

# **Beech Hill Wood**

# Management Plan 2016-2021

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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 Consequently this printed version may quickly become out of date, particularly in relation to the planned work programme and on-going monitoring observations.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 <a href="www.woodlandtrust.org.uk">www.woodlandtrust.org.uk</a> 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 <a href="www.woodlandtrust.org.uk">www.woodlandtrust.org.uk</a>. 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.
- 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: Beech Hill Wood

Location: Storrs

**Grid reference:** SD390922, OS 1:50,000 Sheet No. 97

Area: 4.89 hectares (12.08 acres)

**Designations:** Ancient Semi Natural Woodland, National Park

# 2.0 SITE DESCRIPTION

#### 2.1 Summary Description

The rock outcrops, grassy plateaus, spectacular trees and species mix create a varied and extremely attractive landscape that is well worth a visit.

#### 2.2 Extended Description

Beech Hill Wood is situated in the Parish of Cartmel in the Lake District National Park and was purchased by the Woodland Trust in 1995. The wood is 7.9 miles south of Windermere, off the A592 which connects Windermere at the north of Lake Windermere, to Newby Bridge at the south. This is a popular tourist route as well as a busy access road. Beech Hill Wood (4.79 ha) is part of a larger block of woodland extending both to the east and south, known as Moor Craq Plantation. Beech Hill is designated as ancient semi-natural and overlooks Lake Windermere to the west. The terrain rises in a series of rocky outcrops and small plateaus from 70m the north-western corner to 160m in the southeast. A number of small streams and springs cross the site and create wet flushes with associated flora. The tree canopy is dominated largely by sessile oak with some pendunculate oak and a mixture of ash, beech and birch with alder dominant in the wet flushes. Mature trees of approximately 100 years old are present with a small number of much older beech and yew. The under storey is predominantly holly with pockets of yew, hazel and whitebeam with some regeneration of ash, rowan, beech, oak and alder. Throughout the woodland there is standing and fallen deadwood at varying stages of decay. The ground flora and sparse shrub layer is typical of the acid soils in the region. Species present are varied and include bilberry, wavy hair grass, lesser celandine, wood sorrel, bluebells, lords and ladies, bracken, ferns and honeysuckle. The wood is a good site for the liverworts and mosses some guite notable species have been identified including wood rust and transparent fork moss.

Visitors and staff from the Beech Hill Hotel, opposite the wood, use the wood regularly. From the entrance on the roadside, in the middle of the western boundary, a permissive path of 220m extends northeast to the top most corner of the wood where there is a bench and a viewpoint with views out to Lake Windermere and the Grizedale fells. Other less well-used paths can be followed through the wood. The rock outcrops, the grassy plateaus, the spectacular trees and species mix create a varied and extremely attractive, internal landscape. Adjacent to the Hotel is a National Park car park. There are public facilities here and a small picnic area. This is where the information board for Beech Hill Wood is situated.

# 3.0 PUBLIC ACCESS INFORMATION

#### 3.1 Getting there

Beech Hill Wood is situated in the Parish of Cartmel in the Lake District National Park, 8 miles south of Windermere on the A592, which connects Windermere at the north of Lake Windermere to Newby Bridge at the south.

The wood is opposite the Beech Hill Hotel. From the squeeze style entrance in the middle of the western boundary, off the road, a permissive path extends steeply northeast to the top most corner of the wood where there is a viewpoint and a bench overlooking Lake Windermere. Other less well-used paths can be followed through the wood to create a circular walk. The rock outcrops, the grassy plateaus, the spectacular trees and species mix create a varied and extremely attractive, internal landscape. The terrain is quite steep and rocky in places. Just south of the Beech Hill Hotel is a National Park pay and display car park. There are toilets here and a small picnic area. This is also where the information board for Beech Hill Wood is situated. Parking along the roadside is not advisable.

By car from the M6 Turn off at Junction 36 and follow the A591 towards Windermere. At the end of the dual carriage way go straight over the roundabout heading towards Windermere on the A591. On entering Windermere turn left at the Tourist Information Centre and follow this road down to Bowness. At the mini roundabout go straight on the A592 through Storrs and the wood is on the left opposite the Beech Hill Hotel. The National Park car park is on the right after the hotel.

By train the Kendal to Windermere branch line and run regularly. By bus the 618 from Windermere to Haverthwaite travels along the A592 but it is not known if there is a stop near the wood.

Arrive by boat! Lake Cruisers and Steamers provide regular sailings from Ambleside and Lakeside to Bowness. For further details contact Windermere Lake Cruises on 015395 31188 or www.windermere-lakecruises.co.uk

Traveline Cumbria provides comprehensive timetable and fare information for all bus, coach, rail and Lakeland ferry journeys to/from and within Cumbria & the Lake District. A journey planner will help you plan your journey regardless of who operates the services Tel: 0870-608-2608.

