WOODLAND TRUST

Hebblethwaite Hall Wood

Management Plan

2014-2019

MANAGEMENT PLAN - CONTENTS PAGE

ITEM **Page No.**

MAPS

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 Consequently this printed version may quickly become out of date, particularly in relation to the planned work programme and on-going monitoring observations.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:	Hebblethwaite Hall Wood
Location:	Sedbergh
Grid reference:	SD690931, OS 1:50,000 Sheet No. 98
Area:	4.54 hectares (11.22 acres)
Designations:	Ancient Semi Natural Woodland, National Park, Regionally Important Geological and Geomorphological Sites

2.0 SITE DESCRIPTION

2.1 Summary Description

A beautiful little ancient woodland, hidden away in a gill in the Yorkshire Dales National Park. It's great to explore as part of a longer route, as it's necessary to walk to the site and the terrain is challenging, with steep slopes to climb on the paths. The wood is peaceful, with a bench to sit on and admire the spring flowers, and waterfalls to watch, plus the remains of an old bobbin mill in the east to fire the imagination.

2.2 Extended Description

Hebblethwaite Hall Wood is a long, narrow strip of woodland in a rural area, in the Yorkshire Dales National Park. It is on the banks of a very steep little valley containing a stream (gill), 2 miles north east of Sedbergh, at Cautley, Cumbria. A long thin strip of semi-natural ancient woodland covers both sides of the gill for 2.5km in length and varying in width up to 170m. The Woodland Trust acquired a middle section of the wood in 1990, 4.54 hectares in size but almost 1 km in length, and varying in width from 20 to 80m. The area owned by the Trust is wholly on the northern valley side of the deeply incised Hebblethwaite Hall Gill and is very steep in places. The wood is almost hidden in the surrounding landscape, with pasture fields and moorland further afield.

Although some areas of the woodland appear to have been managed in the distant past, for example by coppicing, large areas of it are inaccessible and undisturbed due to the steep slope, and in places the trees and shrubs are of a significant age. It now has an almost continuous canopy, with several naturally created small clearings where mature trees have fallen. These clearings are not regenerating. The wood is mature, native, broadleaved high forest, with all the characteristics of upland oak woodland with a hazel coppice under storey, and has a wide range of native trees and shrubs. Natural regeneration does occur, but little is visible as survival and growth is poor due to browsing, or swamped by coarse vegetation (bracken or grasses), and so there is virtually no younger generation of trees or shrubs. Regeneration or planting that has been adequately protected and maintained (either with individual shelters or ring-fencing) has been successful in growing.

The wood has a varied and undisturbed ground flora and soils, as much of it so inaccessible (although there are signs of very old access tracks descending into flatter areas). There are wet areas various points in the wood and a number of small streams. Plants include mosses, lichens, ferns and ancient woodland plants such as bluebells, lesser celandine mixed with foxglove and bracken. There has been browsing by sheep in the flatter areas, particularly flatter areas and the far western end creating grassy glades.

There is an abundance of dead wood both standing and fallen, because access (and hence safety needs) are naturally limited, and there are obviously opportunities to continue to develop this.

The wood has 2 entrances provided by a public footpath which crosses the site north-south (crossing the stream from the south over a footbridge) and then along the 650m of permissive paths which run to the west and east along its entire length. It is very attractive, although steep in places.

The steep, almost vertical slopes, expose rocks and the bedding of carboniferous limestone, sandstone and shale, which outcrop at the base of the gill. These internally exposed complex rock and strata formations are designated by the Cumbria RIGS Group (Regionally Important Geological and Geomorphological Sites). There are good exposures of sandstones containing conglomerates in the bottom of the gill.
The wood contains the derelict remains of an old bobbin mill in the east, which employed local people until about the 1890's, when it was abandoned. Hebblethwaite Hall itself is next door, with a farm attached. Historically, it probably used the wood for grazing and firewood.

3.0 PUBLIC ACCESS INFORMATION

3.1 Getting there

Hebblethwaite Hall Wood is 2 miles east of the town of Sedbergh, in the county of Cumbria, but also within the Yorkshire Dales National Park.

Access to Hebblethwaite Hall Wood is easiest from the northern end of Hebblethwaite Hall Lane (a cul-de-sac) from the A683, the Sedbergh to Cautley Road. By car, exit the M6 at junction 37 and take the A683 to Sedbergh. In Sedbergh follow the main road right to a mini roundabout. Turn left and stay on the A683 signposted Cautley and Kirby Stephen. Hebblethwaite Lane is off the A683 about 2 miles from the town. There is no official parking down Hebblethwaite Lane (and it is a single track road), hence it is recommended to park either in laybys on the main road or Sedbergh town centre car parks.

