



COED CADW  
WOODLAND  
TRUST

# The Avenue

**Management Plan  
2014-2019**

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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 Consequently this printed version may quickly become out of date, particularly in relation to the planned work programme and on-going monitoring observations.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](http://www.woodlandtrust.org.uk) or contact the Woodland Trust ([wopsmail@woodlandtrust.org.uk](mailto: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.

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## 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](http://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.

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## 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

|                        |  |
|------------------------|--|
| <b>Site name:</b>      | The Avenue   |
| <b>Location:</b>       | Llangollen   |
| <b>Grid reference:</b> | SJ221417, OS 1:50,000 Sheet No. 117  |
| <b>Area:</b>           | 4.39 hectares (10.85 acres)  |
| <b>Designations:</b>   | Site of Special Scientific Interest, Special Landscape Area, Tree Preservation Order |

## 2.0 SITE DESCRIPTION

### 2.1 Summary Description

A well-visited site home to combination of woodland pasture and open areas of species-rich grassland with spectacular views over Llangollen and the surrounding hills. Grazed by horses in the summer months. Adjacent to Pen y Coed, a larger (27ha) Woodland Trust Property with a network of woodland footpaths.

## 2.2 Extended Description

The Avenue, comprised of predominately grassland with some areas of woodland, occupies the flank of a low hill approximately 1km from to the south-east of Llangollen town centre. Adjacent to the south is a neighbouring Woodland Trust property, Pen y Coed ( 27 ha) which is a planted ancient woodland site.

The entire site ( 4.4 ha ) forms part of a larger 11ha Site of Special Scientific Interest, which includes a number of fields to the east and is designated for the nature conservation interest of the grassland present. The majority of the area is classed as being lowland unimproved neutral grassland and it is one of the most extensive and finest remaining examples of this type of grassland in North-East Wales. Within The Avenue much of the species rich grassland is concentrated to the north and south of the site. Centrally the grassland is less species-rich due to agricultural improvement. Prior to the Trust acquiring the site the grassland had been grazed by working horses owned by the Welsh Canal Holiday Craft Co. for many years and this has continued under Trust ownership under an annual grazing licence. Scrub (hawthorn, rose, elder, sycamore, ash, bramble, blackthorn) is invading the grassland and is frequent/locally abundant. There are three areas of woodland present: in the north-eastern corner is an area of ash-dominated woodland, centrally there is an area dominated by even-aged mature oak over a grassy field layer and to the south ( immediately adjacent to Pen y Coed) is a more extensive area of woodland which is variable in composition including young acidic oak/birch woodland and mature woodland dominated by oak, beech and sycamore and ash.

The site is of particular amenity value due to its proximity to Llangollen. A public footpath runs through the southern part of the site and the combination of woodland and species-rich grassland with spectacular views over Llangollen and the surrounding hills results in a site of high aesthetic appeal which is well visited. Management access is via a private driveway leading to an adjacent property to the west, which is also used for access by the graziers. Access is also possible directly off the public highway to the north.

The key features of The Avenue are:

- semi natural open ground habitat (species rich grassland);
- natural secondary woodland;
- informal public access.

## 3.0 PUBLIC ACCESS INFORMATION

### 3.1 Getting there

The Avenue is adjacent to the Woodland Trust property Pen y Coed on the outskirts of Llangollen. The site has three public access points. The main path through the site is a public footpath with the entrance closest to the town having a kissing gate and the entrance in the eastern boundary being stiled (with dog gate). The third access point is a kissing gate into the adjacent Woodland Trust property, Pen y Coed. The footpath is unsurfaced with a bare earth surface.

Parking is available in a small public car park (approx. 10 cars) on Brook Street, just off the A5 or alternatively at roadside along the main artery road into the housing estate. There is then a short, but steep, uphill walk (0.2 km) to the site entrance along a public footpath.

Public Transport: the nearest bus stop is on Market Street in the town centre. There is a 0.9 km walk to the site along mainly level paved roads, but with a steep uphill climb for the last 0.2 km via a public footpath. For further information please contact Denbighshire County Council's busline on 01824 706968 or contact Traveline at their website [www.traveline.org.uk](http://www.traveline.org.uk) or call on (0870) 6082608.

Nearest public toilets are located at the main public car park in Market Street 0.9 km from the site. The disabled toilet requires the use of a RADAR key. For further information contact Denbighshire County Council's website at [www.denbighshire.gov.uk](http://www.denbighshire.gov.uk).

