

# **Beckmickle Ing**

## Management Plan 2017-2022

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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 Consequently this printed version may quickly become out of date, particularly in relation to the planned work programme and on-going monitoring observations.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 <u>www.woodlandtrust.org.uk</u> 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 <u>www.woodlandtrust.org.uk</u>. 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.
- 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:	Beckmickle Ing
Location:	Burneside
Grid reference:	SD490979, OS 1:50,000 Sheet No. 97
Area:	3.58 hectares (8.85 acres)
Designations:	Ancient Semi Natural Woodland, Area of Landscape Value, Candidate Special Area of Conservation, Site of Special Scientific Interest, Special Area of Conservation

## 2.0 SITE DESCRIPTION

#### 2.1 Summary Description

Birdsong, bluebells and beauty - Beckmickle Ing has it all. A rich mix of broadleaves and a diverse range of ground flora. Roe deer have made this their home. A visit here can be combined with one of many walking routes in the area.

#### 2.2 Extended Description

Beckmickle Ing is an area of rural woodland occupying the bank of the River Kent, just east of the village of Staveley, near Kendal, Cumbria. The wood is in an area of Great Landscape Value and is on the border of the Lake District National Park. Public access can be gained via four entrances to the woodland and public footpaths number 575032 and 575003.

The wood is well used by locals and visitors alike and there are many walk routes in the area, including the Dalesway long distance route along the southern bank of the River Kent. The River Kent and its tributaries support nationally important populations of white-clawed crayfish, freshwater pearl mussel, bullhead and floating vegetation dominated by water-crowfoot and is designated as a Site of Special Scientific Interest (SSSI) and Special Area of Conservation (SAC); the latter protecting habitats and species threatened within a European context.

The 3.59 hectare ancient semi-natural wood (ASNW) predominantly resembles upland ash woodland with the transition to alder woodland in the wetter ground adjacent to the river. The woodland has a history of coppicing with standards and some mature specimens exist (c1840). The canopy is dominated by oak with sycamore, ash, alder, birch, and rare beech, cherry and elm. To the east of the wood the amount of sycamore in the canopy increases. ASh are scattered throughout the wood, with some pockets, and ash dieback appeared in the area in 2017. Towards the river there is co-dominance with sycamore and alder. The wood has a good under storey with hazel, holly, cherry, sycamore, hawthorn and goat willow. The ground flora is wonderfully diverse with bluebells (Hyacinthoides non-scripta), pignut (Conopodium majus, ramsons (Allium ursinum), lords and ladies (Arum maculatum), moschatel (Adoxa moschatellina) and Solomon's seal (Polygonatum multiflorum). The banks of the river play host to a variety of rushes and ferns as well as hemlock water-dropwort (Oenanthe crocata) and the yellow globeflower (Trollius europaeus). Roe deer frequent the wood, the red squirrel now an endangered species are still occasionally seen, the river and bank are habitat to otters, dipper and the common sandpiper.

### 3.0 PUBLIC ACCESS INFORMATION

#### 3.1 Getting there

Beckmickle Ing is approximately 3 miles north of Kendal, between the villages of Staveley and Burneside, along the River Kent in the county of Cumbria.

Access to the wood can be gained direct from the Staveley to Burneside road C5055. There are three entrances from the road all open with no steps and then one further to the south east of the wood, following public footpath number 575032; this is steep in places. The paths are uneven with numerous tree roots and there is a step up and down from a bridge on the lower route along the river. There are many footpaths in the local area including walks through Dorothy Farrer's Wood belonging to Cumbria Wildlife Trust. The Dales Way path number 575020, a national route, follows the opposite bank of the River Kent but the floods of 2015 washed away the footbridge across the RIver Kent on footpath 575003 at the eastern end of the wood. Toilet facilities can be found in the pubs and cafes of Staveley and Burneside. For local information contact South Lakeland District Council www.southlakeland.gov.uk or contact the Tourist Information Centre, Town Hall, Highgate, Kendal, LA9 4DL 01539 725758 or try Staveley village website www.staveleyvillage.co.uk

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. Follow the road until you reach the BP garage on your right. Approximately 400m on the right you will see the turning into Staveley Village. Go through the village, past the post office and take the second on the right at the bend in the road. Pass the church and take the next right over a bridge. Follow this narrow and winding road past the water works and Beckmickle Ing is on the right. Woodland Trust signs are at all the entrances. To the east end of the wood there is a lay-by on the left where two cars can be parked.

National cycle route 6 runs through Burneside and Staveley. For more information on cycle routes contact Sustrans 0845 113 00 65.

