



Broomhill Dene

Management Plan 2014-2019

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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 Consequently this printed version may quickly become out of date, particularly in relation to the planned work programme and on-going monitoring observations.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:	Broomhill Dene
Location:	Medomsley
Grid reference:	NZ111548, OS 1:50,000 Sheet No. 88
Area:	4.10 hectares (10.13 acres)
Designations:	County Wildlife Site (includes SNCI, SINC etc), Planted Ancient Woodland Site

2.0 SITE DESCRIPTION

2.1 Summary Description

Broomhill Dene is a mixed wood of broadleaf and coniferous trees covering 4.19 hectares with ground flora that includes bluebells and ramson. Used mainly by residents of The Dene. Vandalism, littering and motorbike trespass are a problem.

2.2 Extended Description

Broomhill Dene is a mixed high forest woodland covering 4.19 hectares. It occupies a small valley or "dene" extending northwest from the housing estate known as "The Dene" near Medomsley, Consett in County Durham. Along its southeast-northwest axis, the sides of the dene fall steeply down to Ebchester Burn that flows through the wood towards the northwest. On the lower slopes by the burn, some rock outcrops occur, creating short vertical drops. The wood occupies a Planted Ancient Woodland Site (PAWS) as indicated by ground flora species such as blue bell and ramson as well as its topography.

Scots pine, Norway spruce and Japanese larch account for roughly 50% of the canopy cover, the remaining 50% being made up of broadleaves, consisting mainly of sycamore and beech but also including some oak, rowan and ash. Some of the broadleaves have regenerated from previously felled trees, probably when the site was cleared for conifer planting around 1965, others appear to have regenerated from seed. It would appear that some of the beech and sycamore may also have been planted along with the conifers as crop trees. Scots pine and Japanese larch grows on the upper slopes, forming a band along the eastern and western boundaries, whilst Norway spruce grows on the middle and lower slopes on both sides of the burn. Broadleaves grow across the whole of the site in intimate mixture with confers.

The wood lacks a well established under storey but holly, hazel and elder grow in places. Coarse grasses and brambles dominate the ground flora under the lighter shade of the Scots pine and Japanese larch along the eastern boundary of the wood but in other areas typical woodland species, such as wood sorrel, greater stitchwort, common bugle, blue bell and ramson also grow. Open ground in the wood is a relatively minor feature, amounting to no more than 5% of the wood's area.

As the wood provides local people with a place to roam freely, its ownership and management helps to fulfil the Trust's corporate objective of increasing people's enjoyment of woodland. It is used predominantly by local people for dog walking and other informal recreation. Two public footpaths cross the site at its northern end and link into the Derwent Walk that runs along the northwest boundary of the wood. Broomhill Dene is also extensively used by children and teenagers as a place for playing in and hanging around. Consequently, this does create a number of problems on site, such as littering, motorbike trespass and vandalism of trees.

3.0 PUBLIC ACCESS INFORMATION

3.1 Getting there

Two public footpaths enter the wood from the east via wooden stiles in the fence and run east to west through the wood falling down and climbing up the steep sides of the dene. From the south, the wood is entered through the recreation area adjoining the southeast boundary or midway along the western boundary. Both access points lead onto a circular permissive path that links into the public footpaths and which is generally narrow, winding and muddy in places. For visitors wishing to reach the wood by public transport, bus stops are located on The Dene and Denecrest from where visitors can access the wood within a 2-3 minute walk. On-road parking is available nearby on Denecrest and The Dene.

3.2 Access / Walks

4.0 LONG TERM POLICY

The main objective for Broomhill Dene is to restore this Planted Ancient Woodland Site (PAWS) to a more natural state that will allow canopy and shrub species to regenerate naturally and ground flora to re-colonise areas where shading has suppressed this. Several selective thinning operations carried out since 1995 have substantially reduced the amount of spruce on site and the remaining conifers that require felling will be removed through a final round of selective thinning so that, by 2019, restoration work at the wood will be complete. By the middle of the 21st century, the resulting mixed high forest woodland will be of variable age structure with broadleaves such as oak, ash, beech and sycamore dominating the canopy with conifer species accounting for no more than 40% of total canopy cover. The restoration of Broomhill Dene helps fulfil the Trust's corporate objective of restoring planted ancient woodland sites.

