WOODLAND TRUST

Wither Wood

Management Plan 2018-2023

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MAPS

THE WOODLAND TRUST

INTRODUCTION

The Trust's corporate aims and management approach guide the management of all the Trust's properties, and are described on Page 4. These determine basic management policies and methods, which apply to all sites unless specifically stated otherwise. Such policies include free public access; keeping local people informed of major proposed work; the retention of old trees and dead wood; and a desire for management to be as unobtrusive as possible. The Trust also has available Policy Statements covering a variety of woodland management issues.

The Trust's management plans are based on the identification of Key Features for the site and setting objectives for their management. A monitoring programme (not included in this plan) ensures that these objectives are met and any necessary management works are carried out.

Any legally confidential or sensitive species information about this site is not included in this version of the plan.

PLAN REVIEW AND UPDATING

The information presented in this Management plan is held in a database which is continuously being amended and updated on our website. Consequently this printed version may quickly become out of date, particularly in relation to the planned work programme and on-going monitoring observations.
Please either consult The Woodland Trust website www.woodlandtrust.org.uk or contact the Woodland Trust (wopsmail@woodlandtrust.org.uk) to confirm details of the current management programme.

There is a formal review of this plan every 5 years and a summary of monitoring results can be obtained on request.

WOODLAND MANAGEMENT APPROACH

The management of our woods is based on our charitable purposes, and is therefore focused on improving woodland biodiversity and increasing peoples' understanding and enjoyment of woodland.

Our strategic aims are to:

- Protect native woods, trees and their wildlife for the future
- Work with others to create more native woodlands and places rich in trees
- Inspire everyone to enjoy and value woods and trees

All our sites have a management plan which is freely accessible via our website www.woodlandtrust.org.uk. Our woods are managed to the UK Woodland Assurance Standard (UKWAS) and are certified with the Forest Stewardship Council® (FSC®) under licence FSC-C009406 and through independent audit.

In addition to the guidelines below we have specific guidance and policies on issues of woodland management which we review and update from time to time.

We recognise that all woods are different and that the management of our sites should also reflect their local landscape and where appropriate support local projects and initiatives. Guidelines like these provide a necessary overarching framework to guide the management of our sites but such management also requires decisions based on local circumstances and our Site Manager's intimate knowledge of each site.

The following guidelines help to direct our woodland management:

1. Our woods are managed to maintain their intrinsic key features of value and to reflect those of the surrounding landscape. We intervene when there is evidence that it is necessary to maintain or improve biodiversity and to further the development of more resilient woods and landscapes.
2. We establish new native woodland using both natural regeneration and tree planting, but largely the latter, particularly when there are opportunities for involving people.
3. We provide free public access to woods for quiet, informal recreation and our woods are managed to make them accessible, welcoming and safe.
4. The long term vision for our non-native plantations on ancient woodland sites is to restore them to predominantly native species composition and semi-natural structure, a vision that equally applies to our secondary woods.
5. Existing semi-natural open-ground and freshwater habitats are restored and maintained wherever their management can be sustained and new open ground habitats created where appropriate.
6. The heritage and cultural value of sites is taken into account in our management and, in particular, our ancient trees are retained for as long as possible.
7. Woods can offer the potential to generate income both from the sustainable harvesting of wood products and the delivery of other services. We will therefore consider the potential to generate income from our estate to help support our aims.
8. We work with neighbours, local people, organisations and other stakeholders in developing the management of our woods. We recognise the benefits of local community woodland ownership and management. Where appropriate we allow our woods to be used to support local woodland, conservation, education and access initiatives.
9. We use and offer the estate where appropriate, for the purpose of demonstration, evidence gathering and research associated with the conservation, recreational and sustainable management of woodlands. In particular we will develop and maintain a network of long-term monitoring sites across the estate.
10. Any activities we undertake will conform to sustainable forest management principles, be appropriate for the site and will be balanced with our primary objectives of enhancing the biodiversity and recreational value of our woods and the wider landscapes.

