



Brow Wood

Management Plan 2015-2020

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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 Consequently this printed version may quickly become out of date, particularly in relation to the planned work programme and on-going monitoring observations.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:	Brow Wood
Location:	Newtondale
Grid reference:	SE821896, OS 1:50,000 Sheet No. 100
Area:	10.99 hectares (27.16 acres)
Designations:	Ancient Semi Natural Woodland, National Park, Site of Special Scientific Interest

2.0 SITE DESCRIPTION

2.1 Summary Description

Brow Wood is part of a large area of woodland within the North York Moors National Park. The wood is on a sloping site that runs down to Pickering Beck and has views of the North York Moors Steam Railway. There a footpath along the valley floor but access to this is by a very steep and unsurfaced path so it does attract many visitors.

2.2 Extended Description

Newtondale is a classic geomorphologic feature consisting of a deeply incised glacial meltwater channel now occupied by Pickering Beck, through the different underlying geology and associated soil types, providing a fine example of the succession of habitats between the upper and lower valley regimes which include within this area, woodland, grassland and marsh. The habitats and its designation as Ancient and Semi-Natural Woodland are maintained here largely due to the inaccessible terrain.

Within the North York Moors National Park, Brow Wood forms part of a much larger expanse of woodland included within the Newtondale SSSI, which extends to 935.5 hectares (2311.1 acres). The upper slopes of the woodland are composed mainly of birch with remnant oak, rowan, ash and lime with an under storey of hazel, hawthorn and holly, on a very steep slope. The age structure is fairly uneven and regeneration is good. There is a scrub edge to the west of hawthorn, blackthorn, birch and gorse. Lower gentle slopes of the valley and woodland bordering Pickering Beck are composed of mixed broadleaves of typically oak, ash, alder, rowan and willow spp. With large areas of open ground and low growing scrub creating a very open wooded feel. Very rich floristically, this area retains a great importance as part of the succession of habitats between the lower and upper valley regimes. The lower slope feeds into an open wet meadow/ marsh area which is seasonally waterlogged, this in turn is bordered by Pickering Beck and streamside alders. The woodland does appear to have had periodic management in the past - particularly coppicing and felling - probably for firewood. The associated ancient woodland and wet meadow/ marsh flora is especially rich and is grazed by cattle during the driest summer months. Species lists for the SSSI are available, along with survey information from the Yorkshire Wildlife Trust. Access to the woodland is available from the West via East Brow Road. An un-surfaced and very steep permissive path runs down through the wood, linking up with the public footpath along the valley floor, which is called Brow Banks Bottom Road. Although not well used in itself the woodland is very visible from the North York Moors Steam Railway which runs along the valley.

3.0 PUBLIC ACCESS INFORMATION

3.1 Getting there

Public access is from the public footpath (Brow Bank Bottoms Road) crossing the eastern part of the site along the relatively flat valley bottom, in a north west/ south east direction. The route is unsurfaced and is used by other landowners in the valley , and is often heavily rutted and muddy due to farm traffic. A permissive path links Bottoms Road to another Public Footpath which runs to the south west of the wood. The permissive route takes a very steep zig zag up an extremely steep slope, and is unsurfaced and uneven in places due to water erosion. The access point of this permissive path to the west is not easily seen, as there is a short section of private woodland before Woodland Trust ownership starts, denoted by a welcome sign.

Parking to the west is extremely limited on the often narrow lanes - the nearest parking facilities are 2km north west at Newton On Rawcliffe, or Lockton/ Levisham 2-3km to the east, where there are also bus services. Access from Newton on Rawcliffe is via loose surfaced roads and single track lanes. An alternative view of the woodland and the rest of the Newtondale valley can be taken from the North York Moors Steam Railway, the track of which runs directly along the valley bottom , giving excellent views of the woodland. Information from the traveline website. Further information about public transport is available from Traveline- www.traveline.org.uk or phone 0870 608 2608

Public toilets are available in Pickering town centre approximately 6km to the south, where there are also ample pay and display car parking facilities.

3.2 Access / Walks

4.0 LONG TERM POLICY

As a Site of Special Scientific Interest (SSSI) of such value and as part of a much larger SSSI area, the intention is to maintain a native broadleaved woodland and wet meadow pasture. This will be achieved through minimum intervention within the woodland area as senescence and on-going wind-throw on the thin soils provides opportunity for the ample natural regeneration, creating and maintaining a diversity of age structure within the woodland. The wet meadow areas will also be managed through low intensity grazing; maintaining the meadow and restricting the development and encroachment of scrub. The alder carr woodland will also be managed through minimal intervention. Access will be maintained at the present levels via the un-surfaced public footpaths.

5.0 KEY FEATURES

The Key Features of the site are identified and described below. They encapsulate what is important about the site. The short and long-term objectives are stated and any management necessary to maintain and improve the Key Feature.

5.1 Ancient Semi Natural Woodland

Description

Designation of Ancient Semi-Natural Woodland in Nature Conservancy Council Inventory of Ancient Woodland 1987. Acidic woodland of oak, birch and rowan, holly, ash and elm dominates the upper slopes, moving into scrub willow, thorn and alder towards the valley floor.

Significance

Semi-Natural Ancient Woodland maintained on the site largely due to the inaccessible terrain. Part of the Newtondale SSSI, Newtondale being a classical geomorphological feature consisting of a deeply incised glacial melt water channel, the site provides a fine example of the succession of habitats between the lower and upland valley regimes, which include woodland, grassland and marsh. Brow Wood forms part of a much larger chain of Ancient Semi Natural Woodlands following the steep valley sides of Newtondale.

