



Huntly Wood

Management Plan 2019-2024

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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 Consequently this printed version may quickly become out of date, particularly in relation to the planned work programme and on-going monitoring observations.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 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:	Huntly Wood
Location:	Longforgan
Grid reference:	NO313306, OS 1:50,000 Sheet No. 53
Area:	13.62 hectares (33.66 acres)
Designations:	Long Established Woodland of Plantation Origin, Scheduled Ancient Monument

2.0 SITE DESCRIPTION

2.1 Summary Description

Mixed broadleaf and conifer wood that's popular with dog-walkers. Red squirrels and buzzards have been spotted. Look out for the ancient monument bell-cairn known locally as 'Roman Knowe'.

2.2 Extended Description

Location, Altitude and Aspect

Huntly wood is situated in the Carse of Gowrie approximately 4 km to the western edge of Dundee, and 0.5km to the north of the village of Longforgan. The wood lies between the altitudes of 43 and 52m above sea level, and faces generally in a northerly direction. Adjacent land use is mainly agricultural, horse paddocks and housing.

Physical Description

The wood is on a relatively flat site with the ground to the north falling away slightly, before rising again to the Braes of Gowrie.

The underlying geology of the area is Devonian- Famennian, consisting of mainly fluvial reddish-brown sandstones, locally with a conglomerate base. The soils produced are humus-iron podzols, with some brown forest soils and gleys.

The MLURI climate map identifies this area as fairly warm, rather dry lowland, being moderately exposed with moderate winters.

Woodland Description

Huntly wood is classified as a long established woodland of plantation origin (LEPO) i.e. it appears on maps of 1860 as woodland.

The wood consists of one main block of 13.05 hectares (ha), and a shelterbelt of 0.58 ha. The shelterbelt is situated to the north-west of the main wood and is separated from it by an intervening landholding. Interestingly, both blocks appear on the 1860 map as part of one integral block of woodland. The 13.63 ha woodland is quite diverse in character and includes both mixed broadleaved and conifer plantings. The centre of the wood is occupied by mature stands of beech and sycamore, as well as mixed stands of Douglas fir with downy birch, rowan, oak and sycamore. Areas of mixed native broadleaf restocking are now established at the western end and in the north-east of the wood, species including downy birch, pedunculate oak, ash, gean and rowan, with occasional Scots pine. The remainder of the eastern end of the wood consists of conifer stands, which are mainly comprised of Douglas fir and Norway spruce, with some Scots pine and European larch. The shelterbelt contains mixed mature broadleaves and conifers (sycamore, beech, oak, Scots pine and larch) with younger sycamore occupying gaps in the canopy. In addition, the wood features an avenue of mature beech trees running in a north-south direction. Natural regeneration is sparse throughout but where sufficient light reaches the woodland floor patches of broadleaved regeneration are apparent.

There are mixed levels of dead wood throughout made up of wind-blown stems and lop and top from previous silvicultural operations. Levels of ground flora vary depending on tree canopy composition but where abundant is generally dominated by broad buckler fern.

Other Habitats

There is one small open area within the wood - the monument which gets cut annually, with ground flora a mix of flowers, brambles and willowherb. Open ground provides structural diversity within the wood although they are not of particular value in themselves.

Wildlife

There is evidence of the presence of roe deer, the occasional rabbit and other small mammals within the wood. Most notably, several red squirrels have been sighted

Other Features

In the south of the wood is a scheduled ancient monument, the Market Knowe. It is prehistoric in original date, but its name suggests later use as a market.

Historic Environment Scotland describes the monument as being situated just within the southern edge of Huntly Wood on a slight elevation. Market Knowe comprises the remains of a banked enclosure, a circular, stony mound, averaging 30m in diameter and about 2m in height surrounded by a broad ditch and bank, varying from 2 - 4m in width, although this is not visible in some parts. The central mound has been extensively robbed leaving a slight rim around the edge and appears to be separated from the ditch by a berm, best preserved on the northern side. The ditch and outer bank have been extensively mutilated on the south-east side.

