WICKERSLEY GORSE

MANAGEMENT PLAN

Revision 1

2022 - 2026

Wickersley Parish Council

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1.0 INTRODUCTION AND PURPOSES OF THE MANAGEMENT PLAN

Wickersley Gorse is owned and managed by Wickersley Parish Council.

The countryside site is a matrix of woodland and grassland on the edge of Wickerlsey. It is one of the parish council's key green spaces. It is important locally for wildlife conservation and recreation. The site has been benefiting from management by the parish council for a number of decades.

This management plan was approved in 2017. The plan is intended to ensure an integrated and sustainable approach to the management of Wickersley Gorse and was written to continue to deliver the many benefits that the site provides.

The plan provides a site description and assessment of important features, sets some long term aims and objectives.

The plan had a detailed five year work programmed which covered the period 2017 to 2021.

The impact of the 2017 to 2021 work programme has been evaluated and a new detailed five year work programme is proposed to cover the period 2022 to 2026.

There is also a broader 20 year work programme which gives an indication of the nature of management work in the future. This 20 year work programme will form the bases of the next detailed five year programme from 2027 to 2031.

This is an important document in encouraging community involvement and helping to achieve best practice. It also promotes the vision for the site and reflects local, regional and national policies:

'Wickersley Gorse protected and conserved as community open space for future generations'.

1.1 Overview of the proposals for the 2022 to 2026 work programme.

There were a number of silvicultural operations to trees throughout the wooded areas of The Gorse in during the 2017 to 2021 management plan. This work took place in 2019. The benefits of this work will continue for the duration of this work programme. Therefore, no significant silvicultural work is proposed during this work programme.

Continuation of the small scale coppicing in Compartment 4 will continue to ensure the view point remains open.
Very small scale coppicing is also proposed in Compartment 13.

The majority of the management work proposed is largely continuation of grassland management. A lot of work has been invested in management of the grassland areas over the last 25 to 30 years. These areas add significantly to the character of the site and provide spaces for events.

The key grassland areas will continue to be cut annually in August/September and the grass removed to reduce nutrient richness. The bracken and bramble that is encroaching will also be 'pushed back' to the woodland margins to maintain the open spaces.

The current levels of access will be maintained. Community and volunteering events will continue to be encouraged.

2.0 GENERAL SITE INFORMATION

OS Grid Reference: SK471 911

Total area: 10.71 hectares (26.46 acres)

Owner: Wickersley Parish Council and Sitwell Golf Club

2.1.1 Location

Wickersley Gorse is situated approximately 8 kilometres to the east of Rotherham town centre in the Parish of Wickersley. The site is located on the southwestern edge of Wickersley with fields on the northern, eastern and western edges and Sitwell Golf Course to the south.

2.1.2 Ownership Information

Eight hectares of Wickersley Gorse has been owned by Wickersley Parish Council since 1987 when the Parish Council bought the land from the Diocese of Sheffield and the Warde Aldam Estate. The remaining five hectares of the site were leased to Sitwell Golf Club in 1990 but the land is managed by Wickersley Parish Council.

2.1.3 Status, formal designations and constraints

Wickersley Gorse benefited from a Countryside Stewardship Agreement between 2004 and 2014 which provided assistance with management of the site's grassland areas to enhance floral diversity, restoration of a pond and to conduct educational visits. The legislation governing this agreement is the Countryside Stewardship Regulations 2000, The England Rural Development Programme (Enforcement) Regulations 2000, Council Regulation (EEC) No 1257/1999 and Commission Regulation (EC) No 445/2002.

The site is within the Forestry Commissions Woodland Priority Habitat Network and is included as a high spatial priority, allowing access to Countryside Stewardship Grants.

The site is within Natural England's Farm Wildlife Package Area.

The woodland areas are on Natural England's Deciduous Woodland Priority Habitat Inventory for England.

The site is within a Nitrate Vulnerable Zone (England).

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

The site is constrained by Green Belt and Unitary Development Plan Policies related to its protection from development.
Wickersley Gorse is a Local Wildlife Site (LWS39). 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 site lies within the project area of the South Yorkshire Forest, one of 12 community forests in England and Wales.

The site is subject to the Forestry Acts. Wickersley Gorse has not been included within current Countryside Stewardship Scheme. This scheme is about to be replaced with the Environmental Land Management Scheme (ELMS). The two schemes that may be applicable to Wickersley Gorse 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.

2.1.4 General Site Description

Wickersley Gorse is situated on the southwestern edge of Wickersley. The site comprises a matrix of open grassland and woodland areas. The woodland areas are generally around the edges of the site on the upper slopes with the grassland areas towards the centre in the lower areas.

A small watercourse runs in a generally northeast to southwest direction through the centre of the site. The watercourse has created the deep valley that is characteristic of the site with steep north and south facing slopes.

The site is bounded on the north, east and west sides by open farmland, much of it productive arable land. On the southern edge, the site shares a boundary with a golf course with the course's fairways coming close to the boundary.

The majority of the woodland areas are characterised by 10 - 40 year silver birch woodland with some Sessile oak and sycamore throughout. The woodland in the north of the site is older and dominated by oak, ash and sycamore trees up to 80 years. Some of the largest and oldest trees are found towards the boundaries of the site. The woodland in the southern areas is dominated by 20 – 60 year alder and willow with wet woodland characteristics. This area is the lowest lying and flattest. It is the point where the water course exits the site.

The central areas are mostly open with woodland edge, areas of bracken and grassland. This area was subject to Countryside Stewardship Management Agreements for 20 years.

The range of habitat structures with closed canopy woodland, open space and long woodland edge margins makes the site particularly valuable for wildlife. This variety in vegetation structure, together with the varied topography also creates an interesting internal landscape for visitors which makes the site popular with visitors, including for organised events.

2.2 Environmental Information

2.2.1 Physical

(a) Hydrology

A water course enters the site in the northeast corner from farmland and runs in a generally southwest direction before exiting onto the neighbouring golf course. The watercourse has helped shape the site over the years creating a steep valley affect. The stream sides in the north of the site are deep where the flow of water is fastest. The rate of flow slows towards the southern end of the site where the land flattens out. The edges of the water course become less defined and the water spills out over a wider flood plain area.

The rate of flow varies greatly depending on rainfall amounts. Flow rates can be fast during periods of high rainfall causing scouring and erosion of the banks in parts. During these periods the area in the south of the site tends to flood across the flood plain area. During drier periods the flow slows to a very slow rate.

(b) Topography

The site slopes steeply in a number of directions, shaped by water erosion over centuries. The highest parts are along the north western and north eastern edges at around 110m above sea level. The land form slopes steeply into the centre of the site where the water course runs. The site slopes gradually in a north to south direction. The lowest parts of the site are in the southern corner at around 85m above sea level.

(c) Geology and pedology

The northern limits of the site are formed on Wickersley Rock - Sandstone. This is a Sedimentary Bedrock formed approximately 309 to 310 million years ago in the Carboniferous Period. Local environment previously dominated by swamps, estuaries and deltas.

The majority of the site is formed from the Pennine Upper Coal Measures Formation - Mudstone, Siltstone And Sandstone. Sedimentary Bedrock formed approximately 307 to 310 million years ago in the Carboniferous Period. Local environment previously dominated by swamps, estuaries and deltas (British Geological Survey 2016).

The soils over the majority of the site are formed from Pennine Upper Coal Measures Formation - Mudstone, Siltstone And Sandstone.

The soils on the eastern edge that includes compartments 1, 2, 3, 4, 5, 6 and 7 are formed from Wickersley Rock – Sandstone a Sedimentary Bedrock formed approximately 309 to 310 million years ago in the Carboniferous Period. Local environment previously dominated by swamps, estuaries and deltas. British Geological Survey (2016).

(e) Climate

The following information was provided by the Weston Park Museum, Sheffield (2002), the nearest meteorological station to the site. 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 Gorse. This information has been gathered from field survey during the preparation of this management plan and from Rotherham Biological Records Centre in 2016.

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.

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

Two liverworts, three horsetails and seven mosses have been recorded from the site. These records are now quite dated with many up to 40 years old. There are five recorded ferns; hart's-tongue fern, bracken, broad buckler-fern which is present in quite high numbers, male-fern and lady-fern. Again these records are becoming quite dated.

The main grasses recorded are velvet bent, common bent, creeping bent, meadow foxtail, knotgrass, false oak-grass, wild oak, cock's-foot, heath grass, tufted hair-grass, wavy hair-grass, common couch, giant fescue sheep's fescue, Yorkshire fog, red fescue, small sweet-grass, wood melick, wood millet, Timothy, annual meadow grass, smooth meadow-grass, rough meadow-grass, yellow oak grass and bread grass. These records typically range from the mid-1970s to 2010, however a phase one habitat survey completed by Skyline Ecology Ltd during the preparation of this plan in 2016 has confirmed the continued presence of many of these species.

Other non-woody plants recorded over the last 40 years include wild angelica, bur chervil, cow parsley, pignut, hogweed, upright hedge-parsley, lesser periwinkle, ivy, yarrow sneezewort, corm chamomile, burdock, lesser burdock, common knapweed, creeping thistle, marsh thistle, spear thistle, smooth hawk's-beard, common cudweed, marsh cudweed, hawkweed, Exmoor hawkweed, cat's ear, foxglove, yellow-rattle, common figwort, creeping buttercup, lesser celandine, meadow buttercup, yellow pimpernel, pink purslane, sheep's sorrel, common sorrel, wood-sorrel, ribwort plantain, wood sage, yellow archangel, dog's mercury and wood stitchwort.

(b) Fungi

There are records of eighty species of fungi recorded in The Gorse between 1990 and 2010 from Rotherham Borough Council's biological records. These include a wide range that inhabit the soil, woody plant material and leaves of growing plants. There are various species of milkcaps, polypores, and puffballs present.

(c) Mammals

The records available for mammals are quite limited but include hedgehog, European mole, red fox, Eurasian badger, grey squirrel and rabbit.

(d) Birds

There are extensive records for birds recorded mainly between the mid-1970s and 2010. There are a few records dating back to the 1940s. Sparrowhawk was recorded between 1991 and 2000 and Kestrel was recorded in 1990. Barn owl, tawny owl, long-eared and short-eared owls were recorded during the 1990s. Other records include collared dove, wood pigeon, lapwing, woodcock, cuckoo, green and great spotted woodpecker, wren, dunnock, blackbird, song thrush, mistle thrush, red wing, blackcap, white throat, chiffcaff, willow warbler, long-tailed, blue, coal and willow tits, tree creeper, chaffinch, goldfinch, bullfinch, greenfinch, magpie, jay and yellowhammer.

Table 2.1 Species of conservation concern likely to be resident at the site

Common and Scientific Name	Status	Habitat requirements	Threats
Grey partridge	BCC 4 - red list (December 2015)	Small agricultural fields, woodland copses and hedgerows.	Once commonly seen, there has been a long term decline. Agricultural intensification and changes in practice, together with loss of cover.
Woodcock	BCC 4 - red list (December 2015)	Damp deciduous and mixed woodland	Loss of habitat, possibly including loss of breeding grounds.
Bullfinch	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.
Cuckoo	BCC 4 - red list (December 2015)	Wide range but especially farmland with hedges and woodland edge.	Fragmentation of woodland, particularly ancient woodland.
Willow tit	BCC 4 - red list (December 2015)	Woodland thickets, particularly willow thickets in damp locations.	Loss of quite specific habitat.
Skylark	BCC 4 - red list (December 2015)	Open countryside such as farmland and moorland.	Changes in farming practices.
Song thrush	BCC 4 - red list (December 2015) 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.
Mistle thrush	BCC 4 - red list (December 2015)	Wide range of habitats including woodland, parkland and gardens.	Possibly changes to survival rates.
Yellowhammer	BCC 4 - red list (December 2015)	Open countryside where hedges and shrubbery is present.	Loss of suitable habitat such as removal of agricultural hedgerows.
Green Woodpecker	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	RMBC Key Species RSPB green status	High in woodland canopies, particularly when feeding young. Feed on invertebrates living in deadwood.	Common and are not currently threatened. Removal of standing dead wood would threaten nest sites. Removal of fallen deadwood would threaten feeding.

Sparrowhawk	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.
Tawny owl	BCC 4 - amber list (December 2015)	Deciduous and mixed woodland.	Woodland fragmentation, loss of large trees as habitat.
Short-eared owl	BCC 4 - amber list (December 2015)	Open marshy areas, moorland, damp meadows.	Loss of habitat including drainage of land.
Dunnock	BCC 4 - amber list (December 2015)	Scrub, brambles, hedges, dense woodland edges.	Loss of suitable woodland areas.
Bullfinch	BCC 4 - amber list (December 2015)	Woodlands, particularly scrubby woodland edges, decent/dense hedges.	Loss of suitable woodland areas.

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.
BCC4 Birds of conservation concern.

(e) Invertebrates

A long list of invertebrates has been recorded from the site in the last 40 years but mostly between 1977 and 2010. Some of the main groups have been summarised below.

Bugs
Twenty true bugs have been recorded throughout The Gorse over the last 40 years.

Beetles
Thirty species of beetle have been recorded throughout The Gorse in the last 40 years.

Lepidoptera
Wickersley Gorse is important habitat for butterflies and moths given the matrix of open space and woodland edge habitat. The small skipper, large white, small white, green-veined white, orange-tip, red admiral, small tortoiseshell, peacock, comma, hedge brown, ringlet, golden pigmy, common thorn pigmy, bordered-carl, green longhorn, common nettle-tap, white-shouldered house moth, grey gorse piercer, straw grass veneer, common grass-veneer and brown silver-line are all recorded.

Flies
Thirty eight species of flies have been recorded throughout the Gorse in the last 40 years.

Arachnids
There are six arachnids recoded in Wickersley Gorse over the last 40 years.

(f) Amphibians, Fish and Reptiles

Common toad and common frog have both been recorded from the site in the late 1990s.

2.2.3 Cultural

2.2.3.1 Legal Obligations

(a) Tree protection
There are no Tree Preservation Orders on the site and the site is not within a designated conservation area.

(b) Wayleaves and easements
There are no wayleaves or easements such as powerlines through the site.

(b) Boundary responsibilities
The boundaries are demarcated by old fencing or dry stone walls. They are in a poor state of repair and have not been managed in many years. It is not clear at this stage who has responsibility for maintenance of the boundary structures.

The boundary between the part of the site that is owned by Wickersley Parish Council and Sitwell Golf Club passes through the centre of the site. It was marked for years by a serious of posts which had been beginning to rot and decay. Therefore, more recently a line of cherry trees was planted along this boundary line to provide a more long term marker.

(d) Insurance
Wickersley Parish Council is not insured for any damage or loss to countryside sites such as Wickerlsey Gorse.

(e) The Forestry Acts.
All tree works must 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.

All future silvicultural management will aim to be sustainable and meet the criteria laid out in the UK Forestry Standard (2011), The Strategy for England: Trees, Woods and Forests (2007), United Kingdom Woodland Assurance Standard 4 (UKWAS) (2020) and Biodiversity 2020.

