



Inzievar Wood

Management Plan 2016-2021

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 Informal Public Access

5.2 Long Established Woodland of Plantation Origin

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 Consequently this printed version may quickly become out of date, particularly in relation to the planned work programme and on-going monitoring observations.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 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:	Inzievar Wood
Location:	Oakley
Grid reference:	NT025883, OS 1:50,000 Sheet No. 65
Area:	12.40 hectares (30.64 acres)
Designations:	No designations for this site

2.0 SITE DESCRIPTION

2.1 Summary Description

The wood has loads of birds including wren, buzzard, grouse and tawny owl. There's also roe deer, rabbits, weasels, hedgehogs and the occasional sighting of red squirrels.

2.2 Extended Description

Inzievar Wood as a whole covers approximately 30ha, of which the Woodland Trust owns the western section comprising of 12.49ha. It lies less than 1 km south of the village of Oakley, Fife. It was bought in 1995 on behalf of the Woodland Trust by the owners of Druminane House at that time. The wood is relatively flat, rising gently from the burn that crosses from west to east in the northern part of the wood, to Druminane House that lies on the southern boundary. The highest point is approximately 80 m and the lowest point is 60 m above sea level.

The solid geology is of sedimentary rocks of the carboniferous period. However, these are covered by drifts which give rise to relatively fertile brown forest soils. The MLURI climate map identifies the area as warm, rather dry lowland with moderate exposure and fairly mild winters.

Most of the woodland is shown as Long-Established Woodland of Plantation Origin (LEPO) in the SNH Ancient Woodland Inventory (AWI). However the 1856 (1st Ed. OS) map indicates that the only parts of the wood present at that time were: the central section (cpts 1b to 1h); and a shelterbelt (cpt 2c) now enclosed by conifer plantation. These once formed part of the policies of Inzievar House.

Mature broadleaved woodland containing oak, beech, and sycamore dating from that time is present in cpts 1c, 1h & 2c. The remainder of the central part of the woodland consists mainly of semi-mature birch and sycamore, apparently of semi-natural origin, with occasional larch and beech.

The northern part of the woodland consists of conifer plantation of more recent origin (Scots pine, Sitka spruce, Norway spruce). Following windblow clearance in 1999 this now has glades regenerating as dense broadleaved woodland. The western part of the woodland is also of more recent origin, and consists of two distinct areas consisting mainly of western hemlock (cpt 2a) and Norway spruce (cpt 2d). These were thinned in 2007 to develop ground flora resilience and to encourage crown development in embedded native trees. Windblow occurred in the 2012 storms leaving 2 glades. A power line wayleave runs through the site and is kept clear for safety reasons by the power company, and provides open ground habitat.

Ground flora is dominated by grasses and brambles in the lighter areas, and broad buckler fern in semi-shade. Notable woodland specialist species present are primrose, opposite-leaved golden saxifrage, wood sorrel, wood avens, and great woodrush. Many of these are found in the conifer woodland (cpt 2), perhaps due to lack of competition from more vigorous ground vegetation. There are patches of rhododendron coppicing from cut stumps resulting from control done from 2010 onwards.

The status of the central part of the wood as LEPO indicates a relatively high biodiversity potential. The northern and western parts of the woodland that are more recent in origin also contain woodland specialist ground flora, which indicates their biodiversity potential as buffers for the LEPO area.

The adjoining woodlands to the east (not in Trust ownership) were also once part of the Inzievar House policies. There are several small blocks that date to the original policies, containing mature broadleaved woodland (LEPO) and having a similar ground flora to the neighbouring Trust woods. The remainder of the original policies were lost to mining and the restored land has natural regeneration of birch and willow as well as some enrichment planting. There is also some mixed woodland of conifer and sycamore, of more recent origin. There are several other long established and semi natural woodlands in the area.