SUMMARY

This public management plan briefly describes the site, specifically mentions information on public access, sets out the long term policy and lists the Key Features which drive management actions. The Key Features are specific to this site – their significance is outlined together with their long (50 year+) and short (5 year) term objectives. The short term objectives are complemented by a detailed Work Programme for the period of this management plan. Detailed compartment descriptions are listed in the appendices which include any major management constraints and designations. A short glossary of technical terms is at the end. The Key Features and general woodland condition of this site are subject to a formal monitoring programme which is maintained in a central database. A summary of monitoring results is available on request.

1.0 SITE DETAILS

Site name:	Wither Wood
Location:	Denby Dale
Grid reference:	SE228091, OS 1:50,000 Sheet No. 110
Area:	8.03 hectares (19.84 acres)
Designations:	Green Belt, Planted Ancient Woodland Site, Tree Preservation Order

2.0 SITE DESCRIPTION

2.1 Summary Description

This site of ancient woodland is thought to derive its name from the Old Norse meaning ‘wood’. Popular with locals and the site of many organised events and conservation effort; a thriving and vibrant community wood.

2.2 Extended Description

The Woodland Trust purchased the land from a private owner on the 30th December 1993. Local fundraising contributed £10,000 towards its purchase. The wood is located on the northern boundary of Denby Dale, a West Yorkshire town midway between Huddersfield and Barnsley. The main access lies a short distance up Leak Hall Lane, which leads directly from the A636 Leeds to Denby Dale road, and is within 6 miles of M1 junction 38.

Mostly surrounded by pasture and arable fields Wither Wood also fronts directly onto the northwest edge of Denby Dale. The town nestles in the wooded valley of the River Dearne, an area containing a number of ancient woodland sites. The wood is sited on the gently sloping south facing valley side. The site is dissected by three wide shallow streams with gently sloping banks, which pass through the length of the wood. This ancient woodland site incorporates an intimate mosaic of habitats

Wither Wood is readily accessible to the residents of Denby Dale and consequently very well used. It is popular with runners, walkers, dog walkers and children. Gilthwaites First School lies fewer than

100 meters to the northeast. The main access is provided from the south east corner of the wood via Leak Hall Lane with a squeeze stile and field gate. This also provides the Trust's management access. A further two, stone squeeze stile entrances into the wood are located at its eastern and south-western tips, they link the internal circular route to the extensive local network of public footpaths. No rights of way officially pass through Wither Wood but a local walk "The Denby Dale Village Trail", which utilises sections of the Trust's permissive path, has been directed through the wood. It follows the woods main track joining the wood's southeast and southwest entrances where it connects with the opposite ends of Dark Lane. Rights of way immediately outside the wood, skirt its eastern boundary joining Thorp Lane to Leak Hall Lane, then turn west to follow the course of Dark Lane to emerge on Cumberworth Road.

There has been a history of community activities including races round the wood, children's play-schemes and guided walks. The site also played a key role in the Wild Woods Festival. Many of these activities have come about through the strong support of the Denby Dale Conservation Group. They have in conjunction with the BTCV and as part of the Denby Dale Parish Countryside Management Project, provided a highly successful local community involvement programme which has assisted greatly with the management of this wood. Amongst other things like publishing visitor leaflets they have provided residents opportunities to undertake practical tasks within the wood. Such conservation works have included the installation of most of the sites furniture and includes; access and path improvements, numerous bridge installations (for which labour and materials were provided free to the Trust) as well as vegetation maintenance. In 1995 a hedge-laying and dry-stone walling project took place to improve boundary condition. The supporters also played a key role in the woods acquisition when they launched an appeal to buy the wood, and raised £10,000 through managing information stands at local shows and fairs and awakening active support throughout the community.