(f) Protected Species
Wildlife and Countryside Act 1981 (as amended)
There are a number of protected species recorded in The Gorse, including bluebell and all species of bats and nesting birds. Their protection must be taken into account in the management of the site. 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 Gorse 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. How Wickersley Gorse is managed and how woodland management 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 2.2 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 site close to current known species range?**	**Are there records of species at the site ?**	**Woodland habitats types used by the species.**	**Potentially damaging operations for the species.**	**Risk of undertaking potentially damaging operations at this site.**	**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. Removing trees close to 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.	Low to medium (due to the young age of most of the trees)	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 woodland areas. 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 to Rotherham 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.	Low - lack of suitable habitat. There is some reasonable cover that may become suitable with some management but there is a lack of food source.	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. Improvements to shrubby areas to create a more dense habitat, including young coppice areas and a reliable food source 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 to medium – relatively limited habitat suitability. Most of the water supply is in the form of running water.	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 layer 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 site.	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	

(g) Artificial structures

Benches
There are two metal benches located at elevated positions in The Gorse where there are good views across the site and out across open countryside. These are at the viewpoints in compartments 4 and 15. These replace various timber benches that had been located across the site over the last 20 or so years but that had either rotted or been vandalised. There are the remains of a stone bench on the northern edge of compartment 2 that looked down to the centre of The Gorse. The timber top was removed many years ago.

Footpath bridges
There are two wooden footpath bridges over the water course. The first is close to the northern point of the site after entering from the neighbouring field. The second is in the centre of the site in the grassland. This is a new bridge constructed in 2021 at a slightly different point following erosion at the original crossing point.

Interpretative signs
There is a sign at the entrance to the site at the northern point when entering from the field. The sign provides a map of the site together with information about the natural history and some space for public notices.

2.2.3.2 Site Safety

Wickersley Gorse is a generally safe place for recreation but there are a small number of potential hazards that have been 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 areas where there are large enough trees. 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) Steep slopes

Steep slopes can be difficult for walkers during wet weather where the soil becomes slippery, particularly where paths up and down slopes or across slopes are unavoidable.

(d) Flytipping and dangerous rubbish

Flytipping can be a problem from time to time at countryside sites because people have the opportunity to dispose of waste without being seen. Some flytipping can be hazardous if it includes materials such as asbestos or chemicals.

(e) Conflicting recreational uses

Countryside sites are often well used by a wide cross section of communities for a number of recreational pursuits. Some of these may conflict with one another and there are implications for the safety of site users. Illegal activities such as motor bike scrambling on footpaths conflict with use of the site for walking.

(f) Fires

Fires at countryside sites need a combination of fuel sources, the correct weather conditions and a source of ignition. Fires are a relatively minor problem in this country compared with warmer, drier climates. Whilst fires can be frequent, and usually set deliberately, they tend to be small in scale because of a lack of large fuel sources and the wetter climate. Dead plant material such as dead grass and bracken, small branch wood are the commonest sources of fuel.

2.2.4 Archaeology and Historic Interest.

(a) Archaeology

There are some old boundary and retaining walls around the site, together with some old stone gate posts. They reflect the long history of the site's use for agricultural and hunting purposes.

(b) Land use history

Wickersley Gorse was owned by the Diocese of Sheffield and the Warde Aldam Estate until the late 1980s when a proportion of the site, eight hectares, was purchased by Wickersley Parish Council in 1987. The remaining five hectares of the site were leased to Sitwell Gold Club in 1990.

Over the last 100 years of Wickersley Gorse the site has been more open with grassland for grazing that it was treed. Parts of the site were used for example by graziers driving cattle down into the site from the village of Wickersley on a daily basis at certain times of year to graze. The site was once divided by a series of fences and walls which were used to contain grazing in certain areas and to reflect different landownerships. This is apparent by the young age of the trees over much of the site where trees are growing. A drystone wall existed along the boundary of what is compartments 1 and 2 from the site boundary down to the water course. This marks a division between an area (compartment 1 in this plan) managed as pasture and an area of woodland, now compartment 2.

c) Boundaries and artificial structures.

The boundaries are on the whole delineated by typical agricultural boundary controls such as post and wire fences and drystone walls. The neighbouring fields do not contain livestock and the fences are in varying states of repair. Some of the fencing has openings and a number of these points are used to gain access to the site.

There are remnants of historic boundary walls on the edge of the site and within the site. There are the remnants of a drystone retaining wall along the northern boundary of compartment 16.

There is an artificial pond on the edge of compartment 14 next to the water course. This was constructed around the mid-1990s.

2.2.5 Community involvement, recreation and access

(a) Access and recreation

Wickersley Gorse is popular with a local people who know about the site. It is popular for informal recreation because it is easily accessible from Wickersley and is an attractive and peaceful place to walk and relax away from roads. The varied vegetation structures within the site that include shady, closed canopy woodland, together with open sunny grassland areas and the steeply sloping land form provide interest to visitors. There are long views within and out of the site and across open countryside creating variety for visitors.

The site has some very usable opens grassland areas that lend themselves to activities and events which widens the appeal of Wickersley Gorse for recreation.

Access and recreation is however limited to walking because there are no bridleways through the site. The topography of the site does not lend itself well to cycling or horse-riding.

(b) Community Involvement

Visitors to Wickersley Gorse take a positive interest in the care and management of the site and some people report problems such as litter, minor vandalism, fire setting and illegal access.

The Parish Council also engages a wood warden who takes an active role in the day to day management of the site, visiting on a frequent basis, making reports about the natural history and problems. The warden attends the quarterly management committee meetings and submits monitoring reports at those meetings. The warden role is an effective link between the Parish Council and visitors.

The parish council holds a number of organised events each year designed to appeal to a wide range of interests such as a teddy bears' picnic for young children, practical management events and guided walks such as the annual bluebell walk. Events are very well attended.

(c) Interpretation and education

There is an interpretation sign at the main entrance on the edge of compartment 1. This provides some brief information about the history and management of the site, together with drawings of animals and plants that visitors might see. There is space available for public notices to advertise events etc. The board helps to make the site welcoming to visitors, particularly anyone new to the area.

2.2.6 Landscape value

Wickersley Gorse sits at an elevated position in the local landscape and is higher than much of the surrounding land. This makes the site very prominent, particularly from the west and can be seen clearly from the M1 motorway. The topography of the site with its steep slopes makes views out of the site across the landscape to the west very prominent. There is a popular viewpoint from one of the highest parts of the site looking north and west across to Rotherham and south towards south Sheffield. Coppicing of trees on the edge of the view point has helped to keep this view point open.

The internal landscape of the site is interesting to users with open space, closed canopy woodland, steep slopes and a water course providing variety for visitors.

2.2.7 Tourism

Whilst the Borough of Rotherham is not a tourist destination in itself there are a number of attractions in the area such as the Magna Centre, Roche Abbey and the Tropical Butterfly House. The Wickersley area is very well served by a comprehensive road network as it is situated close to the M1, M18 and A1.

Attracting more people to the area and raising the area's profile will depend on having an attractive environment and Wickersley Gorse undoubtedly makes a contribution to this.

People visiting the area and visiting family and friends may use Wickersley Gorse for informal recreation.

Table 2.3 – Recreation pursuits associated with woodlands and their suitability in Wickersley Gorse

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	**Very Suitable**
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	**Suitable.** But for informal play. Installation of equipment would not be suitable.
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 and 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 site.
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	**Very suitable.**
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 site 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 site.
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	**Moderately suitable** for small scale events and small groups.
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	**Suitable** for organised events.
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 site 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 site 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	**Very unsuitable.** Access is inadequate. There is no track network. The site 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 site is 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.

2.4 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	1.2 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 Wood	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.	Woodland on the edge of residential area.	Yes
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)	3.4 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	3.4 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	3.2 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	5.5 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	6.2 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	7.6 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	8.6 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	8.6 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	8.6 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	8.5 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	8.2 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 has been assessed in accordance with the requirements described in table 1.2.3 (a) above.

Table 2.5 Inventory of Available Recreational Facilities

(a)	Habitat Types (i) Young woodland (ii) Unimproved grassland – a matrix of open space sheltered by the woodland (iii) Other countryside areas – grazing and arable land to the north, east and west (iv) Golf course – to the south
(b)	Viewpoints (i) On the eastern boundary looking west over the low points in the site. (ii) To the north, west and south across Rotherham and towards the M1 motorway
(c)	Access (i) Well used casual footpaths - a number exist, mainly around the edge of the site on top of the slopes and two through the centre of the site. One from north to south and one from east to west. None are surfaced. Only the main casual paths are shown on Figure 1.4. (ii) Access points and boundary control - refer to Figure 1.4 No. 1 - Access via Sorby Way and Air Mount Close along a footpath along the edge of the arable field. There is a wooden kissing gate and field gate at end of Air Mount Close but the entrance into the site itself is open. There is an interpretive panel at the entrance. This provided access into the northern part of the site. No. 2 - Access from Sledgate Lane via a footpath along a field boundary between two fields. The access point itself is open. This provides access into the western part of the site. There is no vehicle access here. No. 3 - Access via Sitwell Golf Course through a metal field gate into the southwestern part of the site. This is by agreement of the Sitwell Golf Club for management works only. There is no public access at this point. No. 4 – Access in the southeast corner of the site from the neighbouring field. This is open access along the field boundary for pedestrians only. It links with access point 5 further north on the eastern boundary No. 5 – Access on the eastern boundary of the site from the neighbouring field. This is open access along the field boundary for pedestrians only. It links with access point 4 on the south eastern boundary.
(d)	Car Parks There is no car parking anywhere close to the boundary of the site. All public access into the site involves access along field boundary footpaths.
(e)	Public Transport There are very regular bus services between Rotherham Town Centre and Wickersley and Maltby with stops on Bawtry Road providing walking access to the site along Air Mount Close or Sledgate Lane.

3. THE WOODLAND RESOURCE

3.1 Quantitative Assessment

3.1.1 Methods of site survey and mensuration used

The site has been divided into compartments and sub-compartments on the basis of its vegetation (woodland or grassland). Compartment areas have been measured to the nearest 0.1ha. using AutoCad.

Following definition, the structure and composition of the vegetation of each sub-compartment were described in detail. In addition, evidence of past management and influences of previous Countryside Stewardship agreements was noted. Compartment descriptions are given in Section 3.1.3. In the case of sub-compartments 1, 2, 3, 5, 7, 8, 9, 13, 14 and 16 the standing timber volume per hectare was estimated by following Procedure 9 in Forestry Commission's Forest Mensuration A handbook for practitioners (2013).

3.1.2 Summary of Inventory

Table 3.1 Compartment analysis

					Habitat Type	
Compart-ment	Total Area (ha)	P. Year	Species	Vol. per ha./m^3	Broadleaf high forest (ha)	Acid grassland (ha)
1	0.41	1930	MB	150	0.41	
2	1.18	1970	SOK/SB	100	1.18	
3	1.61	1970	SB	100	1.61	
4	0.40	N/A	Grassland	N/A		0.40
5	0.25	1980	SOK	100	0.25	
6	0.96	NA	Bracken	N/A		0.96
7	0.34	1970	SOK	150	0.34	
8	0.89	1970	SOK	130	0.89	
9	0.87	1950	A GW	100	0.87	
10	0.34	N/A	Bracken	N/A		0.34
11	2.45	N/A	Grassland	N/A		2.45
12	0.45	N/A	Grassland	N/A		0.45
13	0.33	1990	HAW GW	N/A	0.33	
14	1.06	1950	SYC	180	1.06	
15	0.70	N/A	Grassland	N/A		0.70
16	0.21	1950	MB	90	0.21	
TOTAL	12.45				7.15	5.30

SOK - Sessile Oak SBI - Silver Birch MB - Mixed Broadleaves
A - Alder GW - Goat Willow HAW - Hawthorn
SYC - Sycamore

3.1.3 Compartment Descriptions

Compartment 1 0.41ha.

This small compartment at the northern point of the site is located between the water course and the eastern boundary. The compartment comes to a point at the northern edge where one of the main pedestrian access points enters the site. The path divides in three with one route following the eastern boundary, one following the water course and one crossing the water course to follow the western boundary.

The land rises steeply from the water course up to the eastern boundary.

The compartment has a healthy mix of tree species and age ranges. It has some of the most mature woodland with some of the oldest and largest trees of any part of Wickersley Gorse. The mature trees are dominated by Sessile oak, sycamore and ash with some silver birch. Many of the mature trees have low and large branching patterns that would make them unattractive for commercial timber but add character to the site, particularly at one of the main entrances. There are some mature hawthorn trees on the field boundary.

There is a reasonable mix of other ages of trees with young natural regeneration and semi mature 'pole stage' trees. The younger trees are dominated by Sessile oak with smaller numbers of silver birch, rowan, ash, sycamore, horse chestnut and Norway maple.

The shrub layer has reasonable cover containing elder, young elms, bramble some raspberries and occasional holly. The field layer hosts some broad buckler-fern, cow parsley, foxglove, bluebell, small amounts of Himalayan balsam and quite sparse bracken. The bracken is prevented from becoming more dominant by the relatively high shade levels being created by the mature tree canopy. Whilst this is beneficial it is also preventing the younger trees and the shrub layers from developing further.

Some light thinning work took place in 2019 for remove some of the closer spaced oak and sycamores, providing the remaining trees with more spaces to develop.

Compartment 2 1.18ha.

This large compartment has the central water course as its north western boundary and the field boundary as its eastern boundary. The tree species are dominated by Sessile oak/birch woodland. The oak and birch appear to have developed naturally around the same time, probably from open space. The birch has reached maturity and many are regarded as old mature and beginning to decline. The Sessile oak, a longer lived species, is still only semi mature. The trees have good form, have closed canopy in most areas, and the crowns of most of the oak have developed well and are quite deep. Some light thinning of the more closely spaces oak trees was completed in 2019 to provide the remaining larger trees with some space to grow into.

There is a small area of dead silver birch trees on the southern edge of the compartment where a fire around ten years ago killed off the vegetation. Young birch trees have thin bark that is easily killed by fire. The area is now recovering with young tree saplings developing.

The shrub layer is very limited and dominated by bramble. There is a group of holly in the centre of the compartment, together with some elder. In areas where the larger trees haven't yet closed canopy there is some oak regeneration approximately 5m tall, together with some sycamore. Throughout the closed canopy area there are some limited amounts of small oak regeneration.

The field layer is dominated by bramble in the north of the compartment but this gives way to quite dense bracken towards the south. This will reduce in vigour as the oak trees begin to dominate and cast more shade on the woodland floor. The compartment has very limited Himalayan balsam.

Compartment 3 1.61ha.

This compartment is centrally located with no external boundaries. It slopes steadily but quite steeply to the south and west and the centre of the site.

The dominant tree species is mature silver birch with occasional semi mature to mature Sessile oaks. Because the dominant species is silver birch the canopy is quite open with relatively high light levels reaching down to the shrub and field layers. The shrub layer is very limited to the odd hazel. There is one mature hazel to 2.5m high. Consequently, the field layer is dominated by bracken with some bramble and increasing amounts of Himalayan balsam, particularly in areas where bracken is sparse due to higher shade levels. The bracken will reduce in dominance as the canopy closes when the oaks develop. There are small numbers of rowan, sycamore and oak regenerations up to 3m tall.

Some enrichment tree planting took place in the compartment in 2019/20 to increase the breadth of species.

The field layer plants that are managing to have a presence amongst the bracken and bramble include cleavers, foxglove and reasonable numbers of bluebell in some areas where it has room to thrive.

Compartment 4 0.40ha.

This area of The Gorse has been given its own compartment because it is being maintained as open space to provide a view point out to countryside to the west. The area has an elevated position and is the highest part of the site. The land slopes steadily to begin with and then steeply thereafter. The central parts of the compartment are dominated by fescue grasses with some relatively sparse bracken. The edge of the compartment is surrounded by pole stage silver birch and oak trees. On the periphery the trees, principally Sessile oak and silver birch, have been coppiced periodically since 2015 to prevent the trees from blocking views. As well helping to maintain the views this work was done to create a graded, shrubby woodland edge habitat between the closed canopy woodland and the open space.

