

# **Philipshill Wood**

# Management Plan 2016-2021

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## 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 Consequently this printed version may quickly become out of date, particularly in relation to the planned work programme and on-going monitoring observations.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 <u>www.woodlandtrust.org.uk</u> 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 <u>www.woodlandtrust.org.uk</u>. 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.
- 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:	Philipshill Wood
Location:	Chorleywood
Grid reference:	TQ017954, OS 1:50,000 Sheet No. 176
Area:	31.43 hectares (77.67 acres)
Designations:	Ancient Woodland Site, Area of Outstanding Natural Beauty, Green Belt, Planted Ancient Woodland Site

## 2.0 SITE DESCRIPTION

#### 2.1 Summary Description

The beauty of bluebells in bloom below a canopy of translucent beech leaves is a springtime highlight of this ancient woodland. On the old border between the kingdoms of Wessex and Mercia, Philipshill Wood is less than an hour's travel time from central London and offers a haven of quiet seclusion all year round.

#### 2.2 Extended Description

Philipshill Wood is a 31 hectare / 77 acre ancient semi-natural woodland in the Chilterns AONB approximately three quarters of a mile (1.1km) southwest of Chorleywood, and was purchased by the Woodland Trust in 1994. The geology is chalk, underlying typical brown earth, the terrain steep in places with a maximum altitude of approximately 100 metres. The site is bordered to the east by a significant raised bank called Old Shire Lane, and the county boundary with Hertfordshire, (a thousand years ago this would have been the boundary between Mercia and Wessex), and to the north by a path and to the south by a track. The woodland borders other woodland to the south, west and north and adjoins pastureland elsewhere.

The woodland tree species include broadleaves of beech, silver birch, wild cherry, English oak, sallow, sycamore, hornbeam, ash, black poplar, rowan, Norway maple, southern beech, whitebeam and wild service. Planted nurse conifers are present which have reached pole stage; Scots pine, European & Japanese larch, Douglas fir, Norway spruce, Corsican pine and western hemlock. The woodland has been felled and replanted several times in its history with some of the oldest trees dating from the mid-1960s and the most recent planting taking place in 1991. Consequently, most of the trees are relatively young and almost half the woodland is comprised of beech, with the broadleaf/conifer component currently standing at around 65%/35% overall. Prior to this era the woodland was described as "pre 1901 beech with ash, oak and cherry".

The woodland flora comprises a good range of ancient woodland indicator species including bluebell, common dog violet, common spotted orchid, wood speedwell as well as the uncommon green hellebore. Several other species of orchid grow on the woodland rides such as common spotted and twayblade, and white helleborine and birdsnest orchids have been identified growing in the shade of the young beech trees.

Phillipshill Wood has significant visible archaeological features, and evidence of previous use of the woodland include remains of two large earth-banked enclosures, quarries and sawpits. A prominent woodbank separates Old Shire Lane from the woodland, and at one location there is a sarsen stone, a glacial erratic placed on the county boundary and believed to have been worked between the 10th and 19th century.

The site is popular with many people who visit the woodland for quiet recreational activities on a daily basis and has some fine displays of bluebells in the spring. There is an active friends of Philipshill Wood volunteer group who have been involved since acquisition in 1994, and have carried out important tasks such as path management, clearance of invasive species, guided walks, installation of nesting boxes and wildlife surveys. There is a site leaflet available showing a selection of walks available plus information on the site's history and wildlife.

## 3.0 PUBLIC ACCESS INFORMATION

#### 3.1 Getting there

#### By train

Chorleywood is on the Metropolitan Underground Line and the Chiltern Line.

The wood is about 1.25 miles (2km) from the station. Leave the station via the ticket office and turn left to walk along Station Approach. Go left to pass under the railway bridge and walk uphill along Shire Lane. After approximately three-quarters of a mile (1.2km) you will come to a junction - there continue straight on along Old Shire Lane. The entrance to the wood is about half a mile further on, on your right.

By bus: Buses serve Chorleywood.

For information on public transport contact Traveline on 0871 200 22 33 or visit traveline.org.uk

By car:

Leave the M25 at junction 17 (Maple Cross/A412). At the roundabout, take the third exit onto Long Lane and drive for one mile (1.6km). Continue on to Heronsgate Road and, after 350 yards (320 metres) go left onto Old Shire Lane. The entrance to Philipshill Wood is on the right hand side after approximately 300 yards (280 metres). Limited parking is available near the wood.