#### 3.2 Access / Walks

# 4.0 LONG TERM POLICY

It is the Trust's objective to enhance the typical ancient characteristics of this woodland within the landscape and to maintain and improve the biodiversity of the whole woodland, retaining the special features of the wood as well as increasing people's awareness and enjoyment of this ancient habitat. This is in line with the outcomes in the Trust's Action Plan 'Keeping Woodland Alive'. All of this work will be carried out in the context of the Trust's Woodland Management Approach.

Beech Hill Wood 4.79ha (11.2acres) is characteristic of semi-natural ancient woodland - upland oak/birch woodland with bilberry (NVC W17). Native species account for over 85% of the canopy of this predominantly sessile oak woodland. Non native trees make-up only a small proportion of the canopy species, approximately 5%, and include a small number of large ancient beeches which play a vital ecological role within the woodland sustaining insects, birds, lichen and much more. Additionally there is a small number of Norway spruce in the upper central section. The long-term intention is to retain the continuous canopy and maintain the present relative density of native and non-native species in the canopy, maintaining the current structure of the woodland at which it appears that the ancient woodland characteristics are thriving and will perpetuate. This will involve managing the woodland by minimum intervention to promote the continuity of the canopy and the retention of old, dead and dying stems to fulfil the species natural life span.

The Trust aims to enhance the biodiversity of the ancient woodland by conserving the old growth of the trees, the deadwood communities and the mosses and lichens by adopting working practices that do not impact adversely on the integral environment; thereby protecting and promoting the ecology of the ancient woodland for all species. Retention of old growth, decaying and dead wood both standing and fallen is essential for specialist woodland species, particularly saproxylic beetles and epiphytes and for the promotion of the ancient communities present. The retention of old growth may be constrained by the need to implement tree safety work near to the road and along the footpath.

Species regeneration is sparse but currently includes beech, ash, holly and hazel. The development of the understorey is only expected to occur as large enough gaps are formed by natural breakdown in the canopy. However regeneration that is occurring is heavily browsed by deer and management action to protect regeneration may be required at intervals. Regeneration will be observed to see if the successive regeneration falls within the current species densities or if the relative densities are changing and what, if any, impact this might have. On-going review and monitoring of work is essential to ensure the base line data is collected so that management decisions can be made.

Monitoring the habitat is required to ensure that there is no detrimental, on-going habitat change or loss of species, through progressive changes to the non-native proportion of tree species or through the colonisation of non-natives in the understorey or ground flora. At present control of non-native species is not required and would only be considered to enhance the conditions in which the ancient woodland communities can flourish and become more robust.

The Trust will maintain the informal access to the woodland commensurate with access category C. Public access will be encouraged with paths and stiles maintained and improved where necessary and open access encouraged so that local users and visitors can continue to share in the wood's beauty, gain an understanding of the woodlands importance in the landscape and it's rich wildlife

habitat. Public information and promotion of the woodland both nationally through the Trusts publications and directory's and locally will be enhanced where possible and posters will be used to inform and involve visitors with the woodland.

It is anticipated that this approach will safeguard and enhance the existing environmental value of the wood and maintain and enhance the level of public access in the woodland.

#### 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

Beech Hill Wood 4.5ha is characteristic of semi-natural ancient woodland W11 oak/birch woodland with wood sorrel. Set within the Lake District National Park, it is part of a larger block of woodland known as Moor Crag Plantation, to the eastern side of Lake Windermere. The terrain rises from the A592, in a series of rocky outcrops and small plateaus from 70m in the north-western corner to 160m in the southeast. A number of small streams cross the wood and create wet flushes. To the south west one stream emanates from a spring within the wood. To the north a stream crosses the wood from east to northwest emanating from a spring in Moor Crag Plantation.

The canopy is composed of mature oak (Quercus robur and Quercus petraea), ash (Fraxinus excelsior) and beech (Fagus sylvatica) with an understorey of hazel (Corylus avellana) and holly (Ilex aquifolium).

Due high light levels under the canopy, the woodland ground flora is diverse including wavy hair grass (Deschampsia flexuosa), bilberry (Vaccinium myrtillus), bluebell (Endymion non-scriptus), woodsorrel (Oxalis acetosella), wild arum/Lords and ladies (Alum maculatum), lesser celandine (Ranunculus ficaria), bracken (Pteridium aquilinum), honeysuckle (Lonicera periclymenum). Ferns, mosses (Tetraphis, Racomitrium aquaticum, Heterocladium, Hookeria) and liverworts (Trichcolea) have been identified in small quantities in wet flushes, Nowellia on logs and stumps, Bazzania; -some quite notable, found mostly in untouched acid woodland due to the presence of the stream and the small area of wetland.