### 3.2 Access / Walks

## 4.0 LONG TERM POLICY

The woodland/grassland habitat mosaic that is present at the site will be managed in order to maintain and enhance overall species diversity. Management will ensure that an area of at least 1.6ha of species rich grassland (MG5 NVC community) supporting a high number of species indicative of unimproved grassland is present which will result from the implementation of measures to encourage a more even grazing regime. Invading scrub will be absent and areas previously dominated by grasses including coarse grasses such as Cock's foot and Yorkshire fog will hold more open herb rich grassland. Undesirable species (noxious weeds) will be under control. The broadleaved woodland present will be comprised of a diversity of tree and shrub species reflecting the range of native woodland communities present. There will be a gradation in character of field and shrub layers according to extent to which horses graze/have access ranging from "wood pasture" dominated by large mature oaks over a grassy field layer to woodland areas with a more semi natural woodland structure with a well developed field and ground layers. Regeneration will need to be through planting and protection where there is not adequate natural regeneration. Public enjoyment of woodland will be achieved by extending and promoting public access at the site through waymarking and by maintaining the diversity of habitats at the site that give it its high intrinsic appeal (species rich grassland, wood pasture, 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 Semi Natural Open Ground Habitat

#### Description

Areas of species-rich grassland occur throughout the site but are concentrated to the north and south. The central area is largely semi improved and relatively species-poor but has patches of more species-rich sward occur throughout, especially near the eastern boundary. Grasses include red fescue, sweet vernal-grass, perennial rye-grass, smooth meadow-grass, and crested dog's-tail. Coarser grasses such as Cock's-foot and Yorkshire-fog are locally frequent, especially in the least grazed area on the northern boundary. Forbs are abundant, particularly meadow buttercup, bulbous buttercup, red clover, common knapweed, germander speedwell and yellow rattle, with frequent daisy and ribwort plantain and locally frequent devil's-bit scabious. Other scattered species include yarrow, lady's-mantle, meadow vetchling, bitter-vetch, pignut, eyebright, self-heal, burnet saxifrage, lesser trefoil, a wood-rush, bird's-foot-trefoil, cat's-ear, ox-eye daisy, agrimony, bugle, parsley-piert, tormentil, square-stalked St John's-wort and common sorrel (NVC MG5). Bluebell, wood anemone, common dog-violet and primrose are frequent adjacent to areas of woodland. Scrub (hawthorn, rose, elder, sycamore, ash, bramble, blackthorn) is frequent/locally abundant.

#### Significance

Lowland unimproved neutral grassland is the main feature of interest of the SSSI and it is one of the most extensive and finest remaining examples of this type of grassland in North-East Wales

#### Opportunities & Constraints

The working horses have grazed the site for many years and the site was transferred to the Trust on the understanding that this arrangement would continue. The opportunity exists to graze the site to benefit the grassland through negotiation of the terms of the grazing licence with the current graziers. In the past the grazing regime was not ideal, it being grazed all year round, but in recent years alternative winter grazing has meant that the grassland is rested between the months of October to mid March.

Sheep and/or cattle tend to graze more evenly than horses. If the opportunity arose, it might be beneficial to lightly sheep or cattle graze the species-rich grassland for a limited period (ideally during late summer) in addition to horse grazing.

Opportunity to graze the site to the benefit of the grassland interest through negotiation of the grazing licence with the current graziers. This will include:

- the implementation of measures which will encourage horses to graze more evenly e.g through the careful placement of mineral licks in areas not currently favoured.
- no fertiliser application in the central area of grassland ( Cpt 1B) or supplementary feeding ( both of which have happened in the past) to be permitted in order to prevent enrichment of the soil which would result in loss of species diversity. A reduction in the nutrient status of Cpt1B should also result in the horses grazing more widely .
- control of noxious weeds ( a legal requirement). Ragwort is frequent in the southern area (and throughout the central less species-rich grassland). Docks are rare in the species rich grassland but are locally abundant in the central area.
- management of undesirable species ( including nettles).

Opportunity to clear all of the invading scrub present through cutting followed by stump treatment with herbicide.

Consideration could be given to coppicing /laying of internal field boundary hedges which would further reduce shading of grassland - subject to funding.

Dee Valley Water has access rights along the public footpath to the reservoir. However, this is no longer accessible to their vehicles and a route through the southern area of grassland has been permitted by the Trust in the past. The need for access to the reservoir needs to be taken into account in any proposals.

