



Hawkeswood

Management Plan 2018-2023

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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 Consequently this printed version may quickly become out of date, particularly in relation to the planned work programme and on-going monitoring observations.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:	Hawkeswood
Location:	Low Moresby
Grid reference:	NX993207, OS 1:50,000 Sheet No. 89
Area:	2.04 hectares (5.04 acres)
Designations:	Ancient Woodland Site, Planted Ancient Woodland Site

2.0 SITE DESCRIPTION

2.1 Summary Description

The enchanting Hawkeswood is characterised by tall trees, rippling streams and wild woodland flora. Visitors can see the remnants of stone steps and benched footpaths, suggesting that this was once the landscaped garden of nearby Millgrove House.

2.2 Extended Description

Hawkeswood, acquired by the Trust in 1996, is located in the village of Low Moresby, near Whitehaven, Cumbria. The Trust's property lies to the south east of the road, to the west of the village, next to Millgrove House. The wood is an inverted T-shape and lies almost wholly to the west of small river which runs south-north, which has evidence of a mill-race and weir.

The wood forms a small but significant feature within Low Moresby. To the east, south and west of the wood is improved grassland. Along the river to north and south of the Trust property there is remnant ancient woodland. Deeply incised tributary streams flow eastwards into the river forming very steep slopes of between 1 and 8 metres in depth which create restrictions for both public access and management operations. The abandoned benched footpaths and stone steps to the east of the property suggest that the wood once formed the landscaped gardens of the adjacent Millgrove House.

The whole site of 2.04 ha, although varying in structure and species composition, is treated as one compartment for the purposes of management. This small ancient woodland has in the past has been partly replanted with beech (*Fagus sylvatica*), Norway spruce (*Picea abies*), Scots pine (*Pinus sylvestris*) and European larch (*Larix deciduas*) whilst sycamore (*Acer pseudoplatanus*) is naturalised throughout. The north of the wood is sessile oak (*Quercus petraea*) and beech, of planting year 1910, with sycamore and ash (*Fraxinus excelsior*) frequent and the southern section is predominantly the conifers planted around 1940 with sycamore, ash, sessile oak, beech, downy birch (*Betula pubescens*) and rowan (*Sorbus aucuparia*). The under storey is relatively sparse with holly (*Ilex aquifolium*) and elder (*Sambucus nigra*) with a few oak, ash, hazel and cherry planted in 2001 in an open are. On acquisition much of the north of the wood had rhododendron and laurel in the under storey, this has been controlled and now only colonises the steep stream edges. The wood is relatively damp, fertile and shaded, and has had a great deal of intervention resulting in a mixture of plants. These include ancient woodland indicators of dog's mercury (*Mercurialis perennis*), bluebell (*Hyacinthoides non-scripta*), wood sorrel (*Oxalis acetosella*), ramsons (*Allium ursinum*), and wood sedge (*Carex sylvatica*). However more common general species are also very frequent such as bramble (*Rubus fruticosus*), bracken (*Pteridium aquilinum*), rose-bay willow herb (*Chamerion angustifolium*), pink campion (*Silene dioica*), cow parsley (*Anthriscus sylvestris*), male fern (*Dryopteris felix-mas*), pink purslane (*Claytonia sibirica*, - although strangely here it is coloured white) and herb Robert (*Geranium robertianum*). There is a small area of Japanese knotweed (*Fallopia japonica*), which had colonised a stream bank and has been treated in the past but is still regenerating. In the centre of this section there is an open area of approximately 0.22 ha covered with bracken.

Access to the wood can be gained direct from the public highway through the village, where there is roadside parking for up to two cars. From the road there is a short pleasant walk through the wood on approximately 500m of permissive footpath. The wood is in a rural location and is popular with local people.

3.0 PUBLIC ACCESS INFORMATION

3.1 Getting there

Hawkeswood is within the village of Low Moresby, 1 ½ miles north of the centre of Whitehaven in West Cumbria. The wood can be reached from the main A595 trunk road to the north of Whitehaven, by taking the minor road signed to Low Moresby. Following the road towards the village the wood is on the right just on entering the village. The stepped entrance is adjacent to a small lay-by, next to Millgrove House, with parking for up to 2 cars. From the road there is a short pleasant walk through the wood on approximately 500m of permissive footpath. The route is relatively flat with uneven ground; care needs to be taken near to the very steep sides to the watercourses throughout the wood.