Populations of seedlings are present throughout the wood especially on the lower reaches, but unfortunately less advanced regeneration, except of holly, which is dominant, with little hazel, beech and ash. Some oak regeneration was identified. Deer browsing of shoots is evident throughout the wood. To the centre of the wood there is a marked increase in native and non-native conifers, namely yew (Taxus baccata) and Norway Spruce (Picea abies) providing a change in density and light levels, adding to the diversity of the wood.

# Significance

Although small, Beech Hill Wood is part of a larger functioning ancient woodland and the greater the area of semi-natural habitat the more diverse species range can be sustained. This area of the National Park is well wooded (25%-30% cover) and woodland makes an important contribution to the landscape character of Windermere. This importance is reflected in the Countryside Agency's vision for South Cumbria Low Fells (Character Area 19, Landscape Character Map The Countryside Agency), which sets out to protect these areas from overgrazing and felling and improve the management of woods and where feasible to expand the area of woodland cover. This woodland area is ancient and has provided a continuous habitat for native species, birds, insects, lichen, fungi and notable liverworts and mosses for hundreds of years. Many of these species are specialized and can live nowhere else and spread very slowly, if at all, into new woods, making protection of these ancient habitats vital. Internally the wood has a varied mosaic of habitats such as flushes, running water and old growth and deadwood, essential for those birds and invertebrates, which require a number of habitat features to complete their life cycle. Internally, the woodland landscape has a very valuable natural 'feel' protecting and maintaining the structure and diversity will increase this richness. Upland oak woods are recognized internationally as being important and have been given national priority through the English Forestry Strategy (Forestry Commission 1998) and the UK Biodiversity Action Plan (1995). Also woodlands adjacent to water bodies are an important way to reduce and control the rate and flow of sedimentation into the water; this is a vital mechanism for the continued quality of the Winderemere water catchment.

#### **Opportunities & Constraints**

There is an opportunity to monitor the natural processes of the wood and the timing of regeneration and use low-key techniques to promote succession. The browsing of deer is a significant problem affecting natural regeneration. However regeneration is occurring and seedlings are present, so it is felt that succession should occur when gaps appear as long as browsing is controlled. Potentially there are opportunities for managing the natural regeneration or under-planting however in the past regeneration of oak, ash and rowan has been tubed with individual tree shelters and failed. Also a number of oaks, ash and rowan planted in small groups in gaps in the canopy in the lower section of the wood have had little success with ash and rowan performing better than oak. There is an opportunity to try other techniques to promote regeneration including scarification but this could damage the rare mosses and cause quite a change to the internal make-up of the wood. The retention of standing deadwood may be constrained by safety concerns in proximity to the road and adjacent buildings. There is non native rhododendron on site - 4 small rhododendron bushes - one along the roadside to the north and three adjacent to the staff block - these are easily eradicated at this stage.

# **Factors Causing Change**

Frequent wind damage, Deer damage, Other - Misuse by visitors. Disease - ash dieback which appeared in Cumbria 2017.

# Long term Objective (50 years+)

The long-term aim is to maintain the structure, diversity and richness of this ancient semi-natural woodland, ground flora and bryophyte community presently associated with the continuously wooded canopy by maintaining the canopy cover whilst monitoring and promoting succession as required. The aspiration is to promote continuity of this well-developed predominantly native woodland through minimum intervention and to retain old growth both standing and fallen to foster good conditions to create a continually robust ancient woodland community.

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

It is hoped that this wood will require no silvicultural management (Minimum Intervention Policy) and that integral self-sustaining systems will be shaped by natural processes.

Other management to achieve the vision set out are to:

Observe and record the diversity of species, monitor succession once every 10-15 years and the impact of any factors causing change. Using regular woodland observations to detect any change.

Continue to monitor tipping and other forms of misuse including campfires, for impact on the wood. Taking action where appropriate.

Inspect Woodland Trust boundaries once every 5 years and maintain to prevent domestic stock entering the wood. Liaise with neighbouring landowners where necessary.

#### 5.2 Informal Public Access

#### Description

Beech Hill Wood is situated in the Parish of Cartmel in the Lake District National Park 7.9 miles south of Windermere off the A592, which connects Windermere, at the north of Lake Windermere, to Newby Bridge at the south. From the entrance in the middle of the western boundary, off the road, a permissive path (220m) extends northeast to the top most corner of the wood where there is a viewpoint overlooking the Lake and a bench. Other less well-used paths can be followed through the wood to create a circular walk. The rock outcrops, the grassy plateaus, the spectacular trees and species mix create a varied and extremely attractive, internal landscape. The terrain is quite steep and rocky in places. Just south of the Beech Hill Hotel is a National Park, pay and display car park. There are public facilities here and a small picnic area. This is also where the information board for Beech Hill Wood is situated.