### **Factors Causing Change**

Scrub invasion and continued growth of trees/hedgerows will result in a decrease in the overall area and diversity of grassland. The current grazing regime is not ideal, with some areas of grassland over-grazed and poached (resulting in an increase in undesirable species such as ragwort and docks) and others under-grazed (resulting in scrub invasion and development of a ranker, less species-rich sward). The history of fertiliser application and supplementary feeding have probably contributed to the loss of sward diversity in the central area. However, despite the lack of control over the current grazing regime, the majority of the grassland interest has been retained. Certain undesirable species such as ragwort, docks and nettles are locally frequent/abundant and will increase if not controlled.

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

Maintain an area of at least 1.6ha ( subcompartment 1A) of species rich grassland (MG5 NVC community) supporting a high number of species indicative of unimproved grassland. As a result of a more even grazing regime invading scrub will be absent and areas previously dominated by grasses including coarse grasses such as Cock's foot and Yorkshire fog will hold more open herb rich grassland.

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

Future management of site to be agreed upon with NRW and graziers by. Scrub control to be undertaken by the Trust as advised each year under Section 15 Management Agreement with NRW. Grazing licence to reflect desired grazing and grassland management.

All species typical of lowland unimproved grassland will occur frequently throughout Cpt 1A. Ref Target list.

On the northern slopes coarser grasses Cock's foot and Yorkshire Fog will be no more than occasional. Invading scrub will be absent by the end of the plan period with regrowth controlled through management of grazing. Young trees of major tree species on woodland edges and in internal hedges will not be shading grassland.

Undesirable species under control: ragwort, docks and nettles will be no more than occasional and not dominant anywhere. Increase in species diversity across compartment 1B anticipated.

## 5.2 Natural Secondary Woodland

### Description

There are several areas of woodland present:

1. On the northern bank there are areas of young, often scrubby, ash, sycamore and hawthorn dominated woodland with bluebell, dog's mercury, greater stitchwort, cleavers, common nettle, primrose, herb Robert, wood avens and common dog violet. (NVC W8e).
2. Centrally there is an area of grazed, oak dominated woodland with a grassy field layer of sheep's fescue, wavy hair-grass, creeping soft-grass, sweet vernal-grass, bluebell, common cow-wheat, wood-sage and greater stitchwort (NVC W11). Poached areas (on the southern side) support common nettle, annual meadow-grass and common chickweed.
3. The woodland to the south is very variable with areas dominated by beech, sycamore and sessile oak and occasional ash and wild cherry. Significant areas are bare and poached. Elsewhere dog's mercury, red campion, herb Robert, greater stitchwort and honeysuckle are present (NVC W8/W12). There is a small areas of acidic woodland including dense young silver birch and sessile oak (NVC W16) and tall oaks over a grassy field layer on the western bank (NVC W11).

### Significance

The woodland increases the habitat diversity of the site and this is further enhanced by the variety of woodland present. The woodland comprises both upland mixed ashwood and upland oakwood, priority habitat types in the UK BAP.

### Opportunities & Constraints

The woodland is an attractive component of the internal and external landscape, therefore any management should take into account the appearance of the woodland. There is the opportunity to maintain areas of open woodland dominated by large mature oaks over a grassy field layer by allowing the current grazing to continue. Planting (and protection) will be required to ensure continuity of woodland in the areas managed as wood pasture.

Internal fencing to exclude horses from woodland areas which are more semi natural in character ( nb to the south of the site) would have a negative impact from an aesthetic point of view. Ground conditions across much of these areas limits access by horses anyway. The management of grazing as described under Key Feature 1 will seek to reduce the effects of trampling/poaching of the woodland field layer /understorey in those areas which are not grazed but are accessible to horses.

### Factors Causing Change

All the woodland is currently open to grazing which is negatively affecting the field/ground layer vegetation and natural regeneration of shrubs and trees, especially in the southern part of the site., Scenesence and death of old trees will result in loss of woodland cover over time due to lack of natural regeneration in woodland areas more heavily grazed.

### Long term Objective (50 years+)

Broadleaved woodland comprised of a diversity of tree and shrub species reflecting the range of native woodland communities present. There will be a gradation in character of field and shrub layers according to extent to which horses graze/have access ranging from "wood pasture" dominated by large mature oaks over a grassy field layer to woodland areas with a more semi natural woodland structure with a well developed field and ground layers. Regeneration will need to be through planting and protection where there is not adequate natural regeneration. Deadwood will naturally increase throughout the woodland.

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

No silvicultural management is required during the plan period.  
No deterioration in woodland field/shrub layer structure or diversity during plan period. Measures undertaken to control grazing habits of horses (encourage them into the scrubby areas by moving feed stations) for the benefit of the grassland interest may also reduce the effect of trampling/poached within areas of woodland which aren't grazed but which are accessible by horses.