Known locally as 'Roman Knowe'. There was a discovery of stone coffins containing skeletons many years ago, and on neighbouring land more recently.

Currently this area is colonised with brambles and rosebay willowherb, and surrounded by young birch as well as some mature oak and beech trees, although the cairn is kept clear.

Site History

The presence of the burial cairn on the site shows that human habitation of the area stretches back at least 3500 years.

Information on the site also mentions the markets held at Market Knowe on the moor of Forgan. The literature not only suggests markets were held at the Market Knowe since 1663, but also implies that the site was not woodland at this time, but a moor covered in broom.

The Woodland Trust acquired the site in 1988. Since then, approximately 3 ha have been felled and restocked, remaining conifer areas thinned and the Market Knowe cleared of invasive vegetation on a regular basis under an agreement with Historic Scotland.

Access Information

The wood is well used by both local residents and visitors from Dundee, most notably dog walkers. Its situation just west of Dundee, along the A90, provides a large number of people with the opportunity to visit the wood.

There is a well-interconnected network of managed paths (approximately 2km), providing a number of alternatives for circular walks through a variety of woodland types. Paths are generally in good condition, but can be muddy in places. There are 4 formal entrances and a car park with capacity for approximately 8 cars to the south.

Management access can be obtained from 3 entrances (excluding the SE access point).

3.0 PUBLIC ACCESS INFORMATION

3.1 Getting there

Huntly Wood is situated approximately 0.5km to the north of Longforgan and 4km to the western edge of Dundee.

Access is available from a narrow tarmac road to the south of the wood to a car park for 8 cars with a pedestrian gap and a vehicle gate (second entrance along). The paths are mostly unsurfaced and uneven (approximately 2km). Path surfaces can be muddy when wet, and the terrain is fairly flat.

Directions: From A90 (Perth to Dundee dual carriageway) take the exit for Longforgan (if travelling westwards take the 2nd Longforgan exit) and go under A90 dual carriageway. At roundabout follow signs for Flocklones onto Old Littleton Road. Take the first road on the right just in front of some houses. The car park is about 370m on the left, past the big agricultural shed on the right.

Public Transport: There are several buses to Longforgan from Dundee (contact Traveline on www.traveline.org.uk or tel: 0870-608-2608 for up to date information). From Longforgan (at church on Main Street), walk west along Main Street to the roundabouts and road underpass. On the other side of A90, at roundabout, follow signs for Flocklones onto Old Littleton Road. Take the first road, on the right just in front of some houses. Walk past the houses and the wood entrance is about 370m on the left, past the big shed. Total length of walk is less than 2km. There is no pavement along some sections.

Public Toilet: The nearest public toilets are in Dundee (Camperdown Park on outskirts or shopping centres in town). For further information on facilities and opening times contact Dundee City Council on 01382-434800 or www.dundee.gov.uk.

3.2 Access / Walks

See access information in main description.

4.0 LONG TERM POLICY

Woodland

The long term intention is that Huntly Wood will be a diverse woodland managed as high forest with range of species and age composition, primarily dominated by native species but with scattered conifers remaining. There will be a component of native shrubs, deadwood and robust ground flora. The process of converting conifers to native trees will be gradual through thinning, until they become unstable, when conversion will be through clear-felling small areas and replanting with natives.

Public Access

Huntly Wood will continue to provide somewhere for quiet, informal recreation and be accessible to as wide a range of users as is practical. The existing network of paths (c. 2km) will be maintained to suit local demand (currently classed as Grade B - medium usage), to give a route clear of encroaching vegetation. There is a Core Path Network loop through the wood.

Archaeological Feature

The scheduled ancient monument will continue to be protected from potential threats (root disturbance from woody vegetation growth and rabbit burrowing), with regular monitoring and annual clearance of vegetation.

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 Connecting People with woods & trees

Description

Huntly Wood is situated 0.5km north of Longforgan (population size of 1220), and about 4km west of Dundee (population size of 148,000). There is a small group of houses on our southern boundary and others to the north separated by a field, and a few other scattered houses in the area. The wood is mixed with areas of broadleaved and coniferous trees, on fairly flat ground, except in the shelter belt strip to the North-East, where the ground is steeper.

