



Harraton Woods

Management Plan 2016-2021

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THE WOODLAND TRUST

INTRODUCTION

The Trust's corporate aims and management approach guide the management of all the Trust's properties, and are described on Page 4. These determine basic management policies and methods, which apply to all sites unless specifically stated otherwise. Such policies include free public access; keeping local people informed of major proposed work; the retention of old trees and dead wood; and a desire for management to be as unobtrusive as possible. The Trust also has available Policy Statements covering a variety of woodland management issues.

The Trust's management plans are based on the identification of Key Features for the site and setting objectives for their management. A monitoring programme (not included in this plan) ensures that these objectives are met and any necessary management works are carried out.

Any legally confidential or sensitive species information about this site is not included in this version of the plan.

PLAN REVIEW AND UPDATING

The information presented in this Management plan is held in a database which is continuously being amended and updated on our website. Consequently this printed version may quickly become out of date, particularly in relation to the planned work programme and on-going monitoring observations. Please either consult The Woodland Trust website 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:	Harraton Woods
Location:	Washington
Grid reference:	NZ297537, OS 1:50,000 Sheet No. 88
Area:	7.89 hectares (19.50 acres)
Designations:	Community Forest, Important Wildlife Site, Tyne & Wear Nature Conservation Strategy to some degree now superseded by the Biodiversity Action Plan for Co Durham & Tyne & Wear.

2.0 SITE DESCRIPTION

2.1 Summary Description

Harraton Woods consist of General's Wood (5.39 ha) and Shiphouse Wood (2.48 ha) located off Bonemill Lane in the Harraton district of Washington, Tyne & Wear. The present tree cover is believed to date to the early part of the 20th century and consists predominantly of high forest broadleaved woodland dominated by oak, ash and sycamore with a scattering of other species.

2.2 Extended Description

Harraton Woods consist of General's Wood (5.39 ha) and Shiphouse Wood (2.48 ha) located off Bonemill Lane in the Harraton district of Washington, Tyne & Wear (NZ 296 538). General's Wood (cpt1) was in existence when the first Ordnance Survey map of this area was published in 1855 but only the middle part of Shiphouse Wood (cpt 2) existed then. Both woods are represented as mixed woodland on this map and formed part of the Lambton Estate until the Washington Development Corporation bought them in 1967. The woods were transferred to the Woodland Trust as a gift along with several other blocks of woodland in Washington in July 1987.

General's Wood occupies flat ground to the west and a gentle to moderate northeast-facing slope at its middle and eastern side that drops down to a drain running along the northern boundary. Shiphouse Wood occupies more level ground with only a very gentle slope dropping off to the southwest, towards the drain that passes under Bonemill Lane and into General's Wood. The ground in the middle of the wood is uneven and scarred by old coalmine workings and the wood itself is split in two by a tarmac path running from Rickleton Way eastwards through to Larchwood. Residential housing surrounds both woods except where the northwest boundary of General's Wood and the southern boundary of Shiphouse join Bomemill Lane and to the east of General's Wood were more woodland is situated. Both woods lie within the former Great North Forest.

The present tree cover is believed to date to the early part of the 20th century and consists predominantly of high forest broadleaved woodland dominated by oak, ash and sycamore with a scattering of other species. Both woods were thinned in 1977 and again in 1983 to create suitable gaps to allow dense underplanting with conifers and broadleaves in 1984. Substantial numbers of trees were also introduced into the under storey during beat-up operations in subsequent years, some of which have been thinned out during re-spacing operations in 1996 (Shiphouse) and 2000 & 2003 (General's).

During the mid 1990s, red squirrels were known to exist in these woods but no sightings in recent years have been made. Nonetheless, both wood are still important as refuges for urban wildlife and this is recognised by General's Wood being designated an Important Wildlife Site in the Tyne & Wear Nature Conservation Strategy. Being fully integrated into the urban environment, the woods are also very well used by local people for informal recreation and can be entered directly off Bonemill Lane. Shiphouse Wood can also be entered from the east and west via the tarmac path running through it and pedestrian access to General's Wood is also available off the public highway to the west. No dedicated management access route for vehicles to these woods exists and so access for forestry operations has to be taken off the public highway across the verge, making good any damage caused. The tarmac path through Shiphouse Wood also provides limited access for smaller vehicles. The woods are well used by the local people and paths can become wet and muddy in winter months.

