Wood Millet	R

<i>Persicaria maculosa</i>	Redshank	R
<i>Plantago major</i>	Greater Plantain	R
<i>Poa trivialis</i>	Rough Meadow-grass	R
<i>Rumex obtusifolius</i>	Broad-leaved Dock	R
<i>Rumex sanguineus</i>	Wood Dock	R
<i>Senecio vulgaris</i>	Groundsel	R
<i>Sonchus asper</i>	Prickly Sow-thistle	R
<i>Taraxacum</i> sp.	Dandelion species	R
<i>Urtica dioica</i>	Nettle	R

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

Target Note:	TN9	
Habitat:	Semi-natural broadleaved woodland	
Species List:		
Scientific Name	Common Name	Frequency
<i>Betula pendula</i>	Silver Birch	D
<i>Quercus robur</i>	English Oak	D
<i>Pteridium aquilinum</i>	Bracken	A
<i>Agrostis capillaris</i>	Common Bent	O
<i>Deschampsia flexuosa</i>	Wavy Hair-grass	O
<i>Holcus mollis</i>	Creeping Soft-grass	O
<i>Hyacinthoides non-scripta</i>	Bluebell	O
<i>Castanea sativa</i>	Sweet Chestnut	R
<i>Corylus avellana</i>	Hazel	R
<i>Deschampsia cespitosa</i>	Tufted Hair-grass	R
<i>Dryopteris filix-mas</i>	Male-fern	R
<i>Epilobium montanum</i>	Broad-leaved Willowherb	R
<i>Fagus sylvatica</i>	Beech	R
<i>Festuca rubra</i>	Red Fescue	R
<i>Fraxinus excelsior</i>	Ash	R
<i>Hedera helix</i>	Ivy	R
<i>Heracleum sphondylium</i>	Hogweed	R
<i>Ilex aquifolium</i>	Holly	R
<i>Juncus effusus</i>	Soft Rush	R
<i>Lonicera periclymenum</i>	Honeysuckle	R
<i>Luzula sylvatica</i>	Great Woodrush	R
<i>Mercurialis perennis</i>	Dog's Mercury	R
<i>Milium effusum</i>	Wood Millet	R
<i>Persicaria bistorta</i>	Bistort	R
<i>Prunus avium</i>	Wild Cherry	R
<i>Prunus domestica</i>	Plum	R
<i>Rumex obtusifolius</i>	Broad-leaved Dock	R
<i>Rumex sanguineus</i>	Wood Dock	R
<i>Salix caprea</i>	Goat Willow	R
<i>Sambucus nigra</i>	Elder	R
<i>Sorbus aucuparia</i>	Mountain Ash	R
<i>Sorbus aucuparia</i>	Rowan	R
<i>Teucrium scorodonium</i>	Woodsage	R
<i>Vaccinium myrtillus</i>	Bilberry	R

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

Target Note:	TN10
Habitat:	Continuous bracken, scattered trees
Species List:	
This is an area of more-open canopy on the north-western edge of the woodland. It comprises dense bracken with scattered trees, mainly young and old oaks and birches, there is also some broom in this area.	
No species list compiled for this target note area	

Target Note:	TN11	
Habitat:	Continuous bracken, scattered trees	
Species List:		
Scientific Name	Common Name	Frequency
<i>Pteridium aquilinum</i>	Bracken	D
<i>Betula pendula</i>	Silver Birch	F
<i>Quercus robur</i>	English Oak	F
<i>Deschampsia flexuosa</i>	Wavy Hair-grass	O
<i>Holcus mollis</i>	Creeping Soft-grass	O
<i>Rubus fruticosus</i> agg.	Bramble	O
<i>Agrostis capillaris</i>	Common Bent	R
<i>Digitalis purpurea</i>	Foxglove	R
<i>Festuca arundinacea</i>	Tall Fescue	R
<i>Geranium robertianum</i>	Herb-Robert	R
<i>Lamiastrum galeobdolon</i>	Yellow Archangel	R
<i>Milium effusum</i>	Wood Millet	R
<i>Phalaris arundinacea</i>	Reed Canary-grass	R
<i>Plantago major</i>	Greater Plantain	R
<i>Polygonum aviculare</i>	Knotgrass	R
<i>Rubus idaeus</i>	Raspberry	R
<i>Rumex sanguineus</i>	Wood Dock	R
D = Dominant, A = Abundant, F = Frequent, O = Occasional, R = Rare		

