



Nidd Gorge

Management Plan 2012-2017

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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 Consequently this printed version may quickly become out of date, particularly in relation to the planned work programme and on-going monitoring observations.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) 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:	Nidd Gorge
Location:	Bilton Banks, Harrogate
Grid reference:	SE328579, OS 1:50,000 Sheet No. 104
Area:	45.98 hectares (113.62 acres)
Designations:	Ancient Semi Natural Woodland, County Wildlife Site (includes SNCI, SINC etc), Great Landscape Value, Site of Special Scientific Interest

2.0 SITE DESCRIPTION

2.1 Summary Description

Stroll among ancient woodland, take part in an adventure trail, and keep your eye out for roe deer, tawny owls, herons and woodpeckers at this magical woodland, just 1.5 miles from Knaresborough.

2.2 Extended Description

The Woodland Trust acquired the site on the 15th May 1995 with considerable support from local groups such as The Ramblers Association, Yorkshire Naturalists, Town and Parish Councils local schools with particular support from the Bilton Conservation Group. The local fund-raising achieved over £60,000 towards the purchase price of £113,500 with £2000 being received from Harrogate Borough Council and £50,000 from the National Heritage Memorial Fund.

A 1.5 hectare extension to the north bank woodland (western boundary) was acquired by the Trust on the 9th April 2002 from Harrogate Borough Council.

The location was compartment 4d and parts of 2a and 3a.

The woodland is located approximately 1 mile to the west of Knaresborough, in the steep sided well-wooded valley called 'Nidd Gorge'. The River Nidd runs east west through the bottom of the gorge,

dividing the Woodland Trust woodland into two almost equal parts of 24.8ha and 20.5ha.

The Nidd Gorge area, including the valley woodlands and the surrounding agricultural land are exceptionally popular with walkers, fishermen and local residents. There is a small car park at the Ripley Road entrance on the northern edge of the woodland. A forest road from the car park meanders down through the northern bank to the river with footpaths connecting to it at various points. A substantial timber pedestrian bridge crosses the river and forms an important link to the footpath network on the southern bank. The bridge is owned and maintained by Harrogate Borough Council.

The wood is within the Nidd Gorge Project area, which was set up by Harrogate Borough Council and the Countryside Commission to conserve and manage the Nidd Gorge for both its ecological and recreational value. The funding from the Countryside Commission has ceased but a steering group still continues working as a forum to discuss proposals for any work within the project area, which includes the Woodland Trust's woodlands of Nidd Gorge and the adjacent, Bilton Beck and Rudding Bottoms. The Bilton Conservation Group is an active member of the steering group.

The gorge has arisen because the River Nidd was diverted from its old course by glacial action some 15,000 years ago. The action of the river since then has cut the gorge up to 40 metres deep. The depth and steep sided nature of the Gorge makes it a very imposing landscape feature. Along almost all of its length woodland covers both the northern and southern banks. This includes both private and the Woodland Trust's land holdings. Due to the steep sided nature of the valley, impressive views can be obtained from the upper slopes.

As the river cut the Gorge it exposed the Middle Permian Marl, the magnesium limestone and carboniferous rocks. The carboniferous are the oldest rocks and are exposed in the lower portions of the gorge and consist of sandstone, gritstone, shale and thin seams of coal. The Permian rocks are present at Oak Bank, these being the lower magnesium limestone and a red mudstone, middle Permian marl. As a result of the diverse geology and topography a wide variety of soil types are present. This variation of soil types from acidic to alkaline has greatly influenced some of the ground flora within the woodland.

The wood has a rich bryophyte flora including a number of uncommon examples. These are dependent on a continuous tree cover and are susceptible to trampling. Other flora varies with the underlying rock (see geology). Bramble and bracken are common where there is plenty of light. Bluebells, celandine, wood sorrel and wood anemones are common in the oak woodland areas. Foxgloves can be seen throughout the summer months. Where springs form marshy areas, marsh marigolds and pink purslane with meadowsweet and brooklime dominate with occasional moschatel. Along the riverside Himalayan balsam and Monkey flower are starting to invade. The flora on the north bank is similar where sufficient light has been able to penetrate the canopy. Unfortunately, some of the site is coniferous plantation, which was not thinned until 2000. The heavy shading has resulted in the loss of much of the ground cover. Hopefully following the thinning work some of the ground flora may re-establish.

Ninety-one species of fungi have been identified in the gorge including puffballs, cup fungi, jelly and bracket fungi.