3.0 PUBLIC ACCESS INFORMATION

3.1 Getting there

Both woods can be entered on foot directly off Bonemill Lane. The entrance leading into General's Wood has a squeeze stile and steps down the short bank and that providing access into Shiphouse Wood also has a squeeze stile entrance. Shiphouse Wood can also be entered from Linburn to the east and from Alderwood to west via a tarmac path running through it that has open entrances at each end. The main track through General's Wood is an unsurfaced route, broad and level and reasonably firm underfoot, though its mid point does get muddy in wet weather. Although this track continues eastwards beyond the fence marking the east boundary, this is private land and the Trust does not encourage people to go beyond this point. The paths in Shiphouse are also mostly level but are more sinuous and much narrower and tend to become slippery in wet weather due to its clayey soils.

A public car park exists at west end of General's Wood, opposite the squeeze stile entrance that provides access onto the main track that runs west to east through the wood. For visitors wishing to reach the wood by public transport, a bus stop is located on Bonemill Lane at the western end of General's Wood just after the roundabout. From here the entrance to Shiphouse Wood is only a minute's walk along Bonemill Lane.

3.2 Access / Walks

4.0 LONG TERM POLICY

The main objective in the management of Harraton Woods will be to ensure continuity of high forest woodland on these sites by protecting and encouraging any regeneration/under planting through sensitive re-spacing and by taking action to combat any activities likely to adversely affect their recreation and wildlife value. During re-spacing of the understory, oak and other locally native broadleaves will be favoured over non-natives and conifers so that, over the long-term (50 year plus), these will come to dominate the canopy of both woods. However, such species presently in the canopy will generally be retained to ensure high forest cover is maintained across the woods and will be allowed to grow on to old age and decay, to be naturally succeeded in time by native species in the understory. Public access will continue to be available in the future through maintaining paths and entrances to allow unobstructed access to both woods, thereby helping to fulfil the Trust's corporate objective of increasing enjoyment and understanding of 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

Both General's and Shiphouse Woods are fully integrated into the urban environment of Washington New Town and consequently are very well used for informal recreation by local people of all ages living in this large residential area. Although extensively used by the public, neither wood contains a recorded public right of way, though a surfaced footpath with accompanying street lighting crosses Shiphouse Wood. Access to the woods is therefore provided by approximately 1.3 km of permissive paths and five formal entrances marked by Woodland Trust welcome signs.

Significance

Providing public access to woods is a cornerstone of the Trust's management approach to its properties and is encapsulated in its corporate objective of increasing enjoyment of woodland. The Harraton Woods provides an important local amenity for people living in this part of Washington and the surrounding area and are very well used. Being part of the former Great North Forest, they also have the potential to provide informal recreation opportunities for a much wider body of people than just the local community.

Opportunities & Constraints

Because Shiphouse Wood is small and totally surrounded by residential housing its potential for informal recreation is constrained but is still important on a local level. The recreational value of both woods is increased by being situated so closely together, allowing easy access on foot from one to the other, providing a green corridor through the urban environment. Although houses and roads now surround most of General's Wood, it is still directly linked into more extensive woodland to the east and so the potential to provide much greater access to woodland exists if the neighbouring landowner was to allow public access. The potential for a greater number of people to enjoy these woods is also provided by the location of a public car park opposite the western entrance to General's Wood. Due to the high local population the woods are well used by the local people and as such the paths can become wet and muddy in wetter months making path surfaces slippery.

Factors Causing Change

Loss of southern entrance at General's due to the housing development.

Unauthorised public access to General's from woods to east.

Long term Objective (50 years+)

To ensure the current level of public access provision to the woods continues to be available in the future by maintaining the present number of entrances and permissive paths. If, in the future, public access does become available through the woods to the east, a pedestrian entrance will be placed in this boundary to facilitate this.

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

The five entrances currently providing access to these two woods will continue to be maintained on an annual basis to ensure visitors can enjoy easy access to these woods. The network of permissive paths recorded on our legal map will also be maintained to ensure unobstructed access for walkers continues to be available in the future. Before the end of this current plan period in 2021, the entrance audit carried out in 2016 will be reviewed to ensure all entrances are still safe to use and suitable for their location and current level of use.

5.2 Local Woodland Habitat

Description

Both woods have an important role as refuges for urban wildlife, in what is otherwise a heavily built-up area. Birds in particular benefit from the habitat the woods provide, offering nesting, feeding and roosting sites. They also provide living space for small mammals and insects within the urban environment and provide places where people can experience something of the natural world on their doorstep.

Significance

Being a new town, Washington is a heavily built-up residential area. Gardens and any open space tends to be heavily manicured and roadside verges and hedges are kept well cut, creating unsuitable habitats for wildlife. Consequently, the habitat provided by large natural green spaces such as the Harraton Woods has an important role to play as refuges for wildlife. This importance is reflected in the designation of General's Wood as an Important Wildlife Site in the Tyne & Wear Nature Conservation Strategy.