Target Note:	TN12	
Habitat:	Continuous scrub, standing water	
Species List:		
Scientific Name	Common Name	Frequency
<i>Rhododendron ponticum</i>	Rhododendron	A
<i>Deschampsia flexuosa</i>	Wavy Hair-grass	F
<i>Acer pseudoplatanus</i>	Sycamore	O
<i>Betula pendula</i>	Silver Birch	O
<i>Holcus mollis</i>	Creeping Soft-grass	O
<i>Quercus robur</i>	English Oak	O
<i>Salix cinerea</i>	Grey Willow	O
<i>Corylus avellana</i>	Hazel	R
<i>Salix caprea</i>	Goat Willow	R
D = Dominant. A = Abundant. F = Frequent. O = Occasional. R = Rare		

Target Note:	TN13	
Habitat:	Semi-natural broadleaved woodland	
Species List:		
Scientific Name	Common Name	Frequency
<i>Betula pendula</i>	Silver Birch	D
<i>Quercus robur</i>	English Oak	D
<i>Pteridium aquilinum</i>	Bracken	A
<i>Deschampsia flexuosa</i>	Wavy Hair-grass	F
<i>Holcus mollis</i>	Creeping Soft-grass	O
<i>Lonicera periclymenum</i>	Honeysuckle	O
<i>Milium effusum</i>	Wood Millet	O
<i>Plagiothecium undulatum</i>	Moss species	O
<i>Rhododendron ponticum</i>	Rhododendron	O
<i>Rubus fruticosus</i> agg.	Bramble	O
<i>Acer pseudoplatanus</i>	Sycamore	R
<i>Heracleum sphondylium</i>	Hogweed	R
<i>Hyacinthoides non-scripta</i>	Bluebell	R
<i>Ilex aquifolium</i>	Holly	R
<i>Prunus avium</i>	Wild Cherry	R
<i>Sorbus aucuparia</i>	Mountain Ash	R
<i>Sorbus aucuparia</i>	Rowan	R
<i>Urtica dioica</i>	Nettle	R
<i>Vaccinium myrtillus</i>	Bilberry	R

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

Target Note:	TN14	
Habitat:	Semi-natural broadleaved woodland, running water	
Species List:		
Scientific Name	Common Name	Frequency
<i>Betula pendula</i>	Silver Birch	A
<i>Quercus robur</i>	English Oak	A
<i>Impatiens glandulifera</i>	Himalayan Balsam	F
<i>Milium effusum</i>	Wood Millet	F
<i>Pteridium aquilinum</i>	Bracken	F
<i>Rubus fruticosus</i> agg.	Bramble	F
<i>Acer pseudoplatanus</i>	Sycamore	O
<i>Agrostis stolonifera</i>	Creeping Bent	O
<i>Hedera helix</i>	Ivy	O
<i>Hyacinthoides non-scripta</i>	Bluebell	O
<i>Ilex aquifolium</i>	Holly	O
<i>Lamiastrum galeobdolon</i>	Yellow Archangel	O
<i>Mercurialis perennis</i>	Dog's Mercury	O
<i>Oxalis acetosella</i>	Wood Sorrel	O
<i>Sambucus nigra</i>	Elder	O
<i>Sorbus aucuparia</i>	Mountain Ash	O
<i>Arrhenatherum elatius</i>	False Oat-grass	R
<i>Cardamine flexuosa</i>	Wavy Bitter-cress	R
<i>Carex remota</i>	Remote Sedge	R
<i>Corylus avellana</i>	Hazel	R
<i>Deschampsia cespitosa</i>	Tufted Hair-grass	R
<i>Digitalis purpurea</i>	Foxglove	R
<i>Dryopteris dilatata</i>	Broad Buckler-fern	R
<i>Dryopteris filix-mas</i>	Male-fern	R
<i>Fraxinus excelsior</i>	Ash	R
<i>Geranium robertianum</i>	Herb-Robert	R
<i>Glyceria</i> sp.	Sweet-grass species	R
<i>Heracleum sphondylium</i>	Hogweed	R
<i>Juncus effusus</i>	Soft Rush	R
<i>Malus sylvestris</i>	Crab-apple	R
<i>Melica uniflora</i>	Wood Melick	R
<i>Ranunculus repens</i>	Creeping Buttercup	R

