



# Grey Park Wood

## Management Plan 2017-2022

---

## MANAGEMENT PLAN - CONTENTS PAGE

### ITEM Page No.

Introduction

Plan review and updating

Woodland Management Approach

Summary

1.0 Site details

2.0 Site description

2.1 Summary Description

2.2 Extended Description

3.0 Public access information

3.1 Getting there

3.2 Access / Walks

4.0 Long term policy

5.0 Key Features

5.1 Ancient Woodland Site

5.2 Informal Public Access

6.0 Work Programme

Appendix 1: Compartment descriptions

Appendix 2: Harvesting operations (20 years)

Glossary

### MAPS

Access

Conservation Features

Management

## 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 Consequently this printed version may quickly become out of date, particularly in relation to the planned work programme and on-going monitoring observations.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](http://www.woodlandtrust.org.uk) or contact the Woodland Trust ([wopsmail@woodlandtrust.org.uk](mailto: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](http://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

<b>Site name:</b>	Grey Park Wood
<b>Location:</b>	Ashburton
<b>Grid reference:</b>	SX721727, OS 1:50,000 Sheet No. 191
<b>Area:</b>	15.16 hectares (37.46 acres)
<b>Designations:</b>	Ancient Semi Natural Woodland, National Park, Site of Special Scientific Interest, Special Area of Conservation

## 2.0 SITE DESCRIPTION

### 2.1 Summary Description

This pretty wood, famed for lichens, is dominated by oak high forest dating back to the early 1800s. Ruddycleave Water, a fast-flowing stream which descends through massive granite boulders, creating an impressive feature.

## 2.2 Extended Description

Grey Park Wood is part of a large and important ancient woodland complex within the upper reaches of the River Dart. Found on the South East side of Dartmoor National Park this whole area has been designated by Natural England as a Special Areas of Conservation (SAC) and a Site of special Scientific Interest (SSSI) for its importance to wildlife conservation; and in particular the special flora and fauna of the Upland Oakwood.

Lichens assemblages found in Grey Park Wood are known to be of National significance with some trees literally dripping with lower plants. The wood was formerly part of the Buckland Manor estate and was converted to plantation oak during the mid to late 19th century, and these trees continue to dominate the canopy, although, there are occasional mature conifers such as Douglas fir and larch dating from the same period. Both native and non native trees have reached majestic proportions and some of the largest trees on the Woodland Trust estate in Devon can be found on this site.

Grey Park Wood cloaks both sides of a narrow hidden valley that is dominated by the tumbling upland stream Ruddy Cleave Water. This stream winds its way down and over huge granite boulders and outcrops of slate on its way to join the river Dart.

The site is typical of the Dartmoor National Character area (NCA150/NE519) which states 'Dartmoor's extensive upland moorland core rises above the surrounding small-scale, enclosed, predominantly pastoral landscape. Granite unites and characterises the entire National Character Area. On the moors the distinctive tors create key landscape features, interrupting otherwise unbroken skylines and ridges, and provide focal points for visitors. Isolated farmsteads and scattered villages utilise granite for buildings and walls; and the area's strong time depth and rich cultural heritage are visually evident because of the granite, which includes the largest concentration of prehistoric stone rows in Britain.

The high moors are overlaid with thick deposits of peat and support internationally important blanket bogs surrounded by large expanses of upland heathland and grass moorland. The bogs and valley mires absorb and store significant amounts of water, as well as carbon, released into the 16 rivers and 8 reservoirs that supply the surrounding urban and rural populations and industry. As rivers leave the high moor they flow through deep-cut valleys steeped in woodland - both semi-natural broadleaved and coniferous plantation. The fast-flowing rivers, strewn with granite boulders, are popular for recreation, both passive and active'

## 3.0 PUBLIC ACCESS INFORMATION

### 3.1 Getting there

Grey Park Wood lies below the picturesque village of Buckland in the Moor, 5km northwest of the town of Ashburton. There are two formal entrances which can be accessed along minor moorland roads which run along the northern and western boundaries. There is no car park at the wood although; there is some opportunity for informal and sensitive parking on the roads but care must be taken not to block passing places. The nearest public car park is 3 miles away on Kingsbridge Lane, Ashburton

All access within the wood is permissive, and there are no public rights of way. A former estate track runs parallel to the stream on its western bank and a circular loop has been created from the lower half of this track. Although this track continues to follow Ruddy Cleave Water beyond the Woodland Trust boundary there is no access into neighbouring woodland. Despite the presence of a historic clapper bridge crossing Ruddy Cleave water there is no access to the eastern side of the stream due to the dangers and difficulty of crossing the stream and the limitations of the terrain. The paths within the woodland are generally steep, and can be very wet and slippery, and at times with run with water draining to the stream.

