WICKERSLEY WOOD

MANAGEMENT PLAN

REVISION 5

2022 - 2026

DRAFT

Wickersley Parish Council

Wickersley Wood protected and conserved as community woodland for future generations.

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1.0 INTRODUCTION AND PURPOSES OF THE MANAGEMENT PLAN

The management plan for Wickersley Wood was approved in 1997. This included a set of long term aims and objectives designed to deliver many benefits to the woodland, wildlife and visitors. A detailed five year work programme was approved to begin meeting these aims and objectives. Subsequent work programmes were implemented between 2003 to 2007, 2010 to 2015 and 2017 to 2021. The plan is reviewed at the end of each five year programme to monitor the impact of management work and to assess whether the long term aims and objectives remain relevant.

The woodland has benefited from considerable improvements to woodland structure, habitat and recreation opportunities since 1997.

The management plan has now been reviewed to include a new detailed work programme from 2022 to 2026 to continue the benefits of the management works completed over the last 25 years.

Wickersley Wood is an important part of the Wickersley Parish Council's land holdings and the management plan plays an important role in helping to ensure the benefits that the woodland provides to the community are sustained.

This plan provides a description of the woodland structure and profile, an assessment of its ecological and habitat value and a discussion of the social benefits it provides.

This plan includes a set of nine long term aims with associated objectives that have been instrumental in delivering the many benefits.

This plan discusses the management options available over the next five years to continue to meet these objectives, together with a new five year work programme.

The plan is an important document in encouraging community involvement in management of the woodland.

In very general term this plan explains what we want to achieve and why, when and how.

1.1 Overview of the works proposed and completed from the 2017 to 2021 management plan work programme

The table below is a copy of the five year work programme agreed at the beginning of the 2017 to 2021 work programme. The table indicates whether the work was done in the year it was planned, moved to another year or not completed during the plan. A detailed evaluation of the work is included in the main body of the plan under the relevant sections.

1 denotes work completed in the year that was initially planned
2 denotes work completed during the plan but in different year than originally planned
3 denotes work not completed during the plan period.

Silvicultural Works	Comps	**Years**				
		1	**2**	**3**	**4**	**5**
Essential tree safety works, including maintenance of boundary trees to prevent an actionable nuisance with neighbours.	All	1	1	1	1	1
Selective coppicing on woodland edge to improve structural diversity (3 parcels)	1a		2	1		3
Topping of up to two mature trees on the edge of two of the felling coupes in the north of the compartment to increase the size of the coupes and the volume of standing deadwood.	1b			1		
Selective thinning of areas C1 and C3 to remove 15% of trees and selective thinning of the more recently acquired area of woodland to remove up to 20% of trees.	1c			1		

Access Works	Comps	**Years**				
		1	**2**	**3**	**4**	**5**
Plan, design and create a sculpture trail through the woodland	1b and c	1	1			
Maintain access furniture, seating, fencing and waymarker posts.	All	1	1	1	1	1
Consider improvements to the interpretative signs.	All	3				
Path maintenance, and in particular widen the surfaced path from the stone squeeze through.	All	1				
Improve the planting along the access at the central entrance from Wood Lane.	1c	3				
Strimming of vegetation at main access point by substation, including hoeing of weeds on the path surface. Mowing of the footpath network where appropriate.	1c	1	1	1	1	1

Other Site Improvements	Comps	**Years**				
		1	**2**	**3**	**4**	**5**
Control of scrub encroachment onto acid grassland by cutting and chemical stump treatment and control of bracken and willow herb as necessary by cutting and pulling.	1d	1	1	1	1	1
Management of the heather with assistance from Sheffield Wildlife Trust.	1d	3				
Removal of rubbish from within the woodland and any fly tipping at woodland edges.	All	1	1	1	1	1
Emptying dog bins	1a &b	1	1	1	1	1

Survey and Plans	Comps	**Years**				
		1	**2**	**3**	**4**	**5**
Invertebrate survey of glade	1d		3			
Fungal survey	All	3				
Photographic monitoring	All	1	1	1	1	1
Monitoring and review of the impacts of the management plan programme	All	1				
Review management plan	All	1	1	1	1	1

Events	Lead	**Years**				
		1	**2**	**3**	**4**	**5**
Consultation/community information	IK	1				
Bat Walk	PC	1	1	1	3	3
Lantern Walk	PC	1	1	1	3	3
Easter egg hunt	PC	1	1	1	3	3
Volunteer event	BR	1	1	1	3	3

1.2 Overview of the proposals during the 2022 to 2026 management plan.

Throughout the previous four management plan work programmes (1997 to 2001, 2003 to 2008, 2010 to 2015 and 2017 to 2021) a considerable amount of works have been completed, both silvicultural (management of the trees) and other site improvement works such as improvements to the boundaries and access, including paths, gates and seating.

A lot of silvicultural work was completed during the 2017 to 2021 work programme. This will hold good for the duration of the next work programme. The work programme during the next five years will be significantly smaller.

There will be no large scale felling or thinning operations.

The coppicing programme on the boundary with Woodside Court will continue on its rotation.

Management of the glade will continue with the control of young trees saplings, bramble, bracken and rosebay willow herb.

Replacement of the aging interpretation boards at the entrances will be considered.

General site maintenance and management will continue, including making safe damaged trees and repairs to gates, fences, benches and other structures.

Community and education events will continue annually.

2.0 GENERAL SITE INFORMATION

OS Grid Reference: SK483 912

Total area: 14.31 hectares (35 acres)

Owner: William Warde-Aldam and Associates (13.85 hectares)

Lessee: Wickersley Parish Council

Owner: Wickersley Parish Council (0.46 hectares)

2.1.1 Location

Wickersley Wood is situated approximately 10 kilometres to the east of Rotherham town centre in the Parish of Wickersley (see Figure 1.1). The woodland is located on the suburban edge of Wickersley with housing on the northern and western edges of the wood. To the south and east lies open arable and grazing land.

2.1.2 Ownership Information

The woodland was first recorded as being owned by the 7th Earl of Shrewsbury in the 1600's, managed as a coppice woodland. The woodland has been in the ownership of the William Warde-Aldam family for the last 400 years and is currently leased to Wickersley Parish Council from William Warde-Aldam and Associates, Frickley Hall, Doncaster for a term of 999 years from 1978.

A small area of woodland (0.46 hectares) on the edge of Wood Lane was acquired by Wickersley Parish Council in November 2009 from a private development company.

2.1.3 Status, formal designations and constraints

The woodland is leased for a term of 999 years from 1st January, 1978, by Wickersley Parish Council, from William Warde-Aldam and Associates.

Wickersley Wood is protected by Rotherham Borough Council Tree Preservation Order No. 3, 1975.

Wickersley Wood is Forest Stewardship Council (FSC), certified under the United Kingdom Woodland Assurance Scheme.

The woodland is included as a semi-natural ancient woodland in the Nature Conservancy Councils Ancient Woodland Inventory (NCC 1986).

The woodland falls within the Coal Measures Natural Area, as defined by English Nature (1996).

The property is a Grade 2 Heritage Site, i.e. of district importance (as designated by Planning Services, 1996)

The site is constrained by Green Belt and Unitary Development Plan Policies related to its protection from development.

Wickersley Wood has been selected as a Local Wildlife Site. These are sites that contain features of locally significant nature conservation value. They make a vital contribution to UK wildlife and offer many other benefits.

The woodland lies within the project area of the South Yorkshire Forest, one of 12 community forests in England and Wales.

There are no proposed major/strategic planning developments, for example housing and roads, related to the woodland. The last development affecting the woodland was the new residential development, Woodside Court, completed on land to the west of the property in the late 1990s.

The woodland is crossed by one definitive footpath - No. 8 Wickersley. Footpaths Nos. 7 and 8a pass close to the site.

The woodland is subject to the Forestry Acts and has been included in various grant schemes delivered through Forestry Commission.

The management plan was approved in 1997 with a five year work programme to 2001. Further five year work programmes were approved for the period 2003 to 2008, 2010 to 2015 and 2017 to 2021 taking account of the aims and objectives identified in the original plan. This new plan of operations covers the period 2022 to 2026 and takes account of the original aims and objectives.

2.1.4 General Site Description

Wickersley Wood is situated on a gently shelving plateau on the southern edge of Wickersley. It is bounded to the north by residential properties on Wood Lane, and the residential development of Woodside Court to the west. Agricultural land lies to the south and east.

The wood is an ancient, predominantly semi-natural site, with a reasonably well-recorded history. The majority of the woodland is characterised by 30-70 year old regeneration of silver birch and Sessile oak, which has developed following clear felling during World War II. Thinning in this part of the woodland between 2000 and 2008 has allowed some of the oak to grow larger and deeper crowns and develop towards becoming large mature trees.

Within this stand there is a large open glade, the vegetation within the glade is acid grassland and heather. Natural regeneration, mainly of Sessile oak and silver birch reoccurs in the glade and needs to be actively controlled to maintain the open area.

The western third of the site is characterised by mature, even aged (approximately 100 years old) Sessile oak, with beech of plantation origin. The absence of active silvicultural management for many decades had resulted in a badly structured woodland, characterised by an even-aged canopy, with neither a shrub layer nor any

substantial regeneration and little ground flora. In 1998 a group felling programme was introduced to diversify the woodland structure. Regeneration glades were created in the south of this area. In these openings there has been a substantial increase in the field layer vegetation. Natural regeneration occurred from an early stage in variable amounts and has developed well since. A further two regeneration glades were created in 2004 and ground flora and regeneration has continued to develop in these areas since that time. These glades have since been increased in size to increase light levels reaching the young regenerating trees.
The western and south-western margins of the woodland are the most botanically diverse areas supporting a range of ancient woodland plant indicators, possibly due to the increased availability of light at the woodland edges. A programme of piecemeal coppicing along this edge commenced in 2002.

The wildlife surveys undertaken to date indicate that the site is of local importance for wildlife. However, small parts of the woodland are of greater interest, for example, the botanically rich western margins and the acid grassland glade in the centre of the woodland, which contains one of the most easterly areas of heather in the Borough.

Public recreation and access within Wickersley Wood is very popular but low key and generally informal, with no serious conflicts. Flytipping at the woodland entrances, motorcycle scrambling and horse-riding were once occasional problems but long term management of the woodland has helped resolve these issues.

2.2 Environmental Information

2.2.1 Physical

(a) Hydrology

A brook forms the western boundary of the woodland. For many years this was ephemeral, running only for a short period after heavy rain. However, in the spring of 2008 the water course began running constantly from an old pipe to the rear of 18 Woodside Court. It remains unclear whether this was the result of an old spring that has become reactivated following a couple of years of wet weather (a spring did emerge from the Wood Lane area many years ago) or a mains burst from the water company's supply. Investigation by both Rotherham Borough Council's drainage section and Yorkshire Water proved inconclusive. However, the water was tested and did not contain any pollutants and therefore presented no concern to the woodland itself. The water suddenly stopped flowing again in the winter of 2008/09.

(b) Topography

The woodland is situated on very gently shelving ground, with a southerly aspect, falling from around 142m Ordnance Datum at its highest point, in the north, to 129m in the south (Jones, 1990).

(c) Geology

The woodland lies entirely on the Wickersley Rock, on Upper Coal Measures sandstone (Jones, 1990).

(d) Pedology

The soils are thin, podsolic and strongly acid in places, i.e. less than pH 4.0 in particular areas (Jones, 1990).

(e) Climate

The following information was provided by the Weston Park Museum, Sheffield (2002), the nearest meteorological station to the woodland. The figures are based on 30 year averages.

Season	Temperature (Celsius)	Rainfall (mm)	Sunshine (hours)
Winter	Mean 4.8 Max. 7.5 Min 2.1	Mean 73 Total 150	Mean 68.3 Total 205
Spring	Mean 11.3 Max. 15.3 Min 7.2	Mean 62 Total 186	Mean 164 Total 492
Summer	Mean 13.5 Max. 19.5 Min 11.5	Mean 59.3 Total 178	Mean 169.7 Total 509
Autumn	Mean 7.3 Max. 9.9 Min 4.6	Mean 81.7 Total 245	Mean 58.3 Total 175

2.2.2 Biodiversity

This section summarises the more significant animals and plants so far recorded from Wickersley Wood, as well as those which are likely to be important for the site's amenity value. More detailed information on the status, distribution and ecology of some species is given, as well as a full list of the species so far recorded, in Appendix 3.

Wickersley Wood has been visited on a reasonable number of occasions by local naturalists.

In England *Biodiversity 2020: A strategy for England's wildlife and ecosystems services* (B2020) supports the UK wide 'Post-2010 Biodiversity Framework' which replaced the UK Biodiversity Action Plan in 2012. The UK BAP featured heavily in this management plan, including the review in 2010.

B2020 replaced the England biodiversity strategy. A priority action of the B2020 is: *'Bring a greater proportion of our existing woodlands into sustainable management and expand the area of woodland in England'*.

The priority species lists produced as part of the UK BAP included the species that were most threatened and requiring conservation action. These featured in this

management plan and were an important reference to the quality of the woodland as a wildlife resource. This list remains has been retained in Biodiversity B2020.

2.2.2.1 The Biodiversity Resource.

a) Flowering plants, ferns and bryophytes

The western third was dominated by an almost unbroken canopy of 80-100 year old Sessile oak (*Quercus petraea*), with beech (*Fagus sylvatica*), and small numbers of sweet chestnut (*Castanea sativa*) until the late 1990s. A few of the beech trees are older, perhaps over 150 years. Intermixed with these mature trees are small stands of 30-50 year old Sessile oak and sycamore (*Acer pseudoplatanus*), with a small number of silver birch (*Betula pendula*) and rowan (*Sorbus aucuparia*). Restructuring work to fell small groups of mature trees has gradually been altering this structure with a number of opening present across the compartment. Regeneration is prolific.

A shrub layer was absent prior to commencement of the restructuring work in 1998 with ground vegetation being absent from almost the entire sub-compartment. Since then young beech, silver birch, oak and sweet chestnut have developed in the areas where tree felling has taken place. The age of these trees varies from approximately five to 20 years, depending on when the felling took place. Bramble (*Rubus fruticosus*) has become well established in some of the areas with higher light levels, together with small amounts of creeping soft-grass (*Holcus mollis*) and creeping buttercup (*Renunculus repens*).

The field layer has yet to recover from the shady canopy that has existed for many decades but the long slow process of recovery has begun with herbs including bluebell (*Hyacinthoides non-scriptus*) and common dog violet (*Viola riviniana*) being present in small numbers, particularly towards the woodland edges.

Although no National Vegetation Classification surveys have been undertaken within the site, this area can be provisionally assigned to NVC type W16 *Quercus* spp. - *Betula* spp. - *Deschampsia flexuosa* woodland (Rodwell, 1991). A 1986 survey of the site by English Nature placed the woodland within Peterken's (1993) Stand Type 6Ab, Upland birch-Sessile oakwood, which also represented the most easterly example of this stand type recorded during a survey of woodland across South Yorkshire.

The majority of the site is characterised by mixed-aged 35-75 year old natural regeneration of Sessile oak and silver birch with occasional beech and sweet chestnut present often as regrowth from large stumps. Other species present in small amounts include rowan, sycamore, yew and goat willow. Many of the trees were becoming tall and drawn because they were so closely spaced. Thinning works between 2000 and 2005 and 2017 and 2021 selected some of the poorest trees for removal, giving the some of the better trees more space and light to develop. The effects of the additional resources is now obvious to see in some of the oak trees with wider crowns and larger canopies.

The shrub layer remains quite poorly developed with scattered holly, elder, hawthorn (*Crataegus monogyna*) and small numbers of saplings, predominantly Sessile oak but also silver birch, yew (*Taxus baccata*), rowan and wild cherry (*Prunus avium*).

The holly shrubs in the southeast of the woodland have however developed and are beginning to provide good cover up to 3m tall.

Wavy hair-grass dominates the species poor field layer, with frequent bracken (Pteridium aquilinum), creeping soft-grass and bramble. Bluebell is locally frequent. This species is included in the Biodiversity Action Plan, BAP (1995) long list of globally threatened/declining species. There is evidence of Spanish bluebell in the woodland in some areas.

Honeysuckle, foxglove (*Digitalis purpurea*) and rosebay willowherb are infrequent but associated species. The woodland edges of this area are slightly more interesting, with frequent elder, nettle, a few hazel (*Corylus avellana*) shrubs along the eastern boundary and on the southern boundary, frequent sycamore and occasional ash (*Fraxinus excelsior*) and hawthorn occur.

Within the centre of the oak-birch woodland there is an open acid grassland glade (provisionally assigned to the National Vegetation Classification Grassland Community U2 *Deschampsia flexuosa*)*, dominated by mature heather (*Calluna vulgaris*) with frequent wavy hair-grass, creeping bent (*Agrostis stolonifera*), occasional Yorkshire fog (*Holcus lanatus*), soft rush (*Juncus effusus*) and a few gorse (*Ulex europaeus*) bushes. This is lowland heath, a UK, regional and local BAP habitat of Conservation Priority and is listed on the European Habitats Directive. Oak and birch saplings invade the clearing and require ongoing mechanical removal. In 2010 the glade was extended back to its original size by removing trees on the western side. The habitat provides a very valuable area of open space within what is a generally dense, closed-canopy woodland. Open space is an essential part of any woodland habitat (Forestry Commission, 1990 and United Kingdom Woodland Assurance Standard, 2011), increasing the diversity of habitats available for wildlife.

This National Vegetation Classification U2 *Deschampsia flexuosa* community is most often found with sub-shrub vegetation, woodland scrub and bracken, often reflecting complex land use histories, particularly forest clearance and burning (Rodwell, 1993).

At present, this area is characterised by a mixture of wavy hair-grass and heather with small patches of gorse. The heather is predominantly old and leggy but with some younger ages throughout. Tree regeneration within the glade is controlled to maintain the open acid grassland habitat. Control of any new regeneration will be a continuous management regime to ensure the glade remains open.

Bracken has been present in the eastern part of the glade but its presence has reduced over the years through mechanical control.

A number of calcifuge bryophytes have been recorded from the woodland, chiefly from the acid grassland glade. The liverwort *Cephalozia bicuspidata* and mosses *Campylopus pyriforms*, *C.paradoxus*, *C.introflexus* (all 1989) and *Isopterygium elegans* (1987) are all uncommon in Rotherham. The lichen *Cladonia coccifera* (1977) was recorded from the Sessile oak-birch woodland. It is rare in Rotherham. This is its only known site. It occurs on peaty soils.

The western boundary (and the western half of the southern boundary) is the most botanically interesting. Here, an ephemeral stream is fringed by occasional mature

Sessile oak, ash and field maple (*Acer campestre*), over an open understorey of elder, hawthorn, holly, hazel, wild cherry and regeneration of English elm (*Ulmus procera*), wych elm (*Ulmus glabra*), rowan, sycamore, oak and field maple. The field layer is dominated by abundant bluebell, with dog's mercury (*Mercurialis perennis*), bramble, nettle (*Urtica dioica*), lesser celandine (*Ranunculus ficaria*), wood avens (*Guem urbanum*), cow parsley (*Anthriscus sylvestris*) and hedge woundwort (*Stachys sylvatica*) amongst others. The south-western margins also support wood sorrel (*Oxalis acetosella*), greater stitchwort (*Stellaria holostea*), abundant bluebell, dog's mercury and hogweed (*Heracleum spondylium*). This fringe can be provisionally assigned to NVC type W10 *Quercus robur - Pteridium aquilinum - Rubus fruticosus* woodland, which lies on less acid/more flushed soils compared to NVC W16. The presence of species such as ash and dog's mercury here indicate a tendency towards NVC W8 *Fraxinus - excelsoir - Acer campestre - Mercurialis perennis* woodland.

The woodland structure along this boundary is changing with the introduction of coppicing. Sections of the boundary now have a much shrubbier habitat and coppice regenerates from the stools created.

Habitats identified by English Nature as biodiversity targets for the Coal Measures Natural Area present at Wickersley Wood are ancient woodland, wet woodland and acid grassland.

Table 2.1 Botanical species recorded in Wickersley Wood which are indicators of, or have, an affinity with ancient semi-natural woodland.

Common Name	Scientific Name	Indicator	Affinity	
			strong	*mild*
Wild cherry	*Prunus avium*	*		
Holly	*Ilex aquifolium*	*		
Dog's mercury	*Mercurialis perrenis*	*		*
Bluebell	Hyacinthoides non-scripta	*		
Field maple	*Acer campestre*	*		
Violets	*Viola spp*	*		
Greater Stitchwort	*Stellaria holostea*	*		
Wood sorrel	*Oxalis acetosella*	*	*	

Indicator: Indicators of ancient woods in South Yorkshire (Jones, 1995).
Affinity: Based on ancient woods in Lincolnshire (Peterken,1993).

(b) Fungi

Wickersley Wood supports a diverse range of fungi with some 53 species having been recorded from the site.

The agaric *Coprinus lagopides* (1986), found in charred soil and wood, a rare fungus in Rotherham, has been recorded from the acid grassland glade, whilst the surrounding Sessile oak-birch woodland has yielded the ascomycete *Niesslia ilicifolia* (1989) present on holly leaves, and the basidiomycete *Melanoleuca cognata* (1989) which are rare in Rotherham, and the ascomycete *Microthyrium ciliatum* (1989)

occurs on holly, which is uncommon in the Borough.
Other rare species in Rotherham, found in the woodland, are the ascomycetes *Scutularia citrina* (1980) found on rose twigs, *Iodophanus carneus* (present on dung), *Thelebolus stercoreus* (both 1987), present on dung, the agarics *Coprinus ellisii, C. miger* and *Cystoderma aminonthinum* (all 1986), and the basidiomycetes *Collybia tuberosa* (1986) and *Tephrocybe anthracophila* (1986). The latter has not been recorded from any other site in Rotherham. The rarest species is *Coprinus ellisii*, which has been recorded at only five other sites in Yorkshire, all from the north-west of the county. It is found on fallen deadwood.

(c) Mammals

A small number of mammals have been recorded, including grey squirrel, fox, mole, rabbit and brown hare. Pygmy shrew was noted in 1980 and 1981. Brown hare is included in the UK Biodiversity Action Plan short list, and is therefore a priority for conservation. Brown hare is found mainly on agricultural land, and has suffered from intensification of the farming landscape, particularly the conversion of grassland to arable. It may well use woodland for shelter rather than feeding, although it will bark strip young trees. Pygmy shrew is included on the BAP long-list.

Surveys for bats and potential bat roost sites have been carried out prior to thinning works. There have also been bat walks with the community as part of the Parish Council's events programme in 2007 and 2008. On these occasions bats have been detected in and around the woodland using bat detectors. Because of the relatively young age of the trees across much of the site however, there remain a limited number of roost sites for a woodland of this size.

(d) Birds

A good variety of woodland birds have been recorded over the past few years, including summer and winter visitors, as well as residents. A winter bird survey was carried out in January 2003.

Dunnock, willow warbler (both 1977) and treecreeper (1983) were recorded from the mature Sessile oak-beech woodland, whilst willow warbler, coal tit (both 1977) and blue and great tit (both 1989) were seen in the Sessile oak-birch woodland. Mallard (1978), sparrow hawk (2003), grey partridge, woodcock, lesser black-headed gull, turtle dove, skylark (all 1978), song thrush (1984), redwing (1993), greenfinch (1983), goldfinch (1978), linnet, lesser redpoll, chiffchaff, spotted flycatcher, tree sparrow (all 1983), goldcrest (1974), nuthatch (1991), brambling (1982) bullfinch (1980) and yellow hammer (1978) have all been recorded together with long-tailed tit, willow tit and jay, (all undated). Also, kestrel, great spotted woodpecker, wren, rook, chaffinch, lesser redpoll, woodpigeon, carrion crow, green woodpecker, robin, mistle thrush, magpie, house sparrow and siskin were identified in a winter bird survey during 2003. Song thrush, skylark and grey partridge are included in UK Biodiversity Action Plan short list, and spotted flycatcher, linnet, tree sparrow, bullfinch, and turtle dove are included on the middle list, and are therefore priorities for conservation.

Song thrush is not dependent on woodland, but prefers thick hedgerows and shrubby cover, living on a diet of worms, snails, slugs and insects. Encouraging a greater spread and diversity of woodland shrubs, like hawthorn, holly and elder (as well as

fruit-bearing trees like rowan), would therefore be useful, particularly along the woodland edges. Open, grassy areas are also important for feeding. It nests in the shrub layer seldom higher than 4m.