Woodland is known to have occupied this site for at least 400 years, and is therefore considered as ancient, but it is believed to date back hundreds if not thousands of years more. It is suggested it takes its name from the dark ages, 'Wither' being the Old Norse word for wood. It contains many plant species indicative of its ancient origins. Historically the wood may have become known as 'Withy' (meaning willow) wood and this name is still used by some locals. The wood's ownership has been traced back to 1596 and over the years it has also been referred to as 'Springwood' a name harking back to the coppicing that was conducted here in medieval times. Some stored coppice remains on site dating back to the post war period.

Prior to the Trust's acquisition in 1993 the site was owned by five sisters who inherited it from their late father. During his ownership part of the wood was run with pigs as recently as the 1940's and even now the foundations of a pigsty remain in compartment 1d. There has historically been a clay working industry in the area and surface clay mining has taken place in and around the wood. Fireclay was known to have been extracted as recently as the 1950's and 60's after which remedial planting work took place, many of these characteristic 2m diameter hollows can still be seen today scattered throughout the birch and heath-land areas of compartments 1d and 1b. The Norton sisters of Bagden Hall, like their father, were known to be philanthropic owners and the site has enjoyed a history of free public access providing for local residents. However it is also recalled by locals how an imaginary boundary between Denby Dale and Lower Cumberworth fell within the wood and became a meeting place for rival gangs.

This ancient woodland site incorporates an intimate mosaic of very different habitats within a

relatively small area. The canopy itself is quite complex where ancient, oak woodland interspersed with larch can be found alongside wet woodland areas of young birch regeneration and a heather heath land glade. Mature stands of Corsican pine neighbour a juvenile birch plantation, which is otherwise surrounded by mature broadleaves, mainly oak, sycamore and beech. This characteristically varied and well-structured woodland provides a wealth of habitat diversity for flora and fauna. Where the shrub layer is sparse the under storey is composed of carpets of bluebells with pockets of bramble, particularly under birch stands. A bramble/bracken mix dominates in other areas towards the southwest and is interspersed with very old holly trees over 80 years old (pre p1920), which grow in groups to dominate the shrub layer with occasional hazel and rowan. Ground flora appears absent altogether under the Corsican pine, which is covered with a thin layer of needle-cast. Where the land was cleared of conifers in World War 1 the ground flora is quite rich and incorporates ancient woodland indicator species, which as well as bluebell include; lesser celandine, wood anemone, wood sorrel, yellow archangel and greater stitchwort and dogs mercury. Other areas of quite different ground flora communities exist in the heather heath-land and the wet woodland areas. Throughout the wood a plentiful supply of mature standing and fallen deadwood is found, adding greatly to the woods habitat diversity. With regard to wildlife the wood is most notable for its bird population, tits and finches are prolific throughout the wood but particularly seem to favour the juvenile birch and mature beech along the eastern boundary, where neighbouring residents probably feed them. Specifically the more unusual species include spotted woodpeckers, tree creepers, bullfinches and long tailed tits. There also seems to be a large population of grey squirrels, and some rabbits.

This ancient woodland site has a history of disturbance with areas given over to the running of pigs and surface mining of fireclay practiced as recently as the 1960's. Conifers in the centre of the wood are thought to be the remnants of a plantation established after large scale felling post First World War. Where these conifers have been removed ground flora has recovered. Since acquisition the Denby Dale Conservation Group has conducted much of the management activity, with their good work still intact and in good condition, including steps, path edging along banks, bridges, benches and vegetation clearance around the heather glade. Boundary works have included hedge laying and dry stonewalling. The Trust has installed welcome signage, fencing and entrance gates in 1993 with ongoing management has been mainly concerned with tree safety works and footpath maintenance, initiated on an annual basis from 1994. Two small scale conifer felling operations were undertaken in compartment 1a between in 2003 and 2007. The trees were left to create deadwood habitats. Approximately 50 trees felled or ring barked in total. In 2006 a small number of birch trees (10%) were felled in compartment 1d.