The wood holds a relatively large diversity of birds including wren, buzzard, grouse and tawny owl. Mammals that have been observed in the wood include roe deer, rabbits, weasels, and hedgehogs and there have been occasional sightings of red squirrels (although there is also a population of greys). Many moths have been recorded including the locally rare Scarce prominent.

There is a surfaced path of 200m in length running through the eastern part of the wood, forming a link to the Fife Cycle Network and linking to the Fife Millennium Cycle Way, which runs along the disused rail route just north of the wood. This also links to the Dynamic Woods woodlands to the east. The woodland is divided by a fenced private drive, across which public access is discouraged by the owner. There are access points into both the eastern and western parts of the wood at the north end of this drive where it meets the main road.

There are un-surfaced path loops in both east and west parts of the woodland, giving access to a variety of woodland types. The loop in the east (500m) is through mature oak and open young birch wood, while that in the west (450m) is through dense conifer woodland, reached down a short flight

of steps. There is car parking available at the Church of the Holy Name, and a path leads south from there, crossing the road to enter the wood. Informal access is welcomed throughout the woodlands.

The Trust has a right of management access along the drive to Druminane House.

3.0 PUBLIC ACCESS INFORMATION

3.1 Getting there

Inzievar Wood lies just to the south of the village of Oakley in West Fife, and forms part of a larger woodland that extends to the east.

Inzievar Wood can be reached by public transport by bus to Oakley (regular services from Dunfermline), then walk for 1km south along Station Road and under the bridge. At the fork in the road turn left then immediately right, where there is an information board showing access routes through all the nearby woodlands.

By car, from the A907 in Oakley, follow Station Road south for 1km. Just under the bridge turn right into the car park of the Church of the Holy Name. From the footpath at the far end of the car park, cross the road where there are entrances to separate sections of the woodland on the left and right of the private drive.

Next to the Church of the Holy Name is a path linking to the Fife Millennium Cycleway (350m) from Alloa to Dunfermline.

3.2 Access / Walks

Inzievar Wood forms part of a larger woodland that extends to the east across the drive up to Inzievar House. The Woodland Trust Scotland section is split into 2 halves separated by a fenced drive to a private house.

In the eastern part there is 200m of gravel-surfaced path which links to more extensive paths in the neighbouring woods further east. There is also a 500m unsurfaced path loop in this part of the wood. In the western part of the wood there is a 450m minor unsurfaced path loop which is not clearly defined in places.

4.0 LONG TERM POLICY

Woodland

The long term vision (100 years plus) is to create and maintain a diverse, mixed age and mixed species woodland. Species will be predominantly broadleaved with birch and oak the main canopy trees, although sycamore and beech are also likely to be long-term components of the canopy. There will also be a significant component of conifers as a remnant from previous plantation. There will be a diverse ground vegetation dominated by grasses and ferns (consistent with NVC W10) and free from the threat of rhododendron encroachment.

Public Access

The site will provide quiet informal recreation to mainly local users.

The path network will be maintained as well-drained and clear of obstructions and overhanging branches. Bridges, steps and entrances will be maintained in good condition. The site will be kept clean and welcoming by the removal of fly-tipping

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

There is a surfaced path of 200m in length running through the eastern part of the wood, forming a link in the Fife Cycle Network and linking to the Fife Millennium Cycle Way, which runs along the disused rail route just north of the wood. This also links to the Dynamic Woods woodlands to the east. The woodland is divided by a fenced private drive, across which public access is discouraged by the owner. There are access points into both the eastern and western parts of the wood at the north end of this drive where it meets the main road.

There are unsurfaced path loops in both east and west parts of the woodland, giving access to a variety of woodland types. The loop in the east (500m) is through mature oak and open young birch wood, while that in the west (450m) is through dense conifer woodland, reached down a short flight of steps, but is less well defined and less well used. There is car parking available at the Church of the Holy Name, and a path leads south from there, crossing the road to enter the wood. Informal access is welcomed throughout the woodlands.