The buses run from Kendal to Burneside regularly and stop at Burneside train station and the church. The wood is about 1.5 miles from the village and the Dales Way footpath can be followed north west to reach the wood. There are diversions in place since the loss of Hagg Foot Bridge. he bus from Kendal goes to Staveley and stops at Stock Bridge Farm, Main Street and the railway station. From here the wood is about 1 mile and the Dales Way can be followed east to get there. The train stations at both these villages are served by the Kendal to Windermere branch line and run regularly. 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: 0871 200 22 33 or the web site on travelline.info.

#### 3.2 Access / Walks

## 4.0 LONG TERM POLICY

Beckmickle Ing is designated a ancient semi natural woodland (ASNW). There is evidence that in recent history the woodland was managed as coppice with oak standards last worked in the 60's. The character of the wood resembles upland mixed broadleaved woodland (W8, W9) with the presence of some non-native sycamore and beech grading to wet alder wood on the lower slopes. The woodland is on the boundary but just outside the Lake District National Park and has excellent internal and external views and features. The adjacent River Kent is designated a Site of Special Scientific Interest (SSSI) and is also a European Special Area of Conservation (SAC). The river supports a great number of water plants and fish including salmon, lampreys and bullhead, crayfish as well as otters and river birds.

In line with current strategy 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 through the management of three key features:

#### Key Feature 1: Informal Public Access.

One of the Woodland Trust key objectives is the provision of informal public access to woods. Access facilities at Beckmickle Ing will be maintained in line with its current level of use (category B moderate usage) to provide access on over 1000m of footpath, including provision of four entrances with welcome signs. If demand increases and especially where there are links to the wider countryside then access should be improved where appropriate. Public information posters will be used to inform and involve visitors with the woodland.

#### Key Feature 2: Ancient semi-natural woodland.

The aim is to maintain and enhance this ancient semi-natural woodland, as a mix of mature, broadleaf trees and shrubs, so that it remains a landscape feature, and has a typical varied structure of its type. This determines the maintenance of a continuous cover of woodland including the mature non-native specimens of sycamore along the bank-side. The Trust will use silvicultural techniques to promote maturity and uneven aged structure with working practices that do not impact adversely on the integral environment and thereby protect and promote the ecology of the woodland. Other elements to improve biodiversity include retention of decaying and dead fallen and standing timber to provide a habitat for many fungi and wood boring beetles which help the wood to decay and form an essential part of the woodland ecosystem.

#### Key Feature 3: River Kent natural habitat:

Conservation of the river habitat to maintain water quality and ensure that no invasive non-natives take hold. Broadly this will require little intervention unless flood waters cause significant impacts that require temporary intervention. The aim is to enable the river system to evolve and develop naturally with characteristic slowly changing bank side features which will provide niches that are floristically rich and varied habitats for the river wildlife.

It is anticipated that these works will safeguard and enhance the existing environmental value of the wood, its contribution to the river habitat, 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

There are four public entrances to the wood; three direct from the Staveley to Burneside Road C5055 and a further to the south east of the wood. Public right of way number 575032 enters from the highway at the eastern end of the roadside boundary and heads south east to exit at the end of the wood. There is over 1000m of footpath through the wood which connect with longer adjacent routes including the Dalesway long distance route on the opposite bank of the River Kent. Access to this path on the public footpath 575003 - 2017 - is via a diversion following storm damage and the loss of the stone bridge over the river. The views of the River Kent can be quite dramatic and there is much botanical interest within the woodland. The footpaths are clearly defined although they can get muddy underfoot and off the paths the ground can be very steep. There is a bench near the river to the west of the wood. Car parking is rather limited at the roadside due to the narrowness of the highway.

#### Significance

Increasing enjoyment of woodland is one of the Trust key outcomes. Encouraging access to Beckmickle Ing is particularly important given the rich and varied habitats and features within the ancient woodland and the importance of its river habitat on both a local, national and European scale. It is also an important local resource to the surrounding villages and towns and an educational resource for visitors and organised groups.

#### **Opportunities & Constraints**

It is well used by local people and those from further afield. The footpath network provides a good, enjoyable walk but can only accommodate able users. There are opportunities to link with local walking groups to promote Beckmickle Ing and the Cumbria Cluster walk leaflet. The footpaths can become muddy and in heavy rain the banks of the River Kent can submerge parts of the path that run close to the river. There is potential to upgrade certain sections of the footpath in particular to keep the paths defined and prevent braiding of the paths onto the surrounding floristically rich ground and to open up paths that are closing over. Path and track work must not damage populations of notable plant species. There is an opportunity to inform the public of management practices through posters and leaflets and permanent on site interpretation.

#### **Factors Causing Change**

River erosion and/or flooding damaging footpaths. Footpath braiding. The floods of December 2015 took away Hagg Foot Bridge across the river to the south east of the wood. This is a private structure with the public right of way across and as yet has not been replaced (2017). THe owner is liaising with CCC to see if a joint approach would work. Ash dieback (which appeared in the area in 2017) will affect the ash trees scattered throughout the wood.