There is a network of managed earth paths of different lengths (longest is approximately 2km / 30 minutes), providing a number of alternatives for circular walks through a variety of woodland types. Paths are generally in good condition, but can be muddy in places. There is a main entrance at the car park, with capacity for approximately 8 cars, and 3 further entrances. All entrances have squeeze gaps (minimum 1.05m wide, 1.9m at car park entrance), or have no barriers. There is a ladder board at the car park and small plastic "welcome" and "enjoyed your visit" signs at the other entrances.

The path loop is part of the core path network (route no LFGN/116), but the paths do not link into a wider core path network.

The wood is a popular place for dog walking, and there are several commercial dog walking companies that use Huntly Wood regularly. There is a dog waste bin and general bin at the car park.

Of historic interest, there is a scheduled ancient monument, called the Market Knowe, which is a mound with secondary banks. Abertay Historical Society have recently become involved in the monument and held guided walks, as well as undertaking further research. There is no interpretation on the monument, and many visitors may be unaware that there is a monument, with only an open area with a mound to be seen.

There is also an avenue of mature beech trees on banks running in a north south direction.

There are no other community engagement activities currently arranged and unlikely that we will hold any in the near future, but Longforgan Primary School do visit the wood regularly.

The Trust has 2 local voluntary wardens who help to keep an eye on the wood and undertake minor maintenance and litter picking.

Significance

Local residents and dog walking companies from Dundee use the wood extensively. Being close to Dundee and just off the A90 also increases the access potential of the site. The current level of public use is defined as WT Access Category B (Moderate: 9000 visits per year). The Core Path Network (LFGN/116) forms a loop around the paths, but these are in isolation to other networks. The wood is surrounded by agricultural land and one of the few accessible woods in the area. The next nearest accessible wood is in Dundee more than 2 miles away, and the nearest Woodland Trust Wood is Backmuir Wood (2.7 miles away).

Opportunities & Constraints

Opportunities

There is an opportunity for future interpretation of the scheduled ancient monument "Market Knowe", based on further research and for Abertay Historical Society to do more guided walks. With more resources, we could encourage more use of the wood by Longforgan Primary School and other groups.

Constraints

Compartment 3 is separated from the rest of the wood by a piece of land not owned by the Woodland Trust.

It is unlikely that any more core paths will be designated to link to paths in wood.

The car park is small and the access road is narrow, which limits size of events that can be held there.

Factors Causing Change

Other - Public use may be increasing, which may lead to path surfaces degrading, but at the current time the paths are fit for purpose.

Long term Objective (50 years+)

Huntly Wood will continue to be mixed woodland with a variety of path loops, used by mostly local people, mainly for responsible dog walking.

Visitors will feel welcomed, and paths will remain informal, which may be muddy in places.

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

Access provision will be in keeping with WT Access Guidelines and site access coding (B). Achieved by: annual inspection of paths and entrances with vegetation clearance as necessary, sign maintenance, litter picking, bin emptying and tree safety inspections (2019-2024).

People engagement is expected to continue at its current level. Volunteers will continue to keep an eye on the site, the local school will continue to use the woodland for outdoor education on an ad-hoc basis, and Abertay Historical Society will be encouraged to hold further guided walks.

We will liaise with dog walkers, in particular commercial dog walking companies, to ensure dogs are under control, dog fouling is removed, and to highlight that there are sheep present in adjacent fields (2020 and on-going basis as required).

5.2 Archaeological Feature

Description

On the southern boundary of the wood is a mound called Market Knowe, which is a scheduled ancient monument. It is a circular, stony mound, averaging 30m in diameter and about 2m in height, surrounded by a broad ditch and bank, although this is not visible in some parts. The monument is situated on a slight elevation, formerly used as a market for the village. No systematic excavation is known to have been carried out, although some records refer to stone coffins containing skeletons. Vegetation on the monument is predominantly brambles and rosebay willowherb. Abertay Historical Society commissioned some surveys in 2018, a magnet gradiometer survey and a resistivity survey, and have held guided walks on site.