Again, grey partridge is not a woodland specialist, preferring extensively managed farmland, and heath, it will utilise scrub (and shrubby woodland margins) however it was last recorded in 1978, and was probably attracted to the much more extensive acid grassland and heather then present at the site. It may continue to use the woodland for cover. Skylark nests in thick, low cover and is a species of extensively managed farmland, particularly grassland, and probably does not breed in the woodland. Like grey partridge, it may have breed within the site when open habitat was more prevalent.

Spotted fly catcher prefers mature woodland, predominantly broadleaved, with an open canopy or open spaces including gaps created by fallen trees, rides and the edges of felling coupes. Its main food source is insects, caught mainly in flight. Its nest site is variable; in an open cavity or crevice, on top of a wide branch, against a trunk supported by a small branch, in a creeper. Nest height up to 10m.

Linnet will breed in very young coppice growth, and hence is unlikely to be breeding at the site. However, the restoration of hedgerows around the woodland may well benefit this species, which will breed in scrub and hedgerows. Typically nests in a bush, at heights up to 4m.

Tree sparrow is predominantly a bird of arable farmland, with scattered woods and trees. Whilst not a woodland specialist, it may feed along the woodland edge. Nests in tree hole-holes, up to 8m high.

Bullfinch is found in scrub, hedgerows and woodland, and in mature woods is often found mainly at the edge where undergrowth is thickest, feeding on seeds, buds, tree flowers and buds in the shrub layer. The nest is placed on a thick bush, 1-3m above the ground.

Turtle dove will breed in woodland, but predominantly in thick scrub, mid-coppice growth and woodland edge, feeding on the surrounding farmland. Nests in a bush or low tree, 1-5m, but mostly less than 2m above the ground.

Sparrowhawk, mallard, greenfinch, treecreeper, coal, blue and great tit, chiffchaff, willow warbler, dunnock, goldcrest, woodcock, nuthatch, yellowhammer, brambling, lesser black-backed gull and redwing, are all included on the BAP long-list.

In general the species recorded reflect the structural and habitat variation of the woodland and surrounding countryside. Blackbird, chaffinch, robin, dunnock wren, blue tit, greenfinch and chiffchaff prefer woodland edge habitats, scrub and dense regenerating woodland. A dense, often bramble dominated field layer is also important.

Species preferring more mature woodland, and present at site, include treecreeper, sparrowhawk, coal tit, nuthatch, and great tit. As the naturally - regenerated Sessile oak - birch woodland matures, all these species will benefit. Willow warbler and willow tit prefer wet, scrub woodland and edges with dead wood for nesting. Standing dead wood and tree holes provide nesting sites for nuthatch, treecreeper, and tit species, and it is very important that this resource is maintained.

Turtle dove, and magpie often breed in woodland, but feed in adjacent habitats, particularly farmland. Linnet and yellowhammer will breed in very young coppice growth, and hence are unlikely to be breeding in Wickersley Wood. Tree sparrow is generally a species of arable farmland (Fuller, 1995).

Clearly, the woodland is under-recorded and it would be worthwhile initiating further surveys perhaps by encouraging local naturalists and bird groups to visit the woodland on a more regular basis. Every day visitors could also be encouraged to carryout survey work and to report unusual sightings or higher than usual numbers of any one species. The properties on Wood Lane that back onto the woodland have large gardens and it is highly likely that birds resident in the woodland will make use of the adjoining gardens, possibly to feed on fruits from garden plants. Surveys of bird species in these gardens by the residents would help provide more meaningful information on the numbers of species resident in the wood. The surveys may also help identify species that were not previously recorded in the wood.

Table 2.2 Species of conservation concern likely to be resident within the woodland

Common and Scientific Name	Status	Habitat requirements	Threats
Linnet *Caruelis cannabina*	UKBAP, Priority, RSPB red status	Farmland: prefers weedy fields, hedgerows, gorse thickets, heathland and scrub.	Changes in agricultural practices, removal of hedges, heavy grazing and re-seeding of species rich fields.
Spotted Flycatcher *Muscicapa striata*	UKBAP, Priority RSPB red status	Open wooded habitats, mature woodland, hedgerows with mature trees and parkland	Not well known, possible causes include weather change and loss of nest sites (large trees).
Bullfinch *Pyrrhula pyrrhula*	UKBAP Priority RSPB amber status	Woodland, orchards and farmland, closely associated with dense shrubs, scrub and untrimmed hedges.	Removal of farmland trees, loss of nesting habitat (hedges & thickets) loss of winter food. Will not forage far from shrub cover.
Turtle dove *Streptopelia turtur*	UKBAP Priority RSPB red status	Associated with fertile arable land in warm dry situations. Nests in large hedges & mature scrub.	Agricultural changes, loss of nesting habitat of hedgerows & scrub, possible effects of climate change.
Skylark *Alauda Arvensis)*	UKBAP Priority RSPB red status	Bird of farmland areas	Changes in agricultural practice, reduction of winter stubble, intensive grassland management.
Grey partridge *Perdix perdix*	UKBAP, Priority RSPB red status	Feeds in open farmland and nests in cover of hedge bottoms or dense shrub.	Loss of nest sites caused by agricultural intensification.
Song thrush *Turdus philomelos*	UKBAP, Priority RSPB red status	Woodland edge species preferring areas adjacent to farmland and gardens to feed on molluscs and snails	The species has been in long term decline nationally. This trend may be linked to intensification in agricultural practices.
Green Woodpecker *Picus viridis*	RMBC Key Species RSPB green status	Standing dead wood for nesting whilst preferring to feed in open grassed areas. Ground feeders, they will break open ants nests to feed on ants.	Although they were locally rare 10-15 years ago the population has expanded considerably and is now relatively common in Rotherham. Removal of large standing dead wood for safety reasons and perceived 'tidying' of woodlands would threaten nesting sites.
Great spotted Woodpecker *Dedrocopos major*	RMBC Key Species RSPB green status	High in woodland canopies, particularly when feeding young. Feed on invertebrates living in dead wood.	Common and are not currently threatened. Removal of standing dead wood would threaten nest sites. Removal of fallen dead wood would threaten feeding.
Sparrowhawk *Accipiter nisus*	RMBC Key Species RSPB green status	Woodland, hedges and scrub to nest. Hunts in rough ground and glades sometimes visiting domestic gardens. Preys on small birds.	Persecution and egg collection. Removal of hedgerows. Numbers are on the increase after the dramatic decline in the Sixties following organophosphate poisoning.

Glossary: UKBAP – United Kingdom Biodiversity Action Plan, British Trust for Ornithology (Red status, Amber status and Green status)
RMBC Key Species – plant and animal species included on the BAP list that have been recorded in Rotherham over the past 25 years.

(e) Invertebrates

The invertebrate interest recorded to date includes many species, which are typical of woodland, some being dependent on particular trees, grasses or fungi. Others prefer the heather of the acid grassland glade. The invertebrate interest has been recorded on a reasonable number of occasions since 1977, including a pitfall trapping programme during 1980-1981.

Molluscs

8 have been recorded. None are uncommon in Rotherham.

Orthoptera

The only species recorded are the field grasshopper and earwig, both common insects in Rotherham.

Bugs

35 bugs have been recorded, comprising 3 shieldbugs, 2 groundbugs, 2 flowerbugs, 12 plant bugs, 1 grassbug, 1 froghopper, 11 leafhoppers, 1 lacehopper, 1 jumping plantlouse and 1 aphid.

The leafhoppers *Linnavuoriana decempunctata* (1989) and *Fagocyba carri* (1986) are local in the UK. The first was collected from the north-eastern corner of the wood, within the Sessile oak-birch woodland and feeds on the birch, but hibernates on gorse. The latter feeds on oak. The ground bug *Kleidocerys resedae* (1985 and 1989), which is local in northern England, was found in the acid grassland glade, and is associated with birch, alder and Rhododendron.

The ground bug *Drymus brunneus* (1978) is uncommon in Rotherham and is found in moss and litter, usually in rather damp or shaded places.

Lacewings

5 species have been recorded, including the white lacewing *Semidalis aleyrodiformis* (1980), which is local in the UK and associated with a variety of trees, including oaks, birches and holly.

Beetles

23 beetles have been recorded - 3 ground beetles, 1 featherwing beetle, 1 scydmaenid beetle, 11 rove beetles, 1 ladybird, 2 leaf beetles, 1 seed weevil, 2 weevils and 1 bark beetle.

The ground beetle *Pterostichus oblongopunctatus* (1977) is nationally Notable, and was found along the southern edge of the Sessile oak-birch woodland. It lives under decaying tree bark in woodlands.

The following are local in the UK: the ground beetle *Leistus rufomarginatus* (1978 and 1984) was also found along the southern edge of the Sessile oak-birch woodland, and lives under loose bark and stones or in grass tussocks; the rove

beetles *Philorinum sordidum* (lives in flowers, particularly gorse), *Philanthus rotundicollis* (both 1977), *P. tenuicornis* (1978), *Atheta gagatina* (1985) and *Oxypoda umbrata* (1985). *A. gagatina* (1985) lives in fungi. The ladybird *Coccinella hierglyphica* (1986) was found in the acid grassland glade, and feeds on the larvae of the heather beetle; the seed weevil *Trichapion simile* and the weevil *Coeliodes rubicundus* (both 1989), were both recorded from the north-eastern corner of the Sessile oak-birch woodland. The first feeds on birch. The green leaf weevil (1984) feeds on various trees and shrubs. The small elm bark beetle (1978) has been recorded and is local in northern England.

The featherwing beetle *Ptenidium laevigatum* (1989, from the Sessile oak-birch woodland), the scydmaenid beetle *Stenichnus collaris* (1978) found in grass tussocks, leaf litter and moss in woodland; the rove beetles *Othius myrmecophilus* (1978), found in grass or leaf litter, *Philanthus concinnus* (1979), *Mycetoporus lepidus* (1989, recorded in the acid grassland glade), found in low vegetation, in moss and plant debris; *Lordithon thoracicus* (1985) found in rotting fungi, and the willow leaf beetle (1985), are all rare in Rotherham.

The violet ground beetle (1980), the rove beetles *Philanthus laminatus* (1977) and *Atheta castonoptera* (1985) and the heather beetle (1980 and 1989, found in the acid grassland glade) are all uncommon in Rotherham.

The ground beetle *Pterostichus oblongopunctatus*, the featherwing beetle *Ptenidium laevigatum* and the rove beetles *Philanthus concinnus* and *Atheta gagatina* have not been recorded from any other site in Rotherham.

Lepidoptera

50 lepidoptera have been recorded, including 6 butterflies - large white, small white, peacock, meadow brown, painted lady, and gatekeeper (last two 1996, in the acid grassland glade) - 10 macromoths and 34 micromoths. The tortix moth *Gypsonoma dealbona* (1989) is local in the UK. It frequents open woodland where the caterpillars feed on poplars, hawthorn, oaks, hazel and willows. *Stigmella splendidissimella* (1986) lays its eggs on bramble, wood and water avens, *Neofactula ericetella* (1984) lays its eggs on heather, and *Hysterophera masculosana* (1984) lays its eggs and feeds on bluebell and hibernates in an umbellifer. All are rare in Rotherham.

Odonata

In 1996, the brown hawker dragonfly, which is often found in sheltered grassland, was seen in the acid grassland glade.

Flies

105 flies (3 winter gnats, 8 craneflies, 1 moth fly, 1 mosquito, 1 black fly, 3 St. Mark's flies, 1 fungus gnat, 7 gall midges, 1 snipe fly, 18 empids, 5 dolichopodids, 2 pointed-wing flies, 1 scuttle fly, 11 hoverflies, 33 acalypterates and 9 calypterates) have been recorded and 17 of these are significant;-

The acalypterate fly *Aulogastromyia anisodactyla* (1978, 1985 and 1986) is nationally Notable. It is ecology is unknown, but it may breed in decaying vegetation.

The winter gnat *Trichocera hiemalis* (1986), the empids *Rhamphomyia albipennis*

(1989), found from the Sessile oak-birch woodland and *Hilara nigrohirta* (1985), normally found swarming over water, the dolichopodid *Scellus notatus* (1985), which breeds in wet or damp situations, and the acalypterate *Sapromya hyalinata* (1985), are all local in the UK.

The scuttle fly *Megaselia brevicostalis* (1980), found from the Sessile oak-birch woodland, is rare in Rotherham and not known from any other site in the Borough.

The cranefly *Ula sylvatica* (1989), whose larvae live in toadstools, and the lesser dung fly *Spelobia rufilabris* (1989), recorded from mouse nests, have been found in the Sessile oak-birch woodland; the lesser dung fly *Minilmosina vitripennis* (1989) was found on the southern edge of this community. The moth fly *Pericoma compta* (1986), the empids *Platypalus clarandus* (1985) which breeds in wet and damp conditions, and *Platypalpus notatus* (1985), which occurs near water and on woodland edges, the leaf mining flies *Liromyza pedestris* (1985), whose larva mines wavy hair-grass (and probably other grasses) and *Phytomyza spinaciae* (1986), which feeds in the leaves of creeping thistle and the chloropid *Tricimba cincta* (1985), are all uncommon in the Borough.

Hymenoptera

42 hymenoptera (3 sawflies, 6 ichneumons, 11 gall wasps, 1 parasitic cynipid wasp, 4 chalcids, 3 protorupoids, 2 dryinids, 4 ants, 3 wasps and 5 bees) have been recorded in Wickersley Wood.

The red ant *Myrmica scabrinodis* (1978, 1980 and 1985) is local in northern England, though very common in Rotherham, and prefers short-turf, alkaline grassland and boggy places.

The cynipid wasp *Ganaspis subnuda* (1985), the chalcid *Pteromalus sequester* (1977) and the proctotrupoid *Belyta lativentris* (1986) are rare in Rotherham.

The sawfly *Aneugmenus padi* (1978), which feeds on bracken, the_ichneumons *Cratichneumon fabricator* (1984), and *Oiorhinus pallipalis* (1989, found in the southern edge of the Sessile oak-birch woodland), the gall wasp *Ceroptres orator* (1985), the proctotrupoid *Trichopria atricornis* (1989), found on the southern edge and northern corner of the Sessile oak-birch woodland and the dryinids *Aphelopus holomelas* and *Anteon jurineanum* (both 1985), are all uncommon in the Borough.

Crustaceans

6 woodlice are known from the woodland, including *Haptophthalnnus mengee* (1977) which is local in the UK. It lives in soil.

Arachnids

44 arachnids (5 harvestmen, 34 spiders and 5 gall mites) have been recorded from the woodland. The harvestman *Paroligolophus meadii* (1978), which is found in dry, grassy areas under heather and may be endemic to the UK, the money spiders *Dicymbium nigrum* (1978), which lives in undergrowth and heather, *Tapicocyba pallens* (1980-81), found amongst pine needles and dead leaves and *Lepthyphantes pallidus* (1980, recorded from the Sessile oak-birch woodland), found amongst grass and heather on moor land), are all local in the UK.

The foliage spider *Clubiona terrestris* and the comb-footed spider *Euryopis flavomaculata* (both 1977) are local in northern England. The latter lives in moss, particularly in heathy places.

The jumping spider *Evarcha falcata* (1977), which is found on heaths and in woods, is rare in Rotherham. The harvestman *Lacinius ephippiatus* (1978), the comb-footed spider *Theridion varians*, the money spider *Maso sundevalli* (both 1985) and the gall mite *Eriophyes rudis* (1978), which lives in the buds of birches, are all uncommon in Rotherham.

The site was added to English Nature's Invertebrate Site Register in 1986 (Biological Records Centre, Museum and Arts, 1996).

Although only recorded on a small number of occasions, the invertebrate interest includes a range of nationally notable species and those local in the UK. Some have been recorded from no other site in Rotherham Borough. All depend on the present mixture of habitats, both the Sessile oak-birch woodland, either living or as dead wood, and the acid grassland glade and in particular its community associate heather. Grasses, such as wavy hair-grass are also important for many of the invertebrates recorded. Gorse is also important for several significant species as are other valuable early nectar sources like hawthorn, and willow species.

Dead and decaying wood is rare and should be retained wherever possible. Future silvicultural operations should aim to leave a proportion of deadwood on the woodland floor. Within the mature woodland, a proportion of trees, away from the permissive and public footpaths, should be allowed to die and collapse naturally.

(f) Amphibians, Fish and Reptiles

Common frog was last recorded in 1984. Common toad was recorded from the abandoned quarry (two adults), in 1996 (Amenities and Recreation, pers. comm, 1996). Both species are included on the BAP long-list.

2.2.3 Cultural

2.2.3.1 Legal Obligations

(a) Conditions of the lease with the owner, William Warde-Aldam and Associates

The lessee covenants with the lessors as follows:-

(i) To pay the yearly ground rent of one peppercorn if demanded.

(ii) To indemnify the Lessers against all rates, drainage charges and other outgoings payable in respect of the Wood.

(iii) To use the wood or permit it to be used as a public open space or country park for public recreational purposes only.

(iv) Not to permit any buildings to be erected in any part of the wood except for buildings and ancillary to the permitted user of the wood set out in sub-clause (v).

(v) To keep in repair all buildings erected by the Lessee in the wood.

(vi) Within two years to plant a quickthorn hedge along these boundaries of the wood marked in green on the attached plan and within 3 months of receiving a request in writing from the Lessors at any time during the term to ensure that such hedge is stock proof and thereafter to maintain such hedge in repair.

(vii) To maintain all watercourses crossing the wood or forming the boundaries to it.

(viii) To compensate the Lessors for and to indemnify them against any claims in respect of damage to woods, crops or chattels being or growing on any adjoining or neighbouring land (including personal injury) caused by any fire which may start in the wood and spread to such adjoining or neighbouring land.

(ix) Upon any change in the person liable for the payment of the ground rent and performance of these covenants to send written notice thereof to the Lessor and if required by the Lessors to produce evidence in support.

(x) To ensure that nothing at any time be done in the wood that shall be a nuisance annoyance or injury to any part of the Lessor's adjoining or neighbouring land or its occupiers provided that the user of the wood in accordance with the provisions of sub-clause (v) shall not itself be a contravention of this clause.

(xi) To indemnify the Lessors against all liability arising under the Lease and against all requirements of any competent authority in relation to the wood.

(xii) To pay all costs and expenses incurred by the Lessors in connection with the preparation and service of any notices or proceedings under Section 146 and 147 of the Law of Property Act 1925 (or any modification or re-enactment thereof) even if forfeiture is avoided otherwise than by relief granted by the Court.

Reservations excepted from the lease:-

(xiii) Unto the National Coal Board all coal mines of coal which by virtue of the Coal Acts 1938 and 1946 are vested in it together with all property and rights and subject to which the same is so vested.

(ixv) Unto the Lessors all mines and minerals (other than coal) underlying the Wood with full power and liberty for the Lessors to win work and carry away the same by underground workings only without liability for damage occasional thereby.

(iixv) Unto the Lessors all existing rights of drainage and passage of water under and through the Wood in favour of the adjoining property provided that the Lessee may at its own expense divert and reconnect any such watercourses, drains and pipes such work to be carried out to the satisfaction of the Lessors or their Surveyors.

(xv) A lease dated 24th July, 1961, between William Warde-Aldam and Yorkshire Electricity plc concerns a generator (S/S 2629) at SK485914. Refer to Figure 1.5.

(b) Tree Preservation Order

The whole woodland, including the adjoining privately owned woodland*, is covered by the Rotherham Borough Council Tree Preservation Order No. 3, 1975. Therefore, prior consent from the Local Planning Authority is normally required for any works affecting trees at the site, in accordance with Regulation 17 of the Town and Country Planning Regulations, 1999. However, the LPA's consent is not required for cutting down of trees in line with a plan of operations agreed by the Forestry Commission under one of their grant schemes or where a standalone felling licence has been granted. Nevertheless, a Tree Preservation Order application may be required if the proposed works include the following operations that are unlicensed in respect of the Forestry Act:

- The felling of trees with a diameter of 8cm or less at breast height (1.3 metres), or 15 centimetres or less in the case of coppice or underwood.

- The thinning of trees with a diameter of 10 centimetres or less.

All applications will be submitted to Rotherham Metropolitan Borough Council. Any notifications of exempt works will also be dealt with in a similar manner.

(c) Public rights of way and other access

One definitive footpath (no.8 Wickersley) crosses the woodland following the western boundary. The West Riding County Council designated this in 1952. Footpath no.7 passes close to the north east and path no.8a passes close to the south east of the woodland.

A claim was made to the Public Rights of Way Unit within Streetpride of Rotherham Borough Council to designate a number of the paths through the wood as bridleways. Wickersley Parish Council have maintained in place 'no horse riding' signs for quite a number of years. This provides evidence that horse riding is not permitted in the woodland and the claim was unsuccessful.

(d) Wayleaves and easements

An electrical substation, owned and maintained by YEDL, is located on the northern boundary of the wood next to the main entrance off Wood Lane (see figure 1.4).

(e) Boundary responsibilities

Around half of the boundary is enclosed with fences and hedges installed, planted and maintained by the residents of the adjoining properties. These are generally in good repair, the residents being keen to maintain the boundaries for security reasons. Fencing was installed by the Parish Council between 2001 to 2006 along the northern, eastern and southern boundaries as part of the Heritage Lottery Fund Award and following funding from a Forestry Resources Grant. Conditions of these grants state that they must be maintained in a good state of repair. More recently a new post and rail fence and associated gates have been installed along the northern boundary of the woodland since the Parish Council took ownership of this small area of woodland.

(f) Insurance

Wickersley Parish Council is not insured for any damage or loss to the woodland. However, the site is subject to the conditions of the Heritage Lottery Fund Award that includes an obligation to the Council to cover the costs of repairs and replacement in accordance with approved purposes as identified in the ‘statement of intent’ to the Heritage Lottery Fund. Similarly, conditions within the Forestry Resources Grant require the Parish Council to cover the costs of repairs and replacement for work subject to a Forestry Resources Grant.

(g) The Forestry Acts.

As well as requiring permission under the Tree Preservation Order Regulations, any tree works must also be in accordance with the Forestry Acts (1967, as amended). Therefore a Felling Licence will be required if felling more than 5 cubic metres of timber a calendar quarter, or 3 cubic metres a quarter if the timber is to be sold. A licence is only required in respect of trees that have a diameter at breast height of greater than 8 cms or, in the case of thinnings 10 cm at breast height or 15cm at breast height when coppicing.

Any management work carried out in the woodland during the coming five year work programme will first secure a standalone felling licence where one is necessary.

Also, all future silvicultural management will aim to be sustainable and meet the criteria laid out in the UK Forestry Standard (2017), The Strategy for England: Trees, Woods and Forests (2007), United Kingdom Woodland Assurance Standard 4 (UKWAS) and Biodiversity 2020.

(h) Protected Species

Wildlife and Countryside Act 1981 (as amended)
There are a number of protected species recorded in the woodland, including bluebell and all species of bats and nesting birds. Their protection must be taken into account in the management of the woodland. The legislation concerned with their protection is the Wildlife and Countryside Act 1981. Broadly the Act makes it an offence (subject to exceptions) to:

Intentionally kill, injure or take any wild bird or their eggs or nests.
Intentionally kill, injure, or take, possess, or trade in any wild animal listed in schedule 5 of the Act and prohibits interference with places used for shelter or protection and to disturb these places.
Pick, uproot, trade in or possess (for the purposes of trade) any wild plants listed in schedule 8 of the Act.

Conservation (Natural Habitats, & c.) Regulations 1994 ('The Habitats Regulations')
In addition to the above, amendments to the Habitat Regulations came into force on 21 August 2007 which increases the legal protection given to a schedule of European Protected Species in England. In respect of Wickersley Wood this list includes all bat species found in the area and possibly great crested newt. Currently the other species listed rarely if ever occur. These are dormice, otter, sand lizard and smooth snake.

The amended regulation includes any damage or disturbance of a breeding site or resting place of a European Protected Species as an offence, whether it is accidental or deliberate. Therefore, how Wickersley Wood is managed and how forestry operations are carried out will require very careful consideration and planning. The risks of committing an offence may be reduced by making the necessary checks and surveys, modifying operations and following good practice guidance. Where it appears there is no satisfactory alternative a licence application will be submitted to the Forestry Commission. The licence will be issued by Natural England. Applications needed for non forestry operations (generally not subject to the terms of the Forestry Acts) e.g. tree survey and demolition of building etc will be made direct to Natural England. Licences may be approved with conditions attached.

Surveys for evidence of bats, including temporary roosting sites will be carried out prior to any works taking place. The council also has in place procedures and guidance in its contracts to be followed by contractors to further assist with the protection of bat species.