Long term Objective (50 years+)

Ongoing management of the key access facilities: paths, footbridges and entrances to maintain visitor access commensurate with the current level of use. 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 compromised.

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

Cut back and strim annually to pedestrian width those permissive and public footpaths identified on the map, taking care to strim where necessary for use and safety. Clear any encroaching branches from the footpath.

Maintain/repair access points (x4), welcome signs, culverts and revetments, and the wooden footbridge over the minor stream.

Liaise with neighbouring land owner to see if the WT can offer any support to enable the owner to replace the stone bridge to the south east across the RIver Kent.

#### 5.2 Ancient Semi Natural Woodland

#### Description

The woodland is designated as ancient on the NCC register and the ground flora has various ancient woodland indicators including, bluebells, ramsons, wild daffodil, wood anemone, pignut, moschatel, Solomon's seal and other woodland specialists. The woodland is very mixed in character with older mature oak and sycamore with cherry, ash and beech, circa 1840, a varied understorey including hazel, cherry, sycamore, hawthorn and goat willow and the mature sycamore and alder dominating the river bank. There is much dead wood both standing and fallen. The woodland is described in a survey (2001) as upland mixed ashwood W8/W9 with an element of non-native colonisation and wet alder woodland along the river.

#### Significance

Upland woodlands and wet woodlands are a conservation priority in Cumbria, as stated in the Cumbria Biodiversity Action Plan. Upland oak woods are present throughout Cumbria and are particularly characteristic of the Lake District and ashwoods replace these and are characteristic of limestone areas. British examples are recognised as being internationally important. Beckmickle Ing is an important ancient wood, within a series of ancient woodland in the immediate area and is a key semi-natural habitat bordering the River Kent tributaries. The River Kent and Tributaries are designated SSSI & SAC and support important populations of white-clawed crayfish and the submerged roots of the tall, marginal riparian vegetation provide excellent refuges for the cravfish. The woodland contains some wonderful older tree species of oak and sycamore, which may be over 150 years old, are irreplaceable and will play host to a vast well-established ecosystem including insects, birds and lichens. Sites of ancient woodland provide a continuous habitat for our native species. Many of these species can live nowhere else. Some plants and animals have very specialised requirements and spread very slowly, if at all, into new woods. Beckmickle Ing plays host to an impressive array of plants, grasses, rushes and ferns many indicative of the form of coppice management and intrinsic to ancient woodland, others associated with the riparian habitat and the river.

#### **Opportunities & Constraints**

If left entirely alone, Beckmickle Ing could become further dominated by shade loving species such as sycamore and beech but there is no evidence that this is happening or likely to in the near future (50years). The woodland condition can be intermittently reviewed to monitor and changes to the habitat to assess if the changes pose a threat to the typical make-up of an ancient woodland. Some of the non-native trees add to the wonderful diversity of species at Beckmickle Ing and are important to the biodiversity of the wood and will be retained. This includes the fine mature sycamore throwing intricate root systems into the bank of the river - perfect habitat for otters and other river species. Access for machinery within the site is difficult and extraction of timber may prove difficult. Coppicing used to occur in this wood and restoration of the coppice has been considered. Continuity of the coppice regime is important to the conservation value of the habitat it creates however it has proved difficult to engage coppice workers to take on work locally. Equally key to the continuation of the coppice will be the successful regeneration of the coppice stools without deer fencing this is going to be unlikely. On balance maintaining continuity of the work; the requirements for fencing to prevent deer browsing and the impact to the old trees within the wood were felt to outweigh the possible benefits derived.

Note that the River Kent adjacent is an SSSI, and works adjacent should be planned in consultation with Natural England to ensure they are not detrimental and where possible enhance the habitat.

#### Factors Causing Change

Invasive non-natives, Invasive Sycamore, Invasive Beech, Deer Damage, Storm & flood damage, ash dieback (Chalara)

#### Long term Objective (50 years+)

Manage the wood as continuous cover, high forest with an uneven age structure and species distribution characteristics of semi-natural woodland maintaining standing and fallen deadwood where safe to do so. The mature trees along the bank of the river will be retained to continue the provision of good habitat for crayfish, otters and other species. The management will aim to reflect this in line with Woodland Trust policies on native species and those of Natural England with regard to the SSSI status of the adjacent river.

It is anticipated that the wood will require little silvicultural management and will develop selfsustaining systems, shaped by predominantly natural processes.

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

Formal inspection of the site through the Woodland Condition Assessment will be undertaken once per plan period. Other periodic visits will be carried out by site manager and contractor along with reports from site visitors. Any work identified from those visits/ reports will be undertaken within appropriate time period, and will include:

Monitor all the boundaries (predominantly dry stone wall) to ensure they are stock proof. Plan management for those that are Woodland Trust responsibility (north, west and north east). Monitor for any invasive non-natives, especially along the river side (Himalayan Balsam) and roadside boundary (garden escapes from tipping).