Significance

The site has statutory protection as a scheduled ancient monument and may relate to human occupation of the site dating to 3500 years ago or earlier. It also has local cultural significance, being known as the Market Knowe due to the village markets held on the site since the 17th century. It forms part of a network of archaeological sites in the area stretching back to neolithic times. The monument needs to be protected from any forestry work and from encroaching woody vegetation and rabbit burrowing.

Opportunities & Constraints

Opportunity

To find out more about the monument and provide interpretation in conjunction with others.
To encourage future guided walks run by others.

Constraints

No machinery within scheduled area and no planting within 20m of monument boundary.
Monument to be kept clear of woody vegetation and rabbit burrowing to ensure no damage.

Factors Causing Change

Rabbit damage, Natural regeneration of trees and shrubs on the monument

Long term Objective (50 years+)

To protect the scheduled ancient monument in line with Historic Scotland guidance.

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

Protect the monument from potential threats. Achieved by: cutting woody growth on the mound and secondary banks annually (2019-2024); monitoring for rabbit disturbance every 5 years (2024), and monitoring the few mature trees within the scheduled area for stability (when doing tree safety inspections).

Encourage others to carry out further investigation, archaeological investigation, and to lead more guided walks.

5.3 Long Established Woodland of Plantation Origin

Description

The woodland is diverse in character with mature mixed broadleaved and conifer plantings, as well as areas of mainly native younger planting. Main species are beech, sycamore, Norway spruce, Douglas fir, birch and oak. Natural regeneration is generally sparse although present in lighter areas. There are moderate levels of deadwood throughout, made up of wind-blown stems and lop and top from previous silvicultural operations. Levels of ground flora vary with bracken, grasses, bramble & willowherb in open areas and abundant broad buckler fern in medium shade. Animals that have been seen regularly are red squirrels and roe deer, with occasional rabbits.

The north end of the narrow shelter-belt is often waterlogged in winter, with occasional standing water. Many trees in this area have suffered as a result with several mature trees dying back or blowing over.

Red and grey squirrels are present in the wood.

Significance

The woodland is on the SNH Ancient Woodland Inventory as long established plantation origin (LEPO) and has existed since at least 1860 (confirmed by its existence on the 1860 OS map). LEPO woods indicate a relatively high biodiversity potential and the varied woodland structure & composition contributes to its biodiversity value. The wood is important locally as an integral component of the surrounding landscape. The wood also has habitat value within an agricultural setting.

The red squirrel is a protected species and their conservation is covered under a UK species action plan.

Opportunities & Constraints

Opportunities

To gradually convert the conifer areas to native woodland, but retaining an element of conifers as long as possible for landscape and species diversity.

Constraints

Wind-blow, particularly in conifer stands.

Rabbit and deer browsing limits regeneration.

Factors Causing Change

Deer damage, Rabbit damage, Frequent wind damage, grey squirrels

Long term Objective (50 years+)

The vision is for a native broadleaved woodland with diverse tree species and structure, and with a varied ground flora.

The conifer areas will be gradually converted into a more native species mix by regular thinning to increase light levels and encourage natural regeneration, but retaining a conifer element in the medium term. The conifers have suffered from regular wind-blow several years ago, but none recently.

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

Increase ground flora diversity and opportunities for natural tree regeneration by increasing the light levels in the conifer areas, achieved by thinning (20-25% thin in cpts 1c & 1d, approx 3.5ha, by 2021).

Strengthen the vigor and longevity of existing veteran oaks, to encourage greater crown development and potential for seed production. Achieved by halo thinning to increase light levels, where they are surrounded by conifers and semi-mature beech and sycamore. (Halo thin 1 - 3 trees around each veteran oak tree (c. 30 trees), in cpts 1a, 1c & 1d by 2021).

Maintain a healthy population of red squirrels in the wood by regularly controlling grey squirrels in partnership with Saving Scotland's Red Squirrels (annually).