Table 2.3 European Protected Species (EPS) inhabiting woodland

This table establishes the likelihood of EPS inhabiting Wickersley Wood, describes their habitat, potentially damaging activities to habitat and measures to avoid damage.

Species	**Is woodland close to current known species range?**	**Are there records of species in the woodland ?**	**Woodland habitats types used by the species.**	**Potentially damaging operations for the species.**	**Risk of undertaking potentially damaging operations in this woodland.**	**Good practice measures for the species to avoid breach of the regulations. See Forestry Commission and Natural England's good practice guidance for each species.**
All 17 species of bat	Yes	Yes	Anywhere bats can take shelter. Roosting requirements: In any tree with holes, cracks crevices or loose bark. Broadleaves 80 years and over are most attractive. Foraging requirements; water, wet woodland, woodland edge, open areas such as parkland, hedges and glades.	Felling of any trees with actual or potential roost sites. Opening up of the canopy around actual and potential roost sites. Removal of sheltering trees close to roost sites. Changes to flight patterns for foraging (e.g. clear felling). Damage to rich foraging areas.	Very high	Identify and protect trees with confirmed roosts. Employ Sheffield Bat Group to assist with this. Protect buffer trees also. Complete walk over survey to determine numbers of potential roost sites across the woodland. If there are only a small number of potential roost sites protect as above. If potential roost site trees are abundant a small percentage may be felled in any 10 year period. Avoid disturbance to flight paths and foraging areas. Increase volumes for standing and fallen dead wood. Identify areas of low intervention management. Good ride management.
Dormouse	No. May be present in a neighbouring borough.	No	Broadleaved woodland with plenty of cover from coppice and shrubs/scrub and a plentiful food source from nuts and fruits.	Disturbance to habitat from operations such as felling, coppicing and extraction, particularly during the breeding season. The scale of the disturbance relative to the size of the woodland will also have an affect.	Negligible - lack of suitable habitat in the woodland.	Only undertake small scale operations. Thinning is less destructive than felling. Least damaging times of year are pre-breeding and the active period after breeding but before hibernation. The creation of dense scrubby and young coppice areas will benefit the species greatly.

Great crested newt	Yes	No	Breeding sites. Shallow ponds that warm up, together with small areas of standing water such as wheel rutts. Pond plants suitable for egg laying e.g. water plantain. Resting and hibernating sites. Dense undergrowth, beneath timber and log piles, tree roots, animal burrows and under stones and in dry stonewalls.	Anything that will cause disturbance to terrestrial habitat, particularly within 100 metres of ponds such as timber harvesting and extraction.	Low - lack of suitable habitat in the woodland and limited opportunity close by.	Limit operations in proximity to breeding ponds (up to 100 metres). Avoidance of trafficking through dense scrub. Identify areas that will not be disturbed during operations that will act as refuges. This makes re-colonisation by newts into other areas more likely following operations. Thinning and felling will increase opportunities for newts as the shrub layers improves following increased light levels. If timber is to be extracted stack well away from terrestrial habitat to avoid stacks being used as resting places.
Otter	Yes	No	Wet woodland, carr, thick scrub and quiet woodlands generally within 50 metres of rivers, canals, ponds, lakes and wetlands. Small streams and ditches are used as foraging grounds and corridors.	Sudden opening up of quiet areas for recreation. Felling, coppicing, extraction and other disturbing operations close to corridors, especially within 50 metres may damage holt and resting places.	Negligible-lack of suitable habitat within or around the woodland.	Avoid operations and trafficking within 50 metres of holts. Phase felling and coppicing works in corridors. Do not stack timber close to riparian corridors unless it is intended to be used as habitat piles. Changes to access for recreation should be planned carefully to avoid creating paths in sensitive areas.
Smooth snake and sand lizard	No (confined to southern England)	No	See Forestry Commission and Natural England's guidance notes.		No risk	

(j) Artificial structures

Benches
A number of metal and wooden benches are sited throughout the woodland. These are a simple design based on the locally known 'Barnsley bench' style. Originally they were made from timber felled from the woodland but this was in 2003 and a number have been replaced since that time.

Footpaths
The main footpath into the woodland from the sub-station entrance off Wood Lane was surfaced with crushed aggregate in 2001 as part of the HLF award. This remains in good condition.

Interpretative signs
Four were installed, again as part of the HLF award, at the most commonly used entrances. These are a simple wooden design with interpretation information and space for public notices behind a polycarbonate fronted door.

Sculptures
A number of wood carved structured have been positioned in the woodland. These are large carved animals mounted on plinths.

2.2.3.2 Site Safety

Although Wickersley Wood is not generally particularly hazardous in woodland terms owing to there being no deep quarries, steep slopes or deep water, there could potentially be safety concerns for users if the site was not managed with full consideration for safety. Potential safety concerns in Wickersley Wood are identified below.

(a) *Dangerous Trees*

Trees are living, dynamic structures which undergo a number of stages in life, including decline and senescence. Die back of branches will occur naturally at some point in the life of a tree. Trees may also become infected with different species of fungi that can have the capacity to cause decay (biotic damage). Trees are also exposed to the natural elements such as wind, lightning and snow (abiotic damage). Trees in woodlands with public access may also be subject to vandalism. Both biotic and abiotic damage has the potential to weaken part of, or the whole tree making the tree dangerous in situations where partial or whole collapse could occur. In areas where people or property are present then the tree could be considered dangerous. It is the responsibility of tree owners to ensure their trees do not pose a threat to people or property by carrying out inspections and undertaking the necessary remedial work to maintain trees in a safe condition.

(b) *Manmade Hazards - rope swings*

Rope swings hung from trees are common in woodland. There are potential safety risks if swings are attached to weak tree limbs or weak rope is used. Swings over footpaths may conflict with use of the paths by walkers.

(c) *Flytipping and dangerous rubbish*

Most of the boundary to Wickersley Wood is now secure and the site does not suffer badly from flytipping problems. However, flytipping can be hazardous when controlled waste such as asbestos or chemicals are involved or where food wastes are concerned.

(d) *Conflicting recreational uses*

Wickersley Wood is very well used by a wide cross section of the community for a number of recreational pursuits. Some of these pursuits may conflict with one and other and there are implications for the safety of site users. Illegal pursuits such as motor bike scrambling on footpaths conflict with use of the site for walking. The measures to control the boundaries and access points to the site have helped to reduce the instances of illegal and unauthorised access to the site.

(e) Fire Plan

Wickersley Wood suffers relatively few fire-related problems. With the exception of the acid grassland glade (compartment 1D) there is little in the way of a fuel source for fire setting. From time to time fires are lit in the woodland but these tend to be contained. Whilst the remains of fires and the associated litter is a problem the fires themselves have not been damaging to the woodland.

2.2.4 Archaeology and Historic Interest.

(a) Archaeology

Apart from a disused quarry on the southern edge of the wood, (earliest mention is 1861, Doncaster Archives Library DDWA/E/S/4) the only features of note are boundary earthworks. On the western boundary there is a deep ditch, which Jones (1990) has suggested has the appearance of an enlarged and deepened natural feature. Along the southern boundary there is a conspicuous bank into which a wall has been built in the eastern half. Other weak banks and ditches criss-cross the woodland in places. These may be related to the previous coppice management of the site. A site visit with the South Yorkshire Archaeology Service suggested the woodland is of local value for archaeology. However, in the long term, mapping of the ground features would allow a clearer interpretation and may highlight further areas for survey (SYAS, 1996).

(b) Land use history

The Danes conquered the Wickersley area in 870 and called it *Vikarrs-Ley*. Vikkars is a personal name, whilst ley is an Anglo-Saxon word meaning woodland clearing. (Victoria County History, 1974)

At the time of the Domesday Book in 1086, the area was *waste*. However, in 1066 Aldene and Eston owned 4 carucates (about 120 acres each), valued at 40s, with wood pasture half a league in length and half a league wide (Draper, undated).

Wood-pasture was prevalent where woods were widespread and population sparse

and scattered. Woodland was exploited for its trees and used as grazing for animals. As populations grew, demands for timber grew and pressure from grazing animals prevented regeneration. Woods became scarce and valuable resources that had to be fenced or bounded by walls and banks to prevent animals from entering. At the same time, a type of management which gave a continuous and self-renewing supply of trees was introduced, i.e. coppicing.

In 1510, the Manor of Wickersley comprised 8 houses, 2 tofts, a mill, 200 acres of land (presumably agricultural), 20 acres of meadow, 10 acres of pasture and 20 acres of woodland (Draper, undated). The present day Wickersley Wood is around 35 acres in size.

The wood is listed among the *spring* woods, i.e. coppice, belonging to the 7th Earl of Shrewsbury, in a document compiled between 1598 and 1616. It was said to contain 30 acres of 17 year old coppice. The wood is listed in Whiston Lordship suggesting that it was an isolated property in the adjoining Parish of Wickersley.
It has not been found in later records of the Shrewsbury's and their successors, the Howards, after that time and so it must have been disposed of at an early date (Jones, 1990).
The wood is clearly marked on Thomas Jeffrey's map of 1771, but its shape and alignment are different from those of today. However, Jeffrey's map frequently misses or mispositions known woodlands (Jones, 1990). Early nineteenth century maps (Sanderson, 1824) show it exactly as it is today, except for the narrow strip along Wood Lane developed for housing in the early twentieth century.

The 1854 Ordnance Survey suggests that the woodland had been converted to mixed broadleaved and coniferous woodland and research shows this was the case (see below). By the first half of the nineteenth century, coppicing was already in a terminal decline in the face of new fuel markets, particularly coal, and the replacement of wood by iron and steel in manufacturing and construction. Many woodlands in South Yorkshire were converted to high forest by planting, and singling of coppice stools (Jones, 1995). It is not known when the Warde-Aldam family gained ownership of the woodland, but it was certainly in their hands from the early nineteenth century. Doncaster Archives Library hold the family papers, which give a detailed account of activity in the woodland during the period 1848-1858. For example (Doncaster Archives Library):-

	1856	**1857**	**1858**
Oak felled and sold (m^3)	52	44	49
Stakes made and sold	960	1900	1500
Bark peeled and sold (tons)	9	11	-
Trees planted	-	26,600	10,300
Profit	£46 2s 2d	£56 17s 7d	£39 1s 4d

The peeled bark would have used to make tannin for leather making (Jones 1995).

Coppicing appears to have ceased fairly early at the wood, with the establishment of a Larch plantation in 1816 (Doncaster Archives Library DDWA/363). A wide range of species were being planted during the 1850s including sweet chestnut, beech, sycamore, "Spruce Firs" (probably Norway spruce), "Scotch Firs" (Scots pine), birch, ash and larch. Larch seems to have been planted more than any other species. These species probably replaced the oak as it was removed. A mature elm was felled

and sold in 1852 (Doncaster Archives Library, DDWA/363).

The present day woodland structure, typical of the eastern two-thirds of the site, is very indicative of extensive clear-felling in the past half century. This took place during World War II (Goodall, pers. comm., 1996). Since then, no further silvicultural work was apparent. An aerial photograph of the woodland taken in 1971 clearly indicates that much of this clear-felled area was still open at this time, and contemporary field visits at that time confirm this much more extensive clearing was acid grassland with heather (Museum and Arts, 1996).

The well recorded history of the woodland over the centuries is evidence that tree cover has existed on the site for at least 400 years, confirming that Wickersley Wood is ancient semi natural woodland. Ancient semi natural woodland is invaluable at supporting species of flora and fauna that do not thrive or disturbed land. Ancient woodland only accounts for approximately 1% of land cover in the UK. Many of these woodlands are only small and are isolated in the landscape from other areas of woodland. The preservation of remaining semi natural ancient woodland is essential to preserve flora, fauna and historic features not readily found in secondary woodland or other sites.

The majority of Wickersley Wood was leased to Wickersley Parish Council by the Warde-Aldam family, on 1st January, 1978, for the sum of £8,500. The remaining small area in the northeast corner of the site was purchased by Wickersley Parish Council in 2009.

c) Boundaries and artificial structures.

Most of the northern and western boundaries are demarcated by residential development. Some householders have created their own informal access into the site via a gate on their boundary. Residents are written to annually to remind them that they have no legal right of way into the woodland through those gates. The remainder of the northern boundary is fenced with post and rail fencing and includes a field gate, and two pedestrian gates. The southern and eastern boundaries appear to have originally been secured by a now totally neglected stone wall, with possible hedgerow remnants. Stock proof fencing now formally demarcates the southern and part of the eastern boundary. Scattered shrubs remain along this boundary. Part of the eastern boundary remains open. Like the southern boundary this was once enclosed by a stone wall.

2.2.5 Community involvement, recreation and access

(a) Access and recreation

Wickersley Wood provides a variety of opportunities for enjoyment of the countryside and informal recreational pursuits.

The site is quite flat and relatively free draining and dry in summer. On the whole, the site provides good access opportunities for a wide range of people with mixed abilities. It is also linked, to a small extent, to the surrounding countryside by several public rights of way.

Other woodlands in the area include Gibbing Greave and Herringthorpe Wood and part

of Silver Wood, owned by Rotherham Borough Council. These also have full public access. Gibbing Greave and Herringthorpe Wood can be reached from Wickersley along the Rotherham Round Walk which passes close to Wickersley Wood on Morthen Road. There are a number of other woodlands in the area in private ownership but which have public rights of way allowing access for walking.

Walking is perhaps the commonest informal activity taking place within the woodland. Groups from the local schools also use the woodland for cross country running and orienteering. The local Cub and Scout Groups use the woodland for nature and countryside study.

A range of events are also organised by the Parish Council. For a number of years successful events that have been held on an annual basis include an Easter Egg Hunt, Cub Spring Walk, Halloween Pumpkin Procession and a Lantern Walk in December that has included music and storytelling.

There is one definitive footpath and a number of heavily-used casual footpaths. Motorcycling and horse riding (there are no bridleways within the woodland) have been occasional problems in the past but these have been largely eliminated following years of active site management.

Five simple seats were installed during an earlier work programme. These were placed around the wood at identified locations where views out of the woodland were particularly good and on the edge of open areas such as the glade.

Large wooden sculptures of animals have been located around the woodland. See Figure 1.5 for locations.

Access furniture is located at the main access points around the boundary of the site (see figure 1.5). These are mainly wooden field gates, kissing gates or metal 'A' frames, intended to allow wheelchair access. Dog bins were installed at the two main entrance points to the wood off Wood Lane, greatly improving conditions in the wood, particularly at these entrance points.

(b) Community Involvement

The site is well used by the local community mainly for walking and quiet recreation. The Parish Council records a small number of complaints and concerns relating to the site such as under age drinking, minor vandalism, ramp building over paths for mountain bikes, fire damage particularly within the acid grassland glade and to a lesser extent motorbikes and fly-tipping.

The local community has always reported incidents, for example fly-tipping and anti social behaviour in the woodland, reporting any concerns back to the Parish Council.

The Parish Council has enjoyed the support of a volunteer wood warden over a number of years. The warden has had an active role in the day to day management of the wood. The role is one of the most valuable links between the Parish Council and visitors, providing visitors with information about management of the wood and to hear and answer public concerns.

The warden also assists with day to day duties such as litter picking and reporting of problems as well as assisting with events such as scrub and bracken management in

the glade and hosting visits by local groups.

Local interest in the management of the wood is high with some very good attendances at public events and consultation days. The Parish Council has an events programme for its countryside sites, including the wood. In recent years Easter Egg Hunts, bat walks and lantern walks with story tellers have been held and proved very popular.

(c) Interpretation and education

Interpretation signs were installed at four of the main entrances to the site in 2002 (see figure 1.5). These were installed as part of the Heritage Lottery Fund (HLF) Award programme for the woodland. The signs explain the importance of the woodland through time as well as its importance today and in the future. The boards also provide spaces for public notices.

A leaflet was also produced for the woodland as part of the HLF Award and the woodland is included in the heritagewoodsonline.co.uk website put together be South Yorkshire Forest Partnership as part of the Heritage Lottery Fund Programme.

The schools in Wickersley are located close to Wickersley Wood making access easy for classes. Local school groups often use the woodland for cross country running and study visits. The local Cub and Scout Group use the woodland for educational events and events organised directly by the Parish Council, such as bat and fungi walks, are available to the whole community.

2.2.6 Landscape value

Wickersley Wood is a major visual landmark within the local landscape. It is easily visible from the east and south where the wood is viewed across open agricultural land. Views to the north and west are limited mainly to glimpses through the adjoining residential roads; principally Wood Lane to the north, and Morthen Road to the west. Along both of these roads the woodland is a dominant backdrop to the residential gardens.

The wood is clearly visible from the M18 and the A631, across Lings Common. In addition, the surrounding land is endowed with a network of well-used paths including Slacks Lane to the east and First Lane to the south, providing clear views of the woodland. In all views, Wickersley Wood forms a significant feature on the sky-line, and is especially prominent from First and Second Lane. Within the residential areas, the views of mature beech and oak trees glimpsed between houses greatly contributes to the amenity of the roads. Refer to appendix 4 for full landscape assessment.

The woodland lies within the South Yorkshire Forest Rotherham Plain Zone, a mixed landscape of residential developments like Wickersley and Bramley, and rolling agricultural land. Situated on the southern edge of Wickersley forming a gateway to the open countryside of Whiston and Ulley to the south west, and Thurcroft and Hooton Levitt to the east.

2.2.7 Tourism

The Borough of Rotherham is well served by a comprehensive road network situated close to the M1, A1 and M18. There are also a number of high profile tourist attractions in the area such as the Magna Centre, Roche Abbey and the Tropical Butterfly House.

Tourism does currently contribute quite considerably to the local economy. However, attracting more people to the area and raising the profile of Rotherham as a tourist destination will depend on the area having an attractive environment.

Although Wickersley Wood does not in itself attract visitors to the area it does contribute considerably to the desirability of the area as a whole.

People visiting the area may use the woodland for walking and passive pursuits such as photography and natural history study. The route of the Rotherham Round Walk passes close to the wood on Morthen Road. The walk continues on to connect with Gibbing Greave, owned by Rotherham Borough Council and which has full public access. This provides good opportunity to link Wickersley Wood with other woodlands in the area.

The installation of interpretative signs may help attract visitors into the woodland and benches may encourage some visitors to spend longer each visit by providing resting places and places to admire views from.

Table 2.4 – Recreation pursuits associated with woodlands and their suitability in Wickersley Wood

Activity	Requirements	Impacts			Safety Issues*	Nature of the activity	Suitability for this woodland
		Erosion	**Wildlife Disturbance**	**Noise**			
Closed and open woodland							
Walking	Defined path network and waymarking. Information and interpretative signs are useful.	Low	Low	Low	**Minimal** (personal due care and attention)	Formal and informal / Individual or group based	Very suitable.
Photography	Open areas linked by path network.	Low	Low	Low	**Minimal** (personal due care and attention)	Informal / Individual	Very suitable
Wildlife study	Varied woodland structure but particularly open woodland linked by path network.	Low	Low	Low	**Minimal** (personal due care and attention)	Formal and informal / Individual or group based	Very suitable
Painting and sketching	Open areas linked by path network.	Low	Low	Low	**Minimal (personal due care and attention)**	Formal and informal / Individual or group based	**Suitable** however the lack of open areas may restrict potential.
Play (children's facilities)	Close mown area linked by path network, ideally close to parking facilities. Suitable play equipment and appropriate safety surfacing would be necessary.	Low	Low	Moderate	**Moderate.** Personal (adult supervision for young children) and duty of Council to maintain equipment in a safe condition.	Informal/ Individual or group based	**Unsuitable.** No suitable areas and no play equipment.
Cross country running	Defined path network that is waymarked	Low	Low to moderate, depending on numbers and season	Low	**Moderate** depending on numbers involved at any one time.	Formal ad informal / Individual or group based	**Suitable. For individuals.**

Activity	Requirements	Impacts			Safety Issues*	Nature of activity	Suitability for this woodland
		Erosion	**Wildlife Disturbance**	**Noise**			
Mountain biking	Defined bridle route that is waymarked.	High	Low	Low	**Minimal/moderate** Conflict with other path users. Personal due care and attention.	Informal/Individual	**Unsuitable.** There are no bridle routes through the wood.
Picnicking	Close mown open areas linked by path network, ideally close to parking facilities. Woodland furniture. High maintenance required.	Low	Low	Low/ Moderate	**Minimal.** Personal due care and attention and duty of Council to maintain furniture in a safe condition.	Informal/ Group based	**Suitable.** However no woodland furniture present.
Biathlon events	Defined path and track network	Moderate	Moderate	Low/ Moderate	**Moderate** – requires risk assessments and appropriate insurance from event organisers.	Formal/Group	**Unsuitable**. The woodland cannot support large numbers of cyclists – No bridle routes
Horse riding	Defined bridle route. Must be well surfaced if large numbers of horses use the woodland.	High	Low	Low	**Moderate/High.** Conflicts with other uses	Informal/Individual	**Unsuitable.** There are no bridle routes through the wood.
Orienteering	Diverse woodland structure (open and closed woodland).	Moderate	Moderate or high depending on the time of year	Low	**Low/Moderate** - requires risk assessments and appropriate insurance from event organisers	Formal/Group	**Not particularly suitable**. The woodland may be too open and even structured.
Camping	Open, close mown areas. Water supply, toilet facilities, refuse collection. Very high maintenance.	Low	Low/ Moderate	Moderate/ High	**Low** Moderate if fires were permitted. Personal due care and attention required.	Informal/ Individual or group based	**Very unsuitable.** No water supply or toilet facilities.

Activity	Requirements	Impacts			Safety Issues*	Nature of activity	Suitability for this woodland
		Erosion	**Wildlife Disturbance**	**Noise**			
Archery	Open woodland areas linked by path network				**High** - requires risk assessments and appropriate insurance from event organisers.	Formal/ Group	**Unsuitable**. Insufficient open space available.
Shooting (Clays, target, game and stalking)	Open ground for clays and target. Large rural woodlands required for game/ stalking.	Low	Moderate/ High	High	**Very high** - requires risk assessments and appropriate insurance from event organisers.	Formal/Group	**Very unsuitable**. The woodland is not large enough and is too heavily used for other forms of recreation.
Hunting	Varied woodland structure. Large woodlands with little public access. May even be necessary to close woodlands for this type of event.	Moderate	High	High	**Very high** - requires risk assessments and appropriate insurance from event organisers.	Formal/Group	**Very unsuitable**. The woodland is not large enough and is too heavily used for other forms of recreation.
Motor sports	Large woodlands with wide rides and tracks	High	High	High	**Very high** - requires risk assessments and appropriate insurance from event organisers.	Formal/Group	**Extremely inappropriate.** The track and ride network is inadequate. The woodland is too heavily used for other forms of recreation.
Adventure games e.g. paint ball	Large areas of multi-structured woodland with good cover for participants	Low/ Moderate	High	High	**High** - requires risk assessments and appropriate insurance from event organisers.	Formal/Group	**Very unsuitable**. The woodland is not large enough and cover for participants is poor. Wood too heavily used for other forms of recreation.

* For the purposes of this table, the assessment of safety issues has been made on the basis that equipment and facilities necessary for the activity would be in place.

Table 2.5 Other woodland provision in the area**.**

The table identifies other woodlands within a 10 Kilometre radius of Wickersley Wood. The private woodlands, particularly the larger woods, may be suitable for organised events. However, the individual policies of private owners are not expressed in the table. Landowners should be approached individually with proposals.