Nearest public toilet:

There are toilets by the car park on Kingsbridge Lane in the centre of Ashburton.  
For more information see: <http://www.dartmoor-npa.gov.uk/au-accessash.pdf>

Nearest bus stop: no nearby route found. Further information about public transport is available from Traveline - [www.traveline.org.uk](http://www.traveline.org.uk) or phone 0870 608 2 608 or view the bus route web site at [http://www.cartogold.co.uk/Devon\\_Transport/Devon.htm](http://www.cartogold.co.uk/Devon_Transport/Devon.htm).

This information was collected from local knowledge and web sites in December 2010.

## 3.2 Access / Walks

## 4.0 LONG TERM POLICY

In 50 years' time, Grey Park Wood will have been restored to native woodland, but with occasional veteran conifers. There will be regular management to maintain the light and air conditions necessary for the rare lichens and other species to thrive. Tree species will be predominantly native, with some older Beech and Sycamore that support lichens and ferns still present.

Intervention will be required to maintain the favourable condition status of the designated South Dartmoor SAC/SSSI habitat. The high forest canopy supports the majority of notable species listed in the designation citation and the many mature and veteran trees provide an excellent opportunity for long-term retention to and increase the biodiversity value of the complex as a whole. The most notable species groups present in the woodland are lichens and bats. Areas where notable lichen assemblages occur will be managed to continue presence; no specific habitat work will be undertaken for bats as existing management practice makes adequate provision for suitable roost and foraging sites. However given the importance of the site for many individual bat species, continued support of research programmes will be made.

The SAC designation is deemed as too important to allow sycamore or beech to dominate and alter the characteristics of Western Oak Woodland. Climate change is expected to limit the ability to successfully control or eradicate these species and therefore operations will only be targeted at the more vulnerable habitats or during major woodland operations along Ruddyleave Water and areas of bog and wet flushes where tree growth could be detrimental to the maintenance of habitat conditions. Invasive non-native species such as laurel, rhododendron and Himalayan honeysuckle will be eradicated from the wood in the medium to long term, (by 2025) however the threat of re-infection remains..

Access points and paths will be managed for informal access; however, access will be discouraged east of the Ruddyleave Water where the rough terrain countenances against access and also from following the old management track adjacent to the stream into neighbouring woods.

This will help to deliver the Trusts objectives of protecting native woods, trees and their wildlife for the future and to inspire everyone to enjoy and value woods and trees.



## 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

Grey Park Wood is part of a large and important ancient woodland complex within the upper reaches of the River Dart. Found on the South East side of Dartmoor National Park virtually the whole area has been designated by Natural England as a Special Areas of Conservation (SAC) and a Site of special Scientific Interest (SSSI) for its importance to wildlife conservation; and in particular the special flora and fauna of the Upland Oakwood.

Grey Park Wood is predominately Western Upland Oak wood but also small areas of ash and wet woodland types, ranging from NVC class W14-W7 but principally W11a. Predominately high forest, but areas of coppice and ex-pasture woodland occur. Veteran trees and old growth features exist throughout, and these supporting lower plants indicative of long term woodland cover of an open nature. Associated flora and fauna, particularly lichen and bryophyte communities are nationally important and a key feature of the sites designation.

The old growth nature of the tree growth and riparian nature of the woodland is particular of importance in supporting a large diverse range of bat species, the overall woodland complex is also significant for a number of woodland birds including pied fly catcher, wood warbler and red start all species indicating significant declines.

In parts of the wood many of the mature, significant trees are non-native and are regenerating, but provide veteran features of high conservation value, therefore making it impractical to pursue an entirely native policy.

Grey Park Wood contains features illustrating the past with features of the old Buckland Court estate, old field boundaries, charcoal hearths, roadside and retaining walls, and the former estate carriageway following Ruddyleave.

This SSSI unit was last surveyed by Natural England on 24/11/2009 and is now considered favourable following the removal of large areas of cherry laurel however extensive areas of cherry laurel remain on the boundary of the site and this is a constant source of re-infection.

Management over the past 5 years has focussed on the removal of regenerating conifer and laurel but more significantly dense stands of holly which have been coppiced and partially stump treated where they are in potential conflict with areas of strong lichen assemblages.

In addition to habitat management the northern roadside boundary wall was lowered following the collapse of the neighbouring section, this was undertaken under direction from the Dartmoor National Park archaeology team.