<i>Rosa arvensis</i>	Field Rose	R
<i>Silene dioica</i>	Red Campion	R
<i>Stellaria media</i>	Chickweed	R

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

Target Note:	TN15	
Habitat:	Footpath edges	
Species List:		
Scientific Name	Common Name	Frequency
<i>Agrostis capillaris</i>	Common Bent	
<i>Dactylis glomerata</i>	Cock's-foot	
<i>Holcus mollis</i>	Creeping Soft-grass	
<i>Plantago major</i>	Greater Plantain	
<i>Poa annua</i>	Annual Meadow-grass	
<i>Polygonum aviculare</i>	Knotgrass	
D = Dominant, A = Abundant, F = Frequent, O = Occasional, R = Rare		

Target Note:	TN26	
Habitat:	Semi-natural broadleaved woodland	
Species List:		
Scientific Name	Common Name	Frequency
<i>Betula pendula</i>	Silver Birch	D
<i>Quercus robur</i>	English Oak	D
<i>Deschampsia flexuosa</i>	Wavy Hair-grass	F
<i>Holcus mollis</i>	Creeping Soft-grass	F
<i>Pteridium aquilinum</i>	Bracken	F
<i>Quercus petraea</i>	Sessile Oak	F
<i>Agrostis capillaris</i>	Common Bent	O
<i>Betula pubescens</i>	Downy Birch	O
<i>Holcus lanatus</i>	Yorkshire-fog	O
<i>Stellaria holostea</i>	Greater Stitchwort	O
<i>Acer campestre</i>	Field Maple	R
<i>Alnus glutinosa</i>	Alder	R
<i>Angelica sylvestris</i>	Wild Angelica	R
<i>Anthriscus sylvestris</i>	Cow Parsley	R
<i>Castanea sativa</i>	Sweet Chestnut	R
<i>Chamerion angustifolium</i>	Rosebay Willowherb	R
<i>Corylus avellana</i>	Hazel	R
<i>Cytisus scoparius</i>	Broom	R
<i>Dactylis glomerata</i>	Cock's-foot	R
<i>Digitalis purpurea</i>	Foxglove	R
<i>Elymus caninus</i>	Bearded Couch	R
<i>Galeopsis tetrahit</i>	Common Hemp-nettle	R
<i>Glechoma hederacea</i>	Ground-ivy	R
<i>Hedera helix</i>	Ivy	R
<i>Heracleum sphondylium</i>	Hogweed	R
<i>Hieracium</i> sp.	Hawkweed species	R
<i>Hyacinthoides non-scripta</i>	Bluebell	R
<i>Hypochaeris radicata</i>	Common Cat's-ear	R
<i>Ilex aquifolium</i>	Holly	R
<i>Luzula sylvatica</i>	Great Woodrush	R
<i>Melica uniflora</i>	Wood Melick	R
<i>Milium effusum</i>	Wood Millet	R
<i>Persicaria hydropiper</i>	Water-pepper	R
<i>Plantago major</i>	Greater Plantain	R
<i>Polygonum aviculare</i>	Knotgrass	R
<i>Polytrichum</i> sp.	Moss species	R
<i>Rosa arvensis</i>	Field Rose	R
<i>Rubus fruticosus</i> agg.	Bramble	R

<i>Rumex sanguineus</i>	Wood Dock	R
<i>Sambucus nigra</i>	Elder	R
<i>Senecio jacobaea</i>	Ragwort	R
<i>Silene dioica</i>	Red Campion	R
<i>Solanum dulcamara</i>	Bittersweet	R
<i>Stellaria media</i>	Chickweed	R
<i>Teucrium scorodonium</i>	Woodsage	R
<i>Urtica dioica</i>	Nettle	R

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

Target Note:	TN27	
Habitat:	Acid grassland, bare ground, heath, semi-natural broad-leaved woodland	
Species List:		
Scientific Name	Common Name	Frequency
<i>Agrostis capillaris</i>	Common Bent	A
<i>Calluna vulgaris</i>	Heather	F
<i>Hypochaeris radicata</i>	Common Cat's-ear	O
<i>Leontodon autumnalis</i>	Autumn Hawkbit	O
<i>Nardus stricta</i>	Mat-grass	O
<i>Pteridium aquilinum</i>	Bracken	O
<i>Quercus robur</i>	English Oak	O
<i>Betula pendula</i>	Silver Birch	R
<i>Betula pubescens</i>	Downy Birch	R
<i>Cirsium arvense</i>	Creeping Thistle	R
<i>Festuca ovina</i>	Sheep's Fescue	R
<i>Hieracium sp.</i>	Hawkweed species	R
<i>Juncus effusus</i>	Soft Rush	R
<i>Lolium perenne</i>	Ryegrass	R
<i>Persicaria maculosa</i>	Redshank	R
<i>Plantago lanceolata</i>	Ribwort Plantain	R
<i>Poa annua</i>	Annual Meadow-grass	R
<i>Potentilla erecta</i>	Tormentil	R
<i>Senecio vulgaris</i>	Groundsel	R
<i>Sonchus asper</i>	Prickly Sow-thistle	R