From Hebblethwaite Hall buildings, cross the field to the south using public footpath to meet the wood at the step stile. The public right of way immediately descends via steep steps to the gill bottom where it crosses the stream over a footbridge and leaves the Trust holding. However, a permissive path runs east and west along the gill (and is only on a gentle slope) from this entrance. East the path follows the boundary for approximately 100m and then descends to the old bobbin mill in the gill bottom via a track. To the west the path follows close to the field boundary for approximately 200m providing excellent views of the steep valley below. The path then descends to the gill bottom at the downstream in the site. There is a bench here to sit and enjoy the view. There are no links to this permissive path so it is necessary to return by the same route.

National cycle route 68 passes through Sedbergh, for more details see www.sustrans.org.uk. The nearest public toilets are in Sedbergh on the corner of Main Street and Joss Lane in a public car park, which is also next to the Sedbergh Tourist Information Centre, which can provide local information. They can also be contracted on 015396 20125 or http://www.sedbergh.org.uk/ or www.yorkshiredales.org.uk. Sedbergh is a small town, with all the usual visitor facilities.

There is a bus route from Sedbergh to Kirby Stephen via Cautley but it is not known if there is a stop near to Hebblethwaite Lane end.

Traveline North East provides comprehensive timetable and fare information for all bus, coach, rail to/from and within Cumbria. A journey planner will help you plan your journey regardless of who operates the services. Web site: http://jplanner.travelinenortheast.info/ or Tel: 0871 200 22 33.

3.2 Access / Walks

4.0 LONG TERM POLICY

It is the Trust's aim to manage this semi-natural ancient woodland to ensure that the conservation value of the site is maintained, as well as to retain its historical and landscape significance, whilst increasing people's awareness and enjoyment of Hebblethwaite Hall Wood and the wider landscape.

The aim will be to maintain the mixed, high forest continuous-cover structure of the wood, with a wide range of mixed, predominantly native, trees and shrubs, of a wide variety of ages. Regeneration (either natural or by planting) will be monitored to ensure it is adequate, and encouraged and protected in areas where levels of browsing, or coarse vegetation (grasses and bracken) are affecting this. Tree safety needs are low and as such most dead wood (standing and fallen) can be left in situ and levels will naturally increase. The soils and ground flora, especially in wet flushes, will be left undisturbed, as again access needs are low.

The boundaries will be monitored and managed to ensure they remain stock-proof, liaising with neighbouring farmers as necessary (as not all boundaries are the Trust's responsibility).

The Trust will continue to manage the current level of informal public access to 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

Ancient woodland covers both sides of the Hebblethwaite Hall Gill (a valley) and continues up and down stream, however, the Woodland Trust section is a 4.5 hectare section in the middle of this and solely on the northern side of the deeply incised valley. It is a continuous strip almost 1 km in length, varying in width from 20 to 80m and is very steep in places.

The wood is upland oak woodland and is now mature, native, broadleaved high forest. It has a mix of native species is typical to the area, being predominantly oak (Quercus robur and Quercus petraea) and ash (Fraxinus excelsior) with some sycamore (Acer pseudoplatanus) and beech (Fagus sylvatica). The sycamore and beech have probably been planted in the past. In some areas there is substantial shrub layer of hazel (Corylus avellana) and rowan (Sorbus aucuparia). The ground flora is representative of ancient woodland, and very varied because of the changing topography, and permanently wet areas. Spring flowers include bluebells, wood sorrel and dog's mercury, with meadowsweet in the wetter parts.

There are a number of open glades, formed naturally by falling trees, which provides variety, however they are increasing as they are not regenerating naturally. Indeed regeneration is very limited throughout the whole wood, so the younger regeneration of trees and shrubs is largely absent.

Significance

On a local level, Hebblethwaite Hall Wood is one of a number of semi-natural ancient woods which cover the deeply incised gills that descend from Baugh Fell and other similar uplands in the area. The woodland is also within the Yorkshire Dales National Park and whilst being scarce it is an important component of the mosaic of habitats around and it contributes to the scenic beauty of the Park. Ancient woodland flanks both sides of the gill and continues up and down stream and is an important refuge for woodland dependant species. Although Hebblethwaite Hall Wood is not the only wood along the gill, it is a central part and part of an important corridor. All the woodland the gill (approx. 2.5km in length), is designated as ancient on the NCC register. The woodland contains a variety of additional habitats such as wet flushes and running water.
On an international scale, upland oak woods are identified as habitat of high importance in the European Union's Habitats Directive (described there as Atlantic oak woods), and they are recognised as Britain's temperate rainforest.
Over 500 species of plants and animals are associated with Atlantic oak woods. This includes 35 species regarded as priorities for conservation in the UK Biodiversity Plan (source Forestry Commission 2014). Upland oak woods are described as rare in the Yorkshire Dales National Park.