Butterflies identified within the wood include common blue, peacock, wall brown as well as elephant

hawk moths.

The woodlands contain a rich bird life including, woodcock, goldcrest, coal tits, great tits and blue tits. On the river are grey wagtails, dippers, kingfishers, redpolls and siskins can be seen. Sparrow hawk can be seen hunting in the open areas and goshawks are also present in the gorge.

Roe deer make good use of the woodland as do wood mice, bank voles, stoats, weasels, badgers and fox. Sadly otter are no longer present in this part of the gorge.

The river contains a wide variety of fish species which was surveyed by the Environment Agency in 1996. Species included trout, grayling, dace, grayling, chub, gudgeon and barbell. The previous owner retained fishing rights and a private club fishes the river within the wood.

At Gates Hill, within the Scotton Banks section of the woodland on the northern bank, a defensive earthwork has been constructed of a type not uncommon in the Iron Age. It is of county level importance and is not scheduled as an ancient monument. Local legend tells that Colonel Fairfax mounted cannon within the defences for the siege of Knaresborough during the Civil War. The site of the earthworks is now overgrown with trees and some land slippage has affected parts of the earthworks.

Near the riverside 'Jack Carters Cave' is shown on the ordnance survey maps, but is not evident on the ground. It is thought that he may have been a Civil War soldier who hid in the cave.

There are records of coal deposits being worked from 1744 to the 1820's in the Coalpits Wood on the southern side of the river. Here 'Bellpits' can be seen as small depressions where the coal has been dug. Limekilns such as the one near Oak Bank show that lime burning was probably a small-scale operation. The kiln has a mouth of about 2.5 metres and a depth of 5 metres and produced quicklime for agricultural use.

During the 1920's some of the old oak woods on the southern bank of the Nidd were felled. Much of the remainder was cleared during World War Two by prisoners of war. Now much of the southern bank consists predominantly coppice re-growth of broadleaves with natural regeneration of sycamore. It still has a semi natural feel to it and much of the ancient flora remains intact.

The northern bank has a mixture of woodland types including pure stands of conifers, sitka spruce and Corsican pine together with mixed broadleaves and pure broadleaf woodland. The plantations are predominantly even aged planted in about 1967. Some older trees are present, no doubt dating from about the wartime clearances. Most of the coniferous and mixed woodland had received little if any management work until extensive line and selective thinning was undertaken on approximately 8ha of the northern bank in 2000. The area has received additional thinning operations since then and future operations will continued at approximately 5 to 10 year interval until the percentage of conifers is reduced to around 10%.

3.0 PUBLIC ACCESS INFORMATION

3.1 Getting there

ACCESS TO THE SITE

Nidd Gorge woodland is situated approximately 1.5 miles from the centre of Knaresborough in North Yorkshire. From Knaresborough travel on the B6165, sign posted Ripley, for approximately 1.5 miles. On the left hand side of the road a car park is set back in trees suitable for approximately 10 cars. A Woodland Trust, sign is at the entrance to the car park.

ENTRANCE AND FOOTPATHS

The entrance to the site from the car park is through a pedestrian gate which leads to a forest track. The track runs through the wood for approximately 1100m to river. Near the entrance gateway is a large information board which shows the extensive footpath network within the gorge. The site is steep and paths contain steps and board walks. However, the forest track does provide a well surfaced route through the wood although this does contain some gentle inclines. The paths can also be slippery during or after wet weather. Public footpaths run through the site and also follow the riverbank. These footpaths link into paths leading to Harrogate, Knaresborough and the surrounding area. Both sides of the gorge can be accessed via a pedestrian bridge which is found just off the forest track, about 300m from the car park.

This attractive woodland is very popular with walkers and has a network of several miles. Access to the Trust's Bilton Beck and Rudding Bottom woodland can be obtained by following the riverside path to the west (up stream) for approximately 1 mile from the bridge.

PARKING

Car park at the entrance to the wood on Ripley Road (B6165)

PUBLIC TOILETS

Public toilets are available in Knaresborough at the entrance to the car park for Conyningham Hall, which off the A59 near the bridge over the River Nidd.

RAIL AND BUS INFORMATION

Rail travel is available to Knaresborough, with the site being approximately 1.5 miles away. Buses from Knaresborough to Ripley pass near the entrance to the site with the closest stop being at Scotton. - see travel information below.