The Coast to Coast (C2C) Hadrian's Wall National Cycle Route 72 runs parallel to the A595 to the west of Harray Moor. For more information on cycle routes contact www.cycleroutes.org/hadrianscycleway or contact Sustrans 0845 113 00 65.

Whitehaven Railway Station is a stop on the scenic Cumbrian Coast Line 63 km (39½ miles) south east of Carlisle and is operated by Northern Rail. Many trains on the route from Carlisle terminate here. There is generally an hourly service from Carlisle and an infrequent service southbound to Barrow-in-Furness. On Sundays, three trains a day run to Carlisle. Please note there are two stations in the town and the nearest to Hawkeswood is the main station at Bransty Row. From Bransty Row the safest and most scenic route would be to follow the CTC route along Bransty Road, through Parton and along Foundry Road. At the end of Foundry Road turn right and at the A595 turn left and first right into Low Moresby.

The nearest bus stop to the wood is at Howgate on the A595. Buses 300 and 301 to Carlisle run along the A595 and 30 for Maryport and Workington. For buses to/from Carlisle the bus stop is on Lowther Street in Whitehaven. Traveline North East provides comprehensive timetable and fare information for all bus, coach, rail and Lakeland ferry journeys to/from and within Cumbria & the Lake District. Their web site is: travelinenortheast and phone number: 0871 200 22 33.

3.2 Access / Walks

4.0 LONG TERM POLICY

The majority of Hawkeswood is designated as ancient replanted woodland site on the Nature Conservancy Council (NCC) Ancient Woodland Inventory, and the remainder also appears to be ancient and replanted. The wood has the character of mixed broadleaved woodland NVC W10 (lowland, mixed, broadleaved woodland) and has been planted with conifers around 1940. Sycamore and beech have also been planted and naturalised throughout the wood.

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, as well as increase 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'. This will involve managing two main key features of the woodland:-

1) Ancient Woodland Site (AWS) PAWS

The Trust aims to manage the whole wood, which is all classed or identified on the ground as ancient replanted woodland, as high forest continuous-cover with mixed native and non-native woodland, retaining the existing native woodland characteristics and restoring and enhancing the areas adversely affected by non-native species. The restoration will follow best practise for PAWS sites, including monitoring and assessment at regular intervals. There are 2 distinct areas and different management needs to these:

The northern part of the wood had been colonised with an under storey of rhododendron, cherry laurel and a small amount of Japanese knotweed. Removal of these started in 1998 and after many years, all 3 species appear to have been eradicated (2017). Holly and elder are the only shrubs so far regenerating as replacements.

The southern section of the wood had been planted with non-native conifers, Scot's pine, larch and spruce which have a limited lifespan and are not regenerating significantly. Within these are a mix of broadleaved species including oak, ash, sycamore and beech. The aim is to restore this discrete area by reducing the overall density of conifers to around 10% or less; predominantly retaining larch and Scot's pine, which will have less impact on the ancient woodland, being either deciduous near-native. It is anticipated that at this density the restoration will be complete and should conserve the ancient woodland, including the regeneration of ancient woodland native species.

Enhancing the biodiversity of the ancient woodland characteristics will also include conserving standing and fallen deadwood communities, 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.

2) Informal Public Access

The Trust will maintain the informal access to the woodland by managing the 600m of permissive paths and providing welcome signs at the entrance. Public access will be encouraged with paths and structures maintained 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 its rich wildlife habitat, which is irreplaceable.

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 Informal Public Access

Description

Hawkeswood is well used by local people but attracts relatively few visitors from further a-field largely because of its small size. The main entrance to the wood is from the minor road that runs through the village of Low Moresby and along the northern boundary to the wood. There is a small lay-by sufficient for two vehicles at the entrance. From the road there are several steps up into the wood and an entrance sign welcomes visitors to the wood. The permissive path enters the wood and then has several loops around the southern section for a total distance of about 600m. The paths are stepped in places and there are some steep drops down to the small river that flows along much of the eastern boundary. The footpath network is self-contained, within Hawkeswood only. The internal landscape to the woodland is interesting and varied and the abandoned benched footpaths and stone steps down to the river suggest that the wood was once part of the landscaped gardens of the adjacent Millgrove House.

Significance

Hawkeswood is a small but significant feature on the south of the village of Low Moresby, it provides attractive informal recreation opportunities for the local community and visitors with its network of paths a bridge over a minor stream and a bench for seating, and attracts many regular, local users. It is an interesting wood, and has had plenty of activity over the years and interest from local people.