Opportunities & Constraints

Because both woods are so close together, cumulatively, they create an area of woodland habitat covering 7.87 ha (19.45 acres) among the urban spread of Washington. The woods are only separated from each other by the width of a single road, so reasonably mobile species can exploit both woods. Migration opportunities for wildlife into these woods is further enhanced by General's Wood being directly linked to a much larger body of woodland to the east that forms an extensive green corridor along which animals can move. Heavy public use of these woods will cause disturbance to wildlife and is likely to prevent some species from maintaining a permanent presence here (e.g. ground nesting birds, larger mammals etc.), therefore some conflict is always going to be present between people's needs and that of wildlife. The loss to residential housing of the large area of open ground directly south of General's Wood is likely to see greater pressures placed on this wood as well as increasing its importance as wildlife habitat as more of the natural environment is lost to development.

Factors Causing Change

Disturbance due to increasing public use.

Disturbance due to further development.

Loss of open habitat to south of General's Wood.

Long term Objective (50 years+)

To ensure biological and structural diversity is improved through sensitive management in order to preserve, as a minimum, the current habitat value of these woods for wildlife.

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

During 2016, the first Woodland Condition Assessment (WCA) of both woods will be carried out to establish their current health and condition and identify any work required to address any issues identified. This information will then act as a baseline for future surveys to monitor for any decline in habitat value and identify any necessary actions that need to be undertaken to improve habitat quality.

5.3 Landscape Value

Description

When creating Washington New Town, Washington Development Corporation’s policy on landscape design was to have trees as a backcloth to the residential and industrial development of the town and to integrate the whole as naturally as possible. Consequently, from the outset, woodland such as the Harraton Woods were meant to form landscape features within the town, providing natural green space within the hard landscaping.

Significance

Woods and trees form part of the essential character that defines Washington as a place and have formed an explicit part of the town’s design since its inception in the 1960s. They help to maintain a village-like feel to the various parts of Washington by breaking up the urban sprawl and providing an aesthetic natural backcloth in what is otherwise an intensively developed area.

Opportunities & Constraints

Perhaps the greatest threat to maintaining the landscape value of these woods is the pressures and abuses they receive being so intimately associated with residential housing. Along the eastern boundary of Shiphouse Wood, incidents of unauthorised felling have been a particular problem, as well as vandalism to trees within the wood. That fact that these woods were included as an integral part of the new town design and are now managed by the Woodland Trust, they will continue to be protected and maintained as woodland in perpetuity, thus securing their future as landscape features.

Factors Causing Change

Illegal tree felling

Fly-tipping

Encroachments

Long term Objective (50 years+)

To maintain the existing landscape value of the Harraton Woods through sensitive management that avoids abrupt or substantial changes to the existing character of the woods.

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

Following the thinning and understory re-spacing work carried out in previous years, the canopy and understory of both woods will now be managed on a minimum intervention basis with work only being carried out in the interests of public safety, to combat tree diseases and to address any issues raised by future Woodland Condition Assessments. Boundaries adjacent to houses will also be inspected at least once every 5 years whilst conducting tree safety surveys and any damage to the woods or encroachments found will be investigated and appropriate action taken to combat these.

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	5.00	Beech	1920	High forest	Housing/infrastructure, structures & water features on or adjacent to site, Mostly wet ground/exposed site, No/poor vehicular access to the site, People issues (+tve & -tve)	Informal Public Access, Landscape Value, Local Woodland Habitat	Community Forest, Other

Sub-cpt 1a covers an area of 5.00 ha and accounts for most of General's Wood owned by the Trust. Its western end occupies level ground covered by a network of drainage ditches cut into the moist clay-loam soils, whilst its middle and eastern end occupies the northeast-facing slope of a small valley with lighter and drier soils on its upper slopes. Running along the bottom of the small valley adjacent to the northeast boundary is a small stream that opens up into a wet area at the northeast corner of the wood. This watercourse appears to function as a drain and contains a large cast-iron pipe running along at least some of its length. A good track (approximately 2m wide) runs west to east along its whole length and a smaller path runs north from this to Bonemill Lane, where an entrance and steps provides pedestrian access to the wood.

The canopy was crown-thinned in 1977 and the whole sub-cpt heavily thinned again in 1983 to create gaps to facilitate under planting in 1984 with pedunculate and sessile oak, beech, ash, birch, rowan, wild cherry, Scots pine, Sitka spruce, Japanese larch, western red cedar and western hemlock. Since then, the understory have been re-spaced in 1992, 2000 and most recently in 2003. Today, most of the understory is dominated by beech and oak but ash is also common and non-natives still occur, particularly on the mid slope in the middle and eastern parts of the wood, though much of the spruce is suppressed and dying.