Volunteers from the Friends of Philipshill Wood have been carrying out work in the wood each Wednesday since 1994.

#### 3.2 Access / Walks

The best way to get to Philipshill Wood is via the public bridleway that links with Old Shire Lane. There is limited parking available off the bridleway. There is also a public footpath to the wood at the north of the site.

Within the wood there are lots of permissive paths that allow for circular walks. Some are steep in places and though unsurfaced, are suitable for walking throughout much of the year due to the stony, chalk soil.

The Chiltern Way passes along the southern edge of Philipshill. A circular walking route, the Way is around 125 miles (200km) long and takes in much of the Chilterns Area of Outstanding Natural Beauty. Find out more at chilternsociety.org.uk

## 4.0 LONG TERM POLICY

The long term intentions for Philipshill Wood will seek to realise two of the Woodland Trust's three key aims:

- to protect native woods, trees and their wildlife
- to restore damaged ancient woodland

Ancient woodland is one of our most valuable terrestrial wildlife habitats, and in England is defined as woodland sites with evidence of continuous wooded cover since 1600 AD. Philipshill is a PAWS woodland (a Planted Ancient Woodland Site, where in this case both conifers and broadleaves have been planted).

Restoration of PAWS provides the only opportunity to increase the area of ancient woodland with semi-natural characteristics. In general and in line with best restoration and reversion practice, the site will be gradually converted to predominantly native broadleaf woodland.

Practically this means that the conifer and broadleaf plantation component, where identified after assessment as a threat to diverse broadleaf regeneration and/or forming dense shade suppressing ground flora, will be gradually thinned. The aim is to achieve more semi-natural broadleaved conditions over time. In subsequent continuous-cover (there will be no loss of woodland cover) operations to thin stands to robust levels, (where the threat from plantation species to remnant features is minimal) the management will consider practice which may provide an economic return. A component of conifer will be retained long-term to provide increased biodiversity and woodland resilience.

As the woodland matures, operational management will diversify the overall age and stand species structure. Some broadleaved trees will be left to reach old age and decline naturally. Deadwood, both standing and fallen will be maintained to provide important niche habitats within the wood, particularly for invertebrates and fungi, except if they pose a significant tree safety risk.

Observations will be carried out to record any factors causing change that may be detrimental to the vitality and structure of the woodland. For example there should be no damaging invasive species present on the site, and the likely colonisation by ash dieback (Hymenoscyphus fraxineus) and other pests and diseases monitored and managed where necessary.

The public's enjoyment of the woodland will be enhanced by maintaining an accessible and safe network of paths and rides. Entrances, boundary fences, and benches will be maintained as necessary and the access provision will be monitored and provided.

The Woodland Trust will continue to support the significant contribution of the Friends Group, and encourages and welcomes their continued support.

## 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 Ancient Woodland Site

#### Description

The woodland mostly comprises plantation beech with nurse conifer, on an ancient woodland site. Felling and re-planting took place in nine stages across the whole site from 1965 to 1991. Past management has ensured progressive removal of the nurse conifer species, however the second stage thinning has been delayed. Conifers are present in compartments 2a, 2b, 3c, 3d, 4a, 4b and 4c.

It is likely that the woodland would previously have been a mixed lowland wood, with beech, hornbeam, ash, oak and birch as the major species.

The National Vegetation Classification is unclear due to the abundant planted beech but is likely to be NVC type W8a ash - field maple - dog's mercury on the plateau and W12 beech - dogs mercury in the valley bottom, with varying overlaps and sub communities within both types. Compartment 2B is secondary woodland which used to be pasture and has a slightly different mix of ground flora. The geology is chalk, with soils neutral on the plateau to base-rich on the lower slopes.

There is evidence of long term management of the woodland with various archaeological features throughout including dells, sawpits and two large earth-banked enclosures.

#### Significance

Buckinghamshire is a county where 45% of ancient semi natural woodland has been lost since the Second World War with only 4000 ha remaining.

ASNW is irreplaceable, and the amount in Britain has been drastically reduced over the last century. ASNW is very important due to the continuity of woodland cover over hundreds of years which allows for a diverse range of wildlife and vegetation to develop over time that cannot be found in new woodland creation sites, and a key aim of the Woodland Trust is to prevent any further loss of ancient woodland.