### **Significance**

Western Upland Oak Woods are internationally important and are recognised by the designations Holne Woods SSSI and South Dartmoor SAC. The density and large area of Ancient Woodland and adjacent semi natural habitats is also recognised by the Woodland Trust as a prime area for biodiversity. There are also a number of habitats that are complementary components of the woodland. These areas support significant species of flora and fauna included in National and Local Biodiversity Action Plans (BAPs) many with individual Species Action Plans (SAPs). A number of Red Data Book (RDB) species occur, notably lichens.

### **Opportunities & Constraints**

**Constraints:** Limited management access is over wet or steep ground and rocky terrain. No management access to east of the Cleave. There are number of historical Victorian estate features and whilst these are not listed or referenced on the Historical Environmental Record they do present a constraint to some operations, in particular any track works.

**Opportunities:** diversification of stand structure, to increase structural diversity and to stimulate natural regeneration whilst also retaining some mature trees to provide a cohort of future veterans. To contribute to action and protection of a number of Local, Regional and National BAP/SAP/Haps, by maintaining and enhancing populations, also contributing to research programmes of threatened species. Active management in tree safety zones and boundaries will improve light conditions for lichen assemblages.

### **Factors Causing Change**

1. Climate change
2. Tree disease - in particular, *Phytophthora ramorum* affecting, sweet chestnut and the occasional veteran European larch (tree safety); *Chalara fraxinea* (ash dieback) which are likely to have a short term impact, however there are a range biotic factors likely to impact the site in the long term.
2. Conifer regeneration - occasional conifer regeneration, control as part of invasive species work.
3. Invasive species - including, non-natives such as rhododendron, laurel, bamboo, Himalayan honeysuckle, Himalayan Knotweed but also native species such as holly, sycamore and beech. As restructuring proceeds further work may be necessary to control invasive species which may benefit from increased light levels.
4. Deer and squirrels - the impact of deer browsing is helping to control dense areas of holly regeneration, however the preferential browsing habitats of roe deer has resulted in a targeting of regenerating broadleaves. The impact of squirrel damage on young trees is less evident as the populations are considered to be relatively low and the recorded impact on squirrels on the breeding bird population is not deemed significant.
5. Declining light levels - the migration of lichen assemblages to the edges of the woodland indicates the standard approach to PAWs management over the past 20 years has been insufficient, in addition the development of dense understory in semi-natural areas due to a lack of management intervention and grazing has reduced light levels further .

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

Maintenance of semi-natural components of the complex associated with SAC western oak woodland habitat in a favourable condition including associated flora and fauna. A Mature Western Oakwood with good structural variation and a high proportion of Oak in the canopy. Trees with Veteran features and high levels of dead wood will be retained where safe to do so. Understory and regeneration will occur where suitable canopy gap conditions exist. Invasive exotic species and conifers will be absent or rare and diminishing. Ground flora will be abundant and all distinctive micro habitats will also be in good condition. Lichen assemblages will continue as a feature of the site over the next 50 years.

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

1. Continue to develop the on-going recording of species to avoid contravention of the law relating to protected species during future thinning operations.
2. Maintain a programme to control invasive species and where feasible achieve eradication. Species requiring control include rhododendron, laurel, Himalayan balsam, bamboo, Himalayan honeysuckle, Himalayan Knotweed and the range of non-natives present at the margins of the site associated with formal gardens as well as occasional conifer regeneration. Control will be undertaken by a range of techniques, including the use of herbicide to stump treat/stem inject but also direct pulling where species are establishing in the water course itself and manual cutting and removal
- 3 Management informed by the key surveys undertaken by Acton, Coppins in 2011 (appointed experts by Natural England) targeted management of dense holly/beech/sycamore by felling and thinning operations, treat stumps proportionally in selected areas to reduce rate of regrowth. During each thinning cycle attempt to remove up to 10% of basal area. Survey to be repeated in 2021.
4. Review options for under planting of native species i.e. hazel / sessile oak depending on success of thinning/restructuring operations.
5. Maintain riverside banks, including coppicing and layering to minimise erosion and bank collapse during flood events.
6. Implement deer management in 2018 to encourage natural regeneration opportunities, and create 4 exclosures to monitor deer impacts and preferential browsing habitats and success of deer management.
7. Increase deadwood habitat by creating standing and lying deadwood in areas where it is currently less evident as part of the proposed thinning programme where it is less evident