The Trust has a right of management access along the drive to Druminane House.

Significance

The paths in the eastern side are regularly used by local people. The current level of public use is defined as WT Access Category B (Moderate usage - 5-15 people per entrance per day, with higher seasonal/weekend use). Inzievar Wood forms part of a wider pattern of public access available on neighbouring land, and other woods in the area. The surfaced path forms part of a loop linking to the Fife Millennium Cycle Way, which runs along the disused rail route just north of the wood.

Opportunities & Constraints

Constraints:

-The division of the woodland by the fenced drive prevents the formation of a circular route including both parts of the wood. The paths can be muddy, limiting greater use.

Opportunities:

-Dynamic Woods (to the east of the woodland area under Trust ownership) encourages public access and community participation in woodland activities. There is scope for more community use in the Woodland Trust section of Inzievar Wood, including by Inzievar Primary School (within walking distance of the school).

Factors Causing Change

Long term Objective (50 years+)

The site will provide quiet informal recreation to mainly local users.
Use for community activities & educational purposes will be welcomed.

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

- (i) Access provision will be in keeping with WT access guidelines and site access coding (B). Managed paths will be kept free from vegetation, obstacles and over-hanging branches, and bridges, steps and entrances will be maintained in good condition (annual maintenance).
- (ii) The entrances and signs will be renewed (by end 2016)
- (iii) The site will be kept clear of litter & fly-tipping (annual clearance and react to reports of dumping).

5.2 Long Established Woodland of Plantation Origin

Description

Most of the woodland is shown as Long-Established Woodland of Plantation Origin (LEPO) in the SNH Ancient Woodland Inventory (AWI). However the 1856 (1st Ed. OS) map indicates that the only parts of the wood present at that time were (i) the central section (cpts 1b to 1h) and (ii) a shelterbelt (2c) now enclosed by conifer plantation. These once formed part of the policies of Inzievar House. Mature broadleaved woodland containing oak, beech, and sycamore dating from that time is present in 1c, 1h & 2c. The remainder of the central part of the woodland consists mainly of semi-mature birch and sycamore, apparently of semi-natural origin, with occasional larch and beech.

The northern part of the woodland consists of mature conifer plantation of more recent origin (Scots pine, Sitka spruce, Norway spruce). Following windblow clearance in 1999 this now has glades regenerating as mixed woodland. The western part of the woodland is also of more recent origin, and consists of two distinct areas of mature western hemlock (cpt 2a) and Norway spruce (2d). These were both thinned in 2007 to increase ground flora resilience and encourage crown development in native species. Windblow occurred in the 2012 storms leaving 2 glades. A power line wayleave runs through the site and is managed as open ground safety reasons, adding to the structural diversity.

Ground flora is dominated by grasses and brambles in the lighter areas, and broad buckler fern in semi-shade. Notable woodland specialist species present are primrose, opposite-leaved golden saxifrage, wood sorrel, wood avens, and great woodrush. Many of these are found in the conifer woodland (cpt 2), perhaps due to lack of competition from more vigorous ground vegetation. There are patches of occasional rhododendron regrowth, left over from clearance in 2010 & 2011.

Notable wildlife includes roe deer, rabbits, weasels, buzzards, tawny owl and occasional red squirrel sightings. There is generally little deadwood habitat, except where there is thinning debris in the conifer areas.

Significance

The woodland is on the SNH Ancient Woodland Inventory (AWI) as LEPO, and the central part has existed since at least 1856. This fact, together with the presence of woodland specialist ground flora, indicates a relatively high biodiversity potential. The northern and western parts of the woodland that are more recent in origin also contain woodland specialist ground flora, which indicates their biodiversity potential as buffers for the LEPO area. Inzievar Wood is one of several other long established and semi natural woodlands in the area.