Oak dominates the canopy in the western end of the wood but beech becomes more prevalent in the middle and eastern side of the wood on the mid and upper slopes to each side of the main track. Ash is also an important component of the canopy throughout whilst other species such as sycamore and birch occur in much smaller quantities. No information exists on when the current tree cover was planted but this is estimated to be around 1920. A yew hedge runs along the length of the southern boundary, behind which runs an old hawthorn hedge that has been laid in the past but is now quite wild. The field layer in the western half of the wood is generally poor being dominated by brambles, ferns and nettle whilst the eastern end has better ground flora including bluebell, dog's mercury, scaly male fern and wood poa, as well as a rich bryophyte flora.

1b	0.39	Mixed broadleaves	1976	High forest	Housing/infrastructure, structures & water features on or adjacent to site, Mostly wet ground/exposed site, No/poor vehicular access to the site	Informal Public Access, Landscape Value, Local Woodland Habitat	Community Forest, Other
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This small sub-cpt (0.39 ha) occupies moist fertile loams on the lower slopes and valley bottom at the eastern end of the wood and was created when 40-year-old poplars were clear-felled in 1976. The area was then planted with pedunculate oak, beech, wild cherry, birch, rowan, grey alder, Scots pine, Sitka spruce, Japanese larch, western red cedar and western hemlock in 1976/77. The plantings were beat-up in subsequent years but many of the conifers were removed in 1991 when the Rotarians Community Group thinned this area. Another light thinning was carried out in 1996 and the canopy now consists mostly of mixed broadleaves with some tall Scots pine and spruce along the side of the stream. Wild cherry, elder, western red cedar, oak and suppressed spruce forms a sub-canopy/understory. The route of an old track can still be followed on the ground through this area, which used to link into the existing east-west track through sub-cpt 1a. Field layer generally poorly formed due to heavy shading.

2a	2.35	Sycamore	1920	High forest	Housing/infrastructure, structures & water features on or adjacent to site, Mostly wet ground/exposed site, No/poor vehicular access to the site, People issues (+tve & -tve)	Informal Public Access, Landscape Value, Local Woodland Habitat	
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Shiphouse Wood occupies a gently sloping site with west-facing aspect. The ground is soft and damp in places where the stream/drain flows southwards along the west side of the wood; otherwise the soils are dry to moist clay loams. The middle part of the wood is the oldest and is shown as existing in 1855 on the first Ordnance Survey map but considerable ground disturbance has occurred in this area due to the Shiphouse Coalmine that existed here and later tipping, resulting in the ground being very ashy in this area. A tarmac path with street lighting passes through the wood from east to west, cutting it in two but is not recorded as a public right of way on the definitive map held by Sunderland City Council.

The current tree canopy, like General's Wood, is believed to date from the early 20th century and was crown-thinned in 1977 and then heavily thinned again in 1983 to create gaps to facilitate under planting in 1984 with pedunculate oak, beech, ash, birch, rowan, wild cherry, Scots pine, Corsican pine, Sitka spruce, Japanese larch, western red cedar and western hemlock. Today, sycamore dominates the canopy but oak and ash also occur in considerable numbers. The under planting was beat-up in subsequent years with considerable numbers of trees but many of these were removed when the understory was re-spaced in 1996 to favour native broadleaves and today the understory is dominated by beech and oak but also contains yew, holly, privet, elder and hawthorn. The field layer is generally poor and dominated by bramble, nettle and coarse grasses.

2b	0.13	Mixed broadleaves	1976	High forest	Housing/infrastructure, structures & water features on or adjacent to site	Informal Public Access, Landscape Value, Local Woodland Habitat	
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This tiny sub-cpt (0.13 ha) formally known as Larchwood and forming the extreme northern tip of Shiphouse Wood was planted in 1976 on land disturbed by construction works and consists of clayey sub-soil with a thin layer of topsoil. Three hundred trees were planted including red oak, beech, Scots pine, Sitka spruce and European larch. These were beat-up in subsequent years and other species such as common alder, ash, pedunculate oak and Corsican pine introduced. Most of the conifer element was removed in 1996 when the sub-cpt was thinned and the tree cover now consists of an intimate mix of oaks, alder, sycamore and beech with the odd pine. Hawthorn and elder form a scattered understory and weedy species such as nettle form a sparse field layer.

Appendix 2: Harvesting operations (20 years)

Forecast Year	Cpt	Operation Type	Work Area (ha)	Estimated vol/ha	Estimated total vol.
2016	1a	Selective Fell	0.25	0	0
2016	2a	Selective Fell	0.10	0	0
2020	1a	Selective Fell	5.00	15	75
2020	2a	Selective Fell	2.00	13	25

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.