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

Target Note:	TN28	
Habitat:	Semi-natural broadleaved woodland	
Species List:		
Scientific Name	Common Name	Frequency
<i>Alnus glutinosa</i>	Alder	A
<i>Rubus fruticosus agg.</i>	Bramble	F
<i>Salix fragilis</i>	Crack Willow	F
<i>Urtica dioica</i>	Nettle	F
<i>Angelica sylvestris</i>	Wild Angelica	O
<i>Betula pendula</i>	Silver Birch	O
<i>Holcus lanatus</i>	Yorkshire-fog	O
<i>Quercus robur</i>	English Oak	O
<i>Ranunculus repens</i>	Creeping Buttercup	O
<i>Salix caprea</i>	Goat Willow	O
<i>Salix cinerea</i>	Common Sallow	O
<i>Tussilago farfara</i>	Colt's-foot	O
<i>Cirsium palustre</i>	Marsh Thistle	R
<i>Dryopteris filix-mas</i>	Male-fern	R

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

Target Note:	TN29
Habitat:	Semi-natural broadleaved woodland, continuous bracken
Species List:	
This area has a similar species mix to that of TN26 but is a more recently developed, the groundflora is dominated by bracken.	
No species list compiled for this target note area	

Target Note:	TN30	
Habitat:	Modified neutral grassland	
Species List:		
Scientific Name	Common Name	Frequency
<i>Arrhenatherum elatius</i>	False Oat-grass	D
<i>Pteridium aquilinum</i>	Bracken	A
<i>Chamerion angustifolium</i>	Rosebay Willowherb	F
<i>Agrostis capillaris</i>	Common Bent	O
<i>Anthriscus sylvestris</i>	Cow Parsley	O
<i>Cirsium arvense</i>	Creeping Thistle	O
<i>Cytisus scoparius</i>	Broom	R
<i>Plantago major</i>	Greater Plantain	R
<i>Polygonum aviculare</i>	Knotgrass	R
<i>Rumex obtusifolius</i>	Broad-leaved Dock	R
<i>Sambucus nigra</i>	Elder	R
<i>Teucrium scorodonium</i>	Woodsage	R
<i>Trifolium pratense</i>	Red Clover	R
<i>Trifolium repens</i>	White Clover	R
D = Dominant, A = Abundant, F = Frequent, O = Occasional, R = Rare		

Management Issues:

The mature woodland in the larger north and east section of the site appears to be sustaining itself in the long-term and has advanced eastwards across the former open habitats of Houghton Common.

Some small-scale management has taken place around the small pond (TN12).

The woodland generally needs a watching brief and intervention when necessary for safety reasons.

Rakes Wood is outside the ownership of Barnsley Council and is suffering from erosion and disturbance by vehicles. Ideally the boundaries should be made impermeable to such use.

Diversity:

Despite the apparent uniformity of the vegetation across this large site, a total of 130 vascular plants were recorded during the 2010 fieldwork, illustrating the presence of a range of ancient woodland indicator species. The loss of Houghton Common to woodland development probably represents a diminution of local diversity.

Naturalness:

The woodlands show few obvious signs of management and, apart from the vehicle-disturbed Rakes Wood, present a natural appearance.

The extension of woodland cover over the former Houghton Common shows natural processes in action.

Rare or Exceptional Features:

The large extent of this acidic woodland is one of its notable features.

Fragility:

The oak and birch woodland appears to be robust and self-sustaining, although the incursions made into Rakes Wood show its fragility when subjected to uncontrolled disturbance by off-road vehicles (both two-wheeled and four-wheeled).

Typicalness:

The mix of oak and birch species found here is typical of woodlands found on the acidic conditions that prevail over this area. The woodlands would readily spread well beyond its present bounds if neighbouring land was left unmanaged.