6.0 WORK PROGRAMME

Year	Type of Work	Description	Due By
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APPENDIX 1: COMPARTMENT DESCRIPTIONS

Cpt No.	Area (ha)	Main Species	Year	Management Regime	Major Management Constraints	Key Features Present	Designations
1a	2.51	Beech	1940	High forest		Connecting People with woods & trees, Long Established Woodland of Plantation Origin	Long Established Woodland of Plantation Origin
<p>Canopy of mature beech and semi-mature sycamore with occasional oak. Understorey dominated by juvenile beech and occasional juvenile sycamore, as well as rare holly, elder, birch, box and yew. Frequent beech and occasional sycamore regeneration. Sparse cover of ground flora due to shading and dense leaf litter, dominated by broad buckler fern and occasional male fern, as well as a diversity of mosses including frequent <i>Dicranum majus</i>, <i>Thuidium tamariscinum</i> and <i>Hypnum andoi</i>. Occasional dead wood. Diverse shrub edge on southern boundary under power line comprises of elder, oak, birch and sycamore coppice, broom, gorse and a variety of herbs including grasses and rosebay willowherb.</p>							
1b	0.21	NULL		Non-wood habitat	Archaeological features	Connecting People with woods & trees, Long Established Woodland of Plantation Origin	Scheduled Ancient Monument
<p>Burial mound ('Market Knowe'), surrounded by mature sycamore, beech and pedunculate oak (5% cover). Occasional regeneration and coppice regrowth dominated by sycamore, occasional birch and rare beech. Ground flora (80% cover) dominated by rosebay willowherb and pink purslane, also with foxglove, nettles, bluebells, bramble, broad buckler fern, grasses and rushes. Occasional deer browsing noted. Frequent moss cover, mainly <i>Brachythecium rutabulum</i> and <i>Eurhynchium praelongum</i>. Rare dead wood. Old rabbit burrow in secondary bank.</p>							

1c	2.22	Birch (downy/silver)	1960	High forest		Connecting People with woods & trees, Long Established Woodland of Plantation Origin	Long Established Woodland of Plantation Origin
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Stand of diverse composition and age structure. Canopy of semi-mature downy birch, with frequent mature larch and semi-mature oak, sycamore and small groups of Douglas fir to north side, mature Douglas fir with occasional Norway spruce to south, and strip of Douglas fir to west. Bit of windblow near houses in 2013. There is a small glade to NE dominated by bracken and undergoing natural succession.

Understorey (40% cover) dominated by juvenile sycamore coppice, as well as juvenile birch coppice, juvenile oak, and the occasional rowan, spruce, holly, elder and honeysuckle.

Frequent regeneration dominated by sycamore, but also including birch, rowan and elder. Also, understorey along the northern boundary includes broom, gorse, holly, juvenile oak, sycamore coppice. Ground flora (35% cover) of mainly broad buckler fern as well as grasses, foxgloves, brambles and mosses. Mosses include frequent Hypnum andoi, H. cupressiforme and Rhytidiadelphus squarrosus. Frequent deadwood - mainly from thinning.

1d	4.20	Norway spruce	1960	High forest		Connecting People with woods & trees, Long Established Woodland of Plantation Origin	Long Established Woodland of Plantation Origin
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Dense canopy (95% cover) dominated by mature Norway spruce, with occasional sycamore, Scots pine, larch, birch, beech and Douglas fir, and rare oak and willow. Very sparse understorey (<5% cover) of mainly elder as well as occasional sycamore. Regeneration rare but mostly sycamore.

Dense shade allows little ground flora to develop; currently broad buckler fern is dominant with frequent foxgloves, pink puslane, and grasses along the edges of the compartment (5% cover).

There is also abundant moss cover, namely Hypnum cupressiforme and H. andoi. Occasional windblown trees and brash from recent thinning operations have resulted in an abundance of dead wood. One small old rabbit warren is present but not active. A raised earth bank delineates the southern boundary with bird cherry, occasional gorse, sycamore and elder.

A thin strip of woodland on east side is dominated by semi-mature coppiced sycamore, with understorey of mainly elder, with occasional gorse, hawthorn, bluebell and honeysuckle. The strip is encompassed by a raised earth bank on both its eastern and western sides, with remnants of a dry-stone wall to the north-east. Some mature beech trees line the hedge to the east, outside of the woodland boundary.