Opportunities & Constraints

Opportunities.
In the period 1998-2001 grey squirrels were controlled in the area as part of the Cumbrian Red Alert Project aimed at protecting the native red squirrel. The current status of any resident red populations within the wood is unknown. If this work continues throughout the area by the Red Squirrel Project there is an opportunity for Hebblethwaite Hall Wood to be part of the project.

Deadwood can safely be left throughout much of the site.

There was a concern that the status of the wood was being adversely affected by the increasing prominence of both beech and sycamore. This was addressed in the past through felling but is no longer considered a threat to the woodland habitat, and current management fits with the Woodland Trust principles.

Constraints.
Lack of regeneration is a major concern, and browsing (predominantly by escaped sheep) is a significant problem significantly affecting regeneration and potentially altering ground flora. Attempts so far to help regeneration have had limited success owing to the remoteness of the site (which means it requires little other monitoring or management), the small areas involved and plus rapid growth of rank vegetation. These attempts include brashing-up coppiced hazel, replanting trees protected in shelters, and creating exclosure plots. It is essential though that successful regeneration is achieved as the remaining trees are over mature and a younger generation is required. It is also essential that if sheep are found in the wood they are removed speedily, however, it is very difficult to detect and catch them in a timely fashion.

Other threats are likely to emerge soon, as ash dieback disease was found in the locality in 2014, however, the wood is not dominated by ash.

Factors Causing Change

Uncontrolled grazing by escaped sheep. Ash dieback, which is in early to medium stages 2018.

Long term Objective (50 years+)

The long-term aim is to conserve and enhance the diversity and richness of this ancient-semi-natural woodland, with a mixed species range of predominantly native broadleaved species, and primarily through natural processes. The undisturbed nature of most of the site will be retained, with wet flushes, and undisturbed soils, and also with significant amounts of deadwood in a natural state. The current diversity of age ranges will be retained, but the lack of younger regeneration will be addressed and a range of trees and shrubs regenerating to ensure that all age ranges are fully represented and there is a future generation to replace the mature specimens.

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

It is anticipated that the mature woodland will require little silvicultural management and will be self-sustaining, shaped by natural processes.
Work will be focussed on ensuring that regeneration is adequate by:
- Monitoring and maintaining all boundaries to keep them stock proof.
- Prevent grazing by domestic stock (mainly escaped sheep) and removing these as soon as possible.
- Manage and monitor planted trees, every year (EMC contractors will be carrying out maintenance and report).
- Monitor areas expected to regenerate once every 5 years (ring-fenced area, and glades) once every 5 years.

5.2 Informal Public Access

Description

The wood has 2 entrances, provided by the public footpath which crosses the site north-south approximately in the middle of its length (crossing the stream from the south over a footbridge). Once in the wood, connecting permissive paths run to the west and east. From the north the public footpath crosses level fields to enter the wood, and there is then a choice of route: either following the public path and immediately descending immediately to the gill bottom where the crosses the stream via a footbridge and leaves the woodland, or turning either east or west along the top of the slope to access the rest of the wood on 650m of permissive footpaths. These also descend to the stream, but more gradually, and have bridges crossing the little streams and take visitors through eh whole wood. However because there are no further permissive links they must return by the same routes. The wood can be entered from the public footpath to the south, where the path then climbs steeply after leaving the main stream.
Upstream (east) the path follows the top of the slope for approximately 100m and then descends to the old bobbin mill in the gill bottom on a track. The bobbin mill is a ruin and relatively inaccessible.
Downstream (west) the path follows the field boundary closely for approximately 200m providing excellent views of the steep valley below. The path then descends to the gill bottom, and a bench.

The woodland is picturesque with impressive views of the many small waterfalls and is visited by a few, more adventurous people, as it connects to longer walks within the Yorkshire Dales National Park.

Significance

Hebblethwaite Hall Wood provides informal recreation opportunities in a remote area in the Yorkshire Dales National Park, for both the local community and visitors. The industrial history and the woods intrinsic qualities make it an important local resource to the nearby town of Sedbergh and an educational resource for visitors and organised groups. Public access is one of the primary aims of the National Park.