Recorded History & Cultural Associations:

West Haigh Wood is on the ancient woodland register and there may be old estate records giving some details of its history. It is likely that the woodland did play an important role in the local economy at some stage.

A system of banks can be discerned in places and at least one internal boundary was marked by a stone wall, now ruinous.

Connectivity within the Landscape:

The dominant land use surrounding the site is arable, with fields and hedgerows abutting the site edges on most sides. There is good habitat connectivity to the local landscape, with hedgerows forming many of the field boundaries. Part of the residential area of Grimethorpe lies just north of Rakes Wood and to the west of this is Carlton Main Brickwork's quarry. Howell Wood Country Park lies less than 1km to the east.

Value for appreciation of Nature and Learning:

West Haigh Wood is totally open and accessible, despite the scarcity of public rights of way through this area, due to a well-established network of informal paths.

The younger woodland formed over Houghton Common is generally dense and impenetrable and is not very accessible.

Rakes Wood has many paths and tracks, but these are disturbed by vehicular use.

This site is very suitable for large scale visits by school groups wishing to experience woodland habitats.

Recommendations:

Much of this site is recognised as ancient woodland, appearing on Natural England's Ancient Woodland Inventory. This area also contains nine of the South Yorkshire ancient woodland indicator species. Surveys carried out earlier may reveal a further increase in this number.

The woodland adjacent to the north west boundary (Lady Wood) is also recognised as ancient woodland on the inventory, but is not registered as a Local Wildlife Site. West Haigh Wood should be retained as a Local Wildlife Site and Lady Wood should be included within the LWS (or adopted separately), subject to survey.

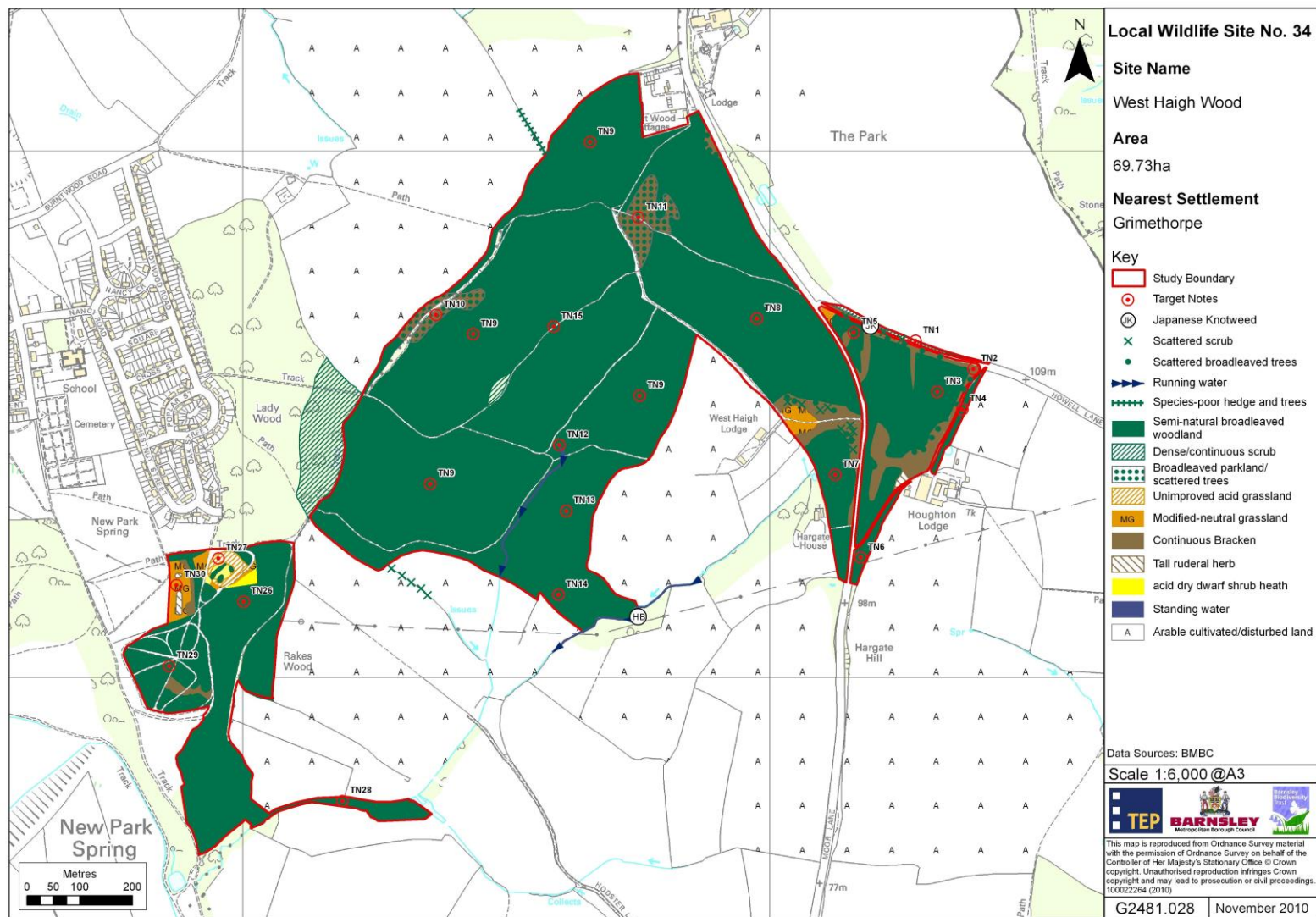
Consider reverting the Houghton Common part of the site back to lowland heathland (a LBAP habitat).