Opportunities & Constraints

The footpath network at Hawkeswood is limited and there are no external links to more extensive routes or public rights of way although these would be welcome. Reinstatement of the abandoned stone steps has not been undertaken due to safety factors, and the fact that this old path no longer leads onwards (as it previously linked with paths into Millgrove House garden, a private residence). There is the possibility of land-slippage along an eastern loop of path, which will constrain future access. Despite its small size the woodland attracts many local users. The County Council owns and surfaces the lay-by at the entrance where it is possible to park.

Factors Causing Change

None

Long term Objective (50 years+)

The Trust will maintain the informal access to the woodland on some 600m of permissive paths and entrance with welcome signs. Public access will be encouraged with paths, footbridges, steps and a bench maintained 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 its rich wildlife habitat, which is irreplaceable. Public information and promotion of the woodland both nationally through the Trusts publications and directory's and locally will be continued and posters will be used to inform and involve visitors with the woodland.

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

Maintain the entrance and path network to the Woodland Trust's standard specifications, including: cutting back encroaching vegetation and strimming the network of footpaths identified on the map taking care to trim where necessary for use and safety clearing any encroaching branches and fallen timber from the footpath, maintaining the single entrance and signage (2 x per year), clearing litter as necessary (once per year). Undertake regular safety inspections at defined intervals and clearance of roadside vegetation to Highways guidelines.

5.2 Planted Ancient Woodland Site

Description

Hawkeswood is a Planted Ancient Woodland Site that lies almost wholly to the west of a gill (a small river valley) that runs south-north. Deeply incised tributary streams flow eastwards into the gill forming very steeply sloping banks between 1 and 8 metres in height. Partly replanted (P1940) with beech, Norway spruce, Scots pine and European larch. Sycamore is common and naturalised throughout. The north of the wood is sessile oak and beech (p 1910), with sycamore and ash frequent. The understorey is relatively sparse with holly, elder and of 200 locally native planted stock (P2001); oak (75%), ash (10%), hazel (10%) and cherry (5%) in areas cleared of rhododendron. The ground flora varies according to the light levels and soil wetness. In high light environments bramble and bracken predominate. In low light environments the field layer is sparse and principally composed of male fern, dog's mercury and pink purslane. The southern section has a greater diversity of species and is principally composed of sycamore, ash, sessile oak, beech, downy birch and rowan, along with Scots pine, Norway spruce and European larch. The ground flora is principally male fern, bluebell, wood sorrel, ramsons, wood sedge, bramble and herb Robert. In the centre of this section there is an open area of approximately 0.22 ha. colonised by bracken.

Significance

The woodland is partly designated as replanted ancient woodland on the NCC register, and the rest of it also appears on the ground to be replanted ancient woodland. It has both native species, but has been planted with non-native broadleaves and conifers. The planted non-natives were having a major negative impact on the ground flora. The invasive species have been treated to ensure total eradication, and the less invasive species reduced in quantity so threats are removed and woodland conditions are altered to allow the wood to recover and secure ancient woodland communities. Hawkeswood is an important ancient woodland linking to other semi-natural habitats along the stream & riversides.

Opportunities & Constraints

Hawkeswood is treated as a wholly planted ancient woodland site (PAWS) for which there is opportunity to restore it to conserve the ancient woodland communities that it contains. This will be achieved by following current PAWS restoration guidelines. There is a threat that non-native species, such as rhododendron, laurel, Japanese knotweed, which are invasive, will regenerate, spread and once again adversely affect the native ancient woodland species. Full control of these invasive species needs to be maintained, and it will be necessary to continue monitoring for the several years. Non-native conifers will need to be monitored, and reduced again if or when they suppress native vegetation. When last assessed they had been thinned and then wind blow had occurred, resulting in the canopy being rather too open and bramble becoming rather too dominant to allow regeneration, the recommendation was to wait and allow the wood to recover and further canopy closure.

There is an opportunity to retain some older trees, including larch and beech, brought and planted by previous owners as a living heritage and for their own ecological value as old trees. Beech and sycamore may also be viewed as naturalised species, important to the continuity of the wooded canopy. Some of the conifers will be retained as their removal may cause more damage than ecological gain and they too are now part of this varied habitat. Standing deadwood has ecological importance but retention will be constrained in places by safety. Open areas in this highly modified wood tend to colonise quickly with vigorous, coarse and common ruderal species such as bramble and rose-bay willow herb. Given the lack of regeneration and current poor range of native species, gaps will be considered for re-planting with native species of local provenance to ensure continued cover and to increase the species and age range.