Compartment 5 0.25ha

A small area of closed canopy woodland on the eastern edge of the site it shares a boundary with the field where the site comes to a point. The small area of closed canopy Sessile oak/ silver birch woodland provides enclosure for the woodland to the east. Many of the trees are mature but small and squat at no more than 15m tall. The oaks have characterful, wide crowns. There is also a smaller number of pole stage oak and birch between the mature trees. The compartment is dark due to the closed canopy resulting in very limited shrub and field layers. There is no real shrub layer

away from the woodland edge. Because the woodland edge has higher light levels there is some elder and goat willow growing as shrubs. This is helping to provide shelter to the site. There is a group of dead elms on the field edge. These have died following infection by Dutch elm disease.

The field layer is limited to grasses such as common bent, cleavers and some very sparse bramble that becomes denser towards the woodland edge where light levels are higher.

Compartment 6 0.96ha

This large compartment located on a steep southwest facing slope is principally open space dominated by dense bracken. Tree cover is confined to the northern part of the compartment. There are around ten mature oak trees. Tree cover is limited in the rest of the compartment but there is a reasonable number of naturally regenerating Sessile oak and silver birch trees, together with small numbers of rowan. Whilst the trees are still very young some of the birch has now reached 10m but most of the oak/birch trees are up to 5m tall. These trees are well above the height of the bracken and unaffected by it.

In some small pockets there are dense patches of silver birch and small patches of gorse with some bramble beginning to establish. If left unmanaged the compartment will eventually establish as woodland.

Compartment 7 0.34ha

A small compartment at the southern tip of the site with Sitwell Golf Course to the west, scrub to the south and an arable field to the east. Compared with much of the rest of The Gorse this compartment is relatively flat but does slope gently down to the western boundary. The trees are dominated by dense even aged pole stage Sessile oak trees around 10m tall. The trees have closed canopy. There is only a very small number of other trees, principally an odd silver birch. The oak trees were lightly thinned in 2019 to provide the remaining trees with more room to develop into.

There is no shrub layer and the field layer is quite impoverished due to the shade cast, although light levels have increased slightly since the thinning works. The field layer plants that are present include sparse bramble, bluebell, Himalayan balsam on the edge, foxglove, some very sparse bracken, small patches of honeysuckle and some ash seedlings that are naturally regenerating throughout.

Compartment 8 0.89ha

This compartment, together with compartment 9 to the north is the lowest lying part of the site. It is a narrow belt of woodland. The southern boundary is shared with Sitwell Golf Course and there is a field gate in the boundary allowing access for management operations. There is no public access here. Given its low elevation it is one of the wetter areas of The Gorse, particularly along the boundary. However, it does have a typical wet woodland species composition. The trees are dominated by wide crowned oak trees. These are not particularly tall but their wide habit makes them characterful. There is also a considerable number of mature hawthorn trees with some pole stage oak and mature damsons between.

The shrub layer is limited, largely due to the dense shade cast, but elder, holly and goat willow is present in small numbers. Elder becomes dominant towards the western end and is growing to approximately 3m tall.

The field layer has abundant bluebell, but sadly also a significant cover of Himalayan balsam which is to be expected given the damp conditions. Also present in the field layer is red campion, broad buckler-fern, creeping buttercup, stinging nettles and ivy.

Compartment 9 0.87ha

The compartment is a narrow strip of woodland on the western edge of The Gorse. It is the flattest compartment and the lowest lying with the watercourse running along the western edge, however the watercourse regularly floods resulting in a wide silty stream bed where ground flora does not get a chance to establish.

The woodland here is dominated by alder woodland with the trees growing to 15m tall and up to 70cm diameter. This is quite large for the species. The trees are beginning to contain a number of features that are of habitat interest with some cavities developing. There is no shrub layer and the field layer is dominated by a dense, impenetrable cover of Himalayan balsam that has excluded all other field layer plants. There is some bracken growing on the eastern edge with the neighbouring open space. Some small regenerating oak are also growing along this edge.

Compartment 10 0.34ha

An almost rectangular area of open space on moderately steeply sloping ground that slopes down towards the alder woodland in compartment 9. The slope is densely covered in bracken with Himalayan balsam throughout. The compartment is open except for one large hazel shrub growing in the centre of the compartment to approximately 2m high.

The boundary of the compartment is defined by a hawthorn and blackthorn hedge along the boundary of the site with the neighbouring field.

Compartment 11a 1.09ha

This is the largest area of grassland within The Gorse and is the most diverse. There are fires in the grassland from time to time.

Around the sub-compartment and specifically to the south-west and north-east are dense stands of bracken *Pteridium aquilinium* which appear to be encroaching into the grassland. Also present to the south-east are stands of Himalayan balsam, again encroaching into the grassland. Other species recorded encroaching in the grassland include silver birch saplings and young gorse plants.

The grassland shows some signs of management in the past in the form of hay cutting/mowing, although it is not clear whether the cut vegetation was removed. The sub-compartment suffers from increased nutrification from leaf litter dropped by the surrounding trees. This increased nutrification is evident in the location of the least diverse areas of the grassland. These diverse areas tend to be located to the north-west of the site, at the top of a slope. It is believed therefore that nutrients leach down the slope and, in addition, leaf litter also collects at the bottom of the slope where it biodegrades, this results in a more nutrient poor soil at the top of the slope and a nutrient rich soil at the bottom of the slope.

Species recorded in this part of the site include Yorkshire fog, common sorrel, field woodrush, common mouse ear, red clover, ragwort, dandelion, couch grass,

common vetch, black knapweed, bedstraw, common cat's ear, red fescue, ribwort plantain, annual meadow grass and cocksfoot.

Compartment 11b 0.71ha

Compartment 11b is a small area of grassland dominated by bracken, gorse and bramble scrub. As a result the remaining grassland is only 5 by 30 metres in size but has retained some diversity within the sward. Species recorded in this area include Yorkshire fog, marsh thistle, rosebay willowherb, bracken, common cat's ear, gorse, black knapweed, bedstraw, red fescue, bluebell and bramble. Encroachment of bramble, gores and other woody species has been steadily continuing over the years reducing the size of the glade.

Compartment 11c 0.64ha

Sub-compartment 11C is similar in composition to that of 11a as the grassland has very similar pressures through encroachment of bracken from the north and Himalayan balsam from the south as well as increased nutrification from leaf litter from trees around this area. 11c is located on a slope and as such it is likely to have retained some of its diversity through leaching of nutrients down the slope to the north-west.

Three mature silver birch trees are located to the north of the grassland as well as a small area of mature hawthorn scrub.

Species recorded in the grassland include cocksfoot, annual meadow grass, Yorkshire fog, common cat's ear, bramble, bracken, common sorrel, red fescue, bedstraw, marsh thistle, false oat grass, rosebay willowherb, ash, cow parsley and creeping buttercup.

Compartment 12 0.45ha

Compartment 12 is located on the western side of the stream that flows through The Gorse. This area is being encroached by scrub, bracken, tall ruderals and non-native plants such as Himalayan balsam. As a result the scrub encroachment has reduced the grassland to approximately 15 by 20 metres in size. Species found in this area include red fescue, Yorkshire fog, perennial rye grass, hogweed, rosebay willowherb, bracken, bedstraw, common cats-ear and bluebell (individual plants). This part of the study site has footpath access only.

Compartment 13 0.33ha

This small linear compartment provides some good woodland edge habitat to the adjoining compartment 14 described below. The main vegetation comprises mature hawthorn shrubs with some blackthorn and goat willow throughout. There is also a lot of Himalayan balsam throughout. The path that runs through the centre of the compartment is possibly aiding spread of the plant in this area of the site. The path runs from the northwest corner of The Gorse down to the bridge over the water course. The compartment is on steeply sloping ground that is southeast facing.

Compartment 14 1.06ha

This compartment represents the largest area of established woodland on the southeast facing slope of the site. The northern end of the compartment with the boundary of the site is relatively flat where one of the main paths transverses east to west. The land then slopes steeply down towards the water course, very steeply in

some parts before flattening off at the water course. The water course marks the southern and eastern boundaries of the compartment.

The boundary of the site is marked by a mature but gappy hawthorn hedge that is up to 3m tall in places.

The tree species is dominated by sycamore, both mature trees and younger age groups. Natural regeneration is almost limited to sycamore. The pole stage sycamore and much of the regeneration has been damaged by squirrels. *Armillaria* is also affecting a number of the more mature sycamore. Other more minor species included silver birch, Sessile oak and occasional rowan evenly distributed throughout the compartment. Their ages vary from young to early mature.
Seven of the largest sycamores were topped at a height of 10m in 2019. This was done to increase light levels in the woodland and to start to increase the volumes of dead wood in the site as a whole. Enrichment planting of Sessile oak, cherry, rowan and field maple was completed in the gaps in the canopy.

The shrub layer is very limited. There is the odd mature hawthorn. Even bramble is sparse owing to the closed canopy woodland cover.

The field layer is dominated by bluebell which is abundant in some areas, particularly the flatter areas. Broad buckler fern is also very common throughout the compartment. Himalayan balsam is found throughout and is more dominant in the northern areas along the main path and in the flatter areas close to the water course. It is less of a problem in the drier, shady areas in the interior of the compartment.

Compartment 15 0.70ha

Much of the grassland in this compartment has been lost through encroachment of bracken and also the closing canopy of the trees around this area. The ground flora is limited and is dominated with broad-leaved grass such as Yorkshire fog and sweet vernal grass. Stands of broad-leaved dock, ragwort and bracken are also present within the sward, as are a number of individual bluebells. Much of this area is of limited ecological value in terms of diversity. This lack of diversity is likely due to the nutrification of the site through leaf litter and a lack of management. This would also account for the encroachment of bracken and gorse.

Compartment 16 0.21ha

This is a narrow compartment between the northern boundary and the water course at the north eastern point of the site. It has a steeply southeast facing slope with the main footpath connecting the northern part of the site that passes through. There is an old stone retaining wall between the boundary and the footpath. This is an old structure that is in poor repair in parts.

The compartment contains a wide range of woody and non woody plants for its size. There are three mature poplars on the boundary. These are in quite poor structural condition with two having lost major limbs in the past. There are also mature ash and horse chestnut trees on the boundary before giving way down the slope to mature sycamore and oak. Younger trees are represented mainly by sycamore and rowan natural regeneration.

The shrub layer comprises a mix of hawthorn and elder of varying ages, including mature shrubs. Other plants include raspberry, ferns, occasional bluebell, foxglove, ivy, bramble, Himalayan balsam towards the bottom of the slope and stinging nettle.

3.2 Silvicultural Assessment and Management Options

Summary of management to date

Below is a summary of management completed prior to this management plan and during the first five year work programme between 2017 and 2021.

- Essential tree safety management works over the footpaths.
- The grass in compartment 11 is cut annually and the clippings removed to reduce the nutrient content of the soil to reduce vigour of the grass and provide improved conditions for other flora to establish and thrive.
- 41 young mature silver birch and oak were removed from compartments 1, 2, 7 and 8 in 2019.
- Seven mature sycamore were topped in compartment 14 in 2019.
- Enrichment planting of native broadleaved trees took place in compartments 3 and 14 in 2019 and 2020.
- Coppicing of trees on the edge of compartment 4 in order to maintain the views out to the west.
- A Himalayan balsam report was produced by one of the Gorse Wardens to identify the extent of the plant's growth and possible control options.
- Work has taken place over the last 15 years or so to pull Himalayan balsam from strategic areas to help control its spread.
- Improvements to access, in particular stream crossing points.
- Metal benches were installed at viewpoints (compartments 4 and 15).
- An interpretative panel was installed at the main entrance point in the north of the site in around 2010. As well as its use as a community notice board to advertise community events etc. it provides information about the natural history of The Gorse.

Management options

Compartment 1

This compartment contains some of the largest and oldest trees in The Gorse. It is therefore important that management seeks to retain these trees to ensure the greatest habitat diversity at the site. Equally, it is important that adequate light and space is provided for the younger trees to develop and for ground flora to thrive without provided too much light for bracken to dominate.

Some light selective thinning was completed in 2019 to begin increasing light levels to improve development of the trees and ground flora.

The main options that are available for the compartment are selective thinning and small group felling.

Selective thinning involves the removal of individual trees throughout the compartment. These tend to be selected where they are impeding the growth and development of better trees. The trees selected for removal tend to be distributed fairly evenly throughout the compartment.
Small group felling by contrast identifies an area within the compartment where a group of trees are removed to create an opening approximately one and a half to two times the height of surrounding trees. The advantage of this system is that it allows very high light levels into a small part of the compartment. The locations are normally selected where natural regeneration is present and likely to respond favourably to the high light levels. It is also a good technique in creating some open space in woodland. The open space is only temporary but it does allow ground flora and shrubs to develop and provide a sheltered environment for invertebrates.

Compartment 2

The trees in this compartment are still very young. If the intention is to maintain the compartment as woodland then very little management would be required at this stage given the young age of the trees. The trees would benefit from more time to develop before thinning or felling works are considered. A very light thinning of the trees took place in 2019.

If more open space is considered important within the site as a whole then tree removal from this compartment could be considered as the trees that would be removed are younger than in some areas. This would have less of an impact on species that depend on trees for habitat.

Compartment 3

The age of the trees in this compartment is similar to those in compartment 2 but the species composition is more dominated by silver birch with fewer oaks. This is the reason that two individual compartments have been created in the area.

Again, if the compartment is to remain as woodland then there are few options available at this stage and the trees will need to develop more before intervention is needed. Light levels are high at the moment because of the open canopy allowing bracken and bramble to dominate the shrub and field layers.

Some enrichment planting was completed towards the end of the first work programme to increase the species diversity. This increased the range of species and introduced more, longer lived species. These species may come in naturally with time but planting would accelerate the process.

Compartment 4

There is an understandable desire to maintain the view point at this elevated part of the site. This therefore limits the management options for the compartment. Trees on the edge of the compartment will need to be periodically felled or coppiced to maintain the views. The options available for managing the trees on the edge of the compartment are felling and poisoning the stumps or coppicing the trees allowing them to grow as shrubs. A coppicing regime commenced on the edge of the open space in 2015. This was done to create woodland edge habitat that is lacking within

the site.

The majority of the compartment is grassland with bracken throughout. To maintain this as open space the grassland must be managed to prevent it slowly reverting to woodland. The introduction of other low growing plants to the compartment such as heather would increase diversity without compromising the views.

Compartment 5

The small size of this compartment makes it difficult to consider a range of options. The trees are on the edge of the compartment and they provide important shelter to the interior of the site. Significant tree removal from here would expose the site to easterly winds. Management of the woodland edge trees by coppicing would help to maintain a denser edge. The species found on the edge include elder and goat willow; these species coppice readily.

The ensure continuous cover of trees in the compartment some low intervention management to remove selected trees from time to time would be beneficial to provide others the necessary room to grow on. The compartment in not large enough to consider small group felling as an option.

Compartment 6

This is a large area of open space that is slowly establishing naturally as woodland. Many of the young trees are now above the dense bracken and out of its influence and so the process of woodland establishment will steadily continue over the decades if left undisturbed. At this stage the options available are to allow this progression to woodland to continue or to maintain the compartment as open space. To maintain the compartment as open space would require intervention management to prevent trees developing. If the compartment was to be managed as open space then the quality of the existing ground vegetation would need to be assessed for its suitability as habitat. Currently most of the compartment has dense bracken across it. Bracken on south and west facing hillsides can be good for some species, such as yellowhammer.
This is a large area and it would be a big management commitment to control the bracken, particularly given that there are other areas of The Gorse that are currently being managed as grassland.

Compartment 7

This is a small area of established woodland with good quality oak trees, albeit that they are still relatively young at this stage. It would be beneficial to retain this small area of woodland given the quality of the trees. The options here are therefore limited to management that improves the growth of the trees. Some selective thinning of the oak in 2019 began this process.