## 5.2 Informal Public Access

### Description

Grey Park wood provides an informal woodland exploration experience over rugged rough paths in an upland setting. The wood lies directly below the picturesque village of Buckland in the Moor, 5km northwest of the town of Ashburton. There are two formal entrances which can be accessed along minor moorland roads which run along the northern and western boundaries. There is no car park at the wood although; there is some opportunity for informal and sensitive parking on the roads but care must be taken not to block passing places. The nearest public car park is 3 miles away on Kingsbridge Lane, Ashburton

All access within the wood is permissive, and there are no public rights of way. A former estate track runs parallel to the stream on its western bank and a circular loop has been created from the lower half of this track. The track is very rough and washed out in a number of places. Although this track continues to follow Ruddy Cleave Water beyond the Woodland Trust boundary there is no access into neighbouring woodland. Despite the presence of a historic clapper bridge crossing Ruddy Cleave water there is no access to the eastern side of the stream due to the dangers and difficulty of crossing the stream and the limitations of the terrain. The paths within the woodland are generally steep, and can be very wet and slippery, and at times with run with water draining to the stream.

### Significance

Grey Park is important quiet recreational resource locally as there is little public access to ASNW of the Holne Woods SSSI in the immediate vicinity despite extensive areas woodland surrounding the village Buckland In The Moor.

### Opportunities & Constraints

**Constraints:** In addition to the lack of parking or access by public transport, the biodiversity value and sensitivity of some species outweighs significant promotion of site. Site topography limits route options and compounded with the desired retention of mature trees and tree safety management policy significant changes in access provision over time will need to be considered.

**Opportunity:** Visitor enjoyment of diverse woodland, education, survey and research opportunities to increase awareness and enjoyment of woodland.

### Factors Causing Change

1. Increasing visitor numbers,
2. Tree disease and tree mortality and instability of large veteran
3. Increase flows in Ruddy Cleave causing flood damage to riverside access.

### Long term Objective (50 years+)

Maintenance of an informal pedestrian route over rugged terrain, via a roughly circular route exploring the wood. - The route will vary as the structure and nature of the wood develops with the onset of tree maturity and the morphology of the Ruddy Cleave modifies the alignment of the riverside path. The eastern half of the wood will have no provision for access in order to protect important sensitive features.

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

Woodlands to be accessible all year round to local users and the paths and entrances are welcoming. Access Provision is in keeping with access guidelines and site access coding; path and entrance network are maintained appropriate to level of usage.

#### Work Programme

1. Access improvements along riverside track to be undertaken to maintain safe access to facilitate recreation and habitat management.
2. Refresh all signage in current WT brand in order to promote image of well-maintained and safe woods.

---

## 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	1.56	Mixed broadleaves	1920	High forest	Mostly wet ground/exposed site, No/poor vehicular access to the site	Ancient Woodland Site, Informal Public Access	Ancient Semi Natural Woodland, National Park
<p>Mature mixed broadleaf high forest and a small number of mature Douglas fir and larch estimated to have been established around 1850. Generally the NVC is W8d community throughout. Where windblow has created gaps understory and ground flora is abundant. There is frequent beech, sycamore, mature holly and Douglas fir along with occasional elder, hazel, rowan and laurel (mostly treated) as well as some willow in the wetter flushes. Ground flora is abundant in the larger gaps with buckler ferns, ivy, foxgloves and nettles present. The compartment has a gentle southerly aspect and is the only compartment not designated SSSI/SAC but will be treated as such, as there is a significant assemblage of rare lichens.</p>							
2a	5.12	Mixed broadleaves	1900	High forest	Gullies/Deep Valleys/Uneven/Rocky ground, No/poor vehicular access to the site	Ancient Woodland Site, Informal Public Access	Ancient Semi Natural Woodland, National Park, Site of Special Scientific Interest, Special Area of Conservation
<p>Mature mixed broadleaves estimated to have been established around 1900 with the occasional older specimens. A small proportion of beech, sycamore and small-leaved lime are also scattered throughout the stand. Sessile oak is the dominant canopy species in the southern part of the stand but is replaced in the northern part with beech and ash. Generally the NVC is W10a with areas of W8b on the western and northern edges. A more defined layering of storeys perhaps as a result of less intensive thinning than in 2b with some areas having full canopy closure. In the understory there is abundant hazel and sycamore with frequent beech and occasional ash and hawthorn. Some laurel still but the majority has been removed and controlled. The ground flora comprises of abundant bryophytes (male, buckler and hard fern) wound wort, enchanters nightshade and angelica in wetter areas. There are also polypodies on the mature trees and a significantly rich lichen community on the western edge of the compartment along the boundary including Lobaria spp. The compartment has a moderate south-easterly aspect.</p>							