TRAVEL INFORMATION

Further information about public transport contact Traveline on www.traveline.org.uk or phone 0870 608 2 608

3.2 Access / Walks

4.0 LONG TERM POLICY

Northern Bank

The primary aim during the next 50-year period will be to revert the mixed compartments back to predominantly high forest of broadleaf species. Some individual conifers will be retained to reflect the management history of the site and provide age and species diversity. These trees will be left to decline naturally and only felled where safety requires such action. Within the pure conifer stands it is hoped that the thinning work undertaken in 2000 and 2010 together with all future operations will encourage natural regeneration of native broadleaved species. Small clearings may be made to further encourage regeneration. Work proposed over the next 50 years will therefore contain a continuation of thinning work. The natural regeneration will be monitored to ensure that it will be successful in ensuring the continuity of the woodland. Management of the regeneration may be needed to favour such species as oak and ash over sycamore and any spruce or other conifer regeneration controlled. If the regeneration is unsuccessful then new planting may be considered.

The sites unusual geology has created an interesting ground flora which will be maintained and enhance where ever possible through appropriate management, such as thinning and clearance work. Care will also be taken to safeguard the fauna on the site.

Public recreation within the woodland is an integral part of the management of the area. Informal public access will be maintained, and improved along the public and permissive footpaths. Viewpoints and seating may be created at specific points. Information on the site will be provided at the main car park on Ripley Road.

The north bank contains the earthworks of a hill fort, which possibly dates back to the Iron Age. This feature will be preserved and care taken during any silvicultural work. Information about the site is provided on the information board in the car park.

Southern Bank

The southern bank is semi natural ancient woodland including species such as oak, ash, beech, birch, elm, hazel, cherry and sycamore. The sites unusual geology has created an interesting ground flora which will be maintained and enhance where ever possible through appropriate management.

The main compartment 1a (24.5 ha) is unfortunately dominated by mature sycamore but other hardwood species are present. This compartment will therefore be managed with minimum intervention.

Informal public access along the public and permissive footpaths will be maintained through path clearance and tree safety work. Steps and boardwalks will be maintained and improved where necessary. The work will be in conjunction with the Council as highway authority. Viewpoints and seating may be created at specific points.

The southern bank contains several sites of historic interest including old coal pits and a limekiln. These features would be preserved in any silvicultural work and included in any interpretation of the site such as leaflets or notice boards.

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

The Nidd Gorge area, including the Woodland Trust woodland is one of the most popular recreational areas within the Harrogate and Knaresborough District. The area has a popular footpath network that links the valley walks in to the surrounding villages and open countryside. The paths are well used throughout the week and exceptionally busy at weekends. Due to the steep slopes and dense vegetation informal footpaths are fortunately fairly infrequent. A private fishing club operates on the river which has vehicle access down to the riverside turning circle.

Access provision includes a car park, a 1 kilometre section of forest road and approximately 7 kilometres of public footpath. The site also contains a number of informal and permissive paths.

Significance

The Nidd Gorge is a unique landscape feature and the woodlands and its network of paths provide an attractive walking area for both local residents and visitors.

Opportunities & Constraints

Constraints.

Short circular walks are limited due to the provision of only one bridge across the Nidd, in the centre of the wood.

The northern bank riverside footpath is blocked at one point by riverside cliffs which requires a steep detour up and down a series of steep steps to avoid it.

Many sections of the paths and boardwalks are in a poor condition and need repair and improvement.

High visitor numbers make the site a relatively busy wood and put pressures on the car park and footpaths.

Opportunities

The visual appearance of the woodland will improve following thinning work as the numbers of broadleaved trees increase and the ground flora recovers.

The opportunity exists to improve the footpaths.

Factors Causing Change

Damage to footpaths by mountain bike users, Increased fly tipping

Long term Objective (50 years+)

To improve and maintain the network of paths. To provide site information and interpretation of historical, geological and botanical interest. To provide additional view points within the woodland and seating.

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

To ensure the whole footpath network is in a good condition, permitting access throughout the year. A site improvement programme is being prepared for 2012 -2014 which includes work to improve the condition of the network of existing paths, steps and board walks. The work proposed to be undertaken consists of 2 major sets of steps, 3 kilometers of paths and repairs or removal of 50m of boardwalk.

5.2 Archaeological Feature

Description

On the northern side of the river within Scotton Banks is Gates Hill, the earthworks of a hill fort. It is considered that the site is Iron Age but having occupation in more recent times. Local legend tells that Colonel Fairfax mounted cannon within the defences for the siege of Knaresborough during the Civil War.