A dry stonewall in various states of repair extends around most of the site and where it neighbours pastureland to the west and whilst not stock proof itself a sturdy fencing has been erected alongside by neighbouring landowners. A right of way along the eastern boundary, backing onto houses it's sunk and wall forming a boundary to the wood. Horse paddocks bordering the site to the south have been made stock proof by the neighbour who has at some point long ago topped the crumbling dry stone wall with barbed wire. Arable land lies to the north and the boundary here consists of numerous sections of laid hedge, crumbling dry stone wall, and post and wire fence. If either of these land-uses changed to sheep grazing major boundary repairs would have to be undertaken. Improvements to some sections of dry stonewall have been conducted on the Trust's behalf by the conservation group. There have been no records of grazing damage in the wood.

3.0 PUBLIC ACCESS INFORMATION

3.1 Getting there

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ACCESS TO THE SITE
The wood is located alongside the northern edge of Denby Dale, a West Yorkshire town midway between Huddersfield and Barnsley. It lies a short distance up Leak Hall Lane, which leads directly from the A636 Leeds to Denby Dale road, and is within 6 miles of M1 junction 38. Denby Dale has a train station and local buses.

From the top of Leak Hall Lane a wide public footpath leads to the wood's south-eastern entrance about 100m away. Two further pedestrian squeeze stile entrances are located at the eastern and south western tips of the wood and link the informal path network that riddles the wood to the extensive local public footpaths, all three pedestrian access points are accompanied with discrete welcome signage. Rights of way immediately outside the wood, skirt its eastern boundary joining Thorp Lane to Leak Hall Lane, then turn west to follow the course of Dark Lane

ENTRANCE AND FOOTPATHS
Access to the wood is via squeeze stiles. The wood contains a network of paths including a circular path of approximately 800m. The paths are bare earth and rough in places and contain sleeper bridges. The paths can be muddy when wet.

PARKING
Limited roadside parking on Leak Hall Lane.

PUBLIC TOILETS
No public toilets known within 5 miles.

BUS STOPS
Denby Dale - nearest stop to be confirmed.

TRAVEL INFORMATION
Further information about public transport contact Traveline on www.traveline.org.uk or phone 0870 608 2 608

3.2 Access / Walks

4.0 LONG TERM POLICY

The long-term intention is to restore this ancient lowland mixed broadleaved woodland to a predominantly native species mix of uneven aged structure. The woodland will continue to comprise a much-valued intimate habitat mosaic. The coniferous content of the wood will over time be reduced to scattered specimen trees retained for their historical amenity and conservation value. Dead wood will continue to be an important part of this woodland habitat where it doesn't present a safety hazard.

Open public access and the network of paths will be maintained.

5.0 KEY FEATURES

The Key Features of the site are identified and described below. They encapsulate what is important about the site. The short and long-term objectives are stated and any management necessary to maintain and improve the Key Feature.

5.1 Informal Public Access

Description

Due to the generosity of previous owners the site has enjoyed a history of free public access providing an oasis of peace and quiet for local residents. Currently the main access is provided from the south east corner of the wood via Leak Hall Lane with a squeeze stile. A further two, stone squeeze stile entrances into the wood are located at its eastern and south-western tips, they link the internal permissive footpath network to the extensive local network of rights of way. No rights of way officially pass through Wither Wood but a local walk “The Denby Dale Village Trail” which utilises sections of permissive path like the Trust’s has been directed through the wood. It follows the woods main track joining the wood’s south east and south west entrances where it connects with the opposite ends of Dark Lane. Rights of way immediately outside the wood, skirt its eastern boundary joining Thorp Lane to Leak Hall Lane, then turn west to follow the course of Dark Lane to emerge on Cumberworth Road.