An area of open ground to the SW has abundant rosebay willowherb, brambles and grasses, frequent nettles, and occasional snowdrops, bramble and occasional dead wood. There is a moss-covered dry-stone wall and rubble pile making ground uneven. It is regenerating slowly with sycamore.

1e	1.21	Birch (downy/silver)	1980	High forest		Connecting People with woods & trees, Long Established Woodland of Plantation Origin	Long Established Woodland of Plantation Origin
<p>Two areas clearfelled in 1990 and 2002, and restocked with oak, ash, rowan, cherry, downy birch, hazel and occasional Scots pine. Occasional semi-mature trees left standing, mostly silver birch and sycamore. Understorey of occasional hawthorn and some holly, elder, broom and honeysuckle. Frequent regeneration of birch and occasionally also sycamore and holly. Ground flora of mainly grasses and broad buckler fern, with frequent bramble, foxglove and occasional rosebay willowherb, nettles and some honeysuckle. Also frequent cover of mosses, including <i>Thuidium tamariscum</i>, <i>Eurhynchium praelongum</i> and <i>Brachythecium rutabulum</i>. Evidence of former rabbit occupation, including a disused warren. Deadwood is frequent, mainly comprised of brash from the clearfell.</p>							
2a	2.70	Mixed native broadleaves	1990	High forest		Connecting People with woods & trees, Long Established Woodland of Plantation Origin	Long Established Woodland of Plantation Origin
<p>Area of dense juvenile trees planted with mixed broadleaves in 1990. Canopy of mature and semi-mature trees found mainly at edges of compartment includes sycamore, beech, oak, rowan, larch and Scots pine. On southern side there is semi-mature, ex-coppice sycamore with occasional oak, beech, birch, willow and ash, and an area of open ground which was let in past as garden extension for hens, but now regenerating. There is an avenue of mature beech on earth banks on either side of management track on eastern edge of the compartment. Although the individual trees are not necessarily notable, the avenue itself is of high aesthetic value. The understorey comprises of occasional whin, broom, beech, elder, hazel, laburnum (on northern edge), as well as some juvenile sycamore, birch, oak and rowan. Regeneration is rare. Ground flora is dominated by grasses and rosebay willowherb, as well as frequent honeysuckle, bramble, broad buckler fern and foxgloves. A large variety of mosses are present, including <i>Eurhynchium praelongum</i>, <i>Hypnum andoi</i> and <i>Rhytidiadelphus squarrosus</i>. Dead wood is found occasionally. Red squirrels have been sighted in this compartment. One or two old rabbit warrens are present, and rabbits present in neighbouring land to west and banks to north. Deer browsing occurs but is infrequent.</p>							

3a	0.58	Mixed conifers	1930	High forest		Connecting People with woods & trees, Long Established Woodland of Plantation Origin	Long Established Woodland of Plantation Origin
<p>Shelterbelt composed of a canopy of mature Scots pine and European larch, with some sycamore and pedunculate oak. The understorey is dominated by semi-mature sycamore with occasional elder, oak, rowan, dogrose, hawthorn, holly, broom, ash, honeysuckle and ivy. There is frequent regeneration of mainly elder, as well as some ash and sycamore. The sparse ground flora (10% cover) is dominated by grasses, particularly to the south, as well as frequent nettles and occasional broad buckler fern, male fern, dog rose, soft rush and bramble. There is abundant deadwood and some windblown trees. Red squirrels have been sighted in this compartment. Occasional deer browsing occurs on elder regeneration and sycamore coppice. There is a seasonally wet area to the north of the compartment.</p>							

Appendix 2: Harvesting operations (20 years)

Forecast Year	Cpt	Operation Type	Work Area (ha)	Estimated vol/ha	Estimated total vol.
2021	1a	Thin	2.51	2	5
2021	1c	Thin	2.22	5	10
2021	1d	Thin	4.20	5	20
2028	1d	Thin	4.20	5	20

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.