The bracken and bramble throughout the compartment is sparse because of the shade cast by the canopy. It is important that this remains the case. This is why thinning was very light in 2019 so as not to open the canopy too much.
Small group felling is difficult to justify in such a small area of woodland. If it was completed it would result in rapid growth of bracken and bramble.

Compartment 8

This is a dark compartment on the edge of the site. Many of the trees are of a similar age and the canopies are competing, hence the shady conditions in the compartment. Many of the trees do however have very good form and would respond well to increased light. The shrub layer is very limited throughout. Management operations that increase light levels generally and improve the shrub layer for habitat value would be very beneficial in the long term. Light levels would be increased by thinning, group felling, coppicing or a combination of these.

Compartment 9

This compartment contains some large, mature alders. They are some of the oldest trees in The Gorse and large and old for the species. It would be important to retain these mature trees because mature trees are uncommon in The Gorse and large, mature alder such as these are relatively uncommon generally. For these trees to be retained the options are limited to techniques and operations that provide them with enough spaces and light to thrive. As these trees continue to develop into the older age classes such as old mature and veteran the habitat they offer for hole nesting birds and bats will increase.

To avoid sudden excessive exposure to the mature alder trees which could risk wind blow, light selective thinning and removal of other trees would be the best suited practice.

Compartment 10

This compartment is essentially open space that is dominated by impenetrable bracken with some native shrubs on the edge. Options available are to revert the area to woodland, create a grassland area or to leave the compartment alone.

Either of the first two options would require control of the bracken to some degree, either in selected tree planting positions for woodland creation or over the whole area for grassland establishment. These options would involve a significant management commitment given how dense the bracken is.

The third option would probably result in a slow continued development of native shrubs on the edge of the site, moving further into the compartment. This would be a very slow transition with little change to see over the next ten years. The clear advantage would be that it would involve no management commitment which would allow attention to be focused on other compartments that are currently managed as grassland.

Compartment 11a, b, c, Compartment 12 and Compartment 15 (grassland compartments)

Non-intervention Management

In this instance non-intervention management would lead to the compartments succeeding into scrub and finally broad-leaved woodland. The encroachment from bracken, bramble, gorse and Himalayan balsam would initially dominate the grassland areas. In the short term this would result in a mosaic of habitats increasing the biodiversity of the site but rendering the site of limited value to the community in terms of recreation. In the longer term a woodland habitat would be less diverse than the current mix of grassland and scrub and would require some management.

This management option should only be considered for areas 11b, 12 and 15 where the encroachment of bracken, gorse and tall ruderal species may have made the retention of these grassland areas impractical.

Grazing

Grazing is likely to be the most cost effective method of managing the grassland and retaining it as such. Carefully monitored grazing regimes can be used to manage semi-natural habitats with many benefits for nature conservation; depending on the stock used, selective grazing can encourage less dominant plants to thrive in turn increasing the diversity of the sward, limited poaching and trampling and promoting opportunities for a range of plants to colonise the area, again increasing diversity. Also, the introduction of dung creates ecosystems where insects thrive in turn providing food for a range of mammals and birds.

Wickersley Gorse however, has a number of constraints, which may make grazing unsuitable in this instance. At present the areas of grassland are not fenced, and fencing these areas would result in a considerable initial outlay. In addition the site is subject to some vandalism especially fire setting, from small fire pits to significant areas of the bracken/woodland being burned. There is therefore a welfare issue to any animals that may be used to graze the site. Moving animals into the grassland areas may also prove problematic due to access issues. Finally grazing may not be a preferred option when considering recreational use of the site, particularly by dog walkers.

Due to the constraints surrounding the strategy of grazing the site it is unlikely that this management option would be used in this instance.

Annual Hay Cut

Undertaking an annual hay cut in August/September each year with all material removed from the grassland will help in reducing nutrification of the grassland and potentially increase diversity within the grassland. This option would also maintain the open areas of grassland already present. It is understood that this management principal has been followed in some capacity for the past ten years. Overall diversity of the sward would be maintained if not improved and this is positive for biodiversity. In addition the site could still be used for informal recreation such as walking and for some educational purposes.

This management strategy could be applied to any of the grasslands mentioned within this report.

Amenity Grass Cut

Areas within the site may be used for recreation such as playing fields or picnic areas. This management strategy will require a regular grass cut, possibly four times per year, and grass left in situ.

This management option may lead to an overall reduction in biodiversity as the grasslands would suffer from increased nitrification due to the grass clippings being left behind. The areas would be suitable for a range of formal and informal recreation activities and educational use.

Depending on the management aims for the site this management could be applied to any of the grassland areas within The Gorse.

Other management options for grassland areas

Fencing

One management principle, which should be considered, is the possibility of fencing off some areas to create picnic areas or more education sites. The reason for the fencing is to restrict problems with dog fouling within these areas and to provide a secure location for teaching, for instance in an outdoor classroom, or for simply supervising children at play.

Minimise further fire damage

As a number of fires have been recorded throughout The Gorse it may be worth considering the inclusion of a specific area for burning. This burning area could be to burn unwanted brash from the site during community volunteering events or for community social events. By creating an informal safe burning area with a firebreak around it the number of informal fire pits being created around the study site may be reduced.

Compartment 13

The shrubby nature of the vegetation on the edge of the mature woodland provides a valuable habitat that is lacking from much of the rest of the site. The mature hawthorn provides cover for nesting birds as well as a valuable food source. Maintaining this habitat would be important. Maintaining the structure of the compartment could be continued by coppicing some of the goat willow and some of the hawthorn, particularly the younger shrubs. This would create a variety of ages of shrubs and help to prevent the shrubs developing in to trees. This will maintain a more open structure to the woody plants.

Compartment 14

This is one of the largest blocks of mature woodland in The Gorse and it is the only area of mature woodland to the north of the water course. Management should therefore seek to promote long term cover and improve the quality of the woodland area. Providing the right light conditions for the desired trees, together with creating opportunities for young trees to develop is a priority.

Many of the sycamores have been badly affected by squirrel damage and this has allowed decay to enter some of the trees. This resulted in seven trees being topped

in 2019 to increase light levels and standing deadwood. This would create canopy gaps benefiting younger trees.

Sycamore appears to the species most likely to establish through natural seeding but equally it is the species most likely to be damaged by squirrels. For this reason some enrichment planting of Sessile oak, cherry, rowan, field maple, hazel and hawthorn took place in 2019 to increase diversity and structure.

Compartment 16

The very small size of this compartment, one of the main paths through the centre, the water course on the southern boundary and the old retaining stone wall considerably limits the management options available.

Given that this is one of the first areas that visitors to The Gorse will see it is important that it is managed to look welcoming to visitors. To do this the compartment should have an open and light feel to make the site feel welcoming. Ideally this management would also favour development of native ground flora.

3.3 Sustainability and management for Biodiversity

3.3.1 Sustainability

All management at Wickersley Gorse will aim to be sustainable and in accordance with national policies and standards.

The site shall be managed 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 Strategy for England; Trees, Woods and Forests (2007). 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 Gorse 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.

3.3.3 Priority Species

The priority species from the UK BAP remain as part of Biodiversity 2020. Therefore, all priority species that are recorded in Wickersley Gorse (Tables 3.3.3) 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 Gorse should bring benefits to a wide range of species, not just priority species and an overall enhancement in the biodiversity of the site.

Table 3.3.1 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 site that is open space.**	**Desired percentage of the site that is open space by 2026.**
10%	20%	25%	25%

Table 3.3.2 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 in woodland areas.**	**Desired volume of deadwood by 2026 in woodland areas.**
50m³/ha	20m³/ha or 5-10% of average stand volume	15m³/ha	6m³	8m³*

* 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.

Table 3.3.3 Delivering National Criteria For Sustainable Forest Management At Wickersley Gorse

Criteria for Sustainability	National Level Indicators	Evidence of National Criteria being delivered in the Wickersley Gorse Management Plan	Plan Section
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 Gorse will be 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 management operations, particularly within the woodland areas will be timed for the period between September and March to reduce disturbance to wildlife.	4.2.3
		Specialist surveys will be carried out to assess biodiversity and the effects of management on bats, invertebrates, birds, fungi and botanical interest.	6.1
		The silvicultural management of the woodland areas will develop a well structured woodland sustainable over the long term by using a combination of thinning, felling and coppicing and by encouraging natural regeneration.	4.4
	Important, but previously disturbed semi-natural habitats are restored where practical.	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*	Countryside sites such as Wickersley Gorse help to contribute to the desirability of the area, thus helping to attract investment and prosperity to the area.	2.2.7
		All management and maintenance work at the site will help to generate local employment.	4.1.2
Access and recreation	- *access and recreation*	Maintain current levels of access provision throughout the site, making access as accommodating as possible whilst recognising the challenging topography of the site.	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
		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*	Wickersley Gorse will continue to be used for the range of popular environmental interpretation, education and countryside events like the teddy bears' picnic.	2.2.5, 5.4.8
		Continue to encourage access to The Gorse by local schools for natural studies.	5.4.8
		An interpretative sign is located at the main entrance point at the north of the site.	5.4.8

Community involvement	- *community involvement*	Public consultation will take place when the new management plan is completed in draft and then at the revisions every five years and prior to major site works taking place. A multifunctional and sustainable approach to land management will be adopted to ensure all the land uses and interests are carefully integrated.	2.2.4, 5.1.4 5.4.7 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 Gorse 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. The possible impact that management work may have on the site will be considered at the management planning stage.	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)*	Management work that could potentially 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.*	Watercourses are important features throughout the site. Management of the stream and the riparian zones is important to protect the water running through the site and any wildlife that might depend on this habitat. This will include avoidance of chemicals and fertilisers where they might influence the water.	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*	Revoverable timber from the Gorse is unlikely due to the very challenging topography of the site and the low value of the timber. Any tree removal is likely to be for habitat improvement reasons and these trees will be replaced by new regeneration to ensure no loss of long term tree cover.	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 Gorse is partly owned by Wickersley Parish Council and partly leased from Sitwell Golf Club. The Parish Council manages the site by way of a management committee composed of a small group of Parish Councillors, volunteer wardens, external support from private practice and officers from Rotherham MBC. The Committee meets on a quarterly basis, to consider reports from members of the committee and the public and to plan the forthcoming quarter's work programme, consider possible new funding sources and any other issues and matters arising.

4.1.2 Labour sources

Several sources exist:

(a) Contractors

Large scale tree work at Wickersley Gorse such as thinning and felling will normally be undertaken by forestry/timber merchant specialists, following a tender procedure. Other large-scale management projects, for example access improvements, will be tendered to contractors, following normal procedure.

Small scale tree works such as pruning and single tree removal can be completed by local contractors who have adequate training and insurance.

(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, bridges and gates where necessary. The Parish Council also engage a wood warden who may be available to asset with small tasks.

(c) Rotherham Borough Council

Services within Rotherham MBC such as Streetpride 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. A significant amount of work has been completed between 2017 and 2021 by volunteers, including the local Rotherham Ramblers. This has included vegetation management and repair and replacement of path structures. Rotherham and Sheffield Wildlife Trust (RSWT) are also available from time to time for certain management works.

4.2 The Forest Industry

4.2.1 Markets, present and future

Currently there is no marketable timber in Wickersley Gorse. There is no marketable timber of two reasons:

1. Most of the trees are too young, of poor quality or of the wrong species to be of interest to buyers.
2. The very challenging access for extraction machinery would make timber extraction inhibitively expensive, even in very buoyant markets. The value of the timber would need to be very high to consider the expense of extraction.

Wickersley Gorse is unlikely to ever grow sufficiently valuable timber to make extraction viable, and certainly not for the next 50 years before the age and quality of the trees in the woodland areas increases.

For these reasons there is no merit is discussing methods of sale, conversion, extraction and transport. Instead, timber arising from management should be used to improve the wildlife interests of the site.

4.3 Sources of Grant Aid

4.3.1 Countryside Stewardship Scheme – woodland areas

Wickersley Gorse has benefited from a number of Countryside Stewardship Scheme agreements over the years that have contributed to the costs of managing the grassland areas. The last ten year agreement came to an end in 2014.

Historically the woodland areas have not benefited from grant finding but will be eligible for funding for certain management operations that enhances the site's biodiversity.

The current Countryside Stewardship scheme is coming to an end and is to be replaced by the Environmental Land Management Schemes (ELMS). These are currently being trialled and will be opened to applications from 2024. The two schemes that are likely be applicable to Wickersley Gorse are the Local Nature Recovery Scheme and Landscape Recovery Scheme.

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

Heritage Lottery Fund (HLF)

Although not for long-term management HLF funding may be appropriate to secure initial works such as the removal of non-native species, erection of fences and community areas and initial setup monies. Grants for 'Land and Nature Heritage" start from £3,000 and possibly could include management for the site as a whole rather than just the grassland.

Private funding

Sponsorship of the site from local business through labour or money. It may be worth approaching the neighbouring golf course for assistance with hay cutting. It is likely that they will have equipment and trained operatives to undertake the work, and as this work is only required on an infrequent basis it will only require limited resources.

Alternatives would be to offer local businesses a method of advertising for specific items within the site. Examples of this could be the sponsorship of signs and interpretation boards with logos of the businesses who have donated funds or resources.

5. OBJECTIVES AND MANAGEMENT PRESCRIPTION

5.1 Summary of the Present Position

5.1.1 Woodland areas

The woodland areas of Wickersley Gorse are mostly young having established naturally over the last 30 years. There are some older areas of woodland around the boundaries of the site, particularly in the north and south. Closed canopy woodland accounts for approximately 50% of the site. The tree species that make up the woodland areas are dominated by Sessile oak/ silver birch. These are the species found naturally in woodland in this part of the country. Other dominant species include sycamore and ash. Smaller numbers of rowan, cherry and alder are also found throughout. Mature alder woodland is growing in a small belt along the southern boundary in the wet woodland area.

The older age groups of trees are significantly under represented across the site and consequently so too is deadwood.

Grassland areas

The grassland areas of The Gorse vary in quality and diversity. This is predominantly a consequence of the nutrient levels within the grassland areas. The more nutrient rich areas tend to be dominated by grasses such as red fescue, Yorkshire fog and perennial rye grass.

The more diverse grassland areas also include cocksfoot, annual meadow grass, common cat's ear, bramble, common sorrel, bedstraw, marsh thistle, false oat grass field woodrush red clover, common vetch, black knapweed and ribwort plantain.

Encroachment into the grassland areas of bracken, bramble and scrub is taking place in some areas.

5.1.2 Nature Conservation

The existing, extensive records from Rotherham Metropolitan Borough Council's Biological records Centre and more recent survey, including a phase 1 habitat survey completed by Skyline Ecology in 2016 when preparing the new management plan, indicate that Wickersley Gorse is important locally for providing valuable wildlife habitat. This is not surprising given the wide range of habitat available from closed canopy woodland, to woodland edge habitat, scrub and grassland, together with dry areas, wet areas and a source of water.

A range of nationally notable and local invertebrate species have been recorded from the site. These species depend on continuity in the closed woodland and the grassland communities.

Large trees and deadwood is however lacking considerably from the site and this is to the detriment of flora and fauna that depend upon them. The opportunities for bats and birds that rely on holes and cavities for roosting and nesting and deadwood to benefit fungi, invertebrate groups could be increased greatly. This will increase

the nature conservation value of The Gorse.

The site is host to nine recorded bird species that are now included on the red list due to their sharply falling numbers, together with species recorded on the UK Biodiversity Action Plan short and middle-lists.