The habitat and aesthetic value of Ebchester Burn will be improved by selective tree felling along the burn side and by removing fly-tipping and other detritus from the stream channel. By improving and maintaining the permissive and public footpaths on site, public access on foot will be secured so present and future generations can enjoy this wood.

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

Two short stretches of public footpath cross the wood at its northern end, running east-west, otherwise no other public rights of way exist on site. Permissive paths, running along the eastern and western boundaries link with the southernmost public footpath to form a circular route around the wood. Numerous desire line paths also run through the wood. Persistent anti-social behaviour problems over many years have contributed significantly to the degradation of the wood's entrances and paths and these are now in a poor state of repair.

Significance

Providing public access to woods is a cornerstone of the Trust's management approach to its properties and is encapsulated in its corporate objective of increasing enjoyment and understanding of woodland. Broomhill Dene provides the residents of The Dene with publically accessible woodland above 2ha in size within 500m of where they live, fulfilling one of the Trust's aspirational access standards, well as providing access to the wider countryside through linking to the public footpath network, including the Derwent Walk that runs along the northwest boundary of the wood.

Opportunities & Constraints

Broomhill Dene suffers considerable problems with fly-tipping, vandalism, motorbike trespass and other anti-social behaviour that both has a physical impact on the wood's paths and entrances and very likely puts off many people for enjoying the wood. In recent years, the high level of theft and vandalism has prevented the main access into the wood from being gated, so there is nothing to prevent unauthorised vehicles driving onto site. Steep slopes on both sides of the burn also limit the range of safe areas available for walking in the wood.

Factors Causing Change

Fly Tipping, fires, vandalism, theft, illegal tree felling and motorbike trespass.

Long term Objective (50 years+)

To ensure continued public access to the wood in the future by maintaining and improving the permissive and public footpath routes on site to allow residents from The Dene to walk a circular route around site, as well as providing access to the wider countryside through the link these paths provide to the Derwent Walk.

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

To consult with the Public Rights of Way officer so that by the end of 2015, a pragmatic and achievable programme of path and entrance improvements has been drawn up which can be implemented in partnership with Co. Durham's PRow office during 2016/17 that will substantially upgrade the public and permissive access infrastructure in the wood.

5.2 Watercourses

Description

Ebchester Burn flows through the centre of the wood along the dene bottom. It issues from the brick culvert on the wood's southern boundary and flows northwards, marking the northwest boundary of the Trust's property. The burn's channel reaches about 2m wide in places and contains some rocky outcrops and small waterfalls.

Significance

Ebchester Burn is an integral part of the Broomhill Dene site and is the only significant non-woodland habitat on site. Being a watercourse, it not only greatly enhances the wood's aesthetic appeal but also has the potential to be an important habitat for aquatic and non-aquatic plants and animals.

Opportunities & Constraints

Fly tipping occurs all along the burn's course but especially at its southern end where burn issues into the wood. In the past, the Trust's Estates Management Contractors have also reported the presence of human waste in the water. However, during the thinning works planned for 2018, the opportunity exists for opening and cleaning up this watercourse and increasing both its aesthetic and nature conservation value.

Factors Causing Change

Fly Tipping, Pollution

Long term Objective (50 years+)

The long-term objective for Ebchester Burn is to see this watercourse become a valuable habitat for aquatic and non-aquatic plants and animals as well as enhancing the aesthetic attractiveness of the wood as a whole.

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

Before the end of this management period, all fly-tipping, old and redundant features (e.g. culvert pipes) and any debris blocking the burn will be cleared from the watercourse. During the thinning operations (see harvesting section), selective trees will be felled along the burn to create a mix of open areas and dappled shade along its length as recommended in Forestry Commission's Water Guidelines.