Action:

Retain as a Local Wildlife Site

Consider reverting the Houghton Common part of the site back to heathland

Carry out survey for Lady Wood and consider adoption as a LWS





35. Edderthorpe Ings

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:	Edderthorpe Ings
Site Area:	30.56ha
Survey Date:	August 2010
Nearest Settlement:	Cudworth, Grimethorpe, Great Houghton, Darfield
Grid Reference at Centre:	SE4121, 06961
Surveyor(s)	LAC, VG

Site Description:

This is a site of formerly drained agricultural land that has flooded due to subsidence caused by the collapse of workings from the adjacent Grimethorpe Colliery. It lies in the Dearne Valley in a mix of agricultural and post-industrial landscapes. The site is bounded by the embankments of disused railway lines on the north-eastern and south-eastern sides and by the River Dearne on the south-western edge. Along the eastern side, the recently constructed Park Spring Road runs parallel to the old railway bank.

The majority of the site, also known as Cudworth Washland, is open water with a narrow fringe of marginal vegetation (TN3) and an area of taller swamp on the eastern side of the water. Surrounding the large waterbody are areas of marshy grassland (TN2) and neutral grassland (TN4).

Along the banks of the River Dearne, on the western edge of the site, is a strip of nettle-dominated tall ruderal herb vegetation (TN5). In the north there is a small area of developing broadleaved plantation (TN1) and some peripheral scattered scrub, mainly along the north-eastern site boundary.

The southern extremity of the site is a small patch of semi-natural broadleaved woodland (TN6) linked to the northern part of the site by the course of the River Dearne.

Important Species:

The site is important for a range of bird species but particularly schedule 1 species: avocet (*Recurvirostra avosetta*) and little ringed plover (*Charadrius dubius*). UKBAP species are: skylark (*Alauda arvensis*), cuckoo (*Cuculus canorus*), yellowhammer (*Emberiza citrinella*), reed bunting (*Emberiza schoeniclus*), grasshopper warbler (*Locustella naevia*), yellow wagtail (*Motacilla flava*) and willow tit (*Poecile montanus*).

Two alien invasive plant species, Himalayan balsam (*Impatiens glandulifera*) and New Zealand pygmyweed (*Crassula helmsii*) were also recorded in 2010.

Target Note:	TN1	
Habitat:	Broadleaved plantation	
Species List:		
Scientific Name	Common Name	Frequency
<i>Festuca rubra</i>	Red Fescue	D
<i>Arrhenatherum elatius</i>	False Oat-grass	A
<i>Betula pendula</i>	Silver Birch	A
<i>Rosa canina</i> agg.	Dog Rose	F
<i>Fraxinus excelsior</i>	Ash	F
<i>Deschampsia cespitosa</i>	Tufted Hair-grass	F
<i>Holcus lanatus</i>	Yorkshire-fog	F
<i>Crataegus monogyna</i>	Hawthorn	F
<i>Plantago lanceolata</i>	Ribwort Plantain	F
<i>Cirsium arvense</i>	Creeping Thistle	F
<i>Quercus robur</i>	English Oak	O
<i>Corylus avellana</i>	Hazel	O
<i>Lotus corniculatus</i>	Bird's-foot Trefoil	O
<i>Lathyrus pratensis</i>	Meadow Vetchling	O
<i>Vicia cracca</i>	Tufted Vetch	O
<i>Alnus glutinosa</i>	Alder	O
<i>Vicia tetrasperma</i>	Smooth Tare	R
D = Dominant, A = Abundant, F = Frequent, O = Occasional, R = Rare		