Significance

This is a very well used wood and attracts people from the neighbouring town, elsewhere in the district many other woods provide similar opportunities to other communities. The wood provides a very convenient area of reflection and enjoyment for a wide age range of locals. It is of sufficient size to provide a walk in its own right and a reasonable number of people can enjoy the woods at the same time whilst still retaining a sense of isolation. Combined with the past assistance of local volunteers the wood has already provided the Trust with an excellent opportunity to increase peoples awareness and enjoyment of the woodland environment, and many people developed active roles in the management of the wood.

Opportunities & Constraints

Wither Wood is readily accessible to the residents of Denby Dale and consequently very well used. It is popular with runners, walkers, dog walkers and children. Gilthwaites First School lies fewer than 100 meters to the north east, and presents great opportunities for exciting and convenient outdoor study. There has been a history of community support and involvement with the wood centred on the Denby Dale Conservation Group who have promoted the wood in the community and orchestrated much of conservation and access works undertaken.

Factors Causing Change

Increased public usage. Anti-social activities such as camps and fires, local residential fly tipping, litter etc.

Long term Objective (50 years+)

Access facilities will, on the whole, be low key and appropriate for this locally visited site. However a good standard of access provision will be maintained throughout Wither Wood: a path network will be kept open for use and the 3 main entrances will be accessible and clearly signed.
As the wood continues to mature, it will continue to be made as safe as practical for visitors through inspections of pathways within the woodland and boundary edges.
Any threats to the wood (eg anti-social activities) will be monitored and managed as necessary, with the intention of lessening their impact.
Opportunities to involve the community in the management of the wood will continue to be explored

Short term management Objectives for the plan period (5 years)

Maintenance of 3 entrances, signage, litter and main internal pathways on at least one occasion per year

5.2 Planted Ancient Woodland Site

Description

This woodland is known to have occupied this site for at least 400 years but it is believed to date back hundreds if not thousands of years more. The wood has had a chequered history. In parts, it has been run with pigs as recently as the 1940's with clay extraction taking place as recently as the 1960's and coppicing also known to have been conducted in the wood. Disturbed areas within the site consequently fall outside its ancient woodland designation have mainly regenerated with birch. The site incorporates an intimate mosaic of very different habitats within a relatively small area forming a complex canopy. Ancient, oak woodland interspersed with larch can be found alongside wet woodland areas of young birch regeneration and a heather heathland glade. Mature stands of Corsican pine neighbour a juvenile birch plantation, which is otherwise surrounded by mature beech. This characteristically varied and well-structured woodland provides a wealth of habitat diversity for flora and fauna. Where the shrub layer is sparse the understorey is composed of carpets of bluebells with pockets of bramble, particularly under birch stands. A bramble/bracken mix dominates in other areas towards the south west and is interspersed with very old holly trees over 80 years old (pre p1920) which grow in groups to dominate the shrub layer with occasional hazel and rowan. Ground flora appears absent altogether under the Corsican pine, which is covered with a thin layer of needle-cast. Where the land was cleared of conifers in WWI the ground flora is quite rich and incorporates ancient woodland indicator species which as well as the bluebell include; lesser celandine, wood anemone, wood sorrel, yellow archangel and greater stitchwort. Dogs mercury can be seen in the beech compartment to the east. Other areas of quite different ground flora communities exist in the heather heathland and the wet woodland areas. Throughout the wood a plentiful supply of mature standing and fallen deadwood is found, adding greatly to the woods habitat diversity.

Significance

Ancient woodland is a limited, irreplaceable resource of high conservation value, it has provided a continuity of habitat essential to the ongoing survival of many plant and animal species. Ancient woodland is the richest habitat in the UK providing a home to the most species of conservation concern. At least 50% of Britain's ancient woodland has been lost since the First World War mainly through conversion to conifer woodland. Many ancient woodland sites are still under threat. This property provides the Trust with an opportunity to restore and preserve an ancient woodland habitat aiding the viability of retained remnant wildlife populations, thereby protecting and enhancing the woodland's and surrounding area's biodiversity. Other small ancient woodland sites exist to the west of Denby Dale and a large ancient woodland, Deffer Wood approximately 2 miles away to the east. However, the distribution of ancient woodlands in the area is still fairly limited.