### 5.3 Informal Public Access

#### Description

A public footpath runs through the south of the site which also links in with the footpath network through the Trust's neighbouring property Pen y Coed forming a popular circular route for local people. The open nature of the site means that informal access is possible throughout. There are a number of excellent views across Llangollen and the surrounding hills from within the site. The presence of species-rich grassland and woodland including more open wood pasture contributes to the intrinsic appeal of the site

#### Significance

The site is situated immediately adjacent to Llangollen. Although there is no public parking, the public footpath appears well-used and is an access route into Pen y Coed. The working horses are a well-known local feature and an additional attraction.

#### Opportunities & Constraints

One of the best views across Llangollen is close to the public footpath. There is an opportunity to waymark a route to this viewpoint through some of the most attractive species-rich grassland and wood pasture.

Opportunity to work with the Local Authority to extend the existing waymarking to Pen y Coed in order to create waymarked circular walk through both sites..

#### Factors Causing Change

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

Public access will continue to be encouraged, particularly along the public footpath. A route through the attractive species-rich grassland to an excellent view across Llangollen will be waymarked.

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

Paths will be maintained in good condition.

In consultation with the graziers, a route to the viewpoint will be waymarked

Consultation with the local authority with regard to extending waymarking to create a local circular route through the Avenue and Pen y Coed.

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## 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   | 1.17      | Open ground  |      | Non-wood habitat  | Management factors (eg grazing etc), No/poor vehicular access to the site | Informal Public Access | Site of Special Scientific Interest, Special Landscape Area, Tree Preservation Order |
| <p>This sub-compartment comprises the northern part of the site, much of which is a steep north-facing bank and the west-facing slopes to the south-west of the site. The majority of the sub-compartment supports grassland, much of which is species-rich (MG5 NVC community) - see key feature description. Although the whole sub-compartment is open to horse grazing, the grassland appears generally undergrazed with some areas becoming rank. Scrub (hawthorn, rose, elder, sycamore, ash, bramble, blackthorn) and former internal hedgerows (and the northern boundary hedge) where overgrown have now been coppiced to reduce shading to the adjacent grassland.</p> |           |              |      |                   |   |                        |  |
| 1b   | 0.82      | Open ground  |      | Non-wood habitat  | Site structure, location, natural features & vegetation                   | Informal Public Access | Site of Special Scientific Interest, Special Landscape Area                          |
| <p>The majority of this is largely semi improved and is relatively species-poor (MG6 NVC grassland community) with frequent ragwort. Patches of more species-rich sward occur throughout, especially near the eastern boundary. The sub-compartment is currently grazed by horses with notable signs of over-grazing and poaching in some areas. Areas of nettles and docks are present where localised enrichment has been caused through excessive dunging by the horses. At the western side of the site the ground is heavily poached and disturbed (mainly bare) where horses concentrate at the water source.</p>  |           |              |      |                   |   |                        |  |
| 1c   | 1.59      | Open ground  |      | Wood pasture      | Management factors (eg grazing etc)                                       | Informal Public Access | Site of Special Scientific Interest, Special Landscape Area                          |
| <p>This sub-compartment comprises the central area of grassland with a central stand of mainly oak trees in a wood pasture. The majority of the sub-compartment supports grassland, much of which is species-rich (MG5 NVC community) - see key feature description. Ragwort often needs controlling in the summer here.</p>   |           |              |      |                   |   |                        |  |



|    |      |               |  |              |   |                        |  |
|----|------|---------------|--|--------------|---|------------------------|--|
| 1d | 0.81 | Oak (sessile) |  | Wood pasture | Landscape factors, No/poor vehicular access to the site | Informal Public Access | Site of Special Scientific Interest, Special Landscape Area, Tree Preservation Order |
|----|------|---------------|--|--------------|---|------------------------|--|

This compartment is comprised of broadleaved woodland which is open to grazing, although steep, uneven and rocky ground limits access across much of the area. It is very variable in composition with an area of young ash dominated woodland (W8 NVC community) to the north east of the site, young acidic oak/birch woodland (W16 NVC woodland community) on steep ground to the south together with areas of mature oak dominated woodland (W11/10 NVC woodland communities), areas dominated by beech (W12 NVC woodland community) and areas dominated by ash and sycamore (W8 NVC woodland community). On flatter ground grazing has resulted in woodland which is comparable to wood pasture in character.

## 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.