Although survey work has been carried over recent decades the natural history records for the site are becoming dated. Further surveys of the wildlife interest, particularly invertebrate surveys and fungal surveys would increase knowledge of the site's biological interest and assist in the development of future management recommendations. Bat surveys are required prior to silvicultural operations.

5.1.3 Recreation and Access

Wickersley Gorse provides opportunities for informal recreation in a very pleasant, quiet, secluded rural environment away from roads and development. Recreation has only every been informal and low key, due in part to the land form, the challenging access, distance from the public highway and the absence of bridleways and tracks. Nevertheless, the site is situated on the edge of Wickersley and provides opportunities for a wide range of ages and interests for individual and group activities, some organised by the Parish Council.

There are a few problems from time to time resulting from inappropriate use such as motorcycle scrambling, littering and fire setting. These problems and not impacting greatly on the site, largely because the Parish Council takes steps to manage the issues as they arise.

5.1.4 Archaeology and Historic Interest

The site is not known to be of significant archaeological interest. However, there are a number of features throughout such as old retaining stone walls and old stone gates posts that point to the site’s long standing agricultural use, particularly grazing.

Whilst much of the site is currently developing as woodland it appears that this is very much a recent land use and much of the site will have been more influenced by agriculture, particularly grazing, rather than traditional woodland management operations.

5.1.5 Landscape

The site is very prominent in the local landscape, particularly to the west due to the site’s elevated position and the steeply sloping topography of the site. Internal landscape value is also high due to the varying landform, views out of the site and the water course.

Woodland on sloping ground is always more sensitive to management than woodland on flat ground. All management of the site must be sensitive to the potential effects on the landscape, but tree felling works will be most sensitive.

5.1.6 Community Involvement

The residents of Wickersley who know of the site and who visit have a positive interest in Wickersley Gorse. This interest has been strengthened over the years with a range of events held annually, positive management activities and the engagement of wardens.

It is important that any management work carried out at the site has as much support from the local community as possible and full consultation of proposals is carried out.

Public consultation with the local community and other interested groups concerning the management proposals will be undertaken before the plan is approved by the Parish Council. Consultation will continue as implementation proceeds.

5.2 General Policy of the Parish Council

Policies relating to the management of Wickersley Gorse are shaped by the Borough Council's Local Plan, including the Core Strategy (2014) documents. Management of the site is also constrained by the national legislation, including the Wildlife and Countryside Act (1981) and Countryside and Rights of Way Act (2000), The UK Forestry Standard (2011) and United Kingdom Woodland Assurance Standard 4 (2020).

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 Gorse by maintaining and strengthening the existing semi-natural character and wildlife interest of the acid Sessile oak and birch woodland areas, promoting a more uneven-aged and diverse structure, particularly promoting development of older age classes, 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 increase the number trees in the older age classes by using silvicultural systems to provide them with enough space to develop.
- To develop the semi-natural field layer community to the woodland areas, including removal of invasive species where these threaten native species.

Aim 2 To conserve and enhance the grassland habitat by diversifying the grassland areas with management that reduces nutrient content of the soils and hence competition by more vigorous and invasive species.

Objectives

- To continue management to maintain the floristic diversity of the grassland and if possible to increase diversity.
- To reduce scrub encroachment of the grassland habitats.
- To remove non-native species.
- To monitor the grassland to establish if the management recommendations are working.

Aim 3 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 and discourage the use of informal entries.
- To maintain footpaths to an acceptable standard for pedestrian access.
- To maintain good quality structures over the water course at points that are most desirable for walkers.
- To maintain the site entrance sign to show public access is welcome.
- To undertake any necessary tree safety works and to ensure that all access structures and footpaths comply with health and safety legislation.
- To patrol and monitor the site as resources allow.

Aim 4 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 structurally diverse woodland areas favouring predominantly semi-natural woodland species and grassland vegetation communities during all habitat management, in turn benefiting associated flora and fauna.
- To management areas of grassland in such a way that enriches their diversity.
- 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.
- Significantly increase volumes of standing and fallen deadwood wherever possible, promoting associated fungi, invertebrates, and hole-nesting birds.
- Retention of as many of the older trees as possible of all species so that one day these will become over mature and eventually 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 Gorse.

Aim 5 To protect features of archaeological and historic interest.

Objectives

- To increase knowledge and understanding of archaeological features at The Gorse.

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

- Report possible finds to South Yorkshire Archaeology Service.

Aim 6 To perpetuate and promote the broadleaved character and place of the woodland areas in the landscape.

Objectives

- To encourage native tree and shrub species typical of 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 7 To actively involve the community in the care and management of the site, 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 sign to increase visitor awareness of the value of the site.

- To continue organising events as part of the Parish Council's events programme, including those concerning the natural history and historic value of The Gorse.

- To organise practical tasks and to involve the local community in the care and management of The Gorse.

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

Aim 8 To conserve and promote the benefits associated with Wickersley Gorse in respect of personal well being and sense of place.

Objectives

- To promote The Gorse 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 9 To maximise income to offset expenditure.

Objectives

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

Aim 10 The performance of management planning and operations at Wickersley Gorse 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 Gorse, taking account of all of the above aims and objectives.

- To collect monitoring information through regular management visits to the site, 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 the site, including review of the management plan.

5.4 Proposed Management Prescriptions

5.4.1 Management of the woodland and grassland habitats 2022 to 2026

Compartment 1

This compartment contains some of the oldest trees in The Gorse. The compartment is also the main entrance to the site from the north. The mature trees help to provide maturity and a sense of establishment and character to the site for visitors. The mature trees also provide habitat that is not found in most of the rest of the site where mature trees are absent.

Some light thinning took place in 2019 to help provide the oldest trees with the conditions they need to continue to grow so that, in time, they will become old mature and hopefully veteran trees. As the work only took place three years ago it would be too soon to consider further management work to the trees in this plan period. This can be reviewed at the end of the work programme in 2026.

Compartment 2

This compartment still has quite high light levels because the main species is birch and in some areas the canopy is yet to close. The trees throughout have good form and deep crowns. There are young naturally regenerating oak trees throughout up to 5m tall.
Some very light thinning took place in 2019 in areas where the canopy had closed. As with Compartment 1, this work is so recent that there is no need to complete further management of the trees at this stage. Whilst it is important that the oaks continue to be given the best conditions to develop as the first generation of climax trees in this part of the site no more work will be required during this work programme. It is important that light levels do not increase too much otherwise this will provide ideal conditions for bracken and bramble to flourish. Ideally the shade cast with the tree canopy will supress growth of bracken and bramble and, in time, ground flora present in compartment 1 will slowly colonise compartment 2.

The need for more thinning can be reviewed in 2026.

Compartment 3

Given the amount of established open space in other parts of the site such as compartments 4, 10, 11, 12 and 15 it would be unnecessary to create more open space. Mature woodland is underrepresented across the site and allowing this compartment to develop as woodland would be to the benefit of the site as a whole.

Light levels remain high in this compartment due to the species domination by birch.

The compartment benefitted from an enrichment planting of mixed native broadleaves in the last work programme. The species included wild cherry, rowan and Sessile oak. It is vitally important that these trees are cared for with weed control until they have established. This is likely to be after completion of this work programme. No further work is recommended during this work programme.

Compartment 4

This compartment will continue to be managed as open space in order to preserve the views out to the west. This is an important amenity for visitors to the site.

The view point will be maintained by continuing the coppicing around the edge of the compartment that began in 2015 and has continued at intervals between 2017 and 2021. This will continue to create a dense woodland edge habitat in the edge of mature trees. This transitional vegetation from closed canopy woodland to open space is good for mammals, species of nesting birds that nest close to the ground in dense cover and some invertebrates. The coppicing shall be carried out once every five year work programme period.

Monitoring of the open grassland part of the site will be necessary to ensure trees or bracken doesn't begin to establish. Habitat diversity would be increased by establishing heather in this open space. The heather can be established by taking heather cuttings from another area when the heather has gone to seed and scatting this in the compartment. The Rotherham and Sheffield Wildlife Trust may be able to assist with this. This will be investigated during this plan period.

Compartment 5

The compartment is small on the edge with the neighbouring field. The compartment has some characterful oak trees and is important in maintaining shelter for the site from easterly winds. It is important that the mature but squat, wide crowned oak trees are maintained and allowed to continue to grow and develop.
These constraints limit management options. Occasional removal of trees around the mature oaks may be necessary from time to time. No work is necessary during this work programme.

Compartment 6

This is a large area of open space that is dominated by dense bracken. Some Sessile oak and birch trees have regenerated naturally throughout the compartment and some are now well above the influence of the bracken and will manage to grow on to maturity.

The compartment is at a point where it could either be allowed to develop as woodland but is still at a point that it could be cleared and managed as open space.

It was agreed during the preparation of the plan in 2016 that the compartment will be allowed to develop into woodland in a natural way with no intervention management.

The reasons for that were as follows:
There are a lot of other areas of open space throughout the site that have higher quality habitat value than this.
This much bracken is not required as habitat when other areas of bracken provide the same habitat.
Allowing this area at the southern end of the site to develop as woodland would help to provide shelter to some of the other open space from some of the prevailing winds. This would improve the quality of the open space.

As the compartment develops as woodland the bracken will gradually be shaded out which will reduce fire risk across the site.

There are no proposed changes to this management strategy for the period 2022 to 2026. No management operations will be necessary during the second five year work programme.

Compartment 7

There are some very well formed oak trees throughout the compartment. Thinning took place in 2019 to allow the best of these to develop further into large mature trees. This is a priority because large mature trees are currently very under represented throughout the site. In time they will provide some of the important habitat that is associated with mature trees will develop.

No further intervention in the compartment is required during this plan period. Some more thinning might be necessary in the future but this will be considered at later plan reviews.

Compartment 8

The compartment benefited from higher light levels after some thinning in 2019. This was done to improve conditions for a better quality shrub and field layer.

The proposed coppicing of smaller trees together with around 50% of elder and willow would have created a better shrub layer but this work was not approved by Forestry Commission in 2019.

No thinning felling or coppicing work is recommended between 2022 and 2026.

Compartment 9

This compartment has some of the oldest trees in The Gorse and it is important that they are retained and given the conditions they need to grow and develop, particularly the alder. This will be achieved by very selective removal of any trees that might be competing with the older alder such as willow and ash. It is important that young alder has the opportunity to grow and develop and will be favoured during any thinning operations.
The light levels are quite good and the moment and no tree removal work is recommended between 2022 and 2026.

Compartment 10

It was agreed during the writing of the plan in 2016 that this compartment would remain unmanaged. This is because there would be a significant commitment involved in managing the bracken to allow trees to establish or to create grassland habitat. This will allow resources to be focused on management of existing open areas such as compartments 4, 11 and 15.

Compartments 11a, 11b, 11c and 12

The management of these sub-compartments should follow the previous management principles of an annual hay cut. The cut should be undertaken between August and the end of September and all grass clippings should be removed from the site.

Bracken and gorse encroachment should be strimmed prior to the hay cut to restrict further spread of these species within the area. In addition, after strimming has been completed, it may be possible to gain access to mow these areas. The main aim would be to increase this area of grassland.

It is important that areas of scrub such as gorse, bramble and young trees are managed by brush cutting around the perimeter of the grassland to prevent further encroachment. This work will need to be done in the winter months because some of the bramble and scrub is now dense enough to allow birds to nest and breed.

Pulling of Himalayan balsam should be undertaken along the neighbouring stream. Whilst there are biological control options becoming available for the weed, and may be available to The Gorse during this work programme, waterways are a key means of spread of the seed.

Compartment 13

This is one of the densest shrub layer areas in the whole site and for that reason it shall be retained and enhanced.
Some coppicing took place on the path edges in late 2021/early 2022. The benefits of this work will be realised when the trees and shrubs regrow.
Re-coppicing of trees and shrubs in this compartment should continue in the future by coppicing around 20 trees/shrubs in groups throughout the compartment each five year work programme period. This will create an uneven and varied shrub layer rather than creating coppicing parcels. It is envisaged that this will also enhance the landscape value of this part of the site as well as improving wildlife value.

Compartment 14

There was some planting of a range of native broadleaved species in the last work programme. This was done in conjunction with an opening up of the canopy to increase light levels for the young trees. Increasing species diversity in the compartment has been seen as a priority. Sessile oak, field maple, cherry and rowan were planted as an intimate mix at low densities throughout the compartment.

There may be a need to help the young trees in the future with more intervention to remove shade from the larger trees but this is not necessary at the moment and can be reviewed at the next review of the plan in 2026.

Compartment 15

Due to the poor quality of the grassland in the compartment it was decided in 2016 to manage this area specifically for amenity. Management for this part of the site will continue with amenity grassland mowing, approximately three times a year. Grass clippings from this work can be left within the area. Areas of dense bracken should be strimmed and eventually mown to attempt to reduce the encroachment and maintain an open area of grassland.

In addition removal of some of the smaller trees within this area would allow light and possibly enhance the ground flora. Only some of the larger oaks will be retained as open grown trees that provide character.

Compartment 16

A very small amount of tree removal shall be undertaken periodically over the next 20 years simply to maintain light levels. This might amount to one or possibly two trees in any one five year work programme and could be combined with essential safety work. This is not required during the 2022 to 2026 period.

5.4.2 Outline management from 2027 to 2041

The proposed silvicultural and grassland operations for the second five year work programme from 2022 to 2026 are described above. The following fifteen years are briefly set out below to give a general overview of anticipated grassland and 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
1	Very selective thinning of trees that are preventing the oldest and largest trees from developing further.	2027 to 2041
2	Very light selective thinning of trees that are competing with those best suited to long term retention.	2027 - 2041
4	Coppicing of the trees on the edge of the compartment.	2025, 2030, 2035, 2041
5	Coppicing of elder and goat willow on the woodland edge.	2030, 2035, 2041
7	Light selective thinning of the trees throughout the compartment.	2027 - 2041
9	Very selective thinning to favour old and young alder.	2027 to 2041
11a, b, c	Walk over survey to assess the effectiveness of management in the first five year work programme to assess if and how diversity has improved.	2027
13	Coppicing and re-coppicing of approximately 20 shrubs throughout the compartment.	2027 to 2031, 2032 to 2036, 2037 to 2041
14	Very light selective thinning of promote the development of the newly planted trees and established trees that need to develop.	2027 to 2031

Shared boundaries with other woodland owners

The vast majority of Wickersley Gorse shares a boundary with agricultural land. The south western boundary is shared with Sitwell Golf Course. The land here is a matrix of golf course fairways and small pockets of broadleaved woodland. The boundary between the two ownerships is difficult to distinguish where woodland dominates.

Non-native plant and animal species

Unlike other countryside site where planting of exotic tree species has taken place over the last century, the non-native trees and shrubs is limited to sycamore. Whilst there are no proposals to introduce non-native plant species there are no intensions to try to eliminate sycamore from the site. Sycamore trees are some of the oldest on the site and provide some maturity. An element of this species helps to add diversity to the woodland. Sycamore is host to very high numbers of insects which support

wildlife that depends on invertebrates.

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.

Himalayan balsam has a very dominant presence throughout much of the site. The plant that is very easily distributed by the way it casts high numbers of seeds has been present for many years and has steadily been spreading to new areas. The damp low lying areas of the site that are particularly suited to the plant are now densely carpeted by the plant in the summer months.

Whilst eradication of the plant from the site could be possible in theory, the plant is so well established this would be extremely difficult without extensive resources. However it is important to try to contain the plant's spread, preventing it from establishing in areas of the site not currently affected. This could be achieved by targeted hand pulling.
It may also be possible during this work programme to begin to make use of biological controls.

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 or storm damage will be left in the woodland as large stems or habitat piles to undergo natural decay processes. This will help to increase the amount of deadwood habitat from the currently very low volumes.