The hill fort area, including the various ditches and embankments occupies an area of approximately 0.3ha. Unfortunately much of the hill fort area was lost when a hospital was constructed on the adjacent land (the site is now housing).

Significance

The feature represents a large archeological earthworks of significant local interest and importance.

Opportunities & Constraints

Unfortunately limited historical records appear to exist about the earthworks which are not a scheduled ancient monument. Further research is required on the sites history and an assessment of what, if any, is the appropriate type of management for the site. Selective tree removal may be required to reduce root damage and maintain or increase ground flora to assist with reducing soil erosion.

Following further investigation some work may be required for the site which might also include providing some public interpretation, either on or off the site.

Factors Causing Change

Landslip by natural causes, Increase in size of trees on site causing root damage to earthworks., Windblowing of trees., Damage to site by people with metal detectors digging for historical objects.

Long term Objective (50 years+)

To ensure the protection of the site by the gradual removal of trees and ensuring care during any harvesting operations.

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

An initial survey of the site has been undertaken. Further investigate would improve the knowledge of the sites historical significance. If the opportunity arose for further work to be undertaken this should be supported.

The gradual removal of a small number of pine trees (10%) from the site is proposed during the period 2013 to 2018 as part of the general restoration work within the gorge. This will also reduce the potential for damage to the earthworks.

5.3 Ancient Semi Natural Woodland

Description

The current designation from NCC Inventory of Ancient Woodland (1987) for the southern bank (24.8 ha) is semi natural ancient woodland. The northern bank extending to 20.5 ha is an ancient woodland site. The southern bank which consist of mixed broadleaves with hazel and holly under story in parts is to be managed as minimum intervention high forest. The northern bank, which has been planted with conifers on a large area of the site is to undergo silvicultural thinning work to reduce the conifer element and encourage broadleaves.

Significance

The site contains a large area of planted ancient woodland and the Trust has the opportunity to restore the wood back to a predominately broadleaf wood. The site is very popular with local people and visitors and the work the Trust is doing does help promote the organisation and provide a local example of restoration work.

Opportunities & Constraints

Constraints

- 1) Whilst the site contains an extensive conifer plantation it has little potential economically viable for timber production.
- 2) Fluctuations in timber prices could affect timing of timber operations.
- 3) Sloping ground and heavy clay soils making extraction difficult in wet weather.

Opportunities

- 1) The restoration work undertaken in 2000 has resulted in significant improvement in the ground flora and natural regeneration of hardwood species. It is considered that thinning work will result in further improvements.

Factors Causing Change

Invasive Sycamore, Squirrel Damage, Deer Damage, Wind Damage to recently(2010) thinned area., Natural regeneration of groundflora and scrub understorey

Long term Objective (50 years+)

Northern bank.

Reversion to predominately broadleaved woodland by thinning to over the next 50 years. Create small coupes suitable for natural regeneration of oak, ash and other broadleaved species and to encourage the development of ground flora and shrub under story in parts.

Increase in both standing and fallen deadwood.

Southern bank

Retention as minimum intervention woodland. Monitoring to be undertaken of natural regeneration and of species distribution.

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

Northern Bank

Third thinning operation proposed between 2013 to 2018 targeting conifer areas and selective thinning of beech. Monitoring of ground flora and natural regeneration to be continued.

Southern Bank

Monitoring of ground flora and natural regeneration to be continued.

5.4 Planted Ancient Woodland Site

Description

The area of planted ancient woodland (PAWS) within Nidd Gorge extends to 8.75ha. Most of the trees were planted in the 1960's. Conifer species including Corsican pine, Hybrid larch and Sitka spruce.

Significance

Ancient woodland is the UK's richest wildlife habitat and the conversion of such wood to coniferous plantations has threatened the survival of such important habitat. The gradual removal of conifers is key objective in the restoration of such sites and Nidd Gorge occupies a significant area of threatened ancient woodland.

Opportunities & Constraints

The major opportunity is the restorations of the coniferous areas of the wood back to a predominantly broadleaf trees. Hopefully this will aid the recovery of the ground flora back that which is consistent of ancient woodland.

The constraints is that the restoration work can only be achieved over a period of time by gradual thinning the conifers to allow the re-establishment of the ground flora. The broadleaf trees to be introduced via natural regeneration and new planting.