#### **Opportunities & Constraints**

Constraints:

There are some steep slopes into the dry valley on the western edge which are a challenge to forestry operations

Woodland archaeology is abundant and damage must be avoided during any forestry operations Access is currently poor for timber extraction and haulage

Opportunities:

To restore all PAWS areas within the site using best practice

Improve age structure and species diversity

To use the site to demonstrate the Trust's approach to woodland management and to influence neighbouring landowners and other key stakeholders

#### Factors Causing Change

Squirrel / deer damage

Death of ash due to colonisation of ash dieback (Hymenoscyphus fraxineus)

#### Long term Objective (50 years+)

In the long term the PAWS areas within Phillipshill Wood should all be predominantly broadleaved in character, with all other major ancient woodland components in a secure and improving condition, including old growth trees, ground flora, archaeological features, and a diverse deadwood component.

The resulting mixed stands (beech, oak, cherry, sycamore, birch, rowan being the most common species) of high forest will be being managed on a continuous cover silvicultural system to produce uneven-aged, self-regenerating stands of high conservation and amenity value.

Deer damage to the broadleaf trees will be monitored and action taken if the damage becomes unacceptable.

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

This section should be read in conjunction with the PAWS assessment and strategy maps.

All threatened conifer PAWS stands will be thinned selectively over the 5 year management plan cycle to secure and bolster remaining ancient woodland components (broadleaved trees, ground flora, decaying wood habitats and archaeological features).

Areas of beech plantation woodland will also be thinned.

The thinning will favour a diverse variety of broadleaves within the crops and will remove conifers from stream-sides, old hedgebanks and ride edges to bolster ecological hotspots for ground flora.

- Ride widening and selective 'hotspot' thinning to bolster remnant floral communities zone 1 - approx. 700m - 2017

- Selective thin of larch, Scots pine, southern beech Douglas fir, western hemlock through 4a, 4b, 4c (approx. 12Ha) - 2017

- Selective thin of larch, beech, Douglas fir, Norway spruce through 3a, 3b, 3d and part 4a (approx. 10Ha) - 2018

- Ride widening: mixture of felling / coppicing in scalloped fashion into stands to help dry paths and bolster remnant floral communities zone 9 approx. 270m - 2019

- Selective thin of Corsican pine and southern beech through part 1a and 2a (approx. 2Ha) - 2019

Total working area: approx. 14.5Ha

Deer impact surveys will be carried out every two years to assess any increase in levels of deer damage.

#### 5.2 Informal Public Access

#### Description

Philipshill is categorised as a 'moderate usage site', with regular use where 5-15 people are using one entrance each day.

There is an extensive path network running throughout the site including connections with local public rights of way.

The site is in daily use by visitors and local dog-walkers, and people passing through the woodland on longer journeys.

The surface of Old Shire Lane was improved by Herts County Council in 2008, and is due for further improvement during this plan period.

An information board near the entrance from Old Shire Lane and a site leaflet help to describe the history, management and future plans to visitors.

#### Significance

The site provides a quiet area for walking and recreation for many people living within walking distance of the woodland. Chorleywood is the closest conurbation and only a few minutes walk away with access from Old Shire Lane, and public footpaths link neighbouring woodland and pasture, as well as Shortenills Environmental Centre and the Chiltern Open Air Museum nearby.

One of the Woodland Trust's main objectives is the promotion of public access to, and enjoyment of, woodlands.

The site has a variety of habitats and historic features that can be used to engage the public, including children, in appreciating the landscape on a wider scale.

#### **Opportunities & Constraints**

Constraints:

Vehicular parking space along Old Shire Lane is limited.

The terrain is steep in places and some of the paths difficult to navigate, particularly in adverse weather conditions.

Opportunities :

The area behind the double metal access gates can be opened for vehicle parking for special events when dry.

To provide formal and quiet access opportunities to an ancient woodland with associated (and some rare) flora.

Factors Causing Change

Changes in vegetation along rides.

Long term Objective (50 years+)

The paths will be kept safe for quiet, recreational pedestrian access to the woodland. The site should be accessible and safe but not over-managed with excessive infrastructure and signage.