Opportunities & Constraints

Upper slopes are inaccessible to anything other than on foot due to the very steep slopes, lower slopes and wet meadows are very rich floristically and prone to damage from vehicles. Access for vehicles limited to the un-surfaced farm track which runs through the site on the flat valley floor. Wet meadow and lower slopes seasonally waterlogged.

Factors Causing Change

Invasive sycamore, Invasive beech, wind blow of coppiced trees. Deer, squirrel, rabbit and other mammal damage to trees and natural regeneration.

Long term Objective (50 years+)

Maintain native broadleaved woodland on this SSSI site. The woodland will be managed through minimum intervention towards high forest of oak and ash. Although hazel coppice is present, and there is an indication of coppice with standards, it is felt that there would be little environmental or economic benefit in re-introducing a coppice regime.

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

Monitor the woodland to assess natural regeneration. The assessment should record both native and non-native species so that an assessment can be made as to how the species composition of the woodland might change over time. As part of the woodland condition assessment of natural regeneration the survey should also consider any impacts of deer and other mammals on natural regeneration or other activities.

5.2 Informal Public Access

Description

A Public Footpath (Brow Bank Bottoms Road) runs along the eastern edge of the site, through the lower slopes. A steep permissive path has been created from the public highway to the west and runs down through the woodland, providing a link with the footpath.

Significance

In line with the corporate objectives to increase visitor enjoyment. The permissive route also provides a valuable link from the public footpath to the south west of the site, through to the public footpath (Bottoms Road) to the east.

Opportunities & Constraints

Limited number of visitors using the footpath and the permissive route. Very steep slopes and wet valley floor ensures visitors do keep to the promoted routes. The inaccessible terrain and designations make the creation of any more permissive routes unfeasible.

Factors Causing Change

Natural regeneration of scrub over the line of the footpath. Flooding of meadow area and footpath.

Long term Objective (50 years+)

Maintain the existing path network of permissive and public footpaths. No future path creation to be undertaken due to the steep slopes and SSSI importance.

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

Maintain the current routes ensuring the Woodland Trust areas of ownership are marked with welcoming signs, paths (850m) maintained through at least annual inspection for tree safety, vegetation clearance and litter.

5.3 Open Ground Habitat

Description

Part of the Newtondale SSSI, compartment 2A is wholly unimproved wet meadow. Floristically rich, low lying and flat. This area is seasonally waterlogged. Bounded to the south east by a continuation of wet meadow, to the west by ASNW (continuation of the Newtondale geological SSSI), to the north west by semi improved grassland and east by Pickering Beck then improved pasture grassland.

Significance

The area is an SSSI being a floristically rich unimproved wet meadowland.

Opportunities & Constraints

The wet meadowland is enclosed by scrub and woodland. The grassland has also become coarser having not had grazing for some time but hopefully with the recent re-introducing grazing the floristic quality will gradually improve over a number of years.

Factors Causing Change

Uncontrolled grazing, Invasive sycamore, Natural succession to scrub woodland, Deer damage.

Long term Objective (50 years+)

To maintain the area as a wet meadow with annual controlled grazing with cattle.

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

To improve the floristic quality of the grassland by maintaining the annual controlled grazing of cattle on the site. Scrub encroachment to be assessed once every 5 years.

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	8.15	Mixed native broadleaves	1900	High forest	No/poor vehicular access within the site, Sensitive habitats/species on or adjacent to site, Very steep slope/cliff/quarry/mine shafts/sink holes etc	Ancient Semi Natural Woodland, Informal Public Access, Open Ground Habitat	Ancient Semi Natural Woodland, National Park, Site of Special Scientific Interest
<p>Steep upper slopes of the valley side woodland are predominantly birch, oak, ash and rowan with an understorey of hazel and holly. The woodland here appears to have all been felled approximately 40 years ago and has re-coppiced and regenerated. Rich and diverse ground flora associated with the ancient semi-natural woodland. Bounded to the north west and south east by further SSSI ASNW, to the west by improved grassland pasture/ grazing and to the east by scrub ASNW woodland.</p>							
2a	1.30	Other		Wood pasture	Mostly wet ground/exposed site, Sensitive habitats/species on or adjacent to site	Ancient Semi Natural Woodland, Informal Public Access, Open Ground Habitat	National Park, Site of Special Scientific Interest
<p>Part of the Newtondale SSSI, this compartment is wholly unimproved wet meadow. Floristically rich, low lying and on flat land. This area is seasonally waterlogged. Bounded to the south east by a continuation of wet meadow, to the west by ASNW (continuation of the Newtondale geological SSSI) , to the north west by semi improved grassland and east by Pickering Beck then improved pasture grassland.</p>							
3a	1.80	Mixed native broadleaves	1900	High forest	Mostly wet ground/exposed site, Sensitive habitats/species on or adjacent to site	Ancient Semi Natural Woodland, Informal Public Access, Open Ground Habitat	Ancient Semi Natural Woodland, National Park, Site of Special Scientific Interest

Alder carr woodland on the lower gentle slopes and flat land of the valley and woodland bordering Pickering Beck. Mainly alder with occasional willow, oak, ash and hazel. Rich floristically, this area retains a great importance as part of the succession of habitats between the lower and upper valley regimes. Bounded to the west by SSSI ASNW, to the north by semi improved/ improved pasture grassland, to the east by Pickering Beck and further semi improved/ improved pasture grassland and to the south east by SSSI unimproved wet meadow.

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.