Opportunities & Constraints

Constraints:

Power line wayleave dictates coppice management in safety zone

Opportunities:

There are opportunities to restore the conifer plantation back to native woodland. Pockets of woodland specialist ground flora still remain, even in the conifer woodland that is presumed to be secondary in origin, and groups of broadleaves survive amongst the conifers.

Planting shrubs under the power line (in consultation with power company)

Factors Causing Change

Wind blow of conifers

Long term Objective (50 years+)

To create and maintain a mixed-age and mixed-species woodland in perpetuity. Species will be predominantly broadleaved with birch and oak the main canopy trees, although sycamore and beech are also likely to be long-term components of the canopy. There will also be a component of conifers remnant from previous plantings. Where stable, regular thinning of conifers will be carried out to strengthen woodland specialist ground flora and encourage crown development of native trees (cpts 1a & 2a). Any large wind blown areas will be cleared and restocked by natural regeneration, and supplementary planting if necessary. Non-native regeneration will be accepted, and species mix adjusted in future thinning. There will be a diverse ground vegetation dominated by grasses and ferns (consistent with NVC W10) and free from the threat of rhododendron encroachment.

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

- (i) Allow the broadleaved areas of the woodland to develop naturally with minimum intervention in this plan period.
- (ii) Control invasive rhododendron in cpt 1 (annual inspections and control).
- (iii) Continue to encourage crown development of native trees and improve ground flora diversity by increasing light levels in conifer blocks cpt 1a & 2a. Achieved by halo thinning round broadleaves and light thinning of denser areas conifers where ground vegetation is struggling (cpt 1a & 2a in 2017).
- (iv) Remove tubes from planted trees when no longer needed (cpt 1a by end 2018).

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	1.61	Mixed conifers		High forest		Informal Public Access	No designations for this site
<p>The canopy (80% cover) consists of mature and semi-mature Sitka spruce to the north grading to Scots pine to the south, with frequent birch and sycamore, and rare ash and willow. The spruce was preferentially thinned in 1999, and the canopy is still fairly open, with slow recovery by the pine. Some windblown trees were cleared in 1999 to leave two open areas with new planting of native broadleaves in 1.2m tree shelters (a group of 50 in the north and about 450 along the southern boundary). The understorey (30% cover) consists of rhododendron along the western edge (being controlled), frequent elder, occasional sycamore, and rare rowan, beech, birch and Norway spruce. Regeneration in the clearings is dominated by seedling to thicket stage birch with frequent sycamore, and occasional beech, Sitka spruce, holly and elder. Ground flora (100% cover) consists of abundant grasses and broad buckler fern, frequent moss, honeysuckle, bramble (in the glades) and foxglove, and rare nettles and rushes. There is abundant deadwood from brash & windblown trees. Browsing by roe deer is frequent, but many regenerated birch are above browsing height. The northern property boundary is not marked on the ground.</p>							
1b	0.40	Mixed native broadleaves		High forest		Informal Public Access	
<p>An area felled in 1999 and left to regenerate naturally. There are occasional semi-mature birch (10% cover), with an understorey (80%) of abundant well-established birch and elder regeneration at thicket stage, with occasional grey willow and rowan. There is a line of leylandii along the western boundary. The ground flora (100%) consists of by frequent ferns, mosses, grasses and occasional bramble and honeysuckle.</p>							
1c	0.42	Oak (sessile)	1850	High forest		Informal Public Access	No designations for this site
<p>Mature broadleaved woodland with a canopy (70% cover) dominated by mature mixed oak, a group of yew to the east, frequent birch, and occasional beech and sycamore. The understorey (20% cover) is dominated by juvenile sycamore coppice, with frequent elder and occasional rhododendron (being controlled). There is also some enrichment planting (P2000s approx 50 trees). Regeneration is dominated birch with frequent sycamore. Ground flora (85% cover) is sparse under the yew and beech, but otherwise is dominated by grasses, with abundant bramble and occasional soft rush & tufted-hair grass. Dead wood is occasional. There is no notable evidence of browsing, though deer paths and dung do occur.</p>							
1d	0.41	Sycamore	1975	High forest		Informal Public Access	No designations for this site