Name	Ownership	Distance from Wichersley Wood	Transport from Wickersley Wood	Extent of access	Benefits to community		
					Recreation*	Landscape value	Ancient woodland
Liner Wood	Private	1.5 Km	By adopted highway and unadopted track.	No public rights of way through wood although one does pass along its edge.	Owner should be approached for access.	Away from main public highways but its relatively large size makes it moderately important.	No
Brecks Plantation	Private	1.6 Km	By adopted highway	No public rights of way.	Owner should be approached for access.	Large woodland on the edge of a large residential area. High landscape value.	No
Wickersley Gorse	Wickersley Parish Council	1.9 Km	By adopted highway for most of the way then by public right of way along field boundary.	Full access.	Walking, photography, wildlife study, painting and sketching, picnicking, cross country running by individuals.	High landscape value – The site can be seen from the M1 motorway.	No
Dean Plantation	Private	2.0 Km	All by adopted highway.	No public rights of way.	Owner should be approached for access.	Woodland on the edge of a large residential area and connected to Brecks Plantation. High landscape value.	Yes
Gulling Wood. (Tree preservation order)	Private (Ogden Group)	3 Km	All by adopted highway.	There are several public rights of way.	Activities appropriate for public footpaths. Owner should be approached for additional access.	Large woodland area on the edge of Sunnyside and Dalton and next to a main road. High landscape value.	Yes
Silver Wood (Tree preservation order)	Rotherham Borough Council	3 KM	All by adopted highway	Full access, including public footpaths.	Walking, photography, wildlife study, painting and sketching, picnicking, cross country running by individuals.	Small woodland area immediately adjacent to a busy highway and residential areas. High Landscape value.	Yes
Gibbing Greave and Herringthorpe Wood	Rotherham Borough Council	3.5 Km	All by adopted highway.	Full access.	Walking, photography, wildlife study, painting and sketching, picnicking, cross country running by individuals.	Large, slightly elevated, woodland area on the edge of a large residential area. High landscape value.	Yes

Canklow Wood (Tree preservation order)	Rotherham Borough Council	6.0 Km	By adopted highway.	Full access, including public footpaths and permissive bridleways.	Walking, photography, wildlife study, painting and sketching, picnicking, cross country running by individuals, horse riding and orienteering. Group events should be by prior agreement.	Large woodland on the edge of Rotherham town centre with an elevated position. Can be seen from many parts of south Rotherham and the M1 motorway. Very high landscape value.	Yes
Burnt Wood	Private	6.5 Km	By adopted highway and over agricultural land	No public rights of way.	Owner should be approached for access.	Woodland has an elevated position and is prominent from A618. High landscape value.	Yes
Treeton Wood (Tree preservation order)	Rotherham Borough Council	8.0 Km	All adopted highway.	Full access	Walking, photography, wildlife study, painting and sketching, picnicking, cross country running by individuals.	Woodland has an elevated position and is prominent from A618. High landscape value.	Yes
Hail Mary Hill and Falconer Woods	Rotherham Borough Council	9.0 Km	All adopted highway.	Full access	Walking, photography, wildlife study, painting and sketching, picnicking, cross country running by individuals, horse riding and orienteering. Group events should be by prior agreement.	Woodland has an elevated position and is of high landscape value from a local context.	Yes
Maltby Wood	Private	8.0 Km	All by adopted highway	Several public rights of way.	Activities appropriate for public footpaths. Owner should be approached for additional access.	On the edge of Maltby. High landscape value.	Yes
Kings Wood	Private	8.0 Km	All by adopted highway	Public right of way	Activities appropriate for public footpaths. Owner should be approached for additional access.	Woodland is next to Roach Abby. High landscape value in a local context.	Yes
Rough Park	Private	8.0 Km	By adopted highway and unadopted tracks	No public rights of way.	Owner should be approached for access.	Large woodland close to two 'A' roads and Roach Abbey. High landscape value.	Part of
The Grove	Private	8.8 Km	All by adopted highway.	No public footpaths	Owner should be approached for access.	Close to Roach Abbey. Locally high landscape value.	Yes

*The suitability of activities have been assessed in accordance with the requirements described in table 1.2.3 (a) above.

Table 2.6 Inventory of Available Recreational Facilities

(a)	Habitat Types (i) Woodland - Wickersley Wood (ii) Acid grassland - open clearing within middle of the site (iii) Other countryside areas - arable land to the south and east
(b)	Viewpoints (i) From southern margins of the woodland across the agricultural land to the south and east.
(c)	Access (i) Definitive rights of way - one public footpath, Wickersley No. 8 crosses the site. Wickersley No. 7 runs eastward from the north-eastern extremity of the woodland. Wickersley No. 8a runs south from First Lane. Refer to Figure 1.4. There are finger posts on Wood Lane and First Lane to identify the right of way from the public higway. (ii) Heavily-used footpaths and casual footpaths - a large number exist. None are surfaced. Only the main casual paths are shown on Figure 1.4. There are 13 waymarker posts where necessary on the public and permissive footpaths. (iii) Access points and boundary control - refer to Figure 1.5 No. 1 - Access from Wood Lane between Nos. 28 and 26. A low stone wall demarcates the boundary and a squeeze through permits pedestrian access. An interpretative panel, sculpture and a dog bin are located here. The entry path is surfaced. No. 2 - Access from Wood Lane between Nos. 46 and 44. A locked wooden field gate allows vehicle access and a metal 'A' frame allows pedestrian and wheelchair access. A surfaced footpath allows for good disabled access. An interpretative panel, sculpture and a dog bin are located here. No. 3 - Access from Wood Lane, adjacent to No. 56. A locked wooden field gate allows vehicle access and a wooden kissing gate allows pedestrian access from the end of Wood Lane. The gate is reinforced by concrete blocks, The boundary is secured with a post and rail fence. An interpretative panel is located inside the main part of the woodland where is can be viewed by people entering from point 3 or 4. No. 4 - Access from the pedestrian part of Wood Lane and the section of Wood Lane to the east of the woodland. Pedestrian access is available through a wooden stile. No. 5 – Access from the neighbouring field into the southeast corner of the wood through a squeeze through. Pedestrian access only. No. 6 – Access from the neighbouring field on the southern boundary of the wood through a squeeze through in the stock fence. Pedestrian access only. No. 7 - Access from the end of First lane (SK485912). A wooden squeeze through is included in the stock fence allowing only pedestrian access. No. 8 - Access from First Lane, with a locked wooden field gate and stile providing vehicle and pedestrian access. No. 9 - Access from First Lane (SK484912). A locked wooden field gate and kissing gate provide vehicle and pedestrian access. An interpretative panel is located here.
(d)	Car Parks There are no formal car parks, although visitors to the woodland often park on Wood Lane at the main entrance by the YEDL substation.
(e)	Public Transport There are regular bus services between Rotherham Town Centre and Thurcroft with stops on Morthen Road close to Wood Lane and First Lane. These are also services between Rotherham Town Centre, Wickersley, Bramley and Maltby. There are stops for these services on Bawtry Road, close to Goose Lane, a short walk from the woodland.

3. THE WOODLAND RESOURCE

3.1 Quantitative Assessment

3.1.1 Methods of site survey and mensuration used

When the management plan was written in 1997 the site was divided into sub-compartments on the basis of its vegetation (woodland, heathland) and those sub-divided by community (for example, acid, neutral) and age-class, as necessary. Sub-compartment areas were later measured to the nearest 0.1ha. using MapInfo Professional 7.8.

Following definition, the structure and composition of the vegetation of each sub-compartment were described in detail. In addition, evidence of past management was noted. Compartment descriptions are given in Section 2.1.3. In the case of sub-compartments 1b and 1c, the standing timber volume per hectare was estimated by following Procedure 9 in the Forestry Commission Booklet 39 (Hamilton, 1975).

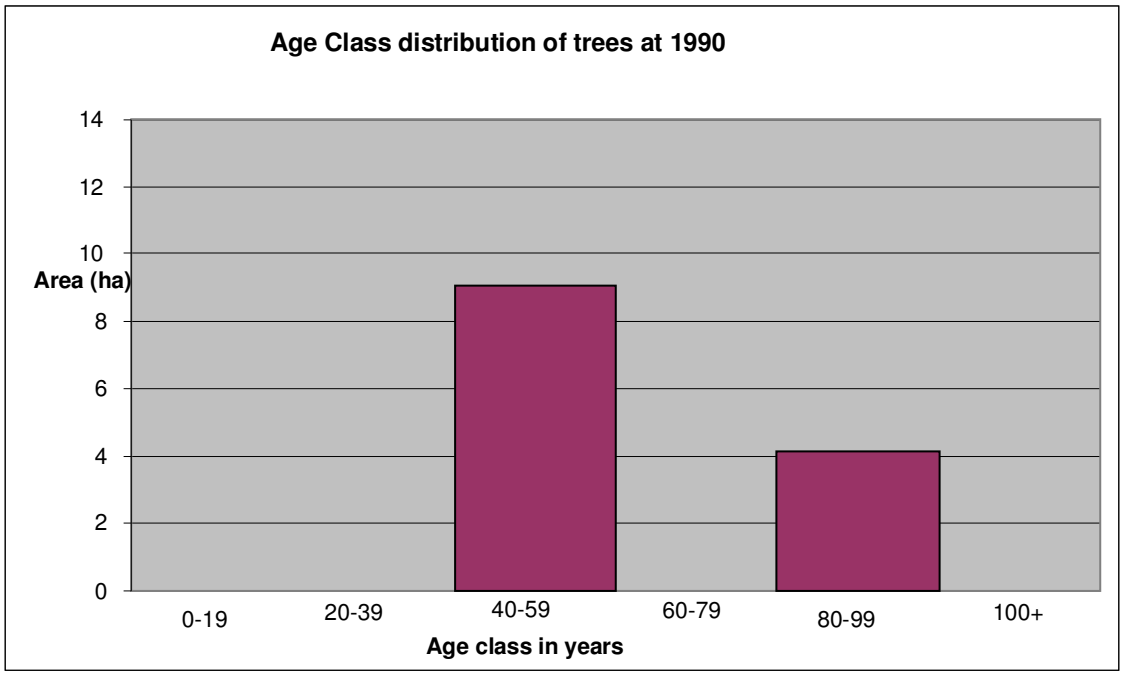
3.1.2 Summary of Inventory

Table 3.1(a) Compartment analysis

					Habitat Type	
S.cpt	Total Area (ha)	P. Year	Species	Vol. per ha./m^3	Broadleaf high forest (ha)	Acid grassland (ha)
1a	0.54	Mixed	MB		0.54	N/A
1b	4.11	Pre-1900	SOK	222	4.11	N/A
1c	8.96	45-80	SBI/SOK	135	8.96	N/A
1d	0.7	-			N/A	0.7
TOTAL	14.31				13.61	0.70

SOK - Sessile Oak SBI - Silver Birch MB - Mixed Broadleaves

Table 3.1(b) Age class distribution of trees throughout the woodland at 1990



The graph above shows the age structure of the woodland by area at 1990. The 80-99 age bracket represents the mature trees, principally beech, in compartment 1b. The 40-59 age bracket represents the mixed oak birch woodland throughout much of the rest of the woodland. No areas of the woodland are dominated by trees in any of the other age classes. Contrast this with the graph below following implementation of felling and coppicing works from the mid 1990s. The changes may look small but a steady continuation of this work over the years will progressively reduce the number of trees in the older ranges and increase the numbers in the younger ranges to give a more even representation of trees of all ages. With careful management of a selected number of the oldest trees these will be allowed to grow on to become over mature and veteran trees meaning that the 100+ age bracket will also be represented.

Table 3.1(c) Age class distribution of trees throughout the woodland at 2010

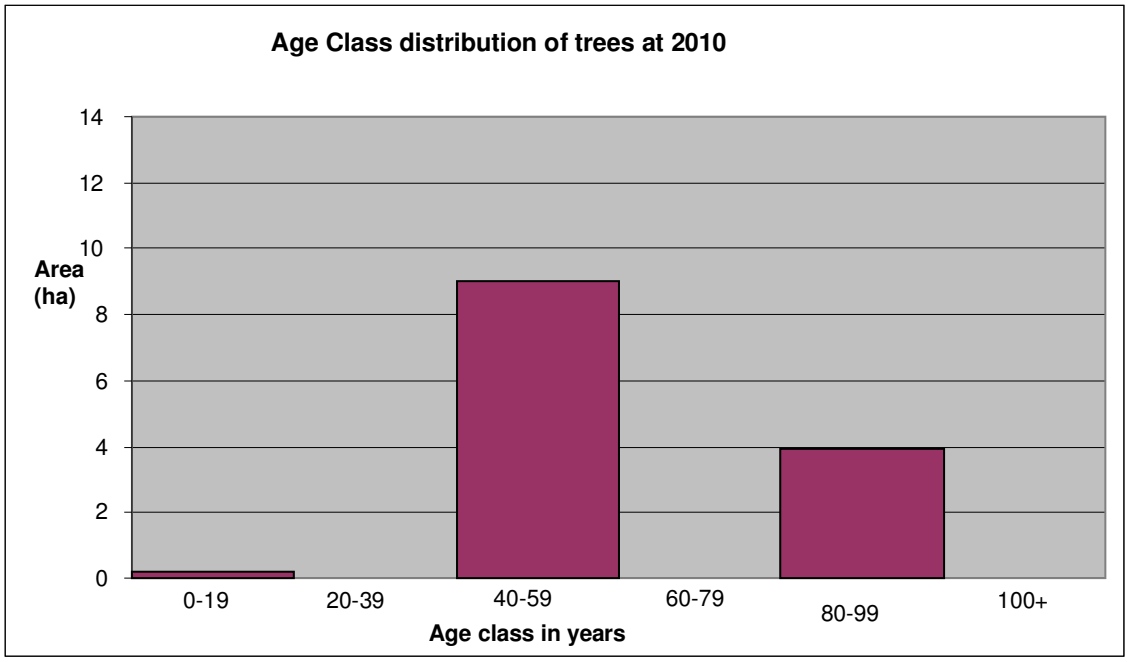
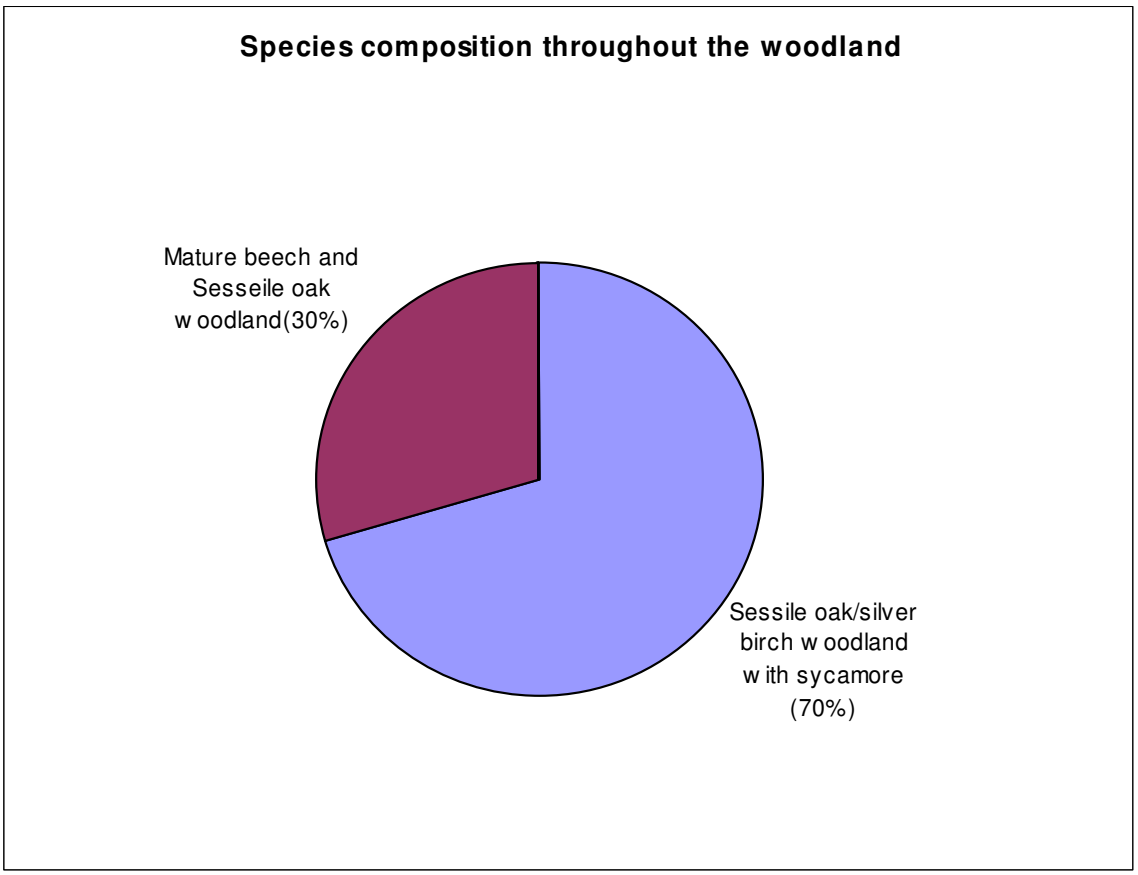


Table 3.1(d) Age class distribution of trees throughout the woodland at 2022

Table 3.1(e) Composition of the main species found in the woodland



3.1.3 Compartment Description

Sub-compartment 1a 0.54 ha.

Representing the western margin of the woodland, adjacent to Woodside Court, this is the most botanically rich area of the site. It is characterised by occasional 100 year old Sessile oak and ash, over an open understorey of elder, hawthorn, holly, hazel, wild cherry and regeneration of English and wych elm, rowan and sycamore. The field layer is dominated by plentiful bluebell with dog's mercury, bramble, lesser celandine, cow parsley, wood avens, wood sorrel and greater stitchwort, amongst others. A regime of coppicing was introduced during the 2003 to 2008 plan period and continued throughout 2010 to 2015 and 2017 to 2021. The coppicing is organised into nine parcels of approximately 30m long. The coppice stools have grown well and the parcels are developing dense cover of sycamore, elm and elder coppice, together with regeneration of rowan and cherry. Most parcels have now been coppiced at least once. One has been coppiced twice. Only two parcels remain uncoppiced. The whole rotation will have been completed by 2023. See figure 1.6 vegetation management for the location of the parcels and their coppice dates.

Sub-compartment 1b 4.11 ha.

Until the mid 1990s this sub-compartment had an almost unbroken canopy of 70 -100 year old Sessile oak, with beech and a smaller amount of sweet chestnut. Some of the beech are perhaps older, up to 120 years. Amongst these mature trees are smaller numbers of 40-60 year old Sessile oak and sycamore, with small numbers of silver birch and rowan. Since the late 1990s some felling work has taken place to restructure the sub-compartment to introduce a much needed new generation of trees. This began in 1998 with the creation of two small (0.2 ha) canopy openings that were created in the south of the compartment (see figure 1.6) to encourage natural regeneration. These areas now contain silver birch, beech and Sessile oak trees up to 20 years old and 10m tall. The trees are growing as dense copses. Further felling areas were created in 2004 by veteranising selected large, mature beech and felling a small number of other large mature trees in defined areas. Veteran trees are usually old, large trees that have started to decline. They often contain quite large amounts of deadwood in their crowns, together with cavities. This makes veteran trees a very valuable part of a woodland ecosystem. The veteranising work involved the removal of large, live limbs from the crowns of trees, whilst leaving some live branches and pieces of deadwood and torn limbs that have been damaged by wind. As well as providing canopy openings to allow regeneration to take place this has provided an increased volume of standing deadwood. This work has resulted in young trees regenerating in the lighter conditions. These trees are dominated by beech with some Sessile oak, silver birch and sycamore. Bramble has also established as a field/shrub layer in these areas. Bare ground dominates the field layer of most of the remainder of the compartment with patches of bluebell, dog violet and creeping soft-grass confined to the southern and northern boundaries. Away from the felling areas the shrub layer is lacking, except for one or two mature holly and a few small patches of young saplings, mainly oak and sycamore.

Sub-compartment 1c 9.0 ha.

Representing the majority of the site, this area supports 20-70 year old, Sessile oak – silver birch woodland. A five hectare area of this compartment was thinned in 2001 (C1 and C3 on Figure 2) and much of the remainder of the compartment was thinned in 2004 favouring Sessile oak (C2 on Figure 2). This increased the light levels around the best formed trees providing modest increases in light reaching the woodland floor. The remaining oaks have responded well to the thinning work. They have increased significantly in stem diameter and many have developed larger, wider crowns. The trees in C1 and C3 which were thinned in 2001 had however closed canopy again. These sub-compartments were thinned again in 2020.

A small area of woodland on the northern boundary (0.46 hectares) was acquired in 2009. This area of woodland has been added to sub-compartment 1c because it closely matches the species make up, age and structure of the main area of the sub-compartment. This was the only area that had remained unthinned prior to the 2017 work programme. This area was also thinned in 2020. This has increased the light levels and provided greater space for the remaining trees to grow into.

The shrub layer is poorly developed over the whole compartment with only scattered holly, elder and hawthorn. A small number of laurel shrubs have established over the last decade or so. These are highly likely to be seeding in from the mature laurel hedges on the boundary with the gardens on Woodside Court. Laurel would be an invasive species in the woodland if it was to become established.
In the southeast of the sub-compartment a group of holly shrubs have developed well since the initial thinning in 2001. These have developed into groups of 2 to 3m tall

shrubs that are providing some valuable cover for birds. Bramble dominates the species poor field layer, with unintrusive bracken, wavy hair-grass and creeping soft-grass. Bluebell is present in selected areas. Some natural regeneration of Sessile oak has taken place since the thinnings. This is between 1 and 2m tall throughout the sub-compartment. Fortunately these have been successful in reaching above the bramble layer and should continue to establish with sufficient light levels.

Sub-compartment 1d 0.7 ha.

The glade is an open area in the centre of the woodland. The size of the glade was increased by approximately one third in 2009. This was done by felling oak and silver birch trees on the western side of the open space. This area originally formed part of the glade but over time tree cover replaced the open space.

The glade is dominated in parts by mature heather, with wavy hair-grass, creeping bent and a few gorse bushes. Rosebay willow herb and bramble are beginning to dominate in the western half.

Due to the high light levels and seed sources from the surrounding woodland, ongoing work to clear oak and birch saplings from the glade continues annually. Bramble and willow herb are also plants that begin to dominate without management. Management of the compartment involves a big commitment from the Parish Council.

Bracken encroachment from the surrounding woodland had been increasing until around 2020. Bracken is a high light demanding plant. It is only ever a weak plant under tree canopies but in areas such as the glade it will thrive. A programme of mechanical control since 2010 has significantly reduced the amount of bracken.

The heather is still confined to the eastern part of the glade. It varies in age but most of it is mature and some is becoming quite woody. Some young heather is developing across the glade where there is sufficient bare ground.

3.2 Silvicultural Assessment and Management Options

Summary of management to date

The previous management plan work programme for the woodland covered the period from 2017 to 2021. This continued the work completed in the earlier work programmes between 1997 and 2015. Within these four work programme plan periods, silvicultural work was undertaken to improve the structural diversity of the woodland, promoting natural regeneration and increasing the ecological value of the site. Access and boundary control work has also been undertaken to control illegal and unauthorised access and to improve conditions for site users. Such work has included:

- Small group felling in 1997 created two 0.2 hectare openings in the beech canopy in southern part of compartment 1b and a further two in the northern half of the compartment in 2004.

- Selective thinning of pole stage Sessile oak and silver birch in a 9 hectare area of compartment 1c took place in 2001 and 2020 (5 hectares) and 2004 (4 hectares).

- Coppicing of seven of the nine parcels within compartment 1a next to Woodside Court. The first parcel was coppiced in 2004. This was recoppiced in 2020.

- Increases in both standing and ground dead wood by topping or felling large mature trees and leaving them to decay naturally.

- Tree removal from the western end of compartment 1d has increased the size of the glade by approximately one third.

- Ongoing control of bracken and scrub in the glade to maintain the open space and protect the heather from shading.

- Installation of a 30 metre section of footpath at the main entrance to the wood from Wood Lane in 2001 and improvements to the stone squeeze access in 2018.

- Installation of field gates and metal 'A' frames allowing for authorised vehicle, pedestrian and wheelchair access in 2001.

- Installation of stock proof fencing between 2002 and 2006 along the southern, eastern and north eastern boundaries and post and rail fencing along the northern boundary in 2014 has increased security of the site.

- Interpretative panels at four of the main entrance points were installed in 2003, increasing understanding of the importance of the woodland. The panels are also used as community notice boards to advertise community events etc.

- Installation of wooden, woodland themed sculptures throughout the woodland.

- Dog bins were installed at the most commonly used access points, helping to reduce the problems of dog mess.

Management options for 2022 to 2026

Sub-compartment 1a - Semi-natural mixed oak-ash-sycamore wood

The western woodland margin supports a relatively rich field layer in comparison to the majority of Wickersley Wood, with a mixture of both light-loving and more shade-tolerant species. Coppicing of this margin, in small patches at intervals, began in 2004 by coppicing the first of nine parcels. Six of the nine parcels have now been coppiced once. One has been coppiced twice. This is helping to maintain a variety of light conditions, providing suitable conditions for plants with varied shade tolerances. Continuation of the cycle to coppice the last two compartments, together with recoppicing, when appropriate, should be an important consideration to continue the benefits along the whole woodland boundary.

Now that the first whole coppicing cycle has nearly been completed it is an important time to review the frequency of coppicing. The age and density of the trees along this boundary varied prior to coppicing. Therefore, the rate of growth and density of coppice stools will vary. The review will assess how quickly the second rotation should begin.