5.3 Planted Ancient Woodland Site

Description

A mixed high forest woodland covering 4.19 hectares and occupying a small valley or "dene". Scots pine, Norway spruce and Japanese larch account for roughly 50% of the canopy cover, the remaining 50% being made up of broadleaves, consisting mainly of sycamore and beech but also including some oak, rowan and ash.

Significance

The amount of ancient woodland has decreased dramatically over the last century, much through being felled and converted to commercial forests by planting conifers. Restoring Broomhill Dene helps to address this loss by saving remnants of the original woodland that have survived and encouraging these to recolonise the site by removing many of the conifers and other canopy trees that are having a negative impact on the wood's biodiversity. The area of woodland owned by the Trust forms part of a much larger broadleaved wood that continues northwest of the Derwent Walk and also links into other area of woodland and scrub growing alongside this old railway line.

Opportunities & Constraints

The small size, steep terrain and difficult access all make this wood a problem to thin and extract timber from. Consequently, the final round of selective thinning will most likely be done as a thin to waste operation, though if a viable and cost effective option for harvesting the timber can be found, this will be done. The high level of anti-social behaviour experienced at Broomhill Dene is also likely to be a constraining factor on what can be done on site, such as leaving brash piles and timber stacks.

Factors Causing Change

Fly tipping, vandalism, illegal tree felling, fires.

Long term Objective (50 years+)

To restore this Planted Ancient Woodland Site (PAWS) to a more natural state that will allow canopy and shrub species to regenerate naturally and ground flora to re-colonise areas where shading has previously suppressed this. By the end of this management period, when restoration work is complete, conifers will form no more than 40% of the wood's canopy. By the middle of the 21st century, the resulting mixed high forest woodland will be of variable age structure with broadleaves such as oak, ash, beech and sycamore dominating the canopy whilst the conifers that remain will no longer have a significant impact on the wood's biodiversity.

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

Before the end of this management period, the final programme of selective thinning will be carried out to bring the wood to a condition where it can be classed as restored and no further thinning work is required. After thinning, the amount of conifers left in the canopy will be 40% or less. By the end of this management period the areas where ground flora was suppressed will now be recolonised and broadleaved regeneration between 10cm and 1m in height will begin to appear across the site.

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
3a	4.19	Mixed broadleaves	1965	PAWS restoration	Gullies/Deep Valleys/Uneven/Rocky ground, No/poor vehicular access within the site, People issues (+tve & -tve), Very steep slope/cliff/quarry/mine shafts/sink holes etc	Informal Public Access, Planted Ancient Woodland Site, Watercourses	County Wildlife Site (includes SINC, SINC etc), Planted Ancient Woodland Site

Broomhill Dene is a small valley woodland, occupying a Planted Ancient Woodland Site (PAWS) next to the council housing estate known as The Dene. The wood consists of Norway spruce and Scots pine planted around 1965, along with mixed broadleaves, some of which may have been planted at the same time. Among the broadleaves, sycamore predominates but beech, oak, rowan and birch are also present. Holly, hazel and elder occur occasionally as understorey species.

Scots pine is concentrated along the top of the slopes, along the eastern and western boundaries, whilst the Norway spruce grows mainly on the slopes down to Ebchester burn, which flows through the centre of the wood south to north. Broadleaves grow throughout the wood in an intimate mixture with the conifers. Open space makes up only about 5% of the wood's area, the remainder being high forest woodland. Among the trees, the conifers account for about 50% of the canopy cover and the broadleaves around 50%.

The woodland has two public footpaths crossing it at the northern end and a circular permissive footpath running along its boundaries, as well as numerous desire line paths. It is well used by local residents but also suffers considerably from vandalism, fly-tipping and illegal felling.

Appendix 2: Harvesting operations (20 years)

Forecast Year	Cpt	Operation Type	Work Area (ha)	Estimated vol/ha	Estimated total vol.
2020	3a	Selective Fell	4.00	75	300

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.