# Significance

Beech Hill Wood provides informal recreation opportunities for the local community and visitors to the Lakeland countryside. Increasing enjoyment of woodland is one of the Trust key outcomes and a cornerstone to the vitality of the woods. Encouraging access to this wood can be particularly instructive given the rich and varied habitats and features within the ancient woodland and the importance of its habitat on both a local and national scale. The Cumbria Biodiversity Action Plan incorporates the action for landowners to give the public the opportunity to experience and appreciate wildlife. Public appreciation of ancient woodlands is good for the well being of those visiting the wood and ultimately, good for the wood itself through increased public understanding of the plight of ancient woodlands.

# Opportunities & Constraints

Work has been done circa 2000 to extend the path to reach the viewpoint at the northeast corner of the wood. Further opportunities exist to improve access. However, use of the wood is constrained, as there are no external links, although there may be opportunities to work with neighbouring landowners to create permissive routes. Additionally, the circular route is little used and not well defined. The terrain is rocky and steep in places again restricting access and making footpath improvements difficult to undertake and less viable. Any work to the footpath route may well conflict with the management of the ancient woodland habitat, improvements and changes must be balanced against this vision. There is an opportunity to inform the public of management practices and the history, geology and botanical interest in the wood through information boards, posters and consultation.

# **Factors Causing Change**

Other - vandalism, Fly tipping.

# Long term Objective (50 years+)

The Trust will maintain the informal access to the woodland commensurate with access category C. Public access will be encouraged with paths maintained and improved where necessary to encourage access so that local users and visitors can continue to share in the wood's beauty, gain an understanding of the woodlands importance in the landscape. Public information and promotion of the woodland both nationally through the Trusts publications and directory's and locally will be enhanced where possible and posters will be used to inform and involve visitors with the woodland. The Trust will continue to promote the woodland amongst people in the region and members nationally so long as the primary objective of 'no further loss of ancient woodland' (in terms of both quality and quantity) is not compromised.

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

Maintain the path network annually, cut back encroaching vegetation and strim to pedestrian width the network of footpaths identified on the map, taking care to strim where necessary for use and safety, clearing any encroaching branches and fallen timber from the footpath. Maintain 2 access points with squeeze stiles, welcome signs x 2, bench and information board. Maintain viewpoint in northeast corner by pruning at regular intervals - every two years anticipated. Undertake regular safety inspections on trees and the retaining wall boundary to the road at defined intervals. Clear litter and tipping as necessary. Liaise with neighbouring landowners to investigate extending access in the area. All works to be carried out to Woodland Trust specifications.

# 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	4.89	Oak (sessile)	1890	High forest	Mostly wet ground/exposed site, No/poor vehicular access within the site, Very steep slope/cliff/quarry/ mine shafts/sink holes etc	Ancient Semi Natural Woodland, Informal Public Access	Ancient Semi Natural Woodland, National Park

For the purposes of management the whole wood is treated as one sub-compartment as there is little variation in the species composition and canopy structure across the wood. To the west the wood is bounded by the A592 Windermere to Newby road and to the north of the wood is private property containing a paddock and woodland. To the east and south is broadleaved woodland known as Moor Crag Plantation, which is made up of similar species and age. Also to the south is a hotel staff block, part of the Beech Hill Hotel complex, which is located across the road to the west. Beyond this to the west is Lake Windermere. Most boundaries are drystone wall with some post and wire fencing to the south along the staff block and post and wire fencing to the woodland to the north. Woodland Trust ownership is shown on the legal map and includes part of the drystone wall on the northern boundary & the southern most boundaries and that surrounding the staff block. Litter and tipping has been a localised problem to the southwest of the wood. The terrain rises in a series of rocky outcrops and small plateaus from 70m in the northwestern corner to 160m in the southeast. A number of small streams cross the wood and create wet flushes. To the south west one stream emanates from a spring within the wood. To the north a stream crosses the wood from east to northwest emanating from a spring in Moor Crag Plantation. The ground flora is varied and includes bilberry, (Vaccinium myrtillus), wavy hair-grass (Deschampsia flexuosa), wood sorrel (Oxalis acetosella), hard fern (Blechnum spicant) and some notable mosses and liverworts, characteristic of upland acid soils. Access both management and public is gained from the entrance in the middle of the western boundary where there is a 12ft gate and squeeze stiles. Welcome signs are located here, whilst the information board can be found in the nearby National Park car park. From the road, a permissive path (220m) extends northeast to the top most corner of the wood. Other less wellused paths can be followed through the wood. Management access by vehicle is difficult throughout the wood and hampered by the constricted vision onto the A592 a 60mph road.

# **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.