Semi-mature canopy (90% cover) dominated by sycamore, with abundant birch, occasional willow, and rare beech, larch, Scots pine, and yew. There is a short leylandii avenue along the northern boundary at the edge of the track. The understorey is sparse (<10% cover), dominated by juvenile sycamore, with frequent birch, occasional oak, beech, honeysuckle and rhododendron, and rare holly and rowan. There is abundant regeneration of sycamore, with frequent birch and occasional ash. Occasional browsing by roe deer is evident. Ground flora (90% cover) is dominated by grasses, with abundant broad buckler fern, frequent honeysuckle, occasional bramble, and rare male fern, lady fern and barren strawberry. There is occasional dead wood.

1e	1.12	Birch (downy/silver)	1980	High forest	Services & wayleaves	Informal Public Access	
----	------	-------------------------	------	-------------	----------------------	------------------------	--

A power line wayleave running across a gentle, north-facing slope. The area was coppiced for power line safety reasons in 2000 and coppiced and mulched again in 2008. Following the mulching there was no woody regrowth evident (except rare elder) in late 2010. Ground flora (100% cover) dominated by grasses, with frequent Juncus and occasional bramble, broad buckler fern, and raspberry. There is no notable deadwood habitat.

1f	1.45	Birch (downy/silver)	1970	High forest		Informal Public Access	No designations for this site
----	------	-------------------------	------	-------------	--	------------------------	-------------------------------

An area of semi-mature woodland, with a canopy (90% cover) dominated by birch, with occasional willow and sycamore, and rare oak, larch, cedar, and Douglas fir. The understorey (15% cover) is dominated by elder, with frequent birch and sycamore coppice, occasional rhododendron by the burn (being controlled) and rare honeysuckle, Norway spruce and gorse. A small patch of enrichment planting exists in the northeast, consisting of approximately 75 oak in 1.2m shelters. There is frequent sycamore and occasional birch and rhododendron regeneration. Ground flora (100% cover) is dominated by grasses, with abundant broad buckler fern, frequent bramble and occasional rushes. There is frequent dead wood in the form of logs, limbs and windblow. Occasional browsing occurs.

1g	1.50	Birch (downy/silver)	1970	High forest		Informal Public Access	
----	------	-------------------------	------	-------------	--	------------------------	--

A semi-mature canopy (95% cover) is dominated by birch, with frequent sycamore, larch (in the south), and occasional willow and beech. A row of leylandii occurs along the southern boundary. The understorey (35% cover) consists of abundant elder, frequent juvenile birch and rhododendron (being controlled) and occasional oak. There is occasional holly and oak regeneration. Ground flora (75% cover) is composed of abundant broad buckler fern, frequent tufted hair-grass, occasional rushes and bramble, and rare wood-sorrel. There is abundant dead wood in the form of windblow, and fallen limbs and branches. There is frequent evidence of deer presence, although browsing is minimal.

1h	0.45	Beech	1850	High forest		Informal Public Access	No designations for this site
----	------	-------	------	-------------	--	------------------------	-------------------------------

Mature woodland canopy (75% cover) with abundant beech, oak and yew to the east, frequent sycamore, birch and larch and rare Norway spruce. The understorey (50% cover) consists of frequent sycamore along the road, as well as occasional yew, birch and elder. There is abundant sycamore and elder, occasional rhododendron (being controlled) and rare holly regeneration. Ground flora is sparse (10% cover) due to the beech canopy. It consists of frequent grass and bramble, occasional broad buckler fern, nettles and rushes. There is no notable browsing but frequent evidence of roe deer. There is occasional deadwood.