Sub-compartment 1b - Oak & beech dominated plantations

Small group felling in the first and third plan periods, along with smaller canopy openings created by tree removal for safety reasons began the process of restructuring the age profile of the trees. There are now four small coupes; two that are around 25 years old and two that are 15 years old. The size of some of these coupes has been increased slightly by removing mature trees on their edges. This is helping move from an even age structure to an uneven age structure. It is also bringing major opportunities for wildlife by stimulating the re-colonisation of a field layer and the development of a shrub layer. The volume of large diameter standing deadwood has also increased since 1997.

Given the success of this technique at establishing new trees it should be considered again in future management works. The timing and extent of more felling work should be considered cautiously. A number of severe wind events, particularly during summer months, has resulted in failure of a number of large trees. There was a lot of damage following the felling work in 2004. Very strong winds are often experienced in winter without too much impact but summer gales appear to be much more damaging. A gale in June 2008 caused a lot of damage to mature trees in the compartment. The turbulence created in the coupes may have contributed to the wind blow events. These events did turn out to be largely positive as they have enlarged the coupes increasing regeneration opportunities. Nevertheless, the timing of more work needs to be carefully considered.

In this sub-compartment, large, mature beech and sweet chestnut provide the visual and aesthetic qualities appreciated by the local community today. Sessile oak and birch will provide the optimal wildlife interest provided, there is a wide range of age classes, including old mature and veteran trees. The beech and sweet chestnut trees have attracted their own associated wildlife, particularly as dead wood and cavities form at a younger age in these species than they do in oak.

Given that native species provide the optimal wildlife assemblages it could be argued that the compartment should be converted to mostly native species whilst

maintaining a small proportion (around 10-15%) of beech. Native species would include Sessile oak, birch, rowan, wild cherry, common whitebeam, and hazel, holly and crab apple, together with a much greater mix of locally native shrub species.

However, species specific pests and diseases are becoming an increasing threat to woodlands. Had Wickersley Wood been dominated by ash it would currently be at risk from the pathogen that is causing ash dieback throughout the country. Growing a wide range of species helps to protect against species specific pests and diseases such as Dutch elm disease and ash dieback.

A greater species mix would protect against species specific pests and diseases. This could include more sweet chestnut as well as introduction of large and small leaved lime, sycamore and possibly a small element Scots pine. These species would need to be planted because there is no seed source locally to regenerate from. In any case, small and large leaved lime is very difficult to regenerate where a seed source from mature trees is present.

Sub compartment 1c - Semi-natural Sessile oak – birch woodland

The majority of Wickersley Wood is characterised by the dense 20-70 year old Sessile oak and birch growing in this sub-compartment. Much of this has developed following clear felling in World War II. A small element of sweet chestnut re-growing from large stumps points to planting in the past. It is probable that prior to felling, this area resembled sub-compartment 1b.

Before thinning of most of the sub compartment in three of the four previous plan periods, the oak-birch woodland was developing in the direction of a uniform, even-aged, high forest. Thinning that has taken place has favoured the best formed oaks allowing them to develop whilst allowing some young trees to establish. This has widened the age-class structure, species composition, and the commercial value, of the woodland.

The National Vegetation Classification Type W16 *Quercus spp*. - *Betula spp.* - *Deschampsia flexuosa* woodland, within which the majority of Wickersley Wood falls, is characteristically species poor, primarily because of the very acid soils. Wavy hair-grass and bracken are the predominant field-layer species and vernal species like bluebell are typically rare. Continued thinning of the extensive pole-stage oak-birch woodland is unlikely to lead to a considerable increase in plant species diversity, although species associated with this community such as bracken, heather, bilberry, foxglove, gorse, Yorkshire fog, rosebay willowherb, broad buckler fern, wood sage, heath bedstraw, sheep's sorrel and tormentil are being encouraged (Rodwell, 1991), which have knock-on beneficial effects for some invertebrates. At the same time, thinning has offered the opportunity to deliberately favour presently rare native species, such as rowan, goat willow and wild cherry.

Prior to the post-war period, clear felling and replanting was the standard method of regenerating broadleaved high forest in Britain. However, large scale clear-felling of mature broadleaved woodland is now rare, owing to the interests of amenity, wildlife and landscape. In the long term, group felling would provide a more acceptable method of regenerating the Sessile oak-birch woodland of Wickersley Wood as it reaches maturity. Group felling combined with thinning promotes regeneration over a whole area, but avoids the sudden impact of clear-felling. It is also suited to small-scale working, allowing expenditure to be spread over time. Importantly, gradual change in the woodland structure and species composition allows wildlife to more

easily adapt.

Given the relatively young age of the oaks in the sub-compartment, encouraging the largest and oldest of these to grow on into the older age classes should be considered a priority. Whilst oak provides some of the best habitat opportunities it only does this in older age classes such as veteran and ancient. In younger age classes it has few features of interest.

The introduction of other tree species as discussed for sub-compartment 1b above should also be considered for the same reasons. Non-native species have been discounted in the past because none of these are members of the semi-natural vegetation communities predominating in Wickersley Wood. They have been discounted in the past because they will not support the diversity of wildlife that the Sessile oak-birch woodland characteristic of this ancient semi-natural woodland maintains. Also, they would be regarded as diluting the historic and wildlife value of this ancient woodland. Nevertheless, species specific pests and diseases can be very disruptive to habitats in a very short period of time, and more damaging than the introduction of non-native species.

Sub compartment 1d – Acid grassland glade

The central acid grassland glade with heather is a very valuable habitat in the woodland for flora and fauna that require warm sheltered conditions to thrive. Oak and birch regeneration readily invades the glade because of the high light levels found there. Rosebay willow herb and bramble is also beginning to invade the glade. Removal of regenerating trees has been routinely undertaken over the previous work programmes to maintain the open glade.

A lot of valuable work has been carried out over the years to maintain this important habitat. Whilst this is a significant management commitment it is important in retaining the open space.

Together with management of the trees in and around the glade, management of the heather itself should be fully considered. Lack of management over the years has resulted in predominantly older, leggy heather being dominant across the glade. Because the glade is small it is important to establish and maintain a diverse age structure to the heather. This process began in 2008 when Sheffield and Rotherham Wildlife Trust began cutting and reseeding selected areas of heather as part of the Coalfield Heathland Project.

3.3 Sustainability and management for Biodiversity

3.3.1 Sustainability; National Policy

All future management of Wickersley Wood will aim to be sustainable, in accordance with the United Kingdom Woodland Assurance Scheme 4 (UKWAS) (2020) and contribute towards the national targets of sustainable forest management laid out in the England Trees Action Plans 2021 to 2024). The UK Forestry Standard (2011) gives detailed national criteria for sustainable forest management, to be delivered at the individual forest management level. Table 3.3.4 outlines how the management of Wickersley Wood meets each of the UK Forestry Standard's criteria for sustainable forest management. Sustainable forest management as defined in the UK Forestry Standard is:

> '*the stewardship and use of forests and forest lands in a way and at a rate, that maintains their biodiversity, productivity, regeneration capacity, vitality and their potential to fulfil, now and in the future, relevant ecological, economic and social functions at local, national and global levels, and that does not cause damage to other ecosystems'*.

3.3.2 Management for Biodiversity.

Biodiversity is a key test of sustainability as it enhances quality of life, provides natural assets from which economic benefits can be derived and demonstrates an environment in good health (English Nature 1999). This was delivered between 1997 and 2012 by the UK Biodiversity Action Plan. This was replaced by the Biodioversity 2020: A strategy for England's wildlife and ecosystem services. This was part of a wider European Union biodiversity strategy which will no doubt be replaced by a domestic strategy.

3.3.3 Priority Species

The priority species from the UK BAP remained as part of Biodiversity 2020. Until Biodiversity 2020 is replaced it continues that all priority species on the list that are recorded in Wickersley Wood (Tables 3.3.1) will be given special consideration during any management works and their presence monitored annually. Specific management recommendations will focus on species included on the short and middle lists, whilst noting those present on the long-list, and directing more general management practices toward their conservation. Any species present that are included in a Red Data Book, or on the RSPB "red and amber list", or designated as Regionally or Nationally Notable, will also be given special consideration. Additional species information is given in section 1.2.2. Sustainable management of Wickersley Wood should bring benefits to a wide range of species, not just priority species and an overall enhancement in the biodiversity of the site.

UK and Regional BAP species of principle importance recorded in Wickersley Wood are listed in table 3.3.1 below.

Species	Regional list	National list	Habitat
Turtle dove *(Streptopelia turtur)*	Yes	Priority	Farmland and open woodland
Spotted flycatcher *(Muscicapa striata)*	Yes	Priority	Woodland
Bullfinch *(Pyrrhula pyrrhula)*	Yes	Priority	Farmland and woodland
Song thrush *(Turdus philomelos)*	Yes	Priority	Farmland and woodland
Linnet *(Carduelis cannabina)*	Yes	Priority	Farmland, woodland and scrub land
Tree sparrow *(Passer montanus)*	Yes	Priority	Farmland, (winter stubble) and woodland
Pipistrelle bat *(Pipistrellus pipistrellus)*	Yes	Priority	Mature woodland, including dead wood.
Skylark *(Alauda arvensis)*		Priority	
Grey partridge *(Perdix perdix)*		Priority	
Brown hare *(Lepus capensis)*		Priority	

Table 3.3.2 Open space monitoring

Percentage of woodland that is open space as recommended by the Forest Stewardship Council.	**Percentage of open space considered by Forestry Commission**	**Actual percentage of the woodland that is open space.**	**Desired percentage of the woodland that is open space by 2026.**
10%	20%	7%	10%

Table 3.3.3 Deadwood monitoring

Recommended volume of dead wood by (WWF)	**Minimum volume recommended by UKWAS**	**Minimum volume recommended by Forestry Commission**	**Actual volume of deadwood per hectare**	**Desired volume of dead wood by 2026**
50m³/ha	20m³/ha or 5-10% of average stand volume	15m³/ha	8m³	10m³*

* The target volumes at the end of this plan period are still much lower than the recommended figures in the first columns of the table. However, starting from a low base, the target is something that must be worked toward and would be difficult to meet in a short period of time. Volumes have however been increasing steadily over the last 25 years.

Table 3.3.4 Delivering National Criteria For Sustainable Forest Management At Wickersley Wood

Criteria for Sustainability	National Level Indicators	Evidence of National Criteria being delivered in the Wickersley Wood Management Plan	Plan Section
Forest Stewardship Council (FSC) certification is awarded on the basis that all elements of management including silviculture, health and safety, ecology, history, recreation, education and community involvement are appropriate, sustainable and all encompassing.			All sections
Nature conservation in and around forests.	*Biodiversity in and around woods is conserved or enhanced.*	Nature conservation as a main objective for site management.	3.3.1, 3.3.2
		All species and habitats of conservation importance present in Wickersley Wood be maintained or enhanced.	3.3.3, 3.3.4
	Species and habitats subject to EU Directives and the UK Biodiversity Action Plan are conserved or enhanced.	Guidance on biodiversity matters will be taken from the UK BAP, The South Yorkshire and Humberside Biodiversity Forum and English Nature.	3.3.1, 3.3.2, 3.3.4
		All species and habitats recorded which are listed on the UK, Regional or Local BAP or are subject to EU Directives have been identified and taken into account in the management plan.	3.3 & 5.1.2
		Where possible woodland management operations will be timed for the period between September and March to reduce disturbance to wildlife.	4.2.3
		Areas within the site identified as wildlife refuges will be managed appropriately.	3.3.3
		Specialist surveys will be carried out to assess biodiversity and the effects of management on bats, invertebrates, birds, fungi and botanical interest.	6.1
	Important, but previously disturbed semi-natural habitats are restored where practical.	The silvicultural management of the woodland aims to develop a well structured woodland sustainable over the long term by group felling to encourage natural regeneration.	4.4
		Native species will be favoured where possible to develop a more semi-natural species composition.	5.4

	Opportunities are actively being enhanced for each of the criteria.		
Rural development	- *rural development*	Woodlands such as Wickersley help to contribute to the desirability of the area, thus helping to attract investment and prosperity to the area.	2.2.7
		Thinning, fencing, access and general maintenance work in the wood is helping to generate local employment.	4.1.2
Access and recreation	- *access and recreation*	Formal access provisions, including disabled access and maintenance of the public right of way and casual footpath network.	2.2.5, 3.2, 5.1.3, 5.4.2, 5.4.6
Quality of life in and around forest	- *quality of life*	Regular removal of litter from the site and prevention measures against motorbikes.	5.4.2, 5.4.4, 6.1
		Maintenance of dog waste bins.	2.2.5
		Regular assessment of any dangerous or hazardous trees near paths and property.	5.4.1, 5.4.4
Increased awareness and participation	- *increased awareness and participation*	The use of Wickersley Wood for environmental interpretation and education and countryside events like woodland walks.	2.2.5, 5.4.8
		Use of the woodland by local schools for natural studies.	5.4.8
		Wickersley Wood lies within the South Yorkshire Forest (SYF) one of 12 Community Forests in England.	4.3.3
		Interpretative signs are located at 4 of the main entrance points into the wood.	5.4.8

Community involvement	- *community involvement*	A Leaflet was produced for the site as part of the HLF award.	5.4.8
		Public events such are lantern walks, story telling and Easter egg hunts are held annually.	5.4.7
		Site included in *Rotherham's Woodland Heritage* a book by Professor Melvyn Jones.	2.2.4, 5.1.4
		Public consultation will take place at management plan revisions and prior to major site works taking place.	5.4.7
Other land uses		A multifunctional and sustainable approach to land management will be adopted to ensure all the land uses and interests are carefully integrated.	5.3

Conservation of heritage features **Landscape quality**	*Important heritage features are protected.* *Due account is taken of cultural, historic or designed landscapes*	Although there is little known archaeological importance in the wood any finds that may be of importance will be reported to South Yorkshire Archaeology Service. Landscape assessment of the site will be considered during operations. Any silvicultural works will take into account the impact of the proposed management on the landscape from within and out with the wood.	2.2.4, 5.1.4, 5.4.10 5.4.9 5.4.9
Forest soil condition	*Forest soil condition is stable or improving towards stable (not to the detriment of important semi-natural habitats)*	Silvicultural work which may cause damage to the soil will be carried out at the appropriate time of year to minimise disturbance.	4.2.3
Water condition	*Water quality is protected or improved, water yields are maintained above critical levels and discharge patterns are disturbed only when unavoidable.*	Appropriate management of the stream areas in the riparian zone to act as a buffer zone protecting the watercourses.	4.2.3
Air pollution and net carbon sequestration	*Net Carbon sequestration by forests increases and air pollution is avoided.*	Lop and top will not be burnt where possible, instead it will be chipped and spread or left on site as deadwood habitat. Management of the woodland to promote growth and to ensure a constant cover of trees of all age classes.	4.2.3 3.2 & 5.4

Timber and other production	*Supply of timber and other forest produce for industrial use is available at the levels indicated in long term forecasts, or is increased without reducing annual increment*	Timber production is not the main objective but where possible recoverable income will be gained from any tree works carried out in Wickersley Wood. Any tree removal will be replaced by new regeneration to ensure no loss of long term site productivity.	4.2.2 3.2, 5.1.1, 5.4
Forestry workforce competency and safety	*Safe and effective practices are promoted and their effectiveness kept under review.*	All contractors carrying out work on the site have correct qualifications, training and experience. Local community will be informed of works prior to commencement. Hazard warning signs will be positioned around work areas	4.2.3 5.1.6, 5.4.7 4.2.3

4. THE ADMINISTRATION AND ECONOMY

4.1 The administration

4.1.1 The administrative organisation

Wickersley Wood is owned by the Warde-Aldam family, Frickley Hall, Doncaster, and is leased to Wickersley Parish Council. The Parish Council manages the site in consultation with Rotherham Borough Council's Environment and Development Service. A Wickersley Wood Management Committee composed of a small group of Parish Councillors, interested locals, volunteers and professionals, where required, are involved in managing the site. The group meets on a quarterly basis, looking at the forthcoming quarter's work programme, the status and success, or problems with previous management work, possible new funding sources and any other issues and matters arising.

4.1.2 Labour sources

Several sources exist:

(a) Contractors

Tree work at Wickersley Wood will normally be undertaken by forestry/timber merchant specialists, following a tender procedure. Other large-scale management projects, for example hedge-laying, will be tendered to contractors, following normal procedure.

(b) Wickersley Parish Council

The Parish Council has a direct labour source to carryout day to day maintenance duties such at site tidying, repairs to fences and gates and scrub clearance from the glade.

(c) Rotherham Borough Council

Services within Rotherham MBC such as Streetpride or the Estate Team with in the Green Spaces Unit may be available for a wide range of small scale projects on a rechargeable basis.

(d) Community involvement and volunteers

Where appropriate, the use of volunteers should be encouraged. Sheffield Wildlife Trust (SWT) are also available from time to time for certain management works, either directly or by arrangement of volunteers. Rotherham Rambles undertake access related tasks such as repairing and replacing gates and fencings and path maintenance.

(e) The Probation Service

The Probation Service may be available from time to time to complete practical tasks such as scrub removal from the glade.

4.2 The Forest Industry

4.2.1 Markets, present and future

Prices can vary greatly depending on the quality and quantity of the timber being produced, current market conditions, and the species. At present, the majority of trees in Wickersley Wood are at pole-stage and only suitable for pulpwood and firewood (Quality Class IV). The mature beech and oak are suitable for pulpwood, firewood and turnery (Quality Class III), and to a lesser extent prime timber - planking, furniture, joinery (Quality Class I).

The market for all types of timber is presently very strong. The demand for sustainable materials for fuel and building are continuing to drive the demand for timber.

The healthy timber prices were reflected in the thinning works in 2020. The value of the timber paid for the operation, together with other management work such as glade management and coppicing.

4.2.2 Methods of sale

In general, it is Parish Council policy to sell timber 'standing' following preliminary mensuration. The trees to be felled are marked by someone appointed by the Parish Council but all felling and extraction work is undertaken by a contractor. Each 'parcel' to be felled/thinned is described individually, giving estimated number of trees (where appropriate) and estimated total volume. Any revenue from the sale of timber will meet the cost of thinning operations, and where possible contribute to other management operations. All forestry operations requiring the use of contractors, will be put out to tender.

4.2.3 Methods of conversion, extraction and transport

In most cases, timber removed from Wickersley Wood will be sold standing and hence conversion, extraction and transportation will be organised by the contractor, subject to the Parish Council's conditions.

In each case, the methods of working expected of the contractor will be specified, for example, height of stump, disposal of lop and top, avoidance of damage to remaining trees, drains, ditches, streams, fences and walls, etc.

All contractors working on the site will have to provide evidence of correct qualifications, training and experience. Adequate safety clothing to be worn at all times and hazard warning signs will be positioned around the work area. The local community will be warned of the timing of proposed works via letters, signs and press releases as appropriate.

Extraction routes will be agreed between the contractor and the Parish Council prior to commencement of works. Important areas of wildlife and archaeological interest will be avoided. The network of definitive and permissive footpaths through the woodland are generally adequate and provide reasonable vehicle access.

Where possible, all operations will take place from late summer to autumn. Felling during September usually avoids the wettest times of the year, reducing the potential for extraction damage. In addition, by working no earlier than this, birds will have bred and most plants flowered and set seed, reducing disturbance to wildlife.

Choice of extraction machinery will be left to the contractor, in most cases. However, by specifying that the contractor will be liable to repair and pay for damage to paths, etc., caused by extraction machinery, the most appropriate technology should be utilised. (The use of forwarders -tractors which extract timber lifted entirely clear of the ground by a fitted loading crane, and carry the timber on a linked trailer or integral rear bunk, will be preferred to skidders - tractors which extract by lifting one end of the load clear of the ground and pull it out with the other end dragging on the ground - because damage to extraction routes will be considerably less).

The use of horse extraction may be considered. Horse extraction is possible from areas of woodland where existing access routes are scarce; at the same time, the need to create specially cut extraction routes is avoided, together with the surface damage that the use of forestry vehicles can sometimes bring (Waterson, 1994).

Vehicular access into the woodlands is possible at two points:
(a) The main entrance from Wood Lane, next to number 56 (SK486915)
(b) From First Lane, into the south western corner of the woodland at SK483912.

Harvested timber could be extracted to either of these points, ready for loading onto haulage lorries. However, the entrance off First Lane has greater potential for stacking timber. Also, it is less well used by the public.

4.3 Sources of Grant Aid

4.3.1 Forestry Commission Countryside Stewardship Scheme

Wickersley Wood has been included in all available grant schemes since 1998. The woodland has benefited from a number of different grant initiatives over the years, including the Woodland Grant Scheme (WGS) and English Woodland Grant Scheme (EWGS).

The work to increase the size of the glade was paid for with a woodland improve grant paying 80% of approved costs for work in woodlands to improve habitat for a list of declining bird species in South Yorkshire.

The current Countryside Stewardship Grant will soon close and be replaced with Environmental Land Management Schemes (ELMs). The two schemes that may be applicable to Wickersley Wood are the Local Nature Recovery and Landscape Recovery schemes. These are being trialled at pilot schemes in 2022 before being opened to applications from 2024.

Applications will be made to the schemes for Wickersley Wood where applicable.

5. OBJECTIVES AND MANAGEMENT PRESCRIPTION

5.1 Summary of the Present Position

5.1.1 Silviculture

Wickersley Wood is a predominantly semi-natural ancient woodland. The majority of the site is characterised by 20-70 year old acid Sessile oak and birch woodland which has developed following the clear-felling of mature high-forest during World War II.

Prior to selective thinning of compartment 1c (8.5 hectares) in three of the last four plan periods the whole area was developing in the direction of a uniform and even-aged high forest in which Sessile oak will eventually dominate.

The western third of the site is characterised by mature plantations of Sessile oak, with beech. Unmanaged for many decades, until the mid 1990s when small group felling was introduced, this area has been subject to a number of thinning and felling operations to continue the diversification process. The closed and uniform canopy of the stand had prevented any substantial tree regeneration, destroyed the shrub layer and shading out much of the woodland ground flora, greatly reducing its nature conservation and amenity value. However, operations over the last two decades have begun to reverse this and regeneration of tree and shrub species is occurring in the areas subject to the work. Operations to continue the diversification process should continue in the future.

As the woodland is covered by a Tree Preservation Order, prior permission for any tree works not subject to a felling licence from Forestry Commission will be required from Planning and Regeneration Services at Rotherham Borough Council.

5.1.2 Nature Conservation

The existing records and the small number of wildlife surveys undertaken to date suggest that Wickersley Wood is generally of local importance for wildlife. However, the site continues to support predominantly semi-natural vegetation communities and is an ancient semi-natural woodland, a declining habitat of national importance, with only 1.5 - 3% of the Coal Measures Natural Area still supporting this habitat.

Within its local area, Wickersley Wood represents one of the best surviving ancient, semi-natural woodlands, in contrast to other nearby ancient woodlands like Gibbing Greave, and Silver Wood, which have been extensively modified by plantation forestry.

The site contains two to three types of woodland community; a small area of National Vegetation Classification W10 *Quercus robur - Pteriduim aquilinum - Rubus fruticosus*, (with tendencies towards W8) more extensive W16 *Quercus spp - Betula spp - Deschampsia flexuosa* woodland, and an acid grassland glade, NVC Type U2 *Deschampsia flexuosa* grassland. The heather growing here represents one of the mostly easterly sites for this species in the Borough.

A range of nationally notable and local invertebrate species have been recorded

from the site. For some, Wickersley Wood represents the only known site in Rotherham. These species depend on continuity in the Sessile oak-birch woodland, and the acid grassland community, particularly the associated heather. The importance of acid grassland as a habitat is highlighted by its listing as a Biodiversity Action Plan priority habitat. Acid grassland is still extensive in the uplands but is becoming increasingly rare in lowland situations. Threats to this type of habitat include agricultural intensification, lack of grazing and neglect leading to scrub encroachment and bracken invasion (HMSO 1995). The habitat statement for acid grasslands from the UK Steering Group Report states that many examples of acid grasslands occur on degraded ex-woodland sites and that many of these areas may be suitable for the re-establishment of native woodlands.

Deadwood and fungi are also essential elements to invertebrate groups.

Brown hare, grey partridge, skylark and song thrush have been recorded from the site and are listed on the UK Biodiversity Action Plan short-list, whilst spotted flycatcher, linnet, tree sparrow, bullfinch and turtle dove, are included on the middle-list. All these species are therefore priorities for protection and conservation, although grey partridge, skylark and tree sparrow are unlikely to be breeding within the woodland. Bluebell and a range of other birds recorded from the woodland are included in the BAP long-list.