Where leaving arisings such as small diameter branch wood would result in increased risk of fire setting at the site this will be chipped and scattered on the woodland floor.

Management of wild animals, excluding deer

There is some evidence of grey squirrels causing damage to some trees at The Gorse because population numbers are relatively high. The site has a resident population and possibly a transient population from other nearby woodlands.
Sycamore is the main species affected. Retention of sycamore throughout the site is a useful way to try to avoid damage to other species such as oak. Sycamore is regarded as a sacrificial species in this context. The other main species such as oak does not appear to be affected as this stage.

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. This should be closely monitored over the course of the plan. Newly planted trees have however been guarded as a precaution.

Management of wild deer

There is little evidence of a wild deer population at the site. It is likely that there will be a transient population. A resident population in unlikely because of the high visitor numbers, principally, dog walkers. There is presently 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

Occasionally it may be necessary to use chemicals in some form to protect the important habitats of The Gorse from aggressive pests, diseases or invasive vegetation that may threaten biodiversity or compete with newly planted trees. For example, Asulox was used in the past to control bracken. In addition, fertilisers may be considered to control mineral deficiencies during plant establishment.

Chemicals would not be an advisable method of control of the Himalayan balsam because of its proximity to water courses in some parts of the site and because the weed killer would also kill native plants.

Asulox is no longer available for use in the control of bracken and cannot be considered as a control option in this management plan.

No other management activity at the site currently justifies the use of chemicals.

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 within The Gorse is high because of the nature of the site having a matrix of woodland and grassland. There is no need to consider increasing the amount of open space. Instead management efforts will be focused on improving the quality and diversity of open space available. In some areas where it is unrealistic to improve the quality of the open space because in contains dense bracken that would be prohibitively expensive or time consuming then reverting the area to woodland should be considered as a way of improving habitat.

5.4.3 Boundary and access management

Most of the boundary was formalised and secured with post and wire fencing or dry stone walls. Most of this is very old and in quite poor condition. The neighbouring fields do not contain livestock. Access into the site from neighbouring land for illegal activities is limited due to the isolated nature of the site. Any illegal access is likely to come via the established access points.

It would not be effective use of resources to begin repairing boundary walls or replacing fences. Resources would be better focused on managing and improving habitats within the site.

5.4.4 Over-mature, veteran and dead trees

The numbers of trees in the older age classes is very low. The older trees are confined to very specific areas such as compartments 1, 9 and 14. Maintaining the older trees that currently growing in The Gorse and providing them with the conditions they need to grow and thrive will be a priority. This will improve habitat qualities, add diversity to the woodland structure and increase intrinsic appeal across the site.

There are no over mature trees present at the moment but management will encourage some of the oldest trees to become over mature. These trees will be given the conditions they need to develop. This includes a requirement for minimum light levels depending on the condition and vigour of individual trees.

When trees do become over mature they 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. It is also beneficial to different invertebrate species living in the deadwood of these trees if both cool, shaded and warm sunny areas are maintained. The guidance in the Ancient Tree Forum and Woodland Trust's *Ancient and other veteran trees: further guidance on management* publication will be followed to ensure that the over mature trees are managed appropriately and their chances of long term survival are improved.

The amount of deadwood across the site is very low. This is largely due to the young age of much of the woodland areas and small numbers of trees in older age groups. It is very much a priority over the course of the plan to increase the amount of standing and fallen deadwood throughout the site. This should ideally be deadwood of all sizes from branch wood to large logs throughout as much of the site as possible and be from the widest range of tree species possible.

Deadwood amounts will be increased by leaving fallen branches and trees where they are if this is off the paths and not at risk of blocking the water course. Any tree maintenance work that is necessary should seek to leave the branches and stems in as large sections as possible at suitable locations. Storm damaged and wild blown trees will also be left where possible.

This will provide additional wildlife habitat for some invertebrate groups, hole-nesting birds and bats.

A mixture of deadwood in sunlight, partial and full shade, and in water is best (Kirby, 1992). In situations 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.

5.4.5 Site safety

Below are a number of potential safety conflicts that could be faced by site users. It is however important to keep this subject in perspective. This is a quiet, semi-rural site that is a safe place to relax and exercise in a peaceful environment. Management will seek to maintain any risks at acceptable levels.

a) Dangerous trees

All trees close to well used paths and formal access points 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.

b) Flytipping and dangerous rubbish

The secluded nature of the site away from the pubic highway means that flytipping is not really a problem at The Gorse. However, if flytipping should ever 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

The Gorse only has a small network of casual footpaths. There are no bridleways across the site. This means that there is limited potential for conflicts between user groups. Motorbikes are an occasional problem in The Gorse and have been a sporadic problem for many years. However, it is a limited problem and the Parish Council will continue to report instances to South Yorkshire Police and the numbers monitored to assess whether activities appear to be isolated or part of a trend.

d) Fire Plan

The opportunities for fires to be started in The Gorse are high given the large amount of fuel there is in the form of dead bracken at certain times of year. The slopes can also help fires to spread. Fortunately the fires that do happen are regarded as ‘cool’ fires that burn through very quickly only affecting annual vegetation and sometimes young, thin barked tree species such as silver birch. Nevertheless, it is important to reduce opportunities for fires to be set and also limit the opportunities for them to spread.

Reducing the bracken across the site, either by cutting and weakening the plant or allowing woodland to develop and casting shade on the plant will reduce its presence.

In areas where bracken is growing densely the potential for fires to spread shall be contained by mowing fire breaks across areas. This can most usefully be done along path edges which should be done in any case to keep paths open.

e) Steep Slopes
The site comprises some very steeply sloping ground which can be an obvious hazard if access is provided, particularly when ground conditions are wet.

Most of the paths have evolved to remain in the flatter areas or traverse across the slopes reducing the gradients of paths. The most challenging areas such as parts of compartments 3 and 14 have been avoided altogether.

There are no plans to extend the footpath network and therefore the challenging slopes will be avoided.

Where paths on steeply sloping ground might become slippery during wet weather then very carefully designed steps could be considered or some sort of surfacing that will provide traction could be considered.

5.4.6 Sustainability and biodiversity

Any UK, Regional and Local BAP priority woodland habitats present in Wickersley Gorse 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.

Continued management of the site with a matrix of woodland (of all ages), scrub, grassland and woodland edge habitat will provide the widest diversity of habitats available for wildlife possible.

This can be improved upon by increasing the numbers of trees in the older age brackets and greatly increasing amount of deadwood habitat; both standing and fallen.

5.4.7 Community involvement, recreation and access

a) Access and recreation
Wickersley Gorse can only reasonably be managed for low key, informal recreation. The site is too far from the highway network and has too challenging a topography for it to be used for wider range of activities than is currently the case. It would be impractical to try to extend access to all user groups. The Parish Council owns and manages a portfolio of green spaces that does provide recreational opportunities for a wide range of users.

The footpath network currently provides adequate access to all reasonable parts of the site. It would be unnecessary and unwise to increase the footpath network. There is currently a good balance between maintaining good access opportunities and providing quieter areas for wildlife. There are no proposals to increase the footpath network. It is however important to maintain the facilities such as the path surfaces, steps and bridges in a good standard of repair.

Maintenance work does take place to upkeep the access facilities and most are in good condition but the bridge that crosses the watercourse in the centre of the site from compartments 11 to 12 would benefit from improvements. The bridge is a

timber structure that is experiencing difficulties from vandalism and erosion of the banks of the watercourse. The span of the bridge has been extended in recent years to accommodate the wider water course following bank erosion. A difficulty has been that the bridge has relied on the banking for support. A long term solution will involve a self-supporting structure such as a bridge built on freestanding legs or a culvert. A metal bridge or stone built culvert would also reduce the opportunities for vandalism. If is proposed, subject to Environment Agency agreement, to install a corrugated metal culvert with a stone built front and a footpath over the top with metal handrails. This will be practical to deliver to the site, resist vandalism and address the erosion issue.

Some small sections of paths on steeply sloping ground would also benefit from some form of surfacing to prevent them becoming very slippery during wet weather. In particular a section of path up the slope through compartments 12 and 13.

All other artificial structures will be maintained as necessary.

b) Community involvement

The strong investment in community involvement over the years will continue to be built upon.

The onsite presence of the voluntary wardens will continue to be an effective way of having a day to day site presence to identify any issues.

The annual events that take place in The Gorse will continue as these have been very successful in getting people into the site who might not otherwise have been aware of it or have used it. These include guided walks, the Teddy Bears' Picnic and practical volunteering events.

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 panel there is room for notices to advertise and promote events in the local community, including the Parish Council's 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.

c) Education and interpretation

The interpretative sign installed in recent years at the main entrance gives information about the history of the site, including ownership and management operations. The temporary notice area within the panel also provides opportunities to provide information about management operations and to advertise consultation events.

Events that include schools and youth groups such as The Scouts and Guides will continue to be encouraged. Events such as bird box building that have taken place in the past can be a good way of introducing environmental interests to children.

5.4.8 Landscape

The management proposals seek to maintain a matrix of open space and woodland throughout the site and the proposals do not include clearance of woodland areas. This means that management operations will not significantly alter the internal or external landscape qualities of the site.

The varied topography helps to create an attractive landscape from within the site and it is important that views through and out of the site are maintained. The proposals to allow some currently open areas to regenerate into woodland could affect some of these views. This will need to be monitored as trees develop.

The view point area that is in compartment 4 will be kept open by coppicing the trees around the edge of the compartment.

5.4.9 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.

Archaeological survey would be an interesting project to learn more about any features throughout the site and learn of presently unknown features. There would obviously need to be a commitment to resource the survey work. Survey work might not be very meaningful in areas that have dense bracken growth.

5.4.10 Ecological survey and monitoring

Wickersley Gorse is an important site locally for ecology. It is one of the largest countryside sites in the Wickersley area as it contains some of the important wildlife habitat locally, particularly compared with some other land uses.

The very varied structure of Wickersley Gorse with woodland, shrubby areas and open space make the structure of the habitat appealing to a wider range of wildlife. However the quality of the habitat could be better in some respects. The woodland areas could have larger trees and more mature trees with more features such as cavities and more deadwood. The grassland areas could be more species rich.

Management works over the last couple of decades has done a lot to improve the quality of the grassland habitat, particularly by eliminating bracken from areas.

Work throughout the first management plan work programme continued the process of improving the quality of the habitat by identifying the best trees to grow on to over maturity, increasing both standing and fallen deadwood, particularly larger diameter deadwood. Invertebrate and fungi diversity associated with this habitat improvement would be expected to increase, as would species of birds and mammals dependent on them. Improving the diversity and increasing the density of the shrub layer in woodland areas is improving conditions for mammals and bird species that nest closer to the ground. Increasing the species diversity of some defined areas of the grassland will also continue with the correct management regime.

Surveying and monitoring will be essential to determine the types and quantities of species that inhabit The Gorse, which species become established and which species are already present and increase in number as a result of management practices. Equally, decreases in numbers of any species as a result of management is important to understand.

To ensure up to date species records are available specialist surveys plants, fungi and invertebrates would be beneficial. 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.

The effects of management over the period of the plan on habitat quality will be monitored photographically. Digital photos have been taken of the site 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 work proceeds.

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

6.1 MANAGEMENT IMPLEMENTATION

Silvicultural and Grassland Management Works	Comps	**Years**				
		1	**2**	**3**	**4**	**5**
Essential tree safety works	All	√	√	√	√	√
Re-coppicing of the vegetation on the edge of the compartment.	4		√			
Complete an annual hay cut (removing from the grassland areas)	11a, b c	√	√	√	√	√
Strim the edges of the grassland where bracken, bramble and scrub is beginning to encroach.	11a, b, c & 15	√	√	√	√	√
Brush cut bramble and scrub on the edge of grassland	11,12	√				
Coppicing and re-coppicing of approximately 20 shrubs throughout the compartment rather than creating defined coppicing areas.	13					√
Cut the grass three times per annum to provide amenity space.	15	√	√	√	√	√

Access Works	Comps	**Years**				
		1	**2**	**3**	**4**	**5**
Maintain access furniture, seating, fencing and waymarker posts.	All	√	√	√	√	√
Strimming of vegetation at main access points and strimming and mowing of the main footpath network where necessary.	6, 12, 13, 14, 15	√	√	√	√	√

Other Site Improvements	Comps	**Years**				
		1	**2**	**3**	**4**	**5**
Hand pull Himalayan balsam from footpath edges and areas where it is not yet dominant to prevent it spreading to and establishing in new areas.	1, 2, 3, 16	√	√	√	√	√
Investigate opportunities to colonise heather by seeding using heather cuttings from other sites.	4		√			
Removal of rubbish from within the woodland and any fly tipping at woodland edges.	All	√	√	√	√	√

Survey and Plans	Comps	**Years**				
		1	**2**	**3**	**4**	**5**
Floral surveys of the grassland areas			√			
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					√
Teddy Bears Picnic	PC	√	√	√	√	√
Guided walks such as bat walks, fungal forays, bluebell walks	PC	√	√	√	√	√
Volunteer events such as Himalayan balsam pulling and coppicing work as appropriate	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 and Grassland Management Works												
Tree safety works.	√	√	√	√	√	√	√	√	√	√	√	√
Complete an annual hay cut (removing from the grassland areas)												
Bruch cut the edges of the grassland where bracken, bramble and scrub is beginning to encroach in compartments 11 and 15.									√			
Brush cut bramble and scrub on the edge of compartments 11 and 12									√	√		
Cut the grass three times per annum to provide amenity space in compartment 15.					√	√		√				
Access works												
Maintain access furniture, seating, fencing, waymarker posts.	√	√	√	√	√	√	√	√	√	√	√	√
Strimming of vegetation at main access points and strimming and mowing of the main footpath network, particularly the path along the northwest edge and in southern parts of the site. (compartments 6, 12, 13, 14 and 15)					√			√				
Other Site Improvements												
Hand pull Himalayan balsam from footpath edges and areas where it is not yet dominant to prevent it spreading to and establishing in new areas.						√						
Removal of rubbish and any fly tipping as necessary.	√	√	√	√	√	√	√	√	√	√	√	√
Survey and Plans												
Photographic monitoring	√	√	√	√	√	√	√	√	√	√	√	√
Monitoring and review of the impacts of management			√						√			
Events												
Teddy Bears Picnic							√					
Guided walks such as bat walks, fungal forays, bluebell walks					√				√	√		
Volunteer events such as Himalayan balsam pulling and coppicing work as appropriate.						√					√	

Annual Work Programme Year Two – 2023												
	January	**February**	**March**	**April**	**May**	**June**	**July**	**August**	**September**	**October**	**November**	**December**
Silvicultural and Grassland Management Works												
Tree safety works.	√	√	√	√	√	√	√	√	√	√	√	√
Re-coppice stools on the edge of the view point.											√	
Complete an annual hay cut (removing from the grassland areas).								√				
Strim the edges of the grassland where bracken and bramble is beginning to encroach in compartments 11 and 15.						√						
Cut the grass three times per annum to provide amenity space in compartment 15.					√	√		√				
Access works												
Maintain access furniture, seating, fencing and interpretative signs as necessary.	√	√	√	√	√	√	√	√	√	√	√	√
Strimming of vegetation at main access points and main footpath network.. (compartments 6, 12, 13, 14 and 15)					√			√				
Other Site Improvements												
Hand pull Himalayan balsam from footpath edges and areas where it is not yet dominant to prevent it spreading to and establishing in new areas.						√						
Investigate opportunities to colonise heather by seeding cuttings from other sites.		√	√	√	√	√	√	√	√			
Removal of rubbish and any fly tipping as necessary.	√	√	√	√	√	√	√	√	√	√	√	√
Survey and Plans												
Photographic monitoring.	√	√	√	√	√	√	√	√	√	√	√	√
Floral survey of the grassland areas						√						
Monitoring and review of the impacts of management.			√						√			
Events												
Teddy Bears Picnic							√					
Guided walks such as bat walks, fungal forays, bluebell walks.					√				√	√		
Volunteer events such as Himalayan balsam pulling and coppicing as appropriate.						√					√	