Factors Causing Change

The potential factors which could cause change to the planned operations would include, frequent wind damage/ wind blow, disease such as Red Band Needle Blight, and Phytophthora, Fire, natural regeneration of conifer seedlings, excessive regrowth with bramble, natural regeneration of Himalayan Balsam. The wood has extensive areas of Himalayan balsam which will affect the establishment of ground flora. The balsam is being controlled but given the area this may be some time before it is rectified. Red Band Needle Blight is also present with some thinning to the crowns of the Corsican pines, but not too extensive in 2012.

Long term Objective (50 years+)

The long term vision to create a high forest of predominantly broadleaf species and a mixed age class distribution. The conifer element will be reduced through gradually thinning operations until it reaches less than 10% of the canopy.

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

By 2014 thinning work will be completed in all coniferous compartments with satisfactory light levels achieved so that all of the stands will be threatened rather than in a critical condition.

6.0 WORK PROGRAMME

Year	Type of Work	Description	Due By
2012	AW - Visitor Access Maintenance	Footpath improvement works as per the attached sheet.	25/12/12
2013	SL - Tree Safety Works - Zone A	Replacement of boundary fencing following damage by a willow tree which fell during high winds.	28/02/13
2013	SL - Tree Safety Works - Zone A	removal of gale damaged tree from garden of 47 Appleby Avenue, Knaresborough	28/02/13
2013	AW - Visitor Access Infrastructure	The erection of new entrance sign at the Ripley road entrance. New sign provided but timber framing to be provided in accordance with the specification sent previously. Cost to include timber provision and machining, £185, two man days for erection £270, concrete post mix £30 = £485	31/03/13
2013	AW - Visitor Access Maintenance	Cut vegetation surrounding car park, and along the footpaths as per attached plan to spec 2.1	29/05/13
2013	AW - Management Access Maintenance	Repair of collapsed section of forest track following landslip. Materials - 5 tonnes of crusher run @ £40 = £200, sharp sand £40, Sand backs £30, cement, £18, Blocks, £12 = £300 Four man days @ £145 = £580 = £880	01/07/13
2013	AW - Visitor Access Maintenance	Cut vegetation surrounding car park, and along the footpaths as per attached plan to spec 2.1	31/07/13
2013	NWH - Invasive Plant Control	c.f. c.f. c.f. Control of invasive plants including Himalayan Balsam and conifers	01/08/13

2013	AW - Visitor Access Infrastructure	<p>Undertaking access improvement works at Nidd Gorge. Work to include construction of footpaths and steps. Further details to be provide following site evaluation of the various sections of path and steps.</p> <p>Work to include recording volunteer involvement including photographs of before, during and after work. Details of materials and equipment used to be recorded also.</p>	01/08/13
2013	AW - Visitor Access Infrastructure	<p>Undertaking 2 days access improvement works at Nidd Gorge. Work to include construction of footpaths and steps.</p> <p>Work to include recording volunteer involvement including photographs of before, during and after work. Details of materials and equipment used to be recorded also.</p> <p>Day 1 to include the hire of powered wheel barrow and track wheel barrow at a cost of £145.20</p> <p>Day 2 to include the hire of stump grinder at a cost of £113.04</p> <p>Total cost = 2 day x £400 + £ 145.20 + £113.04 = £1058.20</p>	01/08/13
2013	SL - Tree Safety Works - Zone B	Tree safety works to remove fallen and partially fallen trees across main ride and also footpaths	31/08/13
2013	AW - Visitor Access Maintenance	Cut vegetation surrounding car park, and along the footpaths as per attached plan to spec 2.1	25/09/13

2013	PE - Interpretation & Signage	<p>c.f. Preparation of a colour reconstruction of the hill fort and sketch reconstructions for a bell pit and lime kiln. The work to be undertaken in two stages.</p> <p>Stage 1 - research and initial sketches for all 3 reconstructions. Work to be completed by 1st December 2012. Cost £800</p> <p>Completion of art work for all 3 items to be completed by the 1st May 2013. - Cost £700</p>	01/10/13
2013	PE - Interpretation & Signage	<p>Interpretation and signage for the Nidd Gorge Project.</p> <p>Supply of information boards for Nidd Gorge , 3 panels as detailed below. Total cost £302.51</p> <p>Details</p> <p>Gates Hill panel - 841(H) x 792(W)mm £133.51</p> <p>Industry panel - 841(H) x 396(W)mm £67.00</p> <p>Timeline panel - 841(H) x 396(W)mm £67.00</p> <p>Delivery £35.00</p> <p>Delivery to</p> <p>David Wattam BSc (Hons) For HND/arb Ridings Forestry (UK) Ltd 21 Copandale Road Beverley East Yorkshire HU17 7BN</p> <p>Tel 01482 862913 - 07900806331</p> <p>ridingsf@gmail.com</p>	31/10/13