Target Note:	TN2	
Habitat:	Marshy grassland	
Species List:		
Scientific Name	Common Name	Frequency
<i>Agrostis stolonifera</i>	Creeping Bent	A
<i>Juncus inflexus</i>	Hard Rush	F
<i>Deschampsia cespitosa</i>	Tufted Hair-grass	F
<i>Holcus lanatus</i>	Yorkshire-fog	F
<i>Bidens tripartita</i>	Trifid Bur-marigold	F
<i>Juncus effusus</i>	Soft Rush	F
<i>Phalaris arundinacea</i>	Reed Canary-grass	F
<i>Phragmites australis</i>	Reed	O
<i>Lycopus europaeus</i>	Gypsywort	O
<i>Vicia cracca</i>	Tufted Vetch	O
<i>Salix viminalis</i>	Osier	O
<i>Vicia hirsuta</i>	Hairy Tare	O
<i>Plantago major</i>	Greater Plantain	O
<i>Trifolium dubium</i>	Lesser Trefoil	O
<i>Trifolium pratense</i>	Red Clover	O
<i>Juncus articulatus</i>	Jointed Rush	O
<i>Stellaria nemorum</i>	Wood Stitchwort	R
D = Dominant, A = Abundant, F = Frequent, O = Occasional, R = Rare		

Target Note:	TN3	
Habitat:	Marginal vegetation	
Species List:		
Scientific Name	Common Name	Frequency
<i>Bidens tripartita</i>	Trifid Bur-marigold	A
<i>Chenopodium rubrum</i>	Red Goosefoot	F
<i>Cotula coronopifolia</i>	Buttonweed	F
<i>Crassula helmsii</i>	New Zealand Pygmyweed	F
<i>Juncus bufonius</i>	Toad Rush	F
<i>Ranunculus sceleratus</i>	Celery-leaved Buttercup	F

<i>Rorippa sylvestris</i>	Creeping Yellow-cress	F
<i>Alisma plantago-aquaticum</i>	Water-plantain	O
<i>Alopecurus geniculatus</i>	Marsh Foxtail	O
<i>Eleocharis palustris</i>	Common Spike-rush	O
<i>Gnaphalium uliginosum</i>	Marsh Cudweed	O
<i>Lemna minor</i>	Common Duckweed	O
<i>Persicaria amphibia</i>	Amphibious Bistort	O
<i>Typha latifolia</i>	Greater Reedmace	R

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

Target Note:	TN4	
Habitat:	Modified neutral grassland	
Species List:		
Scientific Name	Common Name	Frequency
<i>Plantago lanceolata</i>	Ribwort Plantain	F
<i>Trifolium repens</i>	White Clover	F
<i>Festuca rubra</i>	Red Fescue	F
<i>Cynosurus cristatus</i>	Crested Dog's-tail	F
<i>Deschampsia cespitosa</i>	Tufted Hair-grass	O
<i>Polygonum aviculare</i>	Knotgrass	O
<i>Agrostis stolonifera</i>	Creeping Bent	O
<i>Trifolium pratense</i>	Red Clover	O
<i>Poa trivialis</i>	Rough Meadow-grass	O
<i>Cirsium arvense</i>	Creeping Thistle	O
<i>Holcus lanatus</i>	Yorkshire-fog	O
<i>Lolium perenne</i>	Ryegrass	O
<i>Hypochaeris radicata</i>	Common Cat's-ear	O
<i>Centaureum erythraea</i>	Common Centaury	O
<i>Achillea millefolium</i>	Yarrow	R
<i>Cirsium vulgare</i>	Spear Thistle	R
<i>Odontites verna</i>	Red Bartsia	R
<i>Senecio jacobaea</i>	Ragwort	R
<i>Cerastium fontanum</i>	Common Mouse-ear	R
<i>Lathyrus pratensis</i>	Meadow Vetchling	R
<i>Centaurea nigra</i>	Knapweed	R
<i>Sonchus oleraceus</i>	Smooth Sow-thistle	R
<i>Vicia tetrasperma</i>	Smooth Tare	R