There should be a range of resources available for the site to guide and inform all visitors from the young to the knowledgeable.

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

The main rides will be mowed annually during the summer to aid visitor access. All site infrastructures such as signs, footbridges, culverts and steps will be inspected annually and

any remedial work undertaken in the appropriate timescale.

The trees will be checked for safety once every year, and appropriate works undertaken.

A new interpretation board at Philipshill Wood will be installed in 2017 - a large upright board with A1 interpretation and 4 interchangeable panels for notices.

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	5.24	Beech	1991	High forest	Archaeological features, Housing/infrastru cture, structures & water features on or adjacent to site, No/poor vehicular access to the site, Services & wayleaves, Site structure, location, natural features & vegetation	Ancient Woodland Site, Informal Public Access	Ancient Woodland Site, Area of Outstanding Natural Beauty, Green Belt, Planted Ancient Woodland Site

A widely-spaced plantation of broadleaves planted in 1991. Planted tree species are oak, ash, beech, cherry and rowan with natural regenerating trees of birch, ash, beech and hornbeam. There are scrub areas comprising of gorse, bramble, bracken and honeysuckle. Grass and rush spp. grow in some damper areas area, whilst in drier areas there are foxglove, bluebell, red campion and common vetch present. Marbled white butterfly has been previously recorded in this compartment.

		-	_				
2a	1.74	Beech	1982	PAWS restoration	Archaeological features, Landscape factors, No/poor vehicular access to the site, Services & wayleaves, Site structure, location, natural features & vegetation	Ancient Woodland Site, Informal Public Access	Ancient Woodland Site, Area of Outstanding Natural Beauty, Green Belt, Planted Ancient Woodland Site

This is an area of plantation trees consisting of Corsican pine, oak, beech and Southern beech (Nothofagus procera). The planting was on a traditional 3x3m row mixture and was thinned in 2005 to reduce the Corsican pine and Scots pine element. There is a small colony of green hellebore (Helleborus viridis) at the western end of the compartment. The Friends of Group have created glades throughout the compartment and scalloped the ride edges. Ground flora such as foxglove has grown back in these lighter areas.

2b	1.06	Beech	1982	High forest	Archaeological	Ancient	Area of
					features,	Woodland Site,	Outstanding
					Services &	Informal Public	Natural Beauty,
					wayleaves, Site	Access	Green Belt,
					structure,		Planted Ancient
					location, natural		Woodland Site
					features &		
					vegetation		

Dense area of broadleaved regeneration growing through what appears to be a failed Corsican pine/beech mixture. The regenerating trees are mostly ash and sycamore. The woodland ride has some interesting species of plants, including white hellebore, common spotted orchid, twayblade, bugle, sanicle, primrose, wild arum, St. John's wort (Hypericum perforatum), wood vetch and violet (Viola riviniana). There is a dense understorey comprising of hazel, dogwood, spindle and holly, with climbing plants like clematis, black byrony, and ivy.

This area appears to have once been a field which became woodland through tree planting or natural regeneration because it is not shown as woodland on the early maps.

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3a	3.37	Beech	1965	High forest	Archaeological features.	Ancient Woodland Site,	Ancient Woodland Site,
					Services &	Informal Public	Area of
					wayleaves, Site	Access	Outstanding
					structure,		Natural Beauty,
					location, natural		Green Belt,
					features &		Planted Ancient
					vegetation		Woodland Site

This is a beech plantation which has had the conifer nurse completely removed. The area is 90% beech with some scattered oak, birch trees and holly. The ground flora consists of well-established drifts of bluebell with bramble around the plantation edge where there is more light. There is squirrel damage to the base of the beech trees. Birch is prominent along the plantation edge.

3b	3.60	Beech	1966	High forest	Archaeological	Ancient	Ancient
					features,	Woodland Site,	Woodland Site,
					Services &	Informal Public	Area of
					wayleaves, Site	Access	Outstanding
					structure,		Natural Beauty,
					location, natural		Green Belt,
					features &		Planted Ancient
					vegetation		Woodland Site

This compartment was thinned in 2003 when the conifer nurse crop was 90% removed to create space for the beech to grow and develop. This was originally planted as a 3x3m row mixture. The ground flora is sparse and consists of mostly bluebell, holly and wood sorrel with abundant bramble in areas that have been thinned. There is abundant squirrel damage to the base and in crowns of some of the beech trees.