2013	PE - Interpretation & Signage	<p>Interpretation and signage for the Nidd Gorge Project.</p> <p>1) Supply timber for and construction of oak frames for the information boards for Nidd Gorge , 3 panels as detailed below. Panels to be supplied from Bulliet Design Solutions and delivered to 21 Copandale Road. Details</p> <p>Gates Hill panel - 841(H) x 792(W)mm Industry panel - 841(H) x 396(W)mm Timeline panel - 841(H) x 396(W)mm</p> <p>Timber supply plus construction of frames including posts (4) ready for installation £485</p> <p>Installation of signs on site including supply of post mix and transportation £380</p> <p>Exact location of sign to be agreed on site with the Trust's Site Manager</p> <p>Total cost £865</p>	31/10/13
2013	PE - Interpretation & Signage	<p>5652 Nidd Gorge panels x3 (Supplied design visuals and proofs to Nicola Craven) Design visuals Proof 1 supplied 14/6 - 4 hours Proof 2 supplied 19/6 - 0.75 hours Proof 3 supplied 19/6 - 0.50 hours Proof 4 supplied 19/6 - 0.25 hours Proof 5 supplied 9/7 - 0.25 hours Proof 6 supplied 9/7 - 0.25 hours Proof 7 supplied 9/7 - 0.50 hours Artwork supplied 22/7 - 0.75 hours Revised Artwork supplied 7/8 - 0.25 hours Total 7.5 hours - £337.50 11 Library images @ £7 each £77 Total £414.50</p>	31/10/13

2013	PE - Interpretation & Signage	5652 Nidd Gorge panels x3 (Supplied design visuals and proofs to Nicola Craven) Design visuals Proof 1 supplied 14/6 - 4 hours Proof 2 supplied 19/6 - 0.75 hours Proof 3 supplied 19/6 - 0.50 hours Proof 4 supplied 19/6 - 0.25 hours Proof 5 supplied 9/7 - 0.25 hours Proof 6 supplied 9/7 - 0.25 hours Proof 7 supplied 9/7 - 0.50 hours Artwork supplied 22/7 - 0.75 hours Revised Artwork supplied 7/8 - 0.25 hours Total 7.5 hours - £337.50 11 Library images @ £7 each £77 Total £414.50	31/10/13
2013	AW - Visitor Access Infrastructure	c.f. c.f. c.f. Undertaking access improvement works at Nidd Gorge. Work to include construction of footpaths and steps. Further details to be provide following site evaluation of the various sections of path and steps. Work to include recording volunteer involvement including photographs of before, during and after work. Details of materials and equipment used to be recorded also.	01/11/13
2013	HF - Invasive Plant Control	c.f. c.f. c.f. Undertake the control of invaive plants including Himalayan Balsam and conifers. (Should be P4 VAT code - recoverable)	01/11/13
2013	PE - Interpretation & Signage	provision of new information material on the historical features of the site including, hill fort, lime kiln and bell pits.	01/11/13
2013	PE - Interpretation & Signage	Leaflet production	27/11/13
2013	LC - Fly Tipping	Removal of fly tipping in car park and to undertake litter removal throughout the woodland, especially alongside the house boundaries	30/11/13
2013	HF - Invasive Plant Control	Undertake the control of invaive plants including Himalayan Balsam and conifers. (Should be P4 VAT code - recoverable)	16/12/13