Annual Work Programme Year Three – 2024												
	January	**February**	**March**	**April**	**May**	**June**	**July**	**August**	**September**	**October**	**November**	**December**
Silvicultural and Grassland Management Works												
Tree safety works.	√	√	√	√	√	√	√	√	√	√	√	√
Complete an annual hay cut (removing from the grassland areas).								√				
Strim the edges of the grassland where bracken and bramble is beginning to encroach in compartments 11 and 15.						√						
Cut the grass three times per annum to provide amenity space in compartment 15.					√	√		√				
Access works												
Maintain access furniture, seating, fencing and interpretative signs as necessary.	√	√	√	√	√	√	√	√	√	√	√	√
Strimming of vegetation at main access points and strimming and mowing of the main footpath network, particularly the path along the northwest edge and in southern parts of the site. (compartments 6, 12, 13, 14 and 15).					√			√				
Other Site Improvements												
Hand pull Himalayan balsam from footpath edges and areas where it is not yet dominant to prevent it spreading to and establishing in new areas.						√						
Removal of rubbish and any fly tipping as necessary.	√	√	√	√	√	√	√	√	√	√	√	√
Survey and Plans												
Photographic monitoring	√	√	√	√	√	√	√	√	√	√	√	√
Fungal survey										√		
Monitoring and review of the impacts of the management plan programme.			√						√			
Events												
Teddy Bears Picnic							√					
Guided walks such as bat walks, fungal forays, bluebell walks					√				√	√		
Volunteer events such as Himalayan balsam pulling and coppicing work as appropriate						√					√	

Annual Work Programme Year Four – 2025												
	January	**February**	**March**	**April**	**May**	**June**	**July**	**August**	**September**	**October**	**November**	**December**
Silvicultural and Grassland Management Works												
Tree safety works	√	√	√	√	√	√	√	√	√	√	√	√
Complete an annual hay cut (removing from the grassland areas).								√				
Strim the edges of the grassland where bracken and bramble is beginning to encroach in compartments 11 and 15.						√						
Cut the grass three times per annum to provide amenity space in compartment 15.					√	√		√				
Access works												
Maintain access furniture, seating, fencing and interpretative signs where necessary.	√	√	√	√	√	√	√	√	√	√	√	√
Strimming of vegetation at main access points and strimming and mowing of the main footpath network, particularly the path along the northwest edge and in southern parts of the site. (compartments 6, 12, 13, 14 and 15).					√			√				
Other Site Improvements												
Hand pull Himalayan balsam from footpath edges and areas where it is not yet dominant to prevent it spreading to and establishing in new areas.						√						
Removal of rubbish and any fly tipping as necessary.	√	√	√	√	√	√	√	√	√	√	√	√
Survey and Plans												
Photographic monitoring.	√	√	√	√	√	√	√	√	√	√	√	√
Monitoring and review of the impacts of the management plan programme.			√						√			
Events												
Teddy Bears Picnic.							√					
Guided walks such as bat walks, fungal forays, bluebell walks.					√				√	√		
Volunteer events such as Himalayan balsam pulling and coppicing work as appropriate.						√					√	

Annual Work Programme Year Five – 2026												
	January	**February**	**March**	**April**	**May**	**June**	**July**	**August**	**September**	**October**	**November**	**December**
Silvicultural and Grassland Management Works												
Tree safety works.	√	√	√	√	√	√	√	√	√	√	√	√
Complete an annual hay cut (removing from the grassland areas).								√			√	
Coppicing and re-coppicing of approximately 20 shrubs throughout the compartment rather than creating defined coppicing areas in compartment 13.											√	
Strim the edges of the grassland where bracken and bramble is beginning to encroach in compartments 11 and 15.						√						
Cut the grass three times per annum to provide amenity space in compartment 15.					√	√		√				
Access works												
Maintain access furniture, seating, fencing and interpretative signs where necessary.	√	√	√	√	√	√	√	√	√	√	√	√
Strimming of vegetation at main access points and main footpath network. (compartments 6, 12, 13, 14 and 15).					√							
Other Site Improvements												
Hand pull Himalayan balsam from footpath edges and areas where it is not yet dominant to prevent it spreading to and establishing in new areas.						√						
Removal of rubbish and any fly tipping as necessary.	√	√	√	√	√	√	√	√	√	√	√	√
Survey and Plans												
Photographic monitoring.	√	√	√	√	√	√	√	√	√	√	√	√
Monitoring and review of the impacts of the management plan programme.				√					√			
Events												
Teddy Bears Picnic.							√					
Guided walks such as bat walks, fungal forays, bluebell walks.				√					√	√		
Volunteer events such as Himalayan balsam pulling and coppicing work as appropriate.						√						

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)
SOK and sycamore (cmp. 1)	1930	None	0.0m³	
SOK and SBI (cmp. 2)	1970	None	0.0m³	
SOK (cmp. 7)	1970	None	0.0m³	
Mixed broadleaves (cmp. 8)	1950	None	0.0m³	
A and GW (cmp. 9)	1950	None	0.0m³	
SYC (cmp. 14)	1930	None	0.0m³	

SOK – Sessile oak BE - beech SBI – silver birch GW – goat willow A – alder SYC - sycamore

Hectares	Average volume per hectare	Total woodland volume	Total annual increment	Total annual cut				
				2017	2018	2019	2020	2021
	100m³	715m³	12m³	55m³	0.0m³	0.0m³	0.0m³	0.0m³

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 and grassland management						
Essential safety work	350.00	350.00	350.00	350.00	350.00	1750.00
Annual hay cut of cmp 11a, b,c	400.00	400.00	400.00	400.00	400.00	2000.00
Strim the edges of cmps 11a, b, c & 15.	350.00	350.00	350.00	350.00	350.00	1750.00
Cut the grass in cmp 15 three times per years.	150.00	150.00	150.00	150.00	150.00	750.00
Coppicing of 20 shrubs throughout cmp 13	0.00	0.00	0.00	0.00	0.00	0.00
Coppicing and re-coppicing in cmp 4	0.00	0.00	0.00	0.00	0.00	0.00
Access						
Maintenance access furniture and seating.	100.00	100.00	100.00	100.00	100.00	500.00
Strimming and mowing of vegetation along footpath network.	150.00	150.00	150.00	150.00	150.00	750.00
Other Site Improvements						
Hand pulling Himalayan balsam	0.00	0.00	0.00	0.00	0.00	0.00
Rubbish removal	200.00	200.00	200.00	200.00	200.00	1000.00
Survey/plans						
Floral survey of the grassland areas.	0.00	300.00	0.00	0.00	0.00	300.00
Fungal survey	0.00	0.00	330.00	0.00	0.00	300.00
Events						
Teddy Bears Picnic	80.00	80.00	80.00	80.00	80.00	400.00
Totals	**1780.00**	**2080.00**	**2080.00**	**1780.00**	**1780.00**	**9,500.00**

8. MONITORING AND REVIEW

8.1 Monitoring

Monitoring is important to ensure that benefits of management operations being delivered 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 improving the shrub layer in the woodland areas, improving woodland edge habitat with coppicing and increasing the amount of deadwood of the woodland areas. Additionally, trees alongside the footpaths and entrances will be inspected annually for safety.

(b) Natural history

The flora diversity and richness of the grassland area will continue to be monitored. 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, see section 5 management implementation.

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 2016. 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 7 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, together with notices in the notice boards, 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 board.

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 Wickersley Gorse. 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
	Clerk to Wickersley Parish Council	(01709) 703270		Primary contact for all issues in respect of management of the site.

Outside Rotherham MBC.	Organisation	Contact Details	Reason for contact
	Forestry Commission	01904 448778	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.

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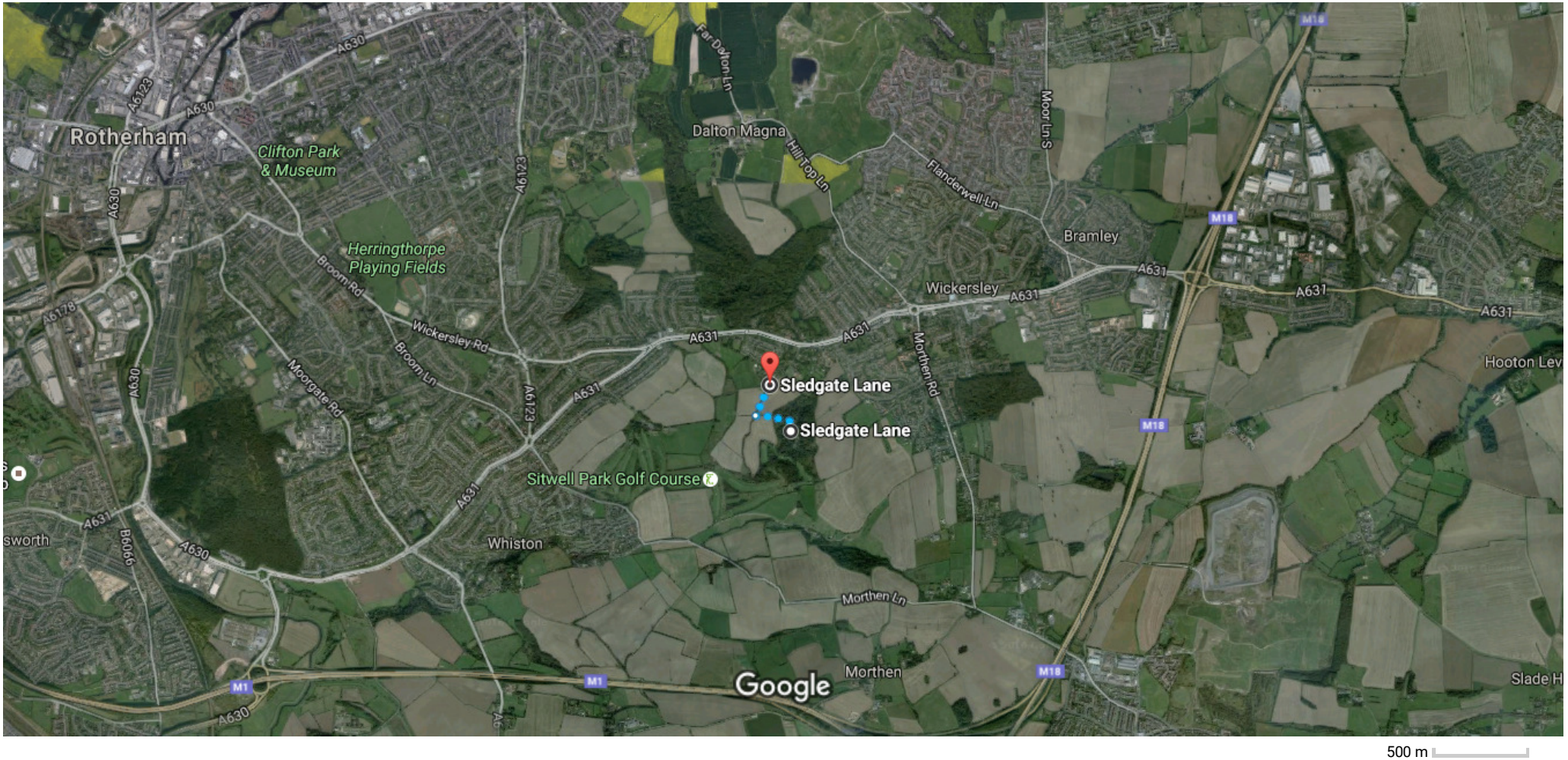

Figure 1.1 Location Plan

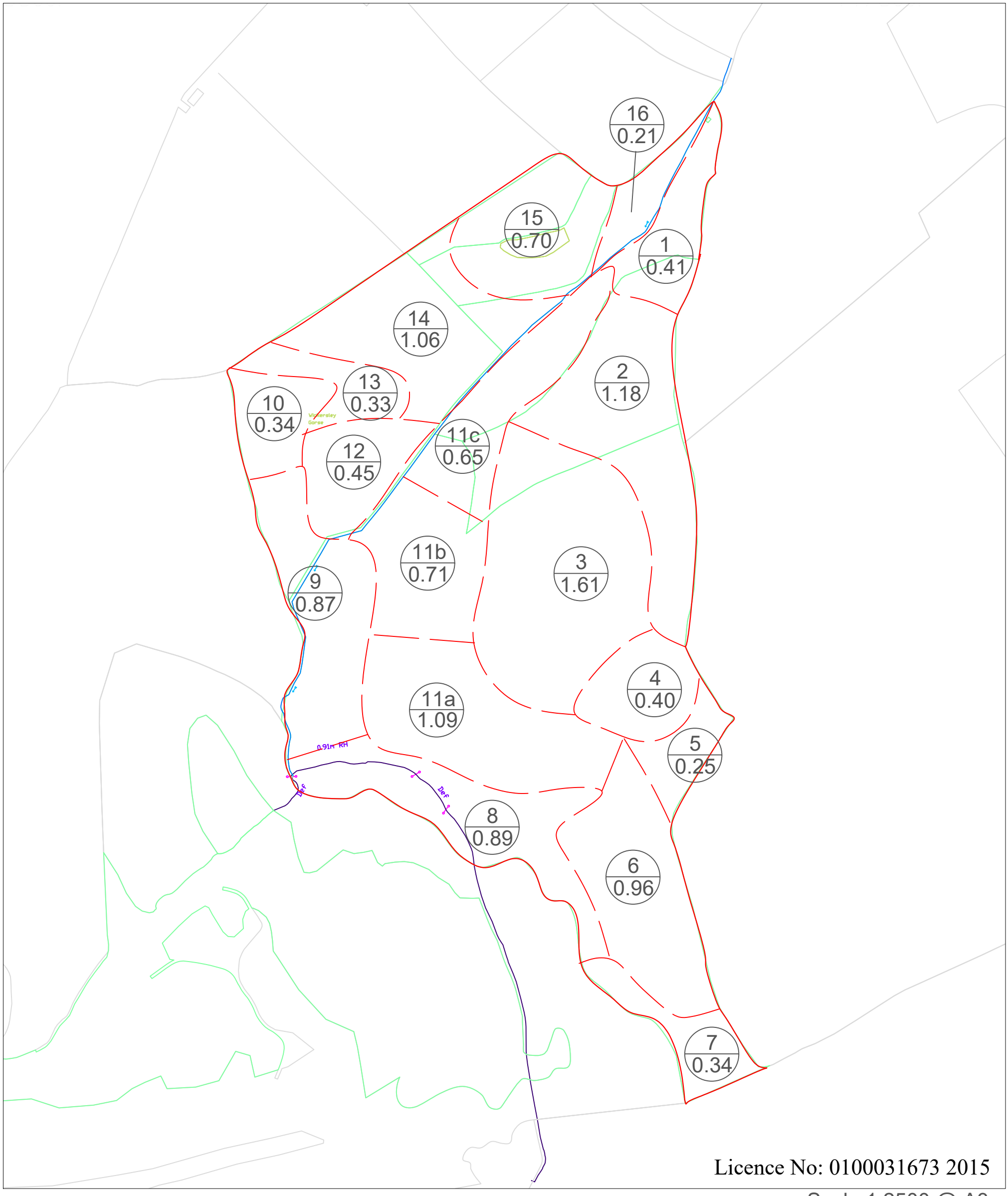

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Figure 1.2 Management Compartment Map