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

Target Note:	TN5	
Habitat:	Tall ruderal herb	
Species List:		
Scientific Name	Common Name	Frequency
<i>Urtica dioica</i>	Nettle	D
<i>Barbarea vulgaris</i>	Winter-cress	F
<i>Rumex obtusifolius</i>	Broad-leaved Dock	F
<i>Cirsium arvense</i>	Creeping Thistle	F
<i>Glechoma hederacea</i>	Ground-ivy	F
<i>Elytrigia repens</i>	Common Couch	O
<i>Impatiens glandulifera</i>	Himalayan Balsam	O
<i>Anthriscus sylvestris</i>	Cow Parsley	O
<i>Lamium album</i>	White Dead-nettle	R

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

Target Note:	TN6	
Habitat:	Semi-natural broadleaved woodland	
Species List:		
Scientific Name	Common Name	Frequency
<i>Salix fragilis</i>	Crack Willow	D
<i>Urtica dioica</i>	Nettle	D
<i>Impatiens glandulifera</i>	Himalayan Balsam	F
<i>Moss sp.</i>	Moss species	F
<i>Glechoma hederacea</i>	Ground-ivy	O
<i>Heracleum sphondylium</i>	Hogweed	O
<i>Malus sylvestris</i>	Crab-apple	O
<i>Stachys sylvatica</i>	Hedge Woundwort	R
D = Dominant, A = Abundant, F = Frequent, O = Occasional, R = Rare		

Management Issues:

Although formerly managed by the Environment Agency as flood relief reservoir within the Dearne floodplain, increasing mining subsidence has led to an increase in the extent of permanent water here. The site is now managed for its ornithological interest by the RSPB. Further subsidence may result in loss of bird breeding habitat around the waterbody, as water levels rise.

The spread of alien invasive plant species requires monitoring and managing.

Diversity:

During the course of 2010 fieldwork, 71 plant species were recorded from this site. The range of grassland, marginal and swamp habitats along with the small areas of scrub, woodland and tall herb creates some structural diversity. However, the most ecologically significant diversity is the value of the site for its bird life.

Naturalness:

Although this site is greatly influenced by local coal mining and is affected by the proximity of railway banks, the flash is of relatively recent origin and the colonisation of the water and its margins by plants has mainly been by natural processes. The diversity of birdlife has definitely arrived naturally and this site is an important part of the chain of wetland sites along the Dearne Valley.

Rare or Exceptional Features:

The water, wetland and its associated birds are the main ecological asset of this site.

Fragility:

Being adjacent to the River Dearne and connected to the drainage system of the floodplain, this site is vulnerable to flooding incidents bringing in contamination and debris and causing pollutions and physical damage to the site's habitats and wildlife.

Further subsistence would cause an expansion of the open water but, conversely, also possible loss of valuable bird breeding habitat within the site.

Typicalness:

This site is fairly typical of areas of low-lying land where mining subsidence has led to formation of flashes. It is one of a suite of such sites along the floodplain of the River Dearne.

Recorded History & Cultural Associations:

The history of local coal mining has great relevance for this site. It is also in very close proximity to former railways on three sides.

The course of the River Dearne has been altered to allow the site to expand in a south-westerly direction. The history of local water and flood management would also therefore be relevant to this site.

Connectivity within the Landscape:

Like other wetlands along the River Dearne, this site does not have typical wildlife corridor links into the local countryside. Its main connectivity is provided by the River Dearne, which is a major flyway and destination for migratory waterfowl and waders.

Value for Appreciation of Nature & Learning:

A public footpath comes into the south-eastern end of the site, via a tunnel under the disused railway and new road. There is no access through the site as this would disturb both the over-wintering, passage migrant and breeding birds that use the site. There is controlled access for birdwatchers.

The site is managed by the RSPB and has facilities for watching the birds using the area. However, the much larger RSPB site at Old Moor, to the east has more facilities for education and visiting groups.

Recommendations:

The RSPB management of the site illustrates its wildlife value; this is further reinforced by the number of nationally important species that have been recorded in the area. The presence of these species means that this site fulfils the site selection criteria.

Actions:

Retain as a Local Wildlife Site
Support the RSPB in the management and explore other opportunities close by to allocate additional LWS