2013	AW - Visitor Access Infrastructure	<p>Undertaking access improvement works at Nidd Gorge. Work to include construction of footpaths and steps. Further details to be provide following site evaluation of the various sections of path and steps.</p> <p>Work to include recording volunteer involvement including photographs of before, during and after work. Details of materials and equipment used to be recorded also.</p>	16/12/13
2013	HF - Invasive Plant Control	c.f. Undertake the control of invaive plants including Himalayan Balsam and conifers. (Should be P4 VAT code - recoverable)	16/12/13
2013	HF - Invasive Plant Control	c.f. c.f. Undertake the control of invaive plants including Himalayan Balsam and conifers. (Should be P4 VAT code - recoverable)	16/12/13
2013	AW - Visitor Access Infrastructure	<p>c.f. Undertaking access improvement works at Nidd Gorge. Work to include construction of footpaths and steps. Further details to be provide following site evaluation of the various sections of path and steps.</p> <p>Work to include recording volunteer involvement including photographs of before, during and after work. Details of materials and equipment used to be recorded also.</p>	16/12/13
2013	AW - Visitor Access Infrastructure	<p>c.f. c.f. Undertaking access improvement works at Nidd Gorge. Work to include construction of footpaths and steps. Further details to be provide following site evaluation of the various sections of path and steps.</p> <p>Work to include recording volunteer involvement including photographs of before, during and after work. Details of materials and equipment used to be recorded also.</p>	16/12/13
2014	SL - Tree Safety Emergency Work	Removal of wind blown trees across main forest road	31/03/14

2014	WMI - PAWS Restoration	<p>purchase order for harvesting work at Nidd Gorge 2014. Total cost of felling and extraction of 823.22 tonnes = £10,701.86</p> <p>Purchase order already issued for £7350 (PO 503118) in June 2013. This PO is for £3351.86 making the total cost of the wor £10.701.86</p>	30/04/14
2014	LC - Fly Tipping	Removal of fly tipping and rubbish from the car park.	01/05/14
2014	SL - Tree Safety Emergency Work	Windblow timber during recent high winds and from recent harvesting operation 2 days x 2 men = £560	01/05/14
2014	AW - Visitor Access Maintenance	Cut vegetation surrounding car park, and along the footpaths as per attached plan to spec 2.1	29/05/14
2014	AW - Visitor Access Maintenance	Improvement of paths with volunteers - 4 task day @ £400 per day = £1600. Work to be undertaken on both the north and south bank and continuing the work undertaken by the 2012/13 project.	01/06/14
2014	WMI - PAWS Restoration	<p>c.f. c.f. c.f. Harvesting Operation - To fell and extract approximately 300 tonnes of conifers with vales per tonne of Sawlogs £17 , Pallet Wood £9 and Chipwood £2.50, standing values</p> <p>Timber Value - Average cost £9.50 per tonne x 300 = £2850</p> <p>Fell and extraction costs of £15 per tonne x 300 = £4,500</p> <p>Total value of work = £ 7,350</p> <p>This is a netting off purchase order and a slaes invoice will be issued for the timber based on weight tickets.</p> <p>This operation is also based on a harvesting contract and other documentation.</p>	02/06/14

2014	WMI - PAWS Restoration	<p>c.f. c.f. Harvesting Operation - To fell and extract approximately 300 tonnes of conifers with vales per tonne of Sawlogs £17 , Pallet Wood £9 and Chipwood £2.50, standing values</p> <p>Timber Value - Average cost £9.50 per tonne x 300 = £2850</p> <p>Fell and extraction costs of £15 per tonne x 300 = £4,500</p> <p>Total value of work = £ 7,350</p> <p>This is a netting off purchase order and a slaes invoice will be issued for the timber based on weight tickets.</p> <p>This operation is also based on a harvesting contract and other documentation.</p>	02/06/14
2014	AW - Visitor Access Infrastructure	<p>2 Large plastic Woodland Trust name signs as per Arien spec refer :code LAWEL2 @ £21.62 x 2 = £43.24 (Nidd Gorge)</p>	30/06/14
2014	WMI - PAWS Restoration	<p>c.f. c.f. c.f. c.f. c.f. Harvesting Operation - To fell and extract approximately 300 tonnes of conifers with vales per tonne of Sawlogs £17 , Pallet Wood £9 and Chipwood £2.50, standing values</p> <p>Timber Value - Average cost £9.50 per tonne x 300 = £2850</p> <p>Fell and extraction costs of £15 per tonne x 300 = £4,500</p> <p>Total value of work = £ 7,350</p> <p>This is a netting off purchase order and a slaes invoice will be issued for the timber based on weight tickets.</p> <p>This operation is also based on a harvesting contract and other documentation.</p>	01/07/14