6
0.46
Compartment number
Area in hectares

Compartment boundary

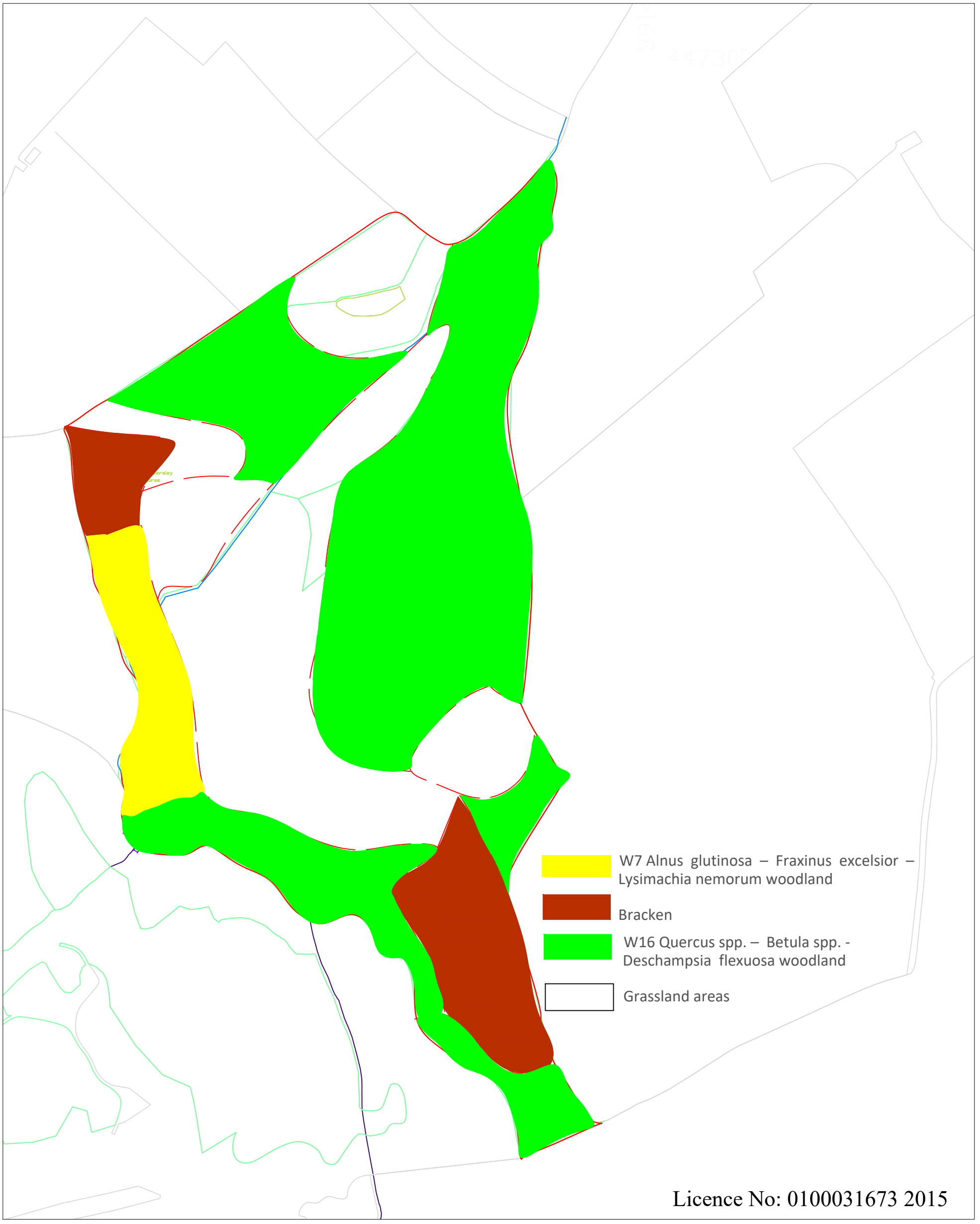

Figure 1.3 National Vegetation Classification

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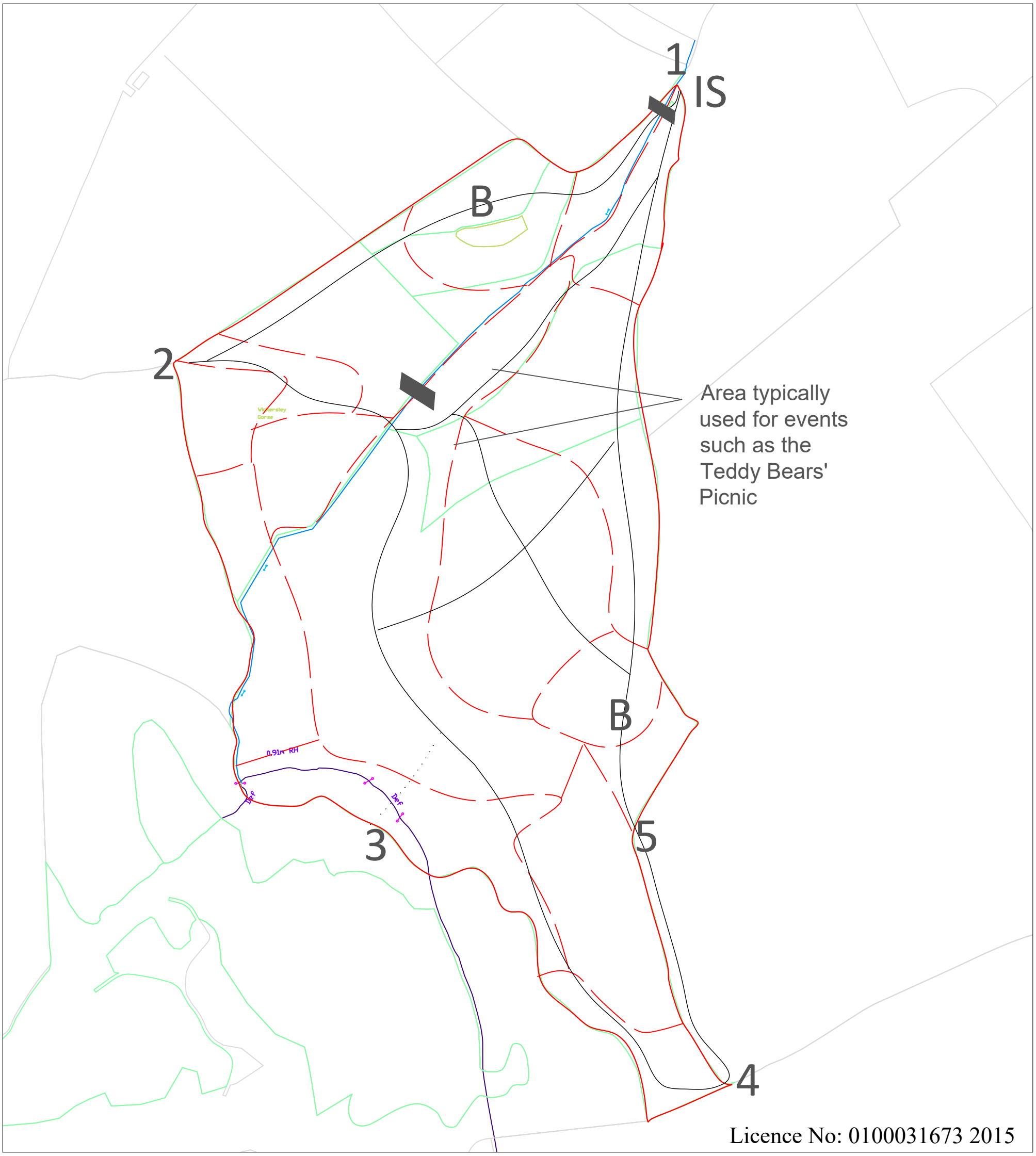

Figure 1.4 Access, recreation and boundary map

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1 Access point

Footpath

Bridge over water course

B Bench

IS Interpretative sign

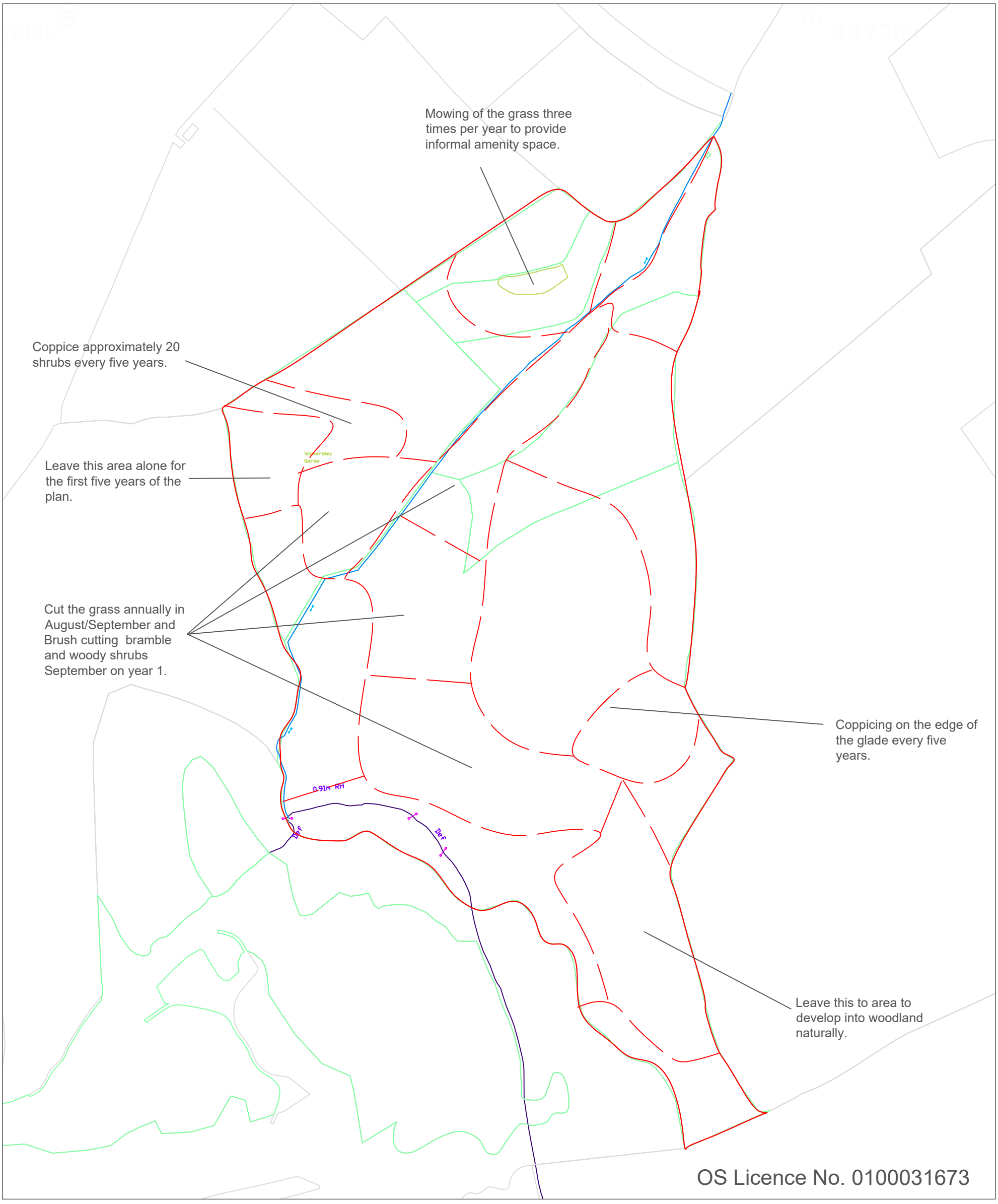

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Figure 1.5 Management Map

Compartment boundary

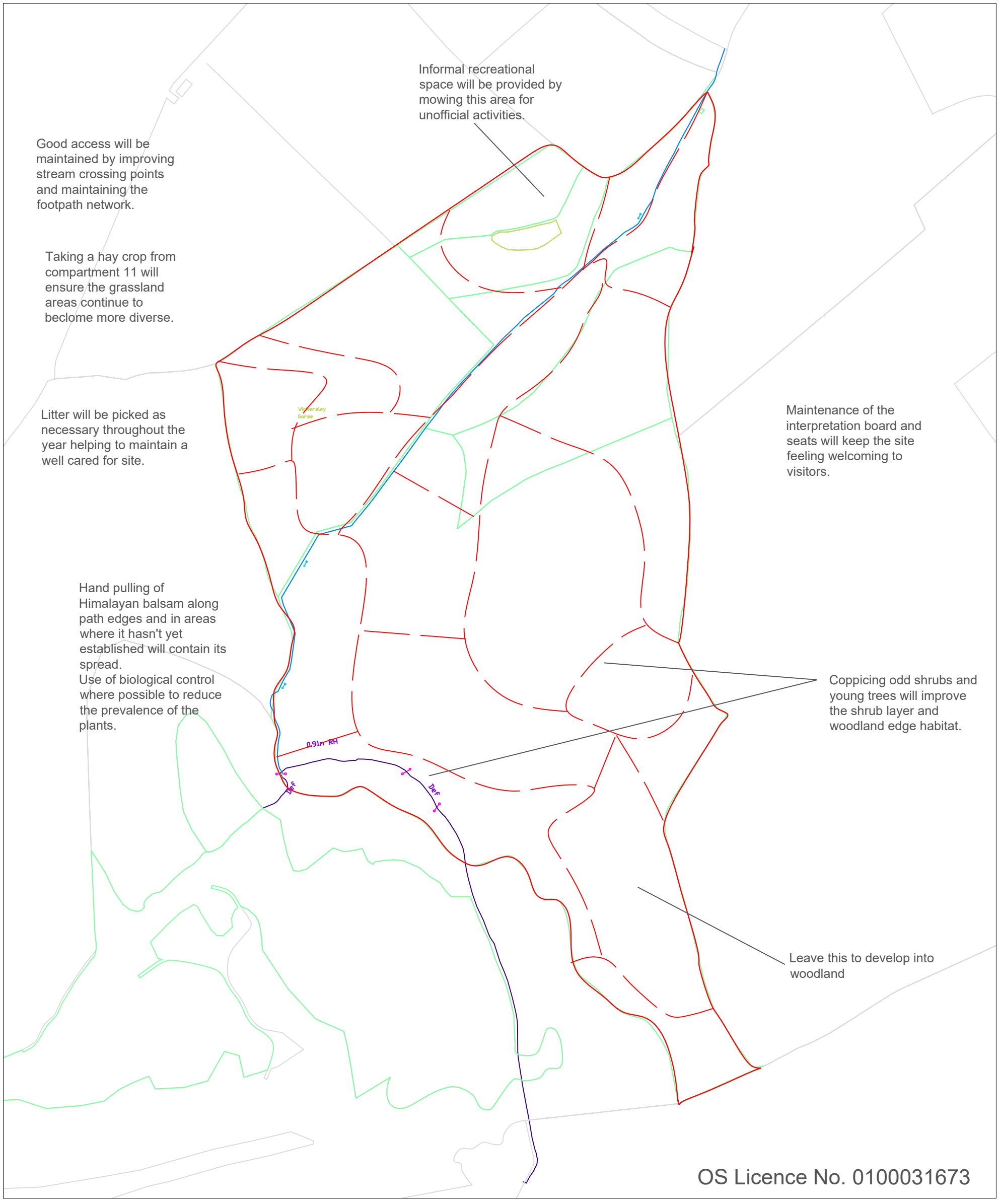

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Figure 1.6 Desired End Product Map

Compartment boundary