Opportunities & Constraints

The opportunity exists to thin the conifer element within the wood, which will enable the redevelopment of a richer ground flora before ground conditions are degraded beyond reversion. The wood is isolated from immediate neighbouring woodland and there is no buffering against neighbouring intensive agricultural practices, however there is ample surrounding land on which to expand should an opportunity for acquisition arise. Tree safety concerns are of prime importance along the eastern boundary. Areas of wet ground beside the stream courses within the site need to be avoided in mechanical operations. Management access to the southwest spur of the wood is compromised by a steep sided gully.

Factors Causing Change

Threats from tree diseases especially ash dieback, threats from animal pests: grey squirrels and deer. Increased public usage

Long term Objective (50 years+)

The long term intention is to restore this ancient lowland mixed broadleaved woodland to a predominantly native species mix of uneven age structure. The non-native conifer component of the wood will decline through both senescence and active management processes to become a scattering of specimen trees (less than 10%) retained to support already established coniferous wildlife and serve amenity roles, this will allow ancient woodland flora to re-establish /re-colonise before ground conditions are degraded beyond reversion.

Short term management Objectives for the plan period (5 years)

Following a small thin to waste operation in compartment 1 of approximately 20 trees in a 5 year period between 2003&7, future thinning operations will be staggered to avoiding sudden extreme changes in light levels, the next being at least 10 years on, during this current plan period in 2017/8. Deadwood habitats will be created as part of the thinning operations with timber left on ground and where possible, standing deadwood created through ring barking.

6.0 WORK PROGRAMME

Year	Type of Work	Description	Due By

APPENDIX 1: COMPARTMENT DESCRIPTIONS

Cpt No.	Area (ha)	Main Species	Year	Management Regime	Major Management Constraints	Key Features Present	Designations
1a	3.90	Oak (sessile)	1900	PAWS restoration	No/poor vehicular access to the site	Informal Public Access, Planted Ancient Woodland Site	Green Belt, Planted Ancient Woodland Site, Tree Preservation Order
This is the largest sub-compartment extending around the south-western boundary of the wood. Dominated by even aged mature sessile oak it broadly follows the definition of NVC W10 lowland mixed broadleaved woodland. The soils in these areas of the wood are fresh and decrease in fertility from rich becoming medium in the southwest. The sub compartment consists of 60% sessile oak p1920-1980 with an occasional p1890 specimen. Larch, mainly spindly, in either lone or groups form approximately 20% of the canopy. Corsican Pine in mainly tight groups and confined to the central area of the compartment account for approximately 20% of the canopy. Where present the ground flora beneath is mainly bare, with heavy needle cast. The remaining 10% is mixed broadleaves, beech, sycamore, rowan, birch and an odd ash. Ground flora varies considerably depending on the canopy's age structure. In the broadly spaced even aged stands it is dominated by swathes of bracken and bramble with a sparse under-storey of rowan saplings, yet where the canopy has greater age diversity the shrub layer is abundant dominated by holly, itself of broad age range p1910 -p1990 with occasional hazel and willow alongside the stream following the woods southern boundary, Bluebells also frequent these areas and quite a diverse flora shadows the stream side.							
1b	1.09	Birch (downy/silver)	1980	High forest	No/poor vehicular access to the site	Informal Public Access, Planted Ancient Woodland Site	Green Belt, Tree Preservation Order