2b	1.86	Oak (sessile)	1900	High forest	Mostly wet ground/exposed site, No/poor vehicular access to the site	Ancient Woodland Site, Informal Public Access	Ancient Semi Natural Woodland, National Park, Site of Special Scientific Interest, Special Area of Conservation
<p>A mature plantation of mainly sessile oak. Increasing amounts of beech, sycamore, sweet chestnut are also present in the stand. Throughout the compartment there is an intimate mix of layers but this is declining as shading increases. Mainly W17b but in the northern spur W14 is represented. Understory species include abundant sweet chestnut, hazel and holly (coppiced in 2014 and 2015) in gaps created by harvesting and tree fall. There is frequent beech and sycamore and occasional rowan and birch. Gorse is also present occasionally as a shrub. The ground flora exists in the many rides and glades in the stand and includes patches of bramble and bracken but also bluebells, buckler, male and hard ferns, wood sorrel, pennywort, foxgloves, and wild strawberry. The compartment has a moderate south easterly aspect.</p>							
3a	5.01	Oak (sessile)	1900	High forest	Mostly wet ground/exposed site, No/poor vehicular access within the site, Very steep slope/cliff/quarry/mine shafts/sink holes etc	Ancient Woodland Site, Informal Public Access	Ancient Semi Natural Woodland, National Park, Site of Special Scientific Interest, Special Area of Conservation
<p>A long narrow sub compartment comprising a mature stand of mixed broadleaf species, with occasional conifer regeneration (mostly removed). Sessile oak is the dominant species in the canopy with some ash, beech and sycamore also present. Generally W8b-W8d-W11a-W7b-W17b communities are well represented. In the understory there is abundant hazel and holly, frequent beech and occasional sweet chestnut, birch and rowan where there is sufficient light. The holly that is present is quite mature and some of the sycamore is creeping into the canopy trees. The ground flora comprises of buckler, hard and male ferns, primrose and dogs mercury and angelica in the wetter parts and bilberry under the shade of the mature oaks. There are also some areas of rhododendron regeneration. The compartment has a moderate westerly aspect.</p>							
3b	1.54	Mixed broadleaves	1970	High forest	No/poor vehicular access within the site, Very steep slope/cliff/quarry/mine shafts/sink holes etc	Ancient Woodland Site, Informal Public Access	Ancient Semi Natural Woodland, National Park, Site of Special Scientific Interest, Special Area of Conservation

An area of mature coppice with stored stools predominantly of sweet chestnut and oak lacking in some parts the mature standards of oak and beech (although these can be found around the edge) found in the other sub compartments but with Scots pine and larch mixed into the matrix. Generally W17b with W8d along the boundary. The understory here was abundant hazel and some holly and the ground flora comprised of bilberry, hard and buckler fern and due to canopy closure and the associated heavy shade suppressed bramble. The sub compartment has a moderate to steep westerly aspect.

## Appendix 2: Harvesting operations (20 years)

Forecast Year	Cpt	Operation Type	Work Area (ha)	Estimated vol/ha	Estimated total vol.
2019	1a	Thin	1.59	6	10
2019	2a	Thin	5.17	4	20
2019	2b	Thin	1.85	5	10
2019	3a	Thin	5.00	4	20
2019	3b	Thin	1.55	3	5
2021	1a	Thin	1.59	6	10
2021	2a	Thin	5.17	4	20
2021	2b	Thin	1.85	5	10
2021	3a	Thin	5.00	4	20
2021	3b	Thin	1.55	3	5
2023	1a	Thin	1.59	6	10
2023	2a	Thin	5.17	4	20
2023	2b	Thin	1.85	5	10
2023	3a	Thin	5.00	4	20
2023	3b	Thin	1.55	3	5
2028	1a	Thin	1.59	6	10
2028	2a	Thin	5.17	4	20
2028	2b	Thin	1.85	5	10
2028	3a	Thin	5.00	4	20
2028	3b	Thin	1.55	3	5
2031	1a	Thin	1.59	6	10
2031	2a	Thin	5.17	4	20
2031	2b	Thin	1.85	5	10
2031	3a	Thin	5.00	4	20
2031	3b	Thin	1.55	3	5
2033	1a	Thin	1.59	6	10
2033	2a	Thin	5.17	4	20
2033	2b	Thin	1.85	5	10
2033	3a	Thin	5.00	4	20
2033	3b	Thin	1.55	3	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.