Although survey work has been carried out the natural history of the site could be better recorded. Further surveys of the wildlife interest, particularly invertebrate surveys of the grassland and fungal surveys, are required to increase knowledge of the woodland's biological interest and to assist in the development of future management recommendations. Bat surveys are required prior to silvicultural operations.

5.1.3 Recreation and Access

Situated on the southern fringes of Wickersley, the woodland provides a variety of opportunities for informal recreation and enjoyment of the countryside. At present, recreational use of the site is low-key with few related problems. However, visitor numbers have increased considerably in recent years. This is increasing the number of casual footpaths through previously quiet wildlife areas.
Problems associated with inappropriate usage such as fly-tipping, motorcycle scrambling, antisocial behaviour and shooting are limited. Much of the site boundaries have been secured in recent years and access provided for all appropriate groups, including disabled visitors, and waymarking of the main routes around the woodland to help new visitors. Seating has improved use of the woodland for many visitors.

The woodland forms a gateway to the open countryside of Whiston and Ulley to the southwest, and Thurcroft and Hooton Levitt to the east.

5.1.4 Archaeology and Historic Interest

The site is not of significant archaeological interest, although a reasonably well-preserved woodbank forms the southern site boundary, and an abandoned quarry is present. However, all management activities within the site will be planned and executed to avoid disturbance to these features.

Wickersley Wood is a reasonably well-recorded ancient woodland site, recorded in a variety of historical documents, including reference to coppice management.

5.1.5 Landscape

Situated on the margins of Wickersley, the woodland is a locally important part of the landscape. The wood is also visible from the M18. The visual impact of management works shall be taken into account, both within and out with the site.

5.1.6 Community Involvement

The local community has a positive interest in Wickersley Wood, and this has been steadily built upon to increase community involvement in the care and management of the site. It would also be worthwhile encouraging local interest groups, for example, wildlife organisations, to visit this relatively low-profile site more frequently.

It is essential that any management works carried out in the woodland have as much support from the local community as possible and that they are involved in the decision making process.

Public consultation with the local community and other interested groups concerning the management proposals will be undertaken prior to the subsequently finalised plan going to the Parish Council for approval. Consultation will continue as implementation proceeds.

5.2 General Policy of the Parish Council

Policies relating to the management of Wickersley Wood are shaped by the Borough Council's Local Plan, including the Core Strategy (2014) documents. Management of the woodland is also constrained by the conditions and regulations The UK Forestry Standard (2011) and United Kingdom Woodland Assurance Standard 4 (2020); the woodland management standard recognised in the UK by the Forest Stewardship Council. Specific policy statements specifically prepared for the woodland include a Chemical Policy Statement, Habitat Policy Statement and a Monitoring Policy Statement.

5.3 Aims and Objectives of Management

The following aims and objectives of management have been formulated in accordance with the United Kingdom Woodland Assurance Standard 4 (2020), the UK Forestry Standard (Forestry Commission, 2011), A Strategy for England; Trees, Woods and Forests (2007) the Coal Measures Natural Area Profile (English Nature, 1997), the UK Biodiversity Action Plan (HMSO, 1995), Rotherham's Biodiversity Action Plan (2004) and The Yorkshire and The Humber Regional Forest Strategy: The Value of Trees in our Changing Region (2005).

Aim 1 To ensure appropriate sustainable management of Wickersley Wood by maintaining and strengthening the existing semi-natural character and wildlife interest of the acid Sessile oak and birch woodland, promoting a more uneven-aged and diverse structure comprised primarily of native species.

Objectives

- To manage the Sessile oak-birch woodland by a phased programme of sustained thinnings, to promote a diverse, uneven-aged high-forest, deliberately favouring locally rare native species such as rowan, goat willow, wild cherry, hazel and holly.
- To ensure all forestry operations meet the criteria for sustainable forest management as laid out in the UK Forestry Standard.
- To gradually alter the mature plantation of Sessile oak and beech woodland by group-felling and thinning and expanding previously created couples by selective single tree removal where necessary.
- To encourage the return of a semi-natural field layer community to this stand.

Aim 2 To provide for safe and appropriate public access and informal recreation.

Objectives

- To ensure all the formal access points are maintained in a safe and secure state, allowing access for all through at least some and discourage the use of informal entries.
- Maintain the boundary fencing in good state of repair.
- To maintain footpaths to an acceptable standard for pedestrian access.
- To maintain the waymarking to the main footpaths within the woodland and site entrance signs to show public access is welcome.
- To undertake any necessary tree safety works and to ensure that all access structures, public rights of way etc comply with health and safety legislation.
- To patrol and monitor the woodland, as resources allow.
- Carryout out a full safety assessment of the site and prepare a site safety plan.

Aim 3 To conserve and promote the semi-natural characteristics and features of nature conservation interest within the site, in accordance with the Local and UK Biodiversity Action Plans, the Coal Measures Natural Area Profile, The England Forest Strategy and the UK Forestry Standard and UKWAS.

Objectives

- To promote a structurally diverse woodland favouring predominantly semi-natural woodland species and grassland vegetation communities during all habitat management, in turn benefiting associated flora and fauna.

- To ensure appropriate management and protection of important areas of acid grassland so as to enhance the grassland habitat.

- To identify gaps in the ecological information available for the site and carry out ecological surveys to increase the knowledge base e.g. bird, invertebrate, fungi and bat surveys.

- Retention of standing and fallen deadwood wherever possible, promoting associated fungi, invertebrates, and hole-nesting birds.

- Retention of trees into over maturity encouraging development of veteran trees of all main species found in the wood.

- Encourage local naturalists to visit and record this somewhat over-looked site on a more regular basis.

- To implement where appropriate specific management to conserve and promote Biodiversity Action Plan listed species recorded at the site (see table 3.3.3)

- To monitor the effects of habitat management (see section 5.4).

- To identify and protect any BAP priority habitats and species present at Wickersley Wood.

Aim 4 To protect features of archaeological and historic interest.

Objectives

- To take account of all known archaeological features during management operations, avoiding damage wherever possible.

- Report possible finds to South Yorkshire Archaeology Service.

Aim 5 To perpetuate and promote the broadleaved character and place of the woodland in the landscape.

Objectives

- To encourage native tree and shrub species typical of ancient woodland within the Coal Measures Natural Area. In particular Sessile oak, silver birch, wild cherry, hazel and holly.

- To consider the short and long term landscape effects of proposed woodland and open space management. To minimise the landscape impact in accordance with the landscape assessment.

Aim 6 To actively involve the community in the care and management of the woodland, to encourage its potential as an educational resource, and to encourage the enjoyment of wildlife by the community and increase their appreciation of the value of nature conservation.

Objectives

- To consult the local community, specialist interest and user groups during the preparation and implementation of the management plan.

- To encourage local residents to carryout wildlife surveys in the woodland and of their adjoining gardens.

- To continue to provide and update the interpretative signs to increase visitor awareness of the value of the site.

- To organise events as part of the Parish Council's events programme, including those concerning the natural history and historic value of the woodland.

- To organise practical tasks, like hedge-planting, and to involve the local community in the care and management of the woodland.

- To encourage visitors to report any concerns or problems at the site, acting as the "eyes and ears" of the Parish Council.

Aim 7 To conserve and promote the benefits associated with Wickersley Wood in respect of personal well being and sense of place.

Objectives

- To promote the woodland as a valuable setting for taking regular exercise to enable healthier lifestyles to improve the Borough's poor health statistics.

- To develop access and awareness of the natural, cultural and historic features of the site to improve the sense of place and identity for individuals and local communities.

Aim 8 To maximise income to offset expenditure.

Objectives

- Subject to the interests of wildlife, archaeology, access and recreation, income from the sale of produce resulting from agreed silvicultural operations will be maximised.

- To maximise sources of grant aid, and investigate alternative sources of funding.

Aim 9 The performance of management planning and operations at Wickersley Wood will be subject to monitoring, review and regular reporting to meet the other aims and objectives of the management plan.

Objectives

- To monitor all areas of management at Wickersley Wood, taking account of all of the above aims and objectives.

- To collect monitoring information through regular management visits to the woodland, supervision during management operations, specific surveys and long-term study.

- To collect information appropriate to the intensity of operations, levels of access, according to reports and information received from the community and the other management aims and objectives.

- To maintain monitoring records in a form that will allow them to be analysed, compared over the long-term and the findings used in the management of Wickersley Wood, including review of the management plan.

5.4 Proposed Management Prescriptions

5.4.1 Woodland habitat

Compartment 1a - Botanically rich, western woodland margins

The coppicing completed since 2004 has changed the woodland edge as intended by creating a shrubby graded edge that provides wildlife cover. This woodland margin would benefit from a continuation of coppicing. This will maintain a variety of light conditions favouring the mixed ground flora, and the variety of trees and shrubs found here, particularly light-loving species like wild cherry, wych and English elm, ash, hawthorn and hazel. The improved structure on the woodland edge is also important for invertebrates and birds. This includes species such as song thrush, linnet, bullfinch and turtle dove.

The margin is divided into nine short sections (or parcels). Five parcels have been coppices and one re-coppiced since 2004.

There are four parcel yet to be coppiced. These will be coppiced during this work programme. Two more parcels will be recoppiced. The parcels for coppicing and the year in which the work is to be completed is included in Figure 1.6 Vegetation Management Map.

The coppicing and recoppicing of four of the parcels could be completed by volunteers because the trees are small enough to be cut using hand saws. Two of the parcels will need to be copiced by a contractor due to the size of the trees and proximity of trees to the garden boundaries.

Compartment 1b - Mature Sessile oak and beech woodland

The mature mixed Sessile oak woodland will continue to be managed in the long-term by a careful programme of sustained light thinnings and small group felling to promote the longevity of the best-formed trees with long-term potential and to encourage new regeneration.

No more thinning or felling will take place during this five year work programme because there have been a number of large mature trees removed over the last 15 years associated with storm damage. In two instances between 2020 and 2021 a large beech and a large oak were removed, increasing the size of two existing coupes. Whilst increasing light levels is important it is also important to maintain an element of old trees. During periods when gales are contributing to tree loss other tree removal should be paused.

Further felling work will be considered in the 2027 to 2031 work programme. The need for this work will be considered at the review in 2026.

The young trees that have grown up within the original felling coups may need to be respaced towards the end of this five year work programme but this will be evaluated annually during monitoring visits.

Consideration should also be given to planting new species within the felling coups. These should include sweet chestnut and large and small leaved lime.

Selected trees will continue to be allowed to become over mature within this part of the wood.

Compartment 1C - Acid Sessile oak-birch woodland

The compartment was sub-divided into three sub-compartments during one of the previous management plans to phase thinning operations (refer to Figure 1.6). Sub-compartments C1 and C3 have been thinned twice; once in 2000 and again in 2020. Sub-compartment C2 was thinned in 2010.

This is an adequate level of thinning for now as there is a reasonable spacing between the oak trees throughout the whole compartment.

It is possible that C2 may require thinning again in the next work programme but this can be reviewed in 2026.

Compartment 1D - Acid grassland glade

The management of the glade should continue to maintain open space habitat. This should be done by continuing to remove plants that are detrimental to the development of the heathland habitat. These include the young, self-seeded silver birch and oak trees, bracken, willow herb and bramble. These plants thrive in the high light levels within the glade and have the capacity to shade out the heathland flora.

Mechanical control of the young trees by cutting and stump treatment and brush cutting bramble will continue during the winter months, ideally between September and January.

Hand pulling of the willow herb and bracken should continue during the summer months. The bracken should be pulled in June each year and the willowherb before it flowers. This may vary slightly according to weather conditions each year.

Whilst this is labour intensive work it is essential to protect a habitat that is quite rare in the Rotherham Borough area. Some of this work can be undertaken by volunteers if resources allow.

Compartments 1a to 1d, outline management to 2036

The proposed silvicultural operations for the next five years from 2022 to 2026 are described in detail above. The following fifteen years are briefly set out below to give a general overview of anticipated silvicultural works to 2041. These works will be considered and described in greater depth in the respective plan periods.

Compartment	**Activity**	**Fifteen year period between 2027 and 2041**
1A	Coppicing of equal sized parcels	See figure 1.6 for details of the years for each parcel.
1B	Respacing of natural regeneration in the groups.	2021-2036 (as deemed necessary during routine site monitoring)
	Enlarge the groups in the sub-compartment created between 1997 and 2004.	2027-2031
	Create two further felling coupes in the centre of the compartment.	2032-2036
1C	Selective thinning of sub-compartment 1C (area C2) (see compartment map for the areas).	2027-2031
1D	Removal of natural regeneration from the glade and control any other invasive plants that threaten the heathland flora.	Annually 2027-2041

Non-native plant and animal species

Planting of a broader range of native and non-native broadleaved tree species should be considered to protect against species specific pests and diseases. These should include sweet chestnut as well as native large and small leaved lime. There are no proposals to introduce non-native animal species into the woodland over the period of the plan. Furthermore, the already present non-native tree species, including beech, sycamore and sweet chestnut will be retained. An element of each of these species helps to add diversity to the woodland, providing an additional food and habitat resource for bird and mammal species. Beech also forms part of the character of the woodland. Increased diversity of species will help the woodland to be better able to adapt in the future to a changing climate and to be more robust against species specific pests and diseases.

Burning of woody arisings

There will be a presumption against burning of arisings such as branch wood following thinning and felling operations to limit atmospheric pollution. Woody arisings from silvicultural operations will be dealt extracted from site, chipped on site or left in the woodland as large stems or habitat piles to undergo natural decay processes.

Management of wild animals, excluding deer

There is little evidence of wild animals, principally grey squirrels, causing unacceptable damage to the woodland, although numbers of grey squirrels are high. The woodland has a resident population and possibly a transient population from other nearby woodlands. There is little evidence of damage that is threatening the development of young trees of any of the main species. Similarly, damage to young naturally regenerating trees by rabbits and hares does not appear to be a problem. For these reasons there is no need at this stage to consider control of wild animals in the woodland.

Management of wild deer

There is little evidence of a wild deer population in the woodland. It is likely that there will be a transient population. However, a resident population in unlikely given the fairly open character of the woodland and the high visitor numbers, principally dog walkers. There is however no evidence of deer being a problem to the tree stock, including young regenerating trees, making the management of wild deer unnecessary at this stage. This situation will be monitored over the course of the plan.

Use of chemicals in the woodland

Occasionally it may be necessary to use chemicals in some form to protect the important habitats of this woodland from aggressive pests, diseases or invasive vegetation that may threaten biodiversity or compete with newly planted trees. In addition, fertilisers may be considered to control mineral deficiencies during plant establishment.

The only management activity in the woodland that currently requires use of chemicals is the treatment of the stumps of young trees cut in the glade. For many years control of the scrub has been completed without stump treatment but it has been very onerous. The use of the chemical is only very selective and confined to the stumps of young trees and will not be sprayed into the wider environment.

Presently, mechanical control methods are sufficient for the bracken because the area affected is small and the density is low.

No chemical on the Forest Stewardship Council's highly hazardous list that does not have a current UK derogation will be used.

No operations have currently been identified at present that will require fertiliser application. However, this position will continue to be assessed and reported upon as part of monitoring during this plan period.

Ride and open space management

The amount of open space in the woodland is still currently below that recommended by Forest Stewardship Council. However this has improved considerably following the work in the last work programme to increase the size of the glade, the largest area of open space in the woodland. There is also some

temporary open space where group felling and coppicing on the woodland edge has taken place. This will increase further as the coppicing programme in compartment 1A continues.

Further small group felling in the mature beech areas may also be considered in future plan periods, although no new group felling is proposed between 2022 and 2026.

5.4.2 Boundary and access management

Most of the boundary was formalised and secured with post and wire fencing during the last three plan periods. Likewise all of the access points were formalised during these plan periods with a combination of kissing gates, metal 'A' frames and pedestrian squeeze throughs. These will be maintained as necessary over the course of this plan period.

The boundary trees along the northern and western boundaries with the properties on Wood Lane and Woodside Court are inspected annually and monitored regularly for safety. Essential maintenance works are carried out as necessary.

5.4.3 Over-mature, veteran and dead trees

To add diversity to the woodland structure, increase intrinsic appeal and to provide additional wildlife habitat for some invertebrate groups, hole-nesting birds and bats, a proportion of trees have been identified for retention indefinitely throughout the woodland. These will be allowed to develop to over-maturity and natural senescence. Tagging and mapping of these trees would be beneficial so that they can be easily identified, particularly when there are staff changes. For similar reasons, a proportion of misshapen trees will be retained during all forestry operations. The trees chosen will be away from definitive and permissive paths, and formal access points. Over mature trees will be managed in such a way that their lives are extended for as long as possible. Maintaining over mature and veteran trees may require specialist forms of tree management to extend their lives. This includes a requirement for minimum light levels depending on the condition and vigour of individual trees. It is also beneficial to different invertebrate species living in the dead wood of these trees if both cool, shaded and warm sunny areas are maintained. English Nature's guidelines 'Veteran Trees: A guide to good management' will be followed to ensure that the over mature trees are managed appropriately and their chances of long term survival are improved.

Where possible deadwood, both standing and fallen, will be left where it is, to undergo natural decay processes. Large diameter timber is particularly valuable and, where possible, will be left uncut. Until relatively recently deadwood has been rare within the woodland, reducing the natural history interest of the site. However, amounts have been steadily increasing since 1997 with a proportion of timber felled during thinning and felling contracts being retained on site, together with a number of larger trees being topped at around 6 to 8 metres, increasing the deadwood habitat value. The large beech in compartment 1B made safe in 2001 by veteranising has been allowed to decay as standing dead wood. The standing stem remained alive for seven years on one side but has since died. Decay processes and diversifying habitat value is evident, particularly where a very large limb tore from the tree prior to it being made safe.

The richest plant and animal assemblages are supported by trees in partial shade. A mixture of deadwood in sunlight, partial and full shade, and in water is best (Kirby, 1992). Where important dead or dying trees are located next to permissive paths it may be possible to vary the route of the path to preserve the tree.
Despite the work discussed above, the volume of dead wood remains below what is recommended by various bodies (see table 3.3.2 dead wood monitoring). The volume of dead wood is steadily increasing and will continue to be increased over the five years of the plan. This will be achieved by making safe storm damaged trees and leaving them in large pieces in the wood, both standing and fallen. This will need to be carefully considered as leaving large pieces of timber next to residential boundaries can cause problems for residents associated with noise from groups gathering to make use of logs as seats.

5.4.4 Site safety

Below are a number of potential safety conflicts between visitors and neighbours and actions for how the risk should be reduced or removed. A site safety plan will be prepared during the course of this management plan so that all safety issues are considered fully. Tagging of standing dead wood and veteran trees will be carried out to help monitor the condition of these trees for safety reasons so that any remedial work to maintain them in a safe condition can be carried out in a timely manor.

a) Dangerous trees

All trees close to definitive and well used casual paths, formal access points and neighbouring properties will continue to be inspected annually for significant defects and signs of disease and damage. Trees away from these areas will be inspected during routine visits, whenever possible. Remedial works will be taken as required. The Parish Council may be liable for any damage caused to visitors and adjoining private property by the trees it leases.

b) Flytipping and dangerous rubbish

Controlled access to the site, particularly for vehicles, together with the nature of the area, prevents too many instances of flytipping taking place. However, when flytipping does occur this will be removed. Any hazardous waste such as asbestos will be removed with the advice and assistance of Rotherham Borough Council's Health and Safety Unit and clinical waste by Streetpride Services.

c) Conflicting recreational uses

Now that the site has been largely secured against motorbike and horse access the instances of conflict with walkers and other passive users should be greatly reduced. Reports of motorcycling in the wood will however be forwarded to South Yorkshire Police and the numbers monitored to assess whether activities appear to be isolated or part of a trend. Horse-riders will continue to be discouraged from using the woodland with boundary controls and signs.

d) Fire Plan

With the exception of compartment 1D, the acid grassland glade, fire risks in

Wickersley Wood are currently low due to the absence of a fuel source. However, as a better field and shrub layer develops following recent management work the potential fire risk may increase.
The woodland is included within Rotherham Borough Council's fire plan for woodland and other countryside sites. However, the fire plan is in need of updating as this was prepared in 1998 prior to access and boundary control works being carried out. The access points identified in the fire plan are now secured with locked gates. The Fire Service in Rotherham has a set of keys that will fit the locks to some of these gates.

5.4.5 Sustainability and biodiversity

Any UK, Regional and Local BAP priority woodland habitats present in Wickersley Wood will be managed to meet the sustainable forest management criteria laid out in the UK Forestry Standard (2011) (see Table 3.3.4) whilst taking into account the guidelines laid out in the Forestry Commission Practice Guides for the management of semi-natural woodlands of each type. Sustainable management should bring habitat improvements and an overall enhancement in biodiversity at the site to benefit a range of species.

Continued management of the glade following increases to its size will undoubtedly help to increase biodiversity benefits for the woodland, as will increased deadwood habitat.

Wildlife survey for fungi will be carried out during the plan period so that biodiversity information for the woodland can continue to be enhanced.

5.4.6 Access and recreation

All the access points into the site have been provisioned with gates, stiles and associated fencing, see table 2.3.2 and figure 1.5. These provide access for people of all abilities and will be maintained accordingly.

Considerable access improvements were made between 2001 and 2006 as part of the Heritage Lottery Fund award with seating, interpretative signs and waymarking being installed, together with upgrades to key access points.

During the 2017 to 2021 programme a new sculpture trail was completed through the woodland from Wood Lane. This creates a link with Winthrop Park.

The frames of the four interpretative boards installed as part of the Heritage Lottery Fund programme are now beginning to rot. The text panels inside are fading. Replacement over this plan period would be beneficial.

Undesirable activities, including fly-tipping, air rifle shooting and other forms of anti-social behaviour, are generally only occasional problems at the site. The improved boundaries and formalised access points have helped to deter motorcyclists and reduce fly-tipping, particularly at the site entrances at Wood Lane and First Lane. An on-site presence by employees of the Parish Council and volunteers can help to alleviate these problems.

5.4.7 Community involvement

Community involvement in the care and management of the woodland will be maintained and further encouraged where possible. A number of very successful events have taken place in the woodland in recent years. These include guided bat walks, Easter egg hunts and lantern walks that have included story telling. These have been hugely successful. Some events have attracted up to 100 participants. These types of events will continue to be run as part of the Parish Council's events programme (see work programme below).

Other promotional events, particularly in relation to consultation with the local community and interest groups regarding management proposals and the benefits of management will be organised as necessary. Consultation will continue as implementation proceeds.

The community will also continue to be encouraged to report incidents and act as the "eyes and ears" of the Parish Council.

Within the interpretative panels there is room for notices to advertise and promote events in the local community, including the Parish Council's woodland management committee meetings that are open to members of the public. This is a useful means of communication between the Parish Council and the community.

5.4.8 Education and interpretation

The interpretative signs installed as part of the Heritage Lottery Fund (HLF) award give information about the history of the site, including ownership and management practices over the last 400 years. The panel also explains the important natural history of the site and the types of flora and fauna visitors would expect to find there. This help increase understanding of the importance of the site by users.

A leaflet was produced as part of the HLF award giving information about the history, natural history and management of the wood. This is available upon request from Wickersley Parish Council, Rotherham Borough Council and from the Visitor Centre in Rotherham town centre.

Also, located next to Wickersley High School, the wood is well located for education by the school and is used frequently by this and other schools in the Wickersley area for activities, including orienteering.

5.4.9 Landscape

Management proposals include substantial enlargement of the glade and further coppicing on the western edge of the woodland. Proposals to enlarge the glade will cause considerable, localised changes to the internal landscape of the woodland. These changes should however be regarded as positive changes. Open space in woodland, as well as being a benefit to wildlife, can enhance the visual appeal for visitors as they pass between different woodland structures. The new edge to the glade will be irregular and scalloped to give a more natural shape to the glade, enhancing the landscape benefit. This is also more beneficial to wildlife. These

landscape changes will only be viewed from within the woodland and will not viewed from out with owing to the central location of the glade.

The proposed coppicing work will have internal and external landscape implications. These will be limited owing to the small size of the parcels and presence of mature trees around the parcels. The work will however have an overall positive affect on the landscape. For visitors in the woodland coppiced areas provide a varied feel for walkers as there is a contrast in environments from passing through shady and light sunny areas. There will also be positive benefits for residents on the edge of the wood as the coppiced trees provide a good screen, increasing privacy for the homes and gardens.

5.4.10 Archaeology and historic interest

Although there are no known significant archaeological features at the site any potential discoveries as part of management works will be reported to South Yorkshire Archaeology Service.