Factors Causing Change

Re-invasion/regeneration of non-native invasives such as rhododendron, cherry laurel, Japanese Knotweed or other exotic species. Ash is not a significant component of the wood, or it's regeneration (and there is other regeneration), so it is not anticipated that ash dieback will have a significant impact on the ecology.

Long term Objective (50 years+)

The long term aim is to ensure continuity of this ancient woodland and extend the diversity and richness of the habitat; increasing the uneven aged structure throughout the woodland with a well-developed shrub layer, on-going native regeneration and a good ground flora. The condition aspired to is dynamic and includes the retention of old trees; restoration of the planted ancient woodland area of spruce to ensure protection of the ancient woodland characteristics of the wood and the retention of standing and fallen deadwood and conservation of historical features. To achieve this restoration of this planted ancient woodland site (PAWs) will occur with selective felling/ring-barking of the spruce and eradication of the rhododendron, cherry laurel and Japanese knotweed and other exotic species, to ensure the remnant ancient woodland ground flora and mature broadleaves within the canopy are secure. This will be carried out and monitored using the PAWs survey guidelines. Woodland condition and potential threats to the woodland will be monitored and intervention will occur if necessary.

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

The steps to achieving the vision include: -

Monitoring the southern section with non-native conifers (Norway spruce, larch, Scot's pine etc) every five years (last survey 2015, next due 2020) to see the results of the last restoration work (thinning in 2004) and make recommendations to continue restoration until area is secure.

Continued annual monitoring for rhododendron, cherry laurel, Japanese knotweed and Gunnera aiming for eradication.

Continued annual control and monitoring of other invasive non-natives (currently bamboo) using chemical herbicides aiming for eradication.

Maintain all boundaries to stock proof condition, checking these every 5 years (last done partially 2015).

Maintain recently planted (2018) trees. Monitor ash dieback (few ash present, roughly 10%, and impact is expected to be limited).

6.0 WORK PROGRAMME

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

Cpt No.	Area (ha)	Main Species	Year	Management Regime	Major Management Constraints	Key Features Present	Designations
1a	2.04	Sycamore	1940	High forest	No/poor vehicular access within the site, People issues (+tve & -tve), Sensitive habitats/species on or adjacent to site, Very steep slope/cliff/quarry/mine shafts/sink holes etc	Informal Public Access, Planted Ancient Woodland Site	Planted Ancient Woodland Site

The whole site of 2.04 ha, although varying in structure and species composition, is treated as one compartment for the purposes of management. This small ancient woodland has in the past has been partly replanted with beech (*Fagus sylvatica*), Norway spruce (*Picea abies*), Scots pine (*Pinus sylvestris*) and European larch (*Larix deciduas*) whilst sycamore (*Acer pseudoplatanus*) is naturalised throughout. The north of the wood is sessile oak (*Quercus petraea*) and beech, of planting year 1910, with sycamore and ash (*Fraxinus excelsior*) frequent and the southern section is predominantly the conifers planted around 1940 with sycamore, ash, sessile oak, beech, downy birch (*Betula pubescens*) and rowan (*Sorbus aucuparia*). The under storey is relatively sparse with holly (*Ilex aquifolium*) and elder (*Sambucus nigra*) with a few oak, ash, hazel and cherry planted in 2001 in an open area. On acquisition much of the north of the wood had rhododendron and laurel in the under storey, this has been controlled and now only colonises the steep stream edges. The wood is relatively damp, fertile and shaded, and has had a great deal of intervention resulting in a mixture of plants. These include ancient woodland indicators of dog's mercury (*Mercurialis perennis*), bluebell (*Hyacinthoides non-scripta*), wood sorrel (*Oxalis acetosella*), ramsons (*Allium ursinum*), and wood sedge (*Carex sylvatica*). However more common general species are also very frequent such as bramble (*Rubus fruticosus*), bracken (*Pteridium aquilinum*), rose-bay willow herb (*Chamerion angustifolium*), pink campion (*Silene dioica*), cow parsley (*Anthriscus sylvestris*), male fern (*Dryopteris filix-mas*), pink purslane (*Claytonia sibirica*, - although strangely here it is coloured white) and herb Robert (*Geranium robertianum*). There is a small area of Japanese knotweed (*Fallopia japonica*), which had colonised a stream bank and has been treated in the past but is still regenerating. In the centre of this section there is an open area of approximately 0.22 ha covered with bracken.

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.