Opportunities & Constraints

Opportunities.
The path network is on a steep slope, crossing streams and wet areas. It requires on-going management to work ensure the facilities (steps, bridges, safety rails, path benching etc) are safe and easy to use to provide visitors with good opportunities to enjoy the wood. Previous work has been appreciated and resulted in increased use. Access can be improved in collaboration with the Yorkshire Dales National Park footpath team that manage the public rights of way and maintain the bridge across the Gill and increase the level of use locally. There may be an opportunity to work with neighbouring landowners to see if permissive links could be created. There is an opportunity to inform the public of management practices and the history, geology and botanical interest in the wood through the web site.

Constraints.
Use of the wood is constrained as there are no circular loops within the wood and the only external link is with the public footpath crossing north-south.

Factors Causing Change

Natural processes: bank slippage, erosion.

Long term Objective (50 years+)
The Trust will maintain the informal access to the woodland on the existing 650m of paths (public and the connecting permissive paths) and provision of two entrances on the public footpath with welcome signs. Low key management will maintain safe and accessible paths with facilities such as steps, stiles, revetment and footbridges maintained where necessary. Footpath links beyond the wood (to the east and west) will be encouraged where possible. Public information and promotion of the woodland will be largely through the Woodland Trust website and directory. This is in line with the wood's location and it's relatively low level of use.
Short term management Objectives for the plan period (5 years)
Maintain 650m of paths and 2 x access points with welcome signs to provide a safe, accessible woodland. Maintain the seat as long as it remains in good condition.

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	4.54	other oak spp	1880	High forest	Gullies/Deep Valleys/Uneven/ Rocky ground, No/poor vehicular access within the site	Ancient Semi Natural Woodland, Informal Public Access	Ancient Semi Natural Woodland, National Park, Regionally Important Geological and Geomorphologic al Sites

The whole of Hebblethwaite Hall Wood is management as one compartment, although there are some variations in the species composition and canopy structure across the site. The wood is a long, thin strip 4.5 hectare in size but almost 1km in length, and solely on the northern bank of Hebblethwaite Hall Gill. The Trust woodland is the middle section of a much longer area of ancient woodland, which continues both up and downstream, and covers both sides of the gill banks, so it is important in the wider landscape.

The northern, eastern and western boundaries are fenced, with fields adjacent that are generally grazed with sheep. The southern boundary is Hebblethwaite Hall Gill, and south of this is either more pasture fields or grazed woodland. A public footpath bisects the middle of the wood north-south and has a large footbridge over the main stream in the gill.

Overall, the wood does vary, according to past and recent activities. In the upper part of the gill, to the east of the footbridge, the canopy is comparatively open and is composed of mature oak (Quercus robur and Quercus petraea), ash (Fraxinus excelsior) and beech (Fagus sylvatica) with an under storey of hazel (Corylus avellana) and hawthorn (Crataegus monogyna). Ash is about 5-10% of canopy, although there is a packet near deer exclosure 2. Ash dieback early to medium 2018. There are flatter areas of open grassland particularly to the immediate south of Hebblethwaite Hall. The woodland ground flora is diverse with large amounts of bluebell (Hyacinthoides non-scriptus), lesser celandine (Ranunculus ficaria), foxglove (Digitalis purpurea), wood sorrel (Oxalis acetosella), herb Robert (Geranium robertianum), dog's mercury (Mercuralis perennis), herb bennet (Geum urbanum) and meadowsweet (Filipendula ulmaria) in wetter areas. In this section, which was not unduly affected by the grazing of sheep, regeneration of hazel, oak, birch, beech and ash occurs.

To the west of the footbridge, where the site is narrower and the gill more deeply incised, the canopy is almost continuous but composed of the same species but now including some sycamore (Acer pseudoplatanus). The sub-canopy is now limited to hazel coppice and as a consequence of lower light levels the ground flora now includes male fern (Dryopteris filix-mas).

In the lower section of the gill the canopy is again discontinuous but now almost entirely oak and the open areas are composed of grasses and bracken (Pteridium aquilinium). It is this area which was most affected by the grazing of sheep in the recent past.

Regeneration of the wood has been a concern since the Trust acquired the wood. Various activities have been carried out to assist this: attempts in the early 1990's to coppice hazel resulted in complete failure, as they were completely browsed off. In 1994 a number of oaks and hazel were planted 9 small groups. These were protected by tubes and supported by stakes but only about 30% survived owing to difficulties in carrying out maintenance e.g. weeding, of a small, scattered number of trees in a remote area. In 2013, 2 groups of trees were planted: 50 trees in total (20 Quercus robur, 30 Sorbus aucuparia) in 1.2m shelters in more readily accessible areas, and these are now doing well (2014). In 2013 2 Genguards (to exclude browsing by stock and deer) were constructed to monitor the effects. Although the vegetation inside them is growing better than that outside, there is no evidence of regeneration (2014), probably because of the dense ground vegetation.

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.