5.4.11 Ecological survey and monitoring

Wickersley Wood is a valuable site for ecology, particularly in comparison to many of the other adjoining land uses in the area. However, in comparison to other ancient woodlands the ecological benefits of Wickersley Wood would be greater if a more diverse structure was present. Management practices over the last three plan periods have begun this process and proposals within this plan period will continue the process. This work will continue to increase the species composition of the field and shrub layers as well and increasing the amount of standing and fallen deadwood. Invertebrates associated with this habitat improvement would be expected to increase, as would species of birds and mammals dependent on them.

Surveying and monitoring will be essential to determine the types and quantities of species that re-colonise and existing species that increase in number as a result of management practices. Or, indeed decreases in numbers of any species as a result of management.

To ensure up to date species records are available specialist surveys of particular interest groups, in particular, plants, fungi and invertebrates will be commissioned. Any new information will be inputted in the Biological Records Centre Recorder. Local naturalists will also be encouraged to visit the site and gather records. Again, available records will be inputted in the Biological Records Centre Recorder.

Spanish bluebell is present in the woodland close to the stone squeeze through entrance. Its removed to prevent hybridisation with the native bluebell would be be optimal.

The effects of management over the period of the plan on habitat quality will be monitored photographically. Digital photos have been taken of the woodland as it is at present. Repeat photographic surveys will be taken over the five years of the plan, and beyond, to record the affects of management. Further ecological survey work will be undertaken as management works proceed.

Ecological monitoring will be done in accordance with aim 9 'monitoring' and section 8 of this plan 'monitoring and review'.

6.0 MANAGEMENT IMPLEMENTATION

6.1 Five year work programme

Silvicultural Works	Comps	**Years**				
		1	**2**	**3**	**4**	**5**
Essential tree safety works, including maintenance of boundary trees to prevent an actionable nuisance with neighbours.	All	√	√	√	√	√
Selective coppicing on woodland edge to improve structural diversity (6 parcels).	1a	√	√		√	√

Access Works	Comps	**Years**				
		1	**2**	**3**	**4**	**5**
Maintain access furniture, seating, fencing and waymarker posts.	All	√	√	√	√	√
Consider improvements to the interpretative signs.	All	√	√			
Strimming of vegetation at main access point by substation, including hoeing of weeds on the path surface. Mowing of the footpath network where appropriate.	1c	√	√	√	√	√

Other Site Improvements	Comps	**Years**				
		1	**2**	**3**	**4**	**5**
Control of scrub encroachment in acid grassland by cutting and chemical stump treatment. Control of bracken, bramble and rosebay willow herb as necessary by cutting and pulling.	1d	√	√	√	√	√
Management of the heather with assistance from Sheffield Wildlife Trust.	1d			√		
Removal of rubbish from within the woodland and any fly tipping at woodland edges.	All	√	√	√	√	√
Emptying dog bins	1a &b	√	√	√	√	√

Survey and Plans	Comps	**Years**				
		1	**2**	**3**	**4**	**5**
Invertebrate survey of glade	1d		√			
Fungal survey	All	√				
Photographic monitoring	All	√	√	√	√	√
Monitoring and review of the impacts of the management plan programme	All	√	√	√	√	√
Review management plan	All					√

Events	Lead	**Years**				
		1	**2**	**3**	**4**	**5**
Consultation/community information	IK	√				√
Bat Walk	PC	√	√	√	√	√
Lantern Walk	PC	√	√	√	√	√
Easter egg hunt	PC	√	√	√	√	√
Volunteer event	PC	√	√	√	√	√

6.2 Annual Work Programme (Years 1- 5)

Annual Work Programme Year One – 2022												
	January	**February**	**March**	**April**	**May**	**June**	**July**	**August**	**September**	**October**	**November**	**December**
Silvicultural works												
Tree safety works, including maintenance of boundary trees to prevent an actionable nuisance with neighbouring properties. (contractor)				√	√	√	√	√	√	√	√	√
Coppicing of two parcels on the western edge of the woodland. (volunteers)											√	
Access works												
Maintain access furniture, seating, fencing, waymarker posts. (parish council)				√	√	√	√	√	√	√	√	√
Consider improvements to the interpretative signs. (parish council)	√	√	√	√	√	√	√	√	√	√	√	√
Strimming of vegetation at the main access point by the substation, including hoeing of weeds on the path surface. Mowing of the path network where appropriate. (volunteers or parish council)					√			√				
Other Site Improvements												
Control of scrub and bramble in the acid grassland and treatment of stumps. (volunteers, contactors or parish council)								√	√			
Pulling and cutting of bracken and willow herb. (volunteers)						√						
Removal of rubbish and any fly tipping at woodland edges. (parish council)	√	√	√	√	√	√	√	√	√	√	√	√
Emptying of dog bins (RMBC)	√	√	√	√	√	√	√	√	√	√	√	√
Survey and Plans												
Photographic monitoring. (parish council)	√	√	√	√	√	√	√	√	√	√	√	√
Fungal survey										√		
Monitoring and review of the management plan programme. (parish council)			√						√			
Events												
Bat walk. (parish council)									√			
Lantern walk. (parish council)												√
Easter egg hunt. (parish council)				√								
Volunteer events as and when arranged. (parish council)												

Annual Work Programme Year Two – 2023												
	January	**February**	**March**	**April**	**May**	**June**	**July**	**August**	**September**	**October**	**November**	**December**
Silvicultural works												
Tree safety works, including maintenance of boundary trees to prevent an actionable nuisance with neighbouring properties. (contractor)	√	√	√	√	√	√	√	√	√	√	√	√
Coppicing of two parcels on the western edge of the woodland. (contractor)											√	
Access works												
Maintain access furniture, seating, fencing, waymarker posts and interpretative signs. (parish council and volunteers)	√	√	√	√	√	√	√	√	√	√	√	√
Consider improvements to the interpretative signs. (parish council)	√	√	√	√	√	√	√	√	√	√	√	√
Strimming of vegetation at the main access point by the substation, including hoeing of weeds on the path surface. Mowing of the path network where appropriate. (volunteers or parish council)					√			√				
Other Site Improvements												
Control of scrub and bramble in the acid grassland and treatment of stumps. (volunteers, contactors or parish council)								√	√			
Pulling and cutting of bracken and willow herb. (volunteers)						√						
Removal of rubbish and any fly tipping at woodland edges. (parish council)	√	√	√	√	√	√	√	√	√	√	√	√
Survey and Plans												
Invertebrate survey of glade. (volunteers)							√					
Photographic monitoring. (parish council)	√	√	√	√	√	√	√	√	√	√	√	√
Monitoring and review of the management programme. (parish council)			√						√			
Events												
Bat walk. (parish council)									√			
Lantern walk. (parish council)												√
Easter egg hunt. (parish council)				√								
Volunteer events as and when arranged. (parish council)						√						

Annual Work Programme Year Three – 2024												
	January	**February**	**March**	**April**	**May**	**June**	**July**	**August**	**September**	**October**	**November**	**December**
Silvicultural works												
Tree safety works, including maintenance of boundary trees to prevent an actionable nuisance with neighbouring properties. (contractor)	√	√	√	√	√	√	√	√	√	√	√	√
Access works												
Maintain access furniture, seating, fencing, waymarker posts and interpretative signs. (parish council and volunteers)	√	√	√	√	√	√	√	√	√	√	√	√
Strimming of vegetation at the main access point by the substation, including hoeing of weeds on the path surface. Mowing of the path network where appropriate. (parish council and volunteers)					√			√				
Other Site Improvements												
Control of scrub and bramble in the acid grassland areas and treatment of stumps. (volunteers, contactors or parish council)								√	√			
Pulling and cutting of bracken and willow herb. (volunteers)						√						
Removal of rubbish and any fly tipping at woodland edges	√	√	√	√	√	√	√	√	√	√	√	√
Empty dog bins (RMBC)												
Survey and Plans												
Photographic monitoring. (parish council)	√	√	√	√	√	√	√	√	√	√	√	√
Monitoring and review of the management plan programme. (parish council)			√						√			
Events												
Bat walk. (parish council)						√						
Lantern walk. (parish council)									√			
Easter egg hunt. (parish council)	√											
Volunteer events as and when arranged. (parish council)												

Annual Work Programme Year Four – 2025												
	January	**February**	**March**	**April**	**May**	**June**	**July**	**August**	**September**	**October**	**November**	**December**
Silvicultural works												
Tree safety works, including maintenance of boundary trees to prevent an actionable nuisance with neighbouring properties. (contractor)	√	√	√	√	√	√	√	√	√	√	√	√
Coppicing of one parcel on the western edge of the woodland. (volunteers)											√	
Access works												
Maintain access furniture, seating, fencing, waymarker posts and interpretative signs. (Parish council and volunteers)	√	√	√	√	√	√	√	√	√	√	√	√
Strimming of vegetation at the main access point by the substation, including hoeing of weeds on the path surface. Mowing of the path network where appropriate. (Parish council and volunteers)					√			√				
Other Site Improvements												
Control of scrub and bramble in the acid grassland areas and treatment of stumps. (volunteers, contactors or parish council)								√	√			
Pulling and cutting of bracken and willow herb. (volunteers)						√						
Removal of rubbish and any fly tipping at woodland edges. (parish council)	√	√	√	√	√	√	√	√	√	√	√	√
Empty dog bins (RMBC)	√	√	√	√	√	√	√	√	√	√	√	√
Survey and Plans												
Photographic monitoring. (parish council)	√	√	√	√	√	√	√	√	√	√	√	√
Monitoring and review of the management plan programme. (parish council)			√						√			
Events												
Bat walk. (parish council)									√			
Lantern walk. (parish council)												√
Easter egg hunt. (parish council)				√								
Volunteer events as and when arranged. (parish council)						√						

Annual Work Programme Year Five – 2026												
	January	**February**	**March**	**April**	**May**	**June**	**July**	**August**	**September**	**October**	**November**	**December**
Silvicultural works												
Tree safety works, including maintenance of boundary trees to prevent an actionable nuisance with neighbouring properties. (contractor)	√	√	√	√	√	√	√	√	√	√	√	√
Coppicing of one parcel on the western edge of the woodland. (volunteers)											√	
Access works												
Maintain access furniture, seating, fencing, waymarker posts and interpretative signs. (Parish council and volunteers)	√	√	√	√	√	√	√	√	√	√	√	√
Strimming of vegetation at the main access point by the substation, including hoeing of weeds on the path surface. Mowing of the path network where appropriate. (Parish council and volunteers)					√			√				
Other Site Improvements												
Control of scrub and bramble in the acid grassland areas and treatment of stumps. (volunteers, contactors or parish council)								√	√			
Pulling and cutting of bracken and willow herb. (volunteers)						√						
Removal of rubbish and any fly tipping at woodland edges. (Parish council)	√	√	√	√	√	√	√	√	√	√	√	√
Empty dog bins (RMBC)	√	√	√	√	√	√	√	√	√	√	√	√
Survey and Plans												
Photographic monitoring. (Parish council)	√	√	√	√	√	√	√	√	√	√	√	√
Monitoring and review of the management plan programme. (Parish council)				√					√			
Review management plan. (Parish council)								√	√	√	√	√
Events												
Bat walk. (Parish council)									√			
Lantern walk. (Parish council)												√
Easter egg hunt. (Parish council)				√								
Volunteer events as and when arranged. (parish council)						√						

6.3 Forestry Operations (Years 1 - 5)

Table 6.3 Volume estimates for thinning/felling proposals

Species	Planting Year	Operation	Proposed vol. (m^3)	Actual vol. (m^3)
Mixed broadleaf edge (cmp. 1a)	Mixed	coppicing	3.0m^3	
SOK and BE (cmp. 1b)	Pre-1900	None	0.0m^3	
SOK and SBI (cmp. 1c)	Post 1945	None	00.0m^3	

SOK – Sessile oak BE - beech SBI – silver birch

Hectares	Average volume per hectare	Total woodland volume	Total annual increment	Total annual cut				
				2022	2023	2024	2025	2026
14.35	142m^3	2,037m^3	11.5m^3	0.5m^3	1.5m^3	0.0m^3	0.5m^3	0.5m^3

7. FINANCIAL STATEMENT

7.1 Financial forecast for 5 year plan period

Table 7.1 Expenditure

Work identified	Year 1 2022	Year 2 2023	Year 3 2024	Year 4 2025	Year 5 2026	Total
Silvicultural						
Essential safety work	400	400	400	400	400	2,000
Coppicing		900	0	0	0	900
Access						
Maintenance of furniture	200	200	200	200	200	1,000
Replacement of interpretative signs		4,000	0	0	0	4,000
Path mowing/strimming/ maintenance	200	200	200	200	200	1,000
Other Site Improvements						
Invasive species control in glade	500	500	500	500	500	2,500
Heather management	0	0	500	0	0	500
Rubbish removal	200	200	200	200	200	1,000
Empty dog bins	0	0	0	0	0	0
Survey/plans						
Invertebrate survey of glade	0	100	0	0	0	100
Fungal survey	100	0				100
Events						
Consultation walk	TBC	0	0	0	0	TNC
Bat walk	TBC	TBC	TBC	TBC	TBC	TBC
Lantern walk	TBC	TBC	TBC	TBC	TBC	TBC
Easter egg hunt	TBC	TBC	TBC	TBC	TBC	TBC
Volunteer event	TBC	TBC	TBC	TBC	TBC	TBC
Totals	**1,600**	**6,500**	**2,000**	**1,500**	**1,500**	**13,100**

8. MONITORING AND REVIEW

8.1 Monitoring

Monitoring is important to ensure that management operations and their effects are properly considered during management planning reviews.

(a) General management

The effects of work at the site will be monitored over the plan period, specifically with regard to natural regeneration within the woodland and the priority species present. Additionally, trees alongside the footpaths and woodland edges will be inspected annually for safety. All wildlife records will be collated on the Biological Records Centre's database. Incidents of damage to wildlife will be reported to the police as part of an approach to ensure wildlife crime does not become a problem at this site.

(b) Natural history

The flora and fauna of the woodland will continue to be monitored, with particular emphasis placed on the effects of access, recreation and management operations. Any species presently identified on the local, regional or UK Biodiversity Action Plan will be monitoring priorities.

Local naturalists will be encouraged to survey the site, and will be supported with compartment recording maps as appropriate. A "before and after" photographic record will be kept for all major management works.

All available records will be inputted in the Biological Records Centre RECORDER where appropriate.

A photographic survey of the site will be carried out throughout the five years.

8.2 Review

The progress of the plan will be reviewed annually. The development of the plan will be fully reviewed at the end of the five-year period, taking into account the long-term implications of the previously stated management objectives, and the views of interested parties.

The management plan will be fully reviewed in 2026 at the end of this five-year plan period. The review will take into account monitoring work and progress reports prepared over the course of this plan. Unless there are serious unforeseen problems, the proposals in the next five-year plan will recognise the long-term aims and objectives approved in 2022. The reviewed plan will be effective for a further five-year period until 2031.

Provided there are no major changes to the aims and objectives the consultation process for the revised plan undertaken by the Parish Council will be limited to seven working days with professional bodies to ensure continuity in implementing plans of operations. The wider consultation phase with the community will continue to be done with letters to local interest groups and residents, together with notices in the notice boards and woodland walks and presentations where appropriate.

Copies of the reviewed management plan and new plan of operations will be made available for inspection at the local library in Wickersley and on request to Wickersley Parish Council. Also, a plan showing the locations of tree felling or other sensitive works will be attached to the consultation letters and information posted in the interpretation boards.

9.0 COMMUNICATION

9.1 List of contacts and consultees

The following matrix of contacts identifies those individuals or organisations who can supply a particular service or advice with respect to the woodland. This includes departments within Rotherham Borough Council, and local interest groups and individuals. All management issues should be directed through the Clerk to Wickersley Parish Council.

Table 9.1 Matrix of useful contacts

Contact Person	**Position**	**Number**		**Reason for Contact**
Sharon Fletcher	Deputy clerk to Wickersley Parish Council	(01709) 703270		Primary contact for all issues in respect of management of the site.
Rotherham MBC Staff			**Department**	
Donaldson, Jane	Assistant Rights of Way Officer	2932	Streetpride Services	Request to close Public Right of Way for management works

Outside Rotherham MBC.	**Organisation**	**Contact Details**	**Reason for contact**
	Forestry Commission Yorkshire and North East Area	0300 067 4900	General enquiries relating to grants, Forestry Legislation etc
	South Yorkshire Bat Group	https://sites.google.com/site/sybatgroup/ https://sites.google.com/site/southyorkshirebathelpline/	For bat surveys and general advice relating to bats, particularly what to do when bats are disturbed. Contact 01298 872318 in an emergency situation when bats are found.
McNeil, Jim	South Yorkshire Archaeology Service	01142 736428	Advice regarding management operations in relation to archaeological features.
SY Police		01142 202020	In the event of repeated problematic behaviour
SY Fire Service		01142 727202	Notify the service of any controlled burning in accordance with the Councils' fire plan.
Police/Fire		999	In the event of an emergency situation

10.0 GLOSSERY OF TERMS

Ancient semi-natural woodland - woodland believed to have been in existence since at least 1600AD, and which supports stands of unplanted **native** trees and shrubs.

BAP – Biodiversity Action Plan, UK plan setting proposals and targets for conserving and enhancing biodiversity (see SAP and HAP).

Biodiversity – The variety of life, from genes to species and habitats.

Canopy - collectively, the mass of branches and foliage formed by the crowns of trees.

Clear-felling - the complete felling of a whole **stand** of trees at the same time.

Coppicing - the periodic felling of broadleaved trees and shrubs to ground level, every 8-25 years. These are then allowed to re-grow forming many stems called poles. This process can be repeated many times.

Community woodland – Local woods for people to enjoy where the needs and wishes of the local people are important in planning and management.

Compartment – A unit of the woodland identified as a basis for long term management and monitoring.

Decline (of trees) - Part of a tree's natural life cycle, following years of growth and development a tree will spend years declining. Sometimes referred to as 'growing down' or dying.

Definitive footpaths and bridleways - Statutory public rights of way.

Ecology – The relationships between species.

Establishment- The formative period which ends once young trees are of sufficient size that giving adequate protection they are likely to survive.

Favoured tree - selected for retention during **thinning** and given favourable treatment by the removal of competing vegetation.

Forestry standard – The Governments approach to sustainable forestry.

Forestry strategy – Describes how the Government will deliver its forestry policies in England.

Glade - an area within a woodland managed as open space.

Group-felling - where a patch of trees covering less than 0.5ha is cut down to open a gap in the woodland, providing light and space for young trees. The minimum size of a gap is generally 1.5 - 2 times the height of adjacent woodland.

High forest - areas of trees, managed to promote a woodland of predominantly mature trees.

Minimum intervention – Management with only the basic inputs required to protect the woodland from external forces and ensure succession of key habitats.

Natural regeneration - trees which have developed from natural seeding i.e. they have not been planted, or from suckering.

NVC – National Vegetation Classification A comprehensive classification of vegetation in the UK which is used to describe and assist in the evaluation of habitats.

Native species - those tree and shrub species which have colonised Britain by natural means i.e. without the intervention of man. Species introduced (non-native) by man include Sycamore and Sweet Chestnut. Beech and Hornbeam are native only to southern England. Elsewhere, they have been introduced through deliberate planting.

Rotation - the length of time between the establishment of an area of woodland and its removal. Mature broadleaved high-forest is normally managed on a 100-200 year rotation, coppice on an 8-25 year rotation.

Red Data Book – A list of species which are rare or in danger of becoming extinct nationally or locally.

Respacing – Thinning out of trees before canopy closure to create wider spacing.

Ride – Permanent unsurfaced access route through woodland

SAP – Species Action Plan.

Semi-natural woodland – Woodland composed mainly of locally native trees and shrubs which derive form natural seed fall or coppice rather than planting

Silviculture - the growing and tending of trees.

Stand - a group of trees, often applied to groups of trees of the same age or species composition.

Structural diversity – The degree of variation in spatial distribution of trees both horizontally and vertically by the combined effect of different growth rates and ages of trees, shrubs and field vegetation.

Thinning - the removal, at certain stages of growth, of a proportion of trees from a stand. For example, to allow the remainder more growing space, to favour a particular species mix, or to maintain or encourage a diverse ground vegetation.

Veteran trees – Trees that are old relative to others of the same species and that are of interest biologically, aesthetically or culturally because of their age.

Veteranising - the process of manually creating or helping to create a veteran.

Windthrow - the blowing down of trees by the wind.

11 REFERENCES

11.1 Literature cited

Amenities and Recreation (1989). Working Towards a Better Environment: A Strategy for Countryside Management. R.M.B.C.

Department of the Environment and the Welsh Office (1992). Joint Circular: Indicative Forest Strategies. London: HMSO.

English Nature (1999). Veteran Trees: A guide to good management.

English Nature (1997). Coal Measures Natural Area Profile.

Forestry Commission (1992). Forestry Policy for Great Britain. London: HMSO.

Forestry Commission (1998). The UK Forestry Standard: The Government's Approach to Sustainable Forestry. Edinburgh: Forestry Commission.

Forestry Commission (1999) The England Forest Strategy – A new focus for England's Woodlands- Strategic priorities and programmes.

Fuller R. J. (1995). Birdlife of woodland and forest. Cambridge : Cambridge University Press.

Garland S. P. (1983). Beetles as Primary Woodland Indicators. Sorby Record 21, Sheffield.

Hamilton G. J. (1975). Forest Mensuration Handbook. London: HMSO (Forestry Commission Booklet 39).

Hamilton G. J. and Christie J. M. (1971). Forest Management Tables. London: HMSO (Forestry Commission Booklet 34).

HMSO (1995). Biodiversity - the UK Steering Group Report. London.

Jones M. (1993). Sheffield's Woodland Heritage. Sheffield: Sheffield Design and Print.

Jones M. (1995). Rotherham's Woodland Heritage.

Jones M. (1996) Deer in South Yorkshire: an Historical Perspective. The Journal of Practical Ecology and Conservation No. 1 (1996). SCEEM

Jones M. (1997). The Medieval Deer Park at Kimberworth. Aspects of Rotherham 2: Discovering Local History. Barnsley: Wharncliffe Publishing.

Kirby P. (1992). Habitat Management for Invertebrates: A practical handbook. Bedfordshire: RSPB.

Leonard P. (1993-98). Common Bird Census: Scholes Coppice. Unpublished.

Morris J. (1986). Domesday Book Yorkshire Part 1 and 2. London: Phillimore and

Co. Ltd.

Museum and Arts Service, Biological Records Centre (1997). The Natural History of Scholes Coppice. R.M.B.C.

Patterson G. (1993). The Value of Birch in Upland Forests for Wildlife Conservation. London: HMSO (Forestry Commission Bulletin 109).

Peterken G. F. (1993). Woodland Management and Conservation. London: J. M. Dent.

Planning Services (1989). Countryside Study. R.M.B.C.

Planning Services (1998). Unitary Development Plan. R.M.B.C.

Rodwell J. S. (1993). British Plant Communities, Volume 3 : Grassland and montane communities. Cambridge : Cambridge University Press.

Rodwell J. S. (1991). British Plant Communities, Volume 1: Woodlands and Scrub. Cambridge: Cambridge University Press.

Selman, Dood, & Bayes (1999) A biodiversity Audit of Yorkshire & The Humber.

Smart N. and Andrews J. (1985). Birds and Broadleaves Handbook . R.S.P.B.

Smith A. H. (1961). Place names of the West Riding of Yorkshire Vol. XXX Part 1. Cambridge: Cambridge University Press.

South Yorkshire Forest (2002). Forest Plan. Thorncliffe Park, Chapeltown, Sheffield.

South Yorkshire Forest (1994b). Fuelling the Revolution- The woods that founded the Steel Country (Restoring South Yorkshire Forests Heritage Woodlands). Thorncliffe Park, Chapeltown, Sheffield.

Warren M. S. and Fuller R. J. (1990). Woodland Rides and Glades: their management for wildlife. Peterborough: Nature Conservancy Council.

Waterson J. (1984). The draught horse in UK Forestry. Quarterly Journal of Forestry Vol.88 No. 4.

Weston Park Museum, Sheffield (1996). Meteorological Data.

11.2 Literature consulted but not cited

Amenities and Recreation (1995). Draft Environmental Awareness Strategy. R.M.B.C.

English Nature (1995). Sustainable forestry and nature conservation in England

Evans J. (1982). Silviculture of Broadleaved Woodland. London: HMSO (Forestry Commission Bulletin 62).

Forestry Authority (1993). Biodiversity in Britain's Forests. London: HMSO.

Forestry Authority (1994). Lowland Mixed Broadleaved Woods. London: HMSO (Forestry Practice Guide 3).