3c	1.60	Beech	1966	PAWS restoration	Archaeological features,	Ancient Woodland Site,	Ancient Woodland Site,
					Services &	Informal Public	Area of
					wayleaves, Site	Access	Outstanding
					structure,		Natural Beauty,
					location, natural		Green Belt,
					features &		Planted Ancient
					vegetation		Woodland Site

This area is a mix of broadleaves and conifers including beech, Norway maple, Scots pine and Norway Spruce. The ground flora is sparse due to the dense shading from conifers. Thinning took place in 2004 in the hardwoods and a proportion of the conifer was line thinned to open the canopy.

3d 2.75 Beech 1970 PAWS Archaeological Ancient Ancient Woodland Site, Woodland Si							
vehicular access to the site, Services & wayleaves, Site structure, location, natural features & vegetation	3d	.75 Beech	2.75 Beech 1970 PAWS restoration	Archaeological features, No/poor vehicular access to the site, Services & wayleaves, Site structure, location, natural features & vegetation	Ancient Woodland Site, Informal Public Access	Ancient Woodland Site, Area of Outstanding Natural Beauty, Green Belt	

Mixture of beech and larch. Some of the larch were thinned in 2004 as a line thin. The larch now stands 50% taller than the beech, causing it to become unstable. The larch is good quality and could produce sawlogs when removed. The understorey is sparse and consists of wood sorrel and bluebell. The beech is of poor quality and has suffered from being suppressed by the larch and there is some squirrel damage.

4a	3.71	Beech	1973	PAWS restoration	Archaeological features, Services & wayleaves, Site structure, location, natural features & vegetation, Very steep slope/cliff/quarry/ mine shafts/sink holes etc	Ancient Woodland Site, Informal Public Access	Ancient Woodland Site, Area of Outstanding Natural Beauty, Green Belt, Planted Ancient Woodland Site

Area of mostly western hemlock, with some Douglas fir on the west side of the plantation and some rows of beech. The western hemlock trees have grown well but have almost suppressed the hardwoods. 50% of the hemlock trees were removed in 2001. This has allowed more light to the woodland floor which has encouraged natural regeneration of birch and young western hemlock, as well as foxgloves and wood sorrel.

4b	5.93	Scots pine	1975	PAWS restoration	Archaeological features, Site structure, location, natural features & vegetation, Very steep slope/cliff/quarry/ mine shafts/sink holes etc	Ancient Woodland Site, Informal Public Access	Ancient Woodland Site, Area of Outstanding Natural Beauty, Green Belt, Planted Ancient Woodland Site		
The su Scots p consist squirre	The sub-compartment contains 3X3m row mixtures of Scots pine, oak and beech. Two rows of Scots pine have already been removed from over 60% of the compartment. The understorey consists of hawthorn and holly and bracken covering about 30% of the ground. There is some squirrel damage to the hardwoods.								
4c	2.42	Oak (pedunc ulate)	1979	PAWS restoration	Archaeological features, Site structure, location, natural features & vegetation, Very steep slope/cliff/quarry/ mine shafts/sink holes etc	Ancient Woodland Site, Informal Public Access	Ancient Woodland Site, Area of Outstanding Natural Beauty, Green Belt, Planted Ancient Woodland Site		
Young pole stage mixture of beech, oak, cherry and southern beech with conifer nurse of Scots pine. The broadleaves take up slightly more than 50% of the area. The ground cover consists of bluebell and holly. The southern beech is showing signs of regenerating in areas where light has penetrated the canopy. This area received a line thin to waste of 33% of the conifer in 2001 and another line thin in 2006/07.									

## Appendix 2: Harvesting operations (20 years)

Forecast Year	Cpt	Operation Type	Work Area (ha)	Estimated vol/ha	Estimated total vol.
2017	4a	Thin	3.62	47	170
2017	4b	Thin	4.13	44	180
2017	4c	Thin	4.21	45	190
2018	3d	Thin	2.79	56	155
2018	4a	Thin	1.10	55	60
2019	2a	Thin	1.74	49	85
2019	3a	Thin	3.48	29	100
2019	3b	Thin	3.56	28	100
2019	4a	Thin	0.45	33	15

## 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.

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