Assess the level of deer impacts, and if necessary undertake control.

#### 5.3 Watercourses

#### Description

The River Kent flows from west to southeast along the southern boundary of the wood. The River Kent and Tributaries are designated SSSI & SAC due to the great number of water plants supported, the importance to certain fish species including salmon, lampreys and bullhead, extensive fish spawning and nursery grounds and large healthy populations of crayfish which benefit from the natural mineral enrichment providing the calcium necessary for the growth of crayfish. It is also floristically rich with the catchments in the southeastern Lake District Fells. The river can be more than 5 metres wide in spate and will submerge the riparian woodland at its height. Mature sycamore and alder dominate the riparian woodland; along with tall, marginal vegetation of reed canary grass, hemlock water dropwort and associated tall herbs and grasses. The river and its tributaries are of high water quality, with a heavy rainfall and a high degree of flushing; this keeps the riverbed stones and cobbles relatively free of silt and algae.

#### Significance

The river is a central feature to the wood for visitors to enjoy. The river and the adjacent land are interlinked as a unique habitat and support a wide variety of bird life, as well as providing key habitat for otters. Rivers and streams are a conservation priority in Cumbria, as stated in the Cumbria Biodiversity Action Plan and a lot of them, including the Kent, are natural in character with little modification to the channels and bank. This makes Cumbrian rivers of national importance. The adjacent semi natural woodland increases the wildlife interest.

#### **Opportunities & Constraints**

The river and its habitat increase the opportunity for further interpretation and educational work. Tree felling near to the river must adhere to Forestry Commission UKFS guidelines and the Environmental Protection Act. The mature bank species are to be retained and there is an opportunity to develop the management regime required in co-operation with Natural England to enhance the river habitat. Some species regeneration has suffered adjacent to the river where flooding has occurred.

#### **Factors Causing Change**

Flood damage, Pollution, Other - Bank erosion / braiding, Storm damage

#### Long term Objective (50 years+)

The mature trees along the bank of the river will be retained to continue the provision of good habitat for crayfish, otters and other species with minimum intervention anticipated. It is expected that the riparian zone will continue to have large mature sycamore and alder with standing and fallen deadwood accepted as part of the natural ageing process. It is anticipated that the river will continue to braid and alter direction of the main flow as part of the natural processes.

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

There will be no intervention in the natural processes along the riverside during the current plan period. Formal inspection of the condition will be undertaken as part of the woodland condition assessment. Other periodic visits will be carried out by site manager and contractor along with reports from site visitors. Any work identified from those visits/ reports will be undertaken within appropriate time period.

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	3.59	Oak (sessile)		High forest	No/poor vehicular access within the site, Sensitive habitats/species on or adjacent to site	Ancient Semi Natural Woodland, Informal Public Access, Watercourses	Ancient Semi Natural Woodland, Area of Landscape Value

This sub-compartment is the whole woodland including the riparian zone along the River Kent. The wood can be entered from any of three entrances direct from the highway (C5055) that abuts the northern boundary. There is a Public footpath 575032 which enters the wood direct from the highway and heads towards the river and east to the end of the wood. From here walkers can continue parallel to the river on the northern boundary but can no longer cross the river to the Dales Way on the southern bank (PROW 575020) as the floods of Dec 2015 took away the stone bridge. The land slopes down to the river and is quite undulating and steep in places. The permissive path runs through the whole woodland crossing a stream over a wooden footbridge to the middle of the wood and there is a commemorative bench near the river. Adjacent to the wood on the west is improved grassland, to the south the River Kent, to the north is the highway and to the east a small pine woodland and horse paddocks. The north, east and west boundaries are dry stone wall.

The woodland's high forest structure contains frequent oak and sycamore with cherry, ash and some beech. Towards the river this changes to P1840 sycamore and alder being the dominant species. The understorey is varied with hazel, elm, holly, cherry, willow, sycamore and hawthorn. The woodland structure and pattern resembles the characteristics of NVC W9 with a rich and varied ground flora including bluebell, ramson, wild daffodil, honeysuckle and dog's mercury. The bank of the River Kent is flatter and sometimes floods and has a ground flora indicative of the wetter ground (NVC W7) with lady fern, remote sedge, soft rush, wood sorrel and marsh marigold. Along the bank side the mature sycamore have extensive root systems into the riverbank. These trees are important as they provide perfect habitat for otters, which are present along the river and also serve to protect the bank from erosion by the river's action.

## 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.

The Woodland Trust, Kempton Way, Grantham, Lincolnshire NG31 6LL.

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