A predominantly even aged silver birch wet woodland area p1975-1980 suspected to resemble a national vegetation classification woodland type 4 community (but requires confirmation of ground flora composition in the spring). From the top of the site - a small pocket of open heather heath (8% land area) - the compartment slopes down gently to the south east. A wide and deep stream gully with gently sloping banks follows the sub-compartment's south west boundary. Besides the gully the birch is at its densest (averaging 1m spacing). This birch (80%) in an intimate mix with oak (10%) becomes more age and species diverse towards its north eastern fringe as it begins to merge with sub-compartment 1a. Stored oak coppice, which appears to have last been cut in the p1960's, can be found amongst the birch oak mix here p1960-1980. The broad base to the stream gully passing through this compartment is extremely boggy and occasional young willow shrubs can be found (p1985) with one large over mature specimen present, a white willow p1930. A small percentage of sycamore is also presnt (p1980) The varied soil conditions give rise to one of the richest areas of ground flora in the wood, the gully sides carpeted with bluebells and flags present in the broad marsh at its base. This area is largely excluded from the ancient woodland classification the majority of wood carries. A small heather glade exists in the northern part of the wood extending to approximately 0.1ha, which forms an attractive feature within the wood and contains a south-facing seat. Natural regeneration of mainly birch and oak can be found throughout the glade. This has been controlled in the past with all specimens being 1-2m in size.							
1c	2.30	Sycamore	1900	PAWS restoration	No/poor vehicular access to the site	Informal Public Access, Planted Ancient Woodland Site	Green Belt, Planted Ancient Woodland Site, Tree Preservation Order
A compartment which extends along the northern and eastern boundary of the wood with a narrow strip on the southeastern boundary of the wood, alongside the public footpath, backing onto the houses of Greenside. It has is an uneven aged and mixed canopy of sycamore (40%), beech (30%), oak (20%), other species such as birch, larch, spruce, wild cherry and ash (10%), The age class structure is dominated by p1920 specimens, but all age classes are present down to p1980 in the under-storey. Woody shrubs exist in the under-storey, most noticeably holly 20%. The field layer is patchy with bramble and ivy giving way to patches of bluebell to the south. Banks of dog's mercury occupy the northern reaches of this compartment, Other than the boggy streambed the soils are fresh and rich.							
1d	0.73	Birch (downy/silver)	1980	High forest	No/poor vehicular access to the site	Informal Public Access, Planted Ancient Woodland Site	Green Belt, Tree Preservation Order

A young, p1980 to 85 even aged stand of predominately birch (80%) with oak (15%), sycamore (5%) The site appears to have been ripped or possibly mole drained as narrow furrows 2m apart cut across the site. The trees appear to have been planted at irregular spacing along rows to average out at 1.5m spacing. The trees are spindly and tall having never been thinned. They typically stand about 6.5m tall with a 12cm dbh (2003) and a self-thinning process is underway. Sycamore regeneration p1999 occupies the gaps in this otherwise tight canopy and represent the only vegetation found in the shrub layer. The field layer is dominated by a continuous carpet of bluebells with pockets of bramble scattered around the fringe of this sub-compartment. The soil is rich and fresh. This area is excluded from the ancient woodland classification that covers the majority of the wood and can be regarded as a transitional phase of secondary woodland where succession will eventually lead to a mixed broadleaved canopy.

Appendix 2: Harvesting operations (20 years)

Forecast Year	Cpt	Operation Type	Work Area (ha)	Estimated vol/ha	Estimated total vol.
2022	1a	Selective Fell	3.90	5	19.5

GLOSSARY

Ancient Woodland

Ancient woods are defined as those where there has been continuous woodland cover since at least 1600 AD. In Scotland ancient woods are defined strictly as sites shown as semi-natural woodland on the 'Roy' maps (a military survey carried out in 1750 AD, which is the best source of historical map evidence) and as woodland all subsequent maps. However, they have been combined with long-established woods of semi-natural origin (originating from between 1750 and 1860) into a single category of Ancient Semi-Natural Woodland to take account of uncertainties in their identification. Ancient woods include Ancient Semi-Natural Woodland and plantations on Ancient Woodland Sites (see below). May support many species that are only found in ancient woodland.