2a	1.89	Western hemlock	1969	High forest		Informal Public Access	No designations for this site
----	------	-----------------	------	-------------	--	------------------------	-------------------------------

This area of mature, mainly western hemlock (planted ~1965) was thinned in 1999 at approximately 1 row in 4 to create racks and then a further thinning carried out in 2007. The 2007 thinning was aimed at ground flora recovery and halo thinning broadleaved trees (mainly birch) in the WH matrix to encourage crown development and seed production. The canopy has recovered well (90% cover) and currently consists of mature western hemlock, with a line of mature broadleaves along the burn at the northern boundary and in pockets within, including frequent birch, occasional sycamore, ash, willow, beech and oak. Windblow in 2012 created 2 glades. The understorey (<5% cover) is composed of occasional elder and rare juvenile western hemlock, hawthorn, beech and hazel. Ground flora has recovered well following the thinning (25% cover) and spread outward from the racks, although there is a bit of hemlock regeneration occurring. Ground flora consists of frequent broad buckler fern, occasional grasses and bramble, and rare creeping Jenny and creeping buttercup. The area is relatively flat, with a wet flush in the far western corner and in some patches on the bank of the burn. There are patches of primrose and opposite-leaved golden saxifrage along the path. Frequent brash and occasional windblow make up the deadwood habitat.

2b	0.36	Birch (downy/silver)	1980	High forest	Services & wayleaves	Informal Public Access	No designations for this site
----	------	----------------------	------	-------------	----------------------	------------------------	-------------------------------

A power line wayleave running across a gentle, north-facing slope. The area was coppiced for power line safety reasons in 2000 and coppiced and mulched again in 2008. Following the mulching there was no woody regrowth evident in late 2010 except for occasional sycamore and elder regeneration along the edges. Ground flora (100% cover) is dominated by grasses, with abundant bramble, broad buckler fern, hogweed and thistles, and occasional bracken. There is no notable deadwood habitat.

2c	0.79	Sycamore	1970	High forest		Informal Public Access	No designations for this site
----	------	----------	------	-------------	--	------------------------	-------------------------------

The compartment consists of several linked areas of broadleaved woodland. These are: (i) a north-south strip following the line of a shelterbelt visible on 1857 OS map with a number of mature sycamore and oak, leading at its southern end to (ii) a semi-mature area (95% cover) consisting of abundant birch and sycamore, with occasional western hemlock and goat willow and (iii) a narrow strip containing a number of mature beech trees, a hawthorn hedge and semi-mature birch and sycamore along the southern boundary of the wood. Regeneration is rare, consisting of beech and sycamore. Frequent browsing occurs on the young coppice. Ground flora (60% cover) has moved from grasses toward woodland specialists in the last plan period and has abundant broad buckler fern and moss, with occasional tufted-hair grass, wood sorrel, bramble and honeysuckle. There is occasional dead wood.

2d	2.11	Norway spruce	1969	High forest		Informal Public Access	
<p>This is an area of mature conifer woodland (planted ~1965). The canopy (80% cover) is dominated by Norway spruce, with frequent Sitka spruce. It was thinned in 1999 (1 row in 4) and again in 2007 which has resulted in substantially increased light levels and enabled rapid ground-flora and shrub layer recovery. Windblow and snap has been limited to occasional trees, until 2012 when severe windblow flattened 2 areas (which were cleared and are starting to regenerate). There are occasional pockets of willow, sycamore, and birch. The understorey is sparse (<5% cover) with locally abundant elder and occasional sycamore. There is occasional holly and elder regeneration. Ground flora (80% cover) includes abundant broad buckler fern, frequent wood-sorrel and honey suckle, and occasional tufted-hair grass and bracken. There are patches of primrose and opposite-leaved golden saxifrage along the path. Dead wood is abundant with brash, occasional windblown trees and frequent logs. There is no notable browsing.</p>							

Appendix 2: Harvesting operations (20 years)

Forecast Year	Cpt	Operation Type	Work Area (ha)	Estimated vol/ha	Estimated total vol.
2017	2a	Thin	1.89	3	6

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.