Forestry Authority (1994). Wet Woodlands. London: HMSO (Forestry Practice Guide 8).

Fuller R. J. and Warren M. S. (1990). Coppiced Woodlands: their management for wildlife. Peterborough: Nature Conservancy Council.

J. P. Grime, J. G. Hodgson and R. Hunt (1990). The abridged Comparative Plant Ecology. London: Chapman and Hall.

B. G. Hibbard (1993). Forestry Practice. London: HMSO (Forestry Commission Handbook 6).

HMSO (1994). Sustainable Forestry: The UK Programme.

Joint Nature Conservation Committee (1992). Summary of National Vegetation Classification: Woodlands. Peterborough: JNCC.

Kerr G. and Evans J. (1993). Growing Broadleaves for Timber. London: HMSO (Forestry Commission Handbook 9).

Kirby K. J. (1988). A Woodland Survey Handbook. Peterborough: Nature Conservancy Council.

Rackham O. (1986). The History of the Countryside. London: J. M. Dent.

Rose F. (1981). The Wildflower Key. London: Warne.

Victoria County History (1974). South Yorkshire. London: Dawson

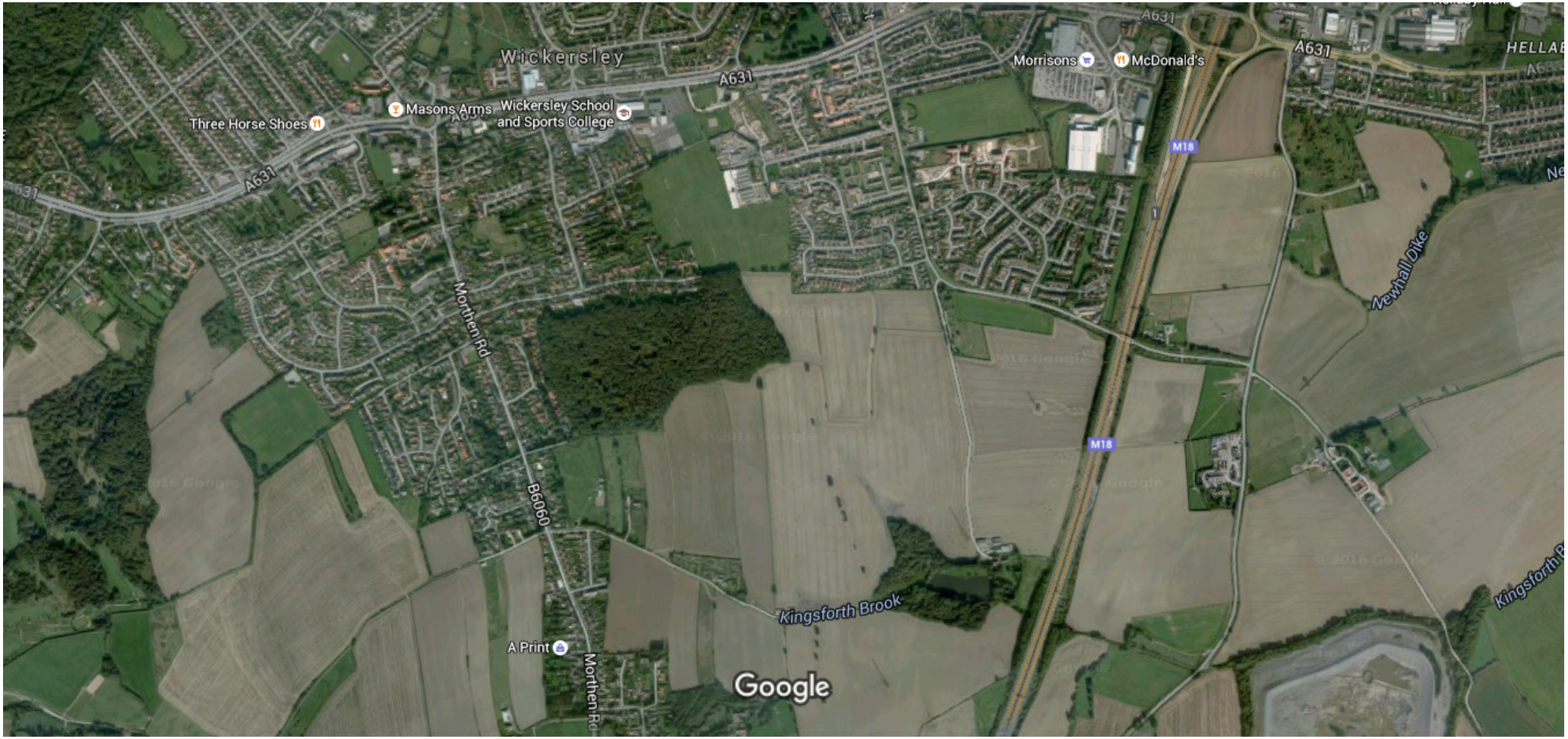
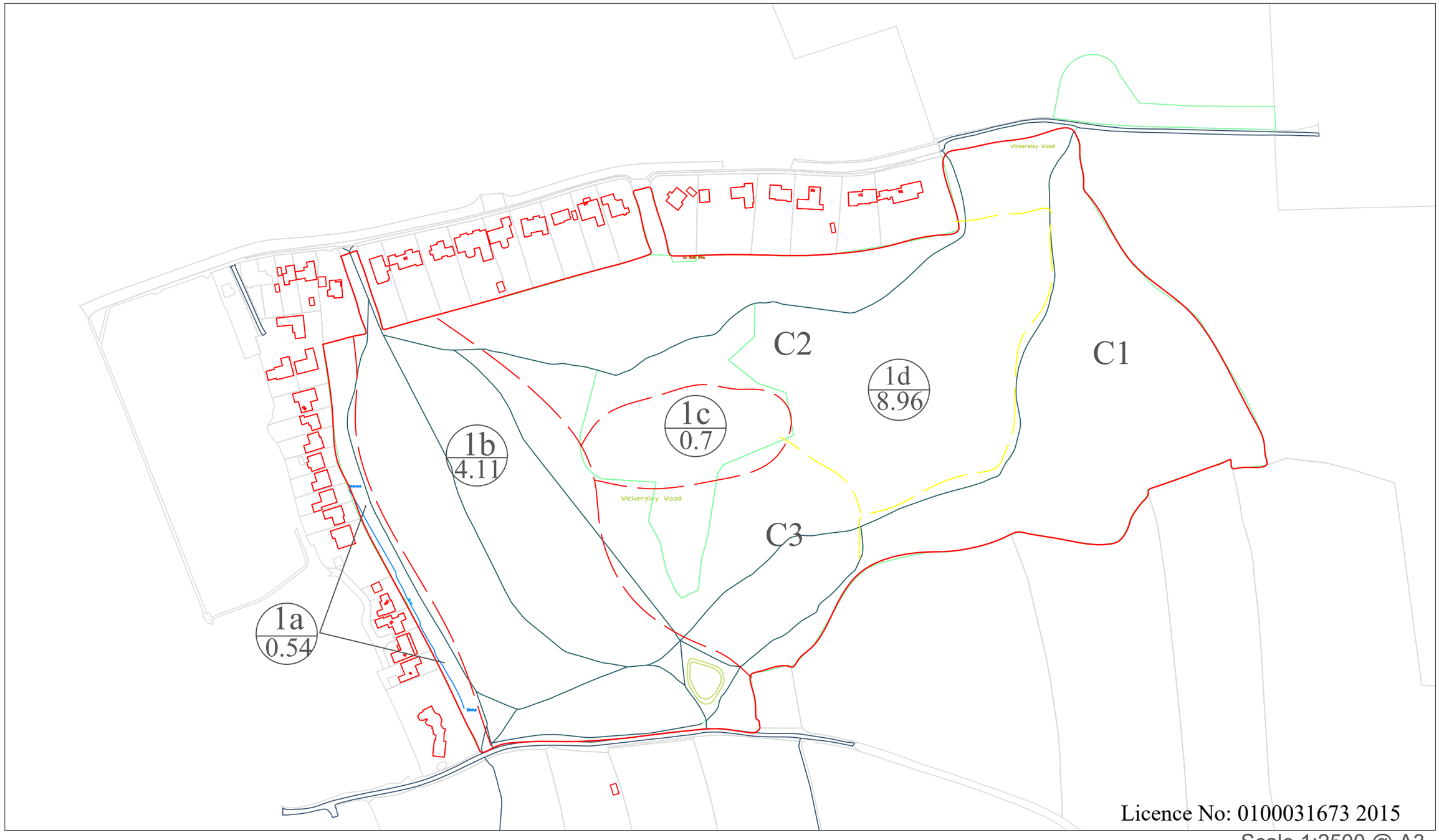


Figure 1.1 Location Plan



Scale 1:2500 @ A3

Figure 1.2 Management compartment map

1a / 0.54 — Compartment number / Area of compartment in hectares

Compartment boundary

Sub-Compartment boundary

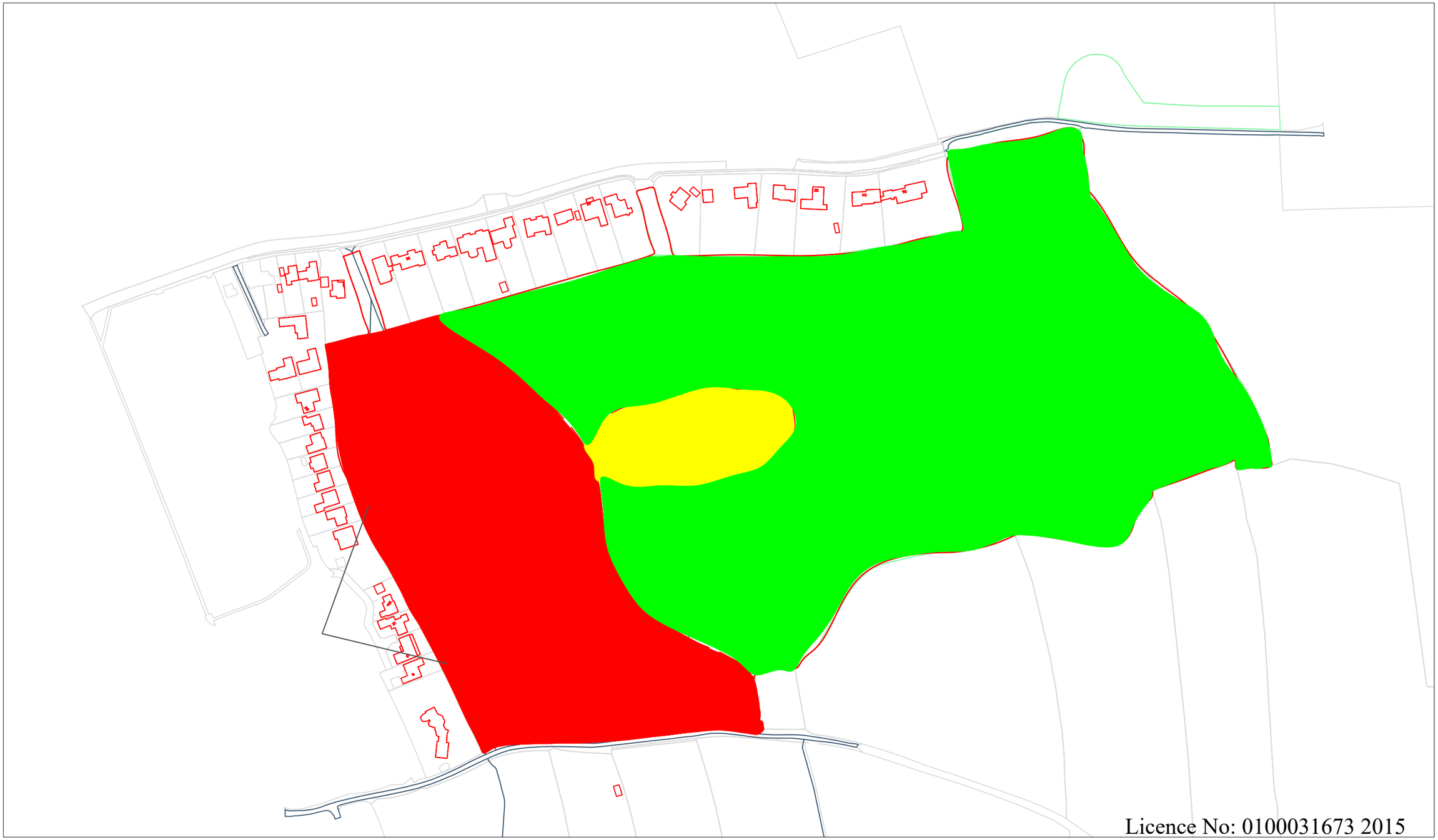


Figure 1.3 Vegetation communities map

Scale 1:2500 @ A3

NVC type W16 *Quercus* spp. - *Betula* spp. - *Deschampsia flexuosa* woodland
NVC Grassland Community U2 *Deschampsia flexuosa*)
NVC type W10 *Quercus robur* - *Pteridium aquilinum* - *Rubus fruticosus*

Figure 1.4 Public rights of way, well used footpaths and wayleaves

Scale 1:2500 @ A3

— — — — Definitive footpath

——————— Permissive footpath

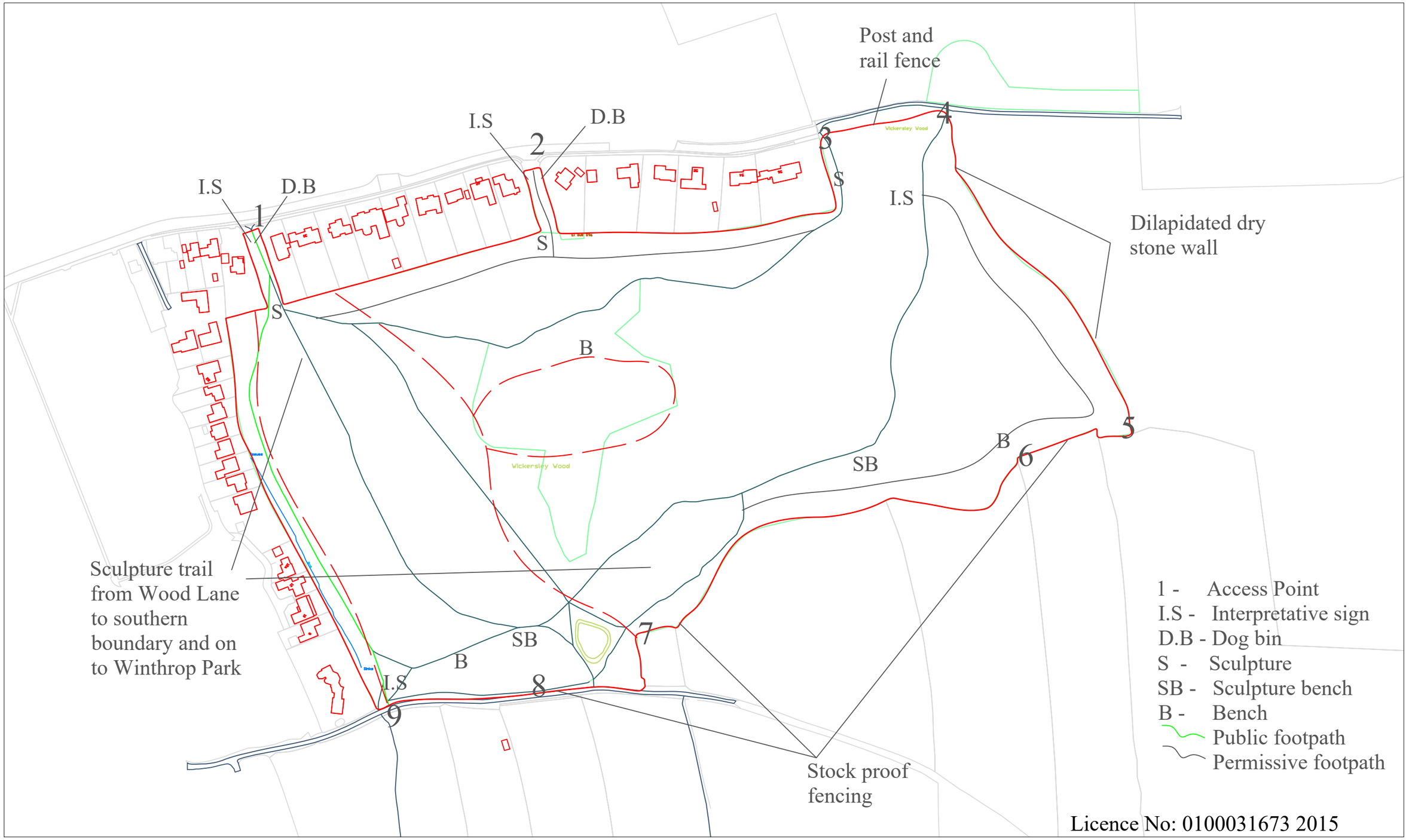
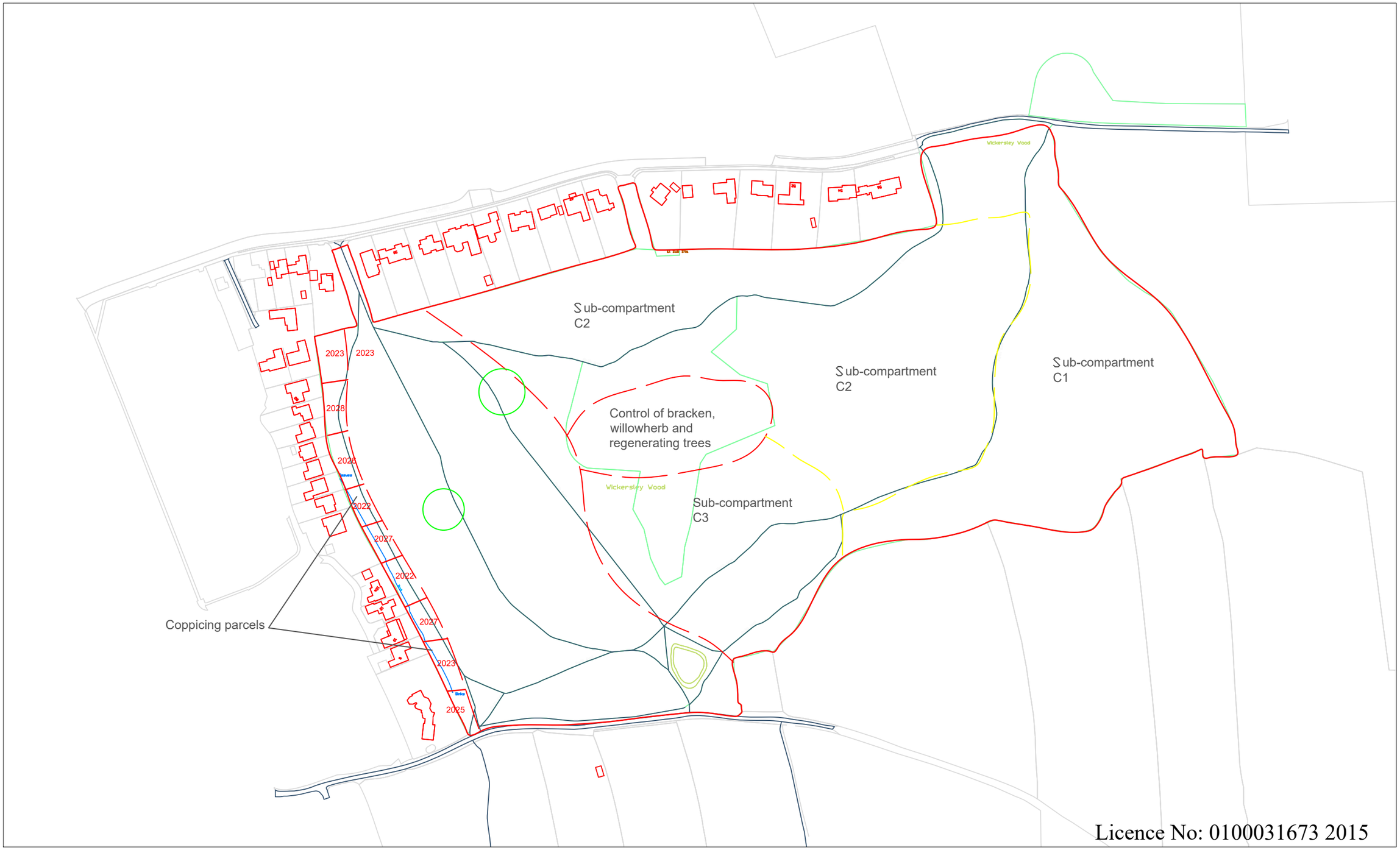


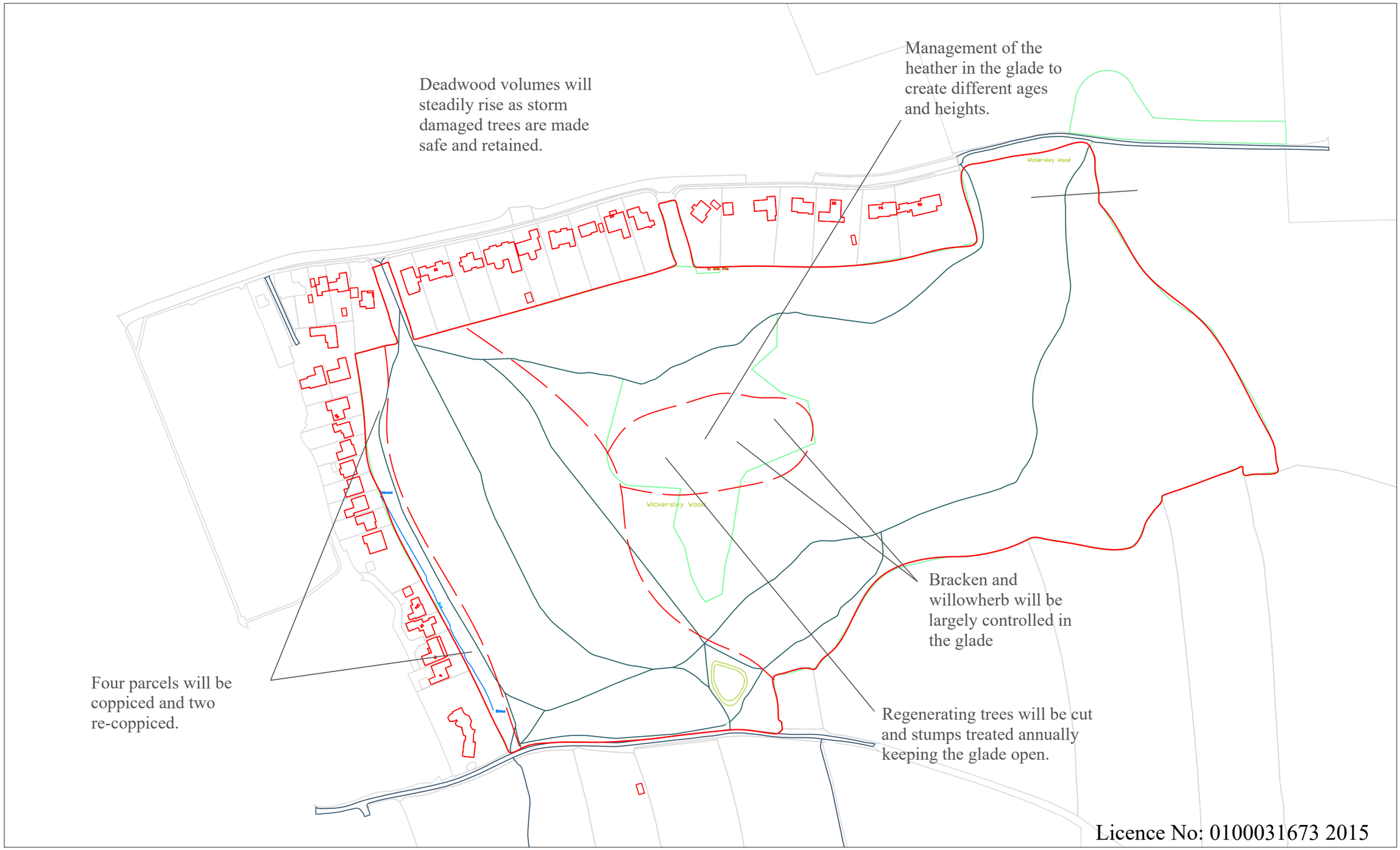
Figure 1.5. Access, interpretation, waymnarking and boundary control map

Scale 1:2,500 @ A3



Scale 1:2500 @ A3

Figure 1.6 Vegetation management map



Scale 1:2500 @ A3

Figure 1.7 Desired end product of management