Ancient Semi - Natural Woodland

Stands in ancient woods defined as those consisting predominantly of native trees and shrubs that have not obviously been planted, which have arisen from natural regeneration or coppice regrowth.

Ancient Woodland Site

Stands in ancient woods that have been converted to plantations, of coniferous, broadleaved or mixed species, usually for timber production, including plantations of native species planted so closely together that any semi-natural elements of the understorey have been suppressed.

Beating Up

Replacing any newly planted trees that have died in the first few years after planting.

Broadleaf

A tree having broad leaves (such as oak) rather than needles found on conifers (such as Scots pine).

Canopy

The uppermost layer of vegetation in a woodland, or the upper foliage and branches of an individual tree.

Clearfell

Felling of all trees within a defined area.

Compartment

Permanent management division of a woodland, usually defined on site by permanent features such as roads. See Sub-compartments.

Conifer

A tree having needles, rather than broadleaves, and typically bearing cones.

Continuous Cover forestry

A term used for managing woods to ensure that there are groups or individual trees of different ages scattered over the whole wood and that some mature tree cover is always maintained. Management is by repeated thinning and no large areas are ever completely felled all at once.

Coppice

Trees which are cut back to ground levels at regular intervals (3-25 years).

Exotic (non-native) Species

Species originating from other countries (or other parts of the UK) that have been introduced by humans, deliberately or accidentally.

Field Layer

Layer of small, non-woody herbaceous plants such as bluebells.

Group Fell

The felling of a small group of trees, often to promote natural regeneration or allow planting.

Long Term Retention

Discrete groups of trees (or in some cases single trees) that are retained significantly past their economic felling age. Operations may still be carried out within them and thinning is often necessary to maintain stability.

Minimum Intervention

Areas where no operations (such as thinning) will take place other than to protect public safety or possibly to control invasive exotic species.

Mixed Woodland

Woodland made up of broadleaved and coniferous trees.

National vegetation classification (NVC)

A classification scheme that allows an area of vegetation to be assigned to the standardised type that best matches the combination of plant species that it contains. All woodlands in the UK can be described as being one of 18 main woodland types (W1 - W18), which principally reflect soil and climatic conditions. For example, Upland Oakwoods are type W11, and normally occur on well drained infertile soils in the cooler and wetter north and west of Britain. Each main type can be subdivided into numerous subtypes. Most real woods contain more than one type or sub-type and inevitably some woods are intermediate in character and can't be properly described by any sub type.

Native Species

Species that arrived in Britain without human assistance.

Natural Regeneration

Naturally grown trees from seeds falling from mature trees. Also regeneration from coppicing and suckering.

Origin & Provenance

The provenance of a tree or seed is the place where seed was collected to grow the tree or plant. The origin is the geographical location within the natural range of a species from where seeds/tree originally derives. Thus an acorn collected from a Turkey oak in Edinburgh would have an Edinburgh provenance and a southern European origin.

Re-Stocking

Re-planting an area of woodland, after it has been felled.

Shrub Layer

Formed by woody plants 1-10m tall.

Silviculture

The growing and care of trees in woodlands.

Stand

Trees of one type or species, grouped together within a woodland.

Sub-Compartment

Temporary management division of a compartment, which may change between management plan periods.

Thinning

The felling of a proportion of individual trees within a given area. The remaining trees grow to fill in the space created.

Tubex or Grow or Tuley Tubes

Tubes placed over newly planted trees or natural regeneration that promote growth and provide protection from animals such as rabbits and deer.

Weeding

The control of vegetation immediately around newly planted trees or natural regeneration to promote tree growth until they become established. Either by hand cutting or with carefully selected weed killers such as glyphosate.

Windblow/Windthrow

Trees or groups of trees blown over (usually uprooted) by strong winds and gales.