2014	WMI - PAWS Restoration	<p>c.f. c.f. c.f. c.f. Harvesting Operation - To fell and extract approximately 300 tonnes of conifers with vales per tonne of Sawlogs £17 , Pallet Wood £9 and Chipwood £2.50, standing values</p> <p>Timber Value - Average cost £9.50 per tonne x 300 = £2850</p> <p>Fell and extraction costs of £15 per tonne x 300 = £4,500</p> <p>Total value of work = £ 7,350</p> <p>This is a netting off purchase order and a slaes invoice will be issued for the timber based on weight tickets.</p> <p>This operation is also based on a harvesting contract and other documentation.</p>	01/07/14
2014	AW - Visitor Access Maintenance	Cut vegetation surrounding car park, and along the footpaths as per attached plan to spec 2.1	31/07/14
2014	AW - Visitor Access Infrastructure	Supply of posts and backing board for 2 large signs. Erection of 2 new large plastic name signs @ £50 per sign = £100	01/08/14
2014	AW - Visitor Access Maintenance	Volunteer repairs of board walks - timber and other materials	31/08/14
2014	AW - Car Park Construction	c.f. Improvements to the parking area at Nidd Gorge - Specific work discription to be drawn up but to include improving the edges of the car park and layout to increase capacity slightly. Surfacing the main area to rationalise the mixture of surface materials and to making it more suitable for the heavy usage. New fencing to be erected alongside the drainage ditch - potential litter bin.	01/09/14

2014	WMI - PAWS Restoration	<p>c.f. Harvesting Operation - To fell and extract approximately 300 tonnes of conifers with vales per tonne of Sawlogs £17 , Pallet Wood £9 and Chipwood £2.50</p> <p>Timber Value - Average cost £9.50 per tonne x 300 = £2850</p> <p>Fell and extraction costs of £15 per tonne x 300 = £4,500</p> <p>Total value of work = £ 7,350</p> <p>This is a netting off purchase order and a slaes invoice will be issued for the timber based on weight tickets.</p> <p>This operation is also based on a harvesting contract and other documentation.</p>	01/09/14
2014	AW - Car Park Construction	<p>Improvements to the parking area at Nidd Gorge - Specific work discription to be drawn up but to include improving the edges of the car park and layout to increase capacity slightly. Surfacing the main area to rationalise the mixture of surface materials and to making it more suitable for the heavy usage. New fencing to be erected alongside the drainage ditch - potential litter bin.</p>	01/09/14

2014	CS - Map / Interpretation Work	<p>Preparation of small board at the start of the adventure play trail - Adventure Trail - Follow red marker posts - 1 to 2 hours - 1.5 miles. (Further details to be provided).</p> <p>Erection of 20 new waymarker posts marked with a single red band.</p> <p>Marking of 20 existing features with red painted band to highlight route.</p> <p>Repairs of footpath where necessary</p> <p>Repair of one damaged item of play equipment (end of balancing beams).</p> <p>Replacement of compass</p> <p>Total cost £1860</p>	01/09/14
2014	WMI - PAWS Restoration	<p>Harvesting Operation - To fell and extract approximately 300 tonnes of conifers with vales per tonne of Sawlogs £17 , Pallet Wood £9 and Chipwood £2.50</p> <p>Timber Value - Average cost £9.50 per tonne x 300 = £2850</p> <p>Fell and extraction costs of £15 per tonne x 300 = £4,500</p> <p>Total value of work = £ 7,350</p> <p>This is a netting off purchase order and a slaes invoice will be issued for the timber based on weight tickets.</p> <p>This operation is also based on a harvesting contract and other documentation.</p>	01/09/14
2014	AW - Visitor Access Maintenance	Cut vegetation surrounding car park, and along the footpaths as per attached plan to spec 2.1	25/09/14

2014	LC - Fly Tipping	Removal of dead deer from car park to within the wood - emergency call out . Payment to cover travel, tarpoline, ropes etc	30/09/14
2014	SL - Tree Safety Works - Zone A	Tree safety works Removal of dead willow trees adjacent to access track and information board. Removal of Eagle head from toten pole. Remove fallen tree on the corner of trhe access road. Remve one fallen tree across the path , down stream from the end of the access road. Prune or remove damaged willow near compass on main access road. Check paths for fallen trees	01/10/14
2014	LC - Fly Tipping	Removal of fly tipping in car park and repair of sign	26/11/14
2015	AW - Visitor Access Maintenance	Cut vegetation surrounding car park, and along the footpaths as per attached plan to spec 2.1	29/05/15
2015	AW - Visitor Access Maintenance	Cut vegetation surrounding car park, and along the footpaths as per attached plan to spec 2.1	31/07/15
2015	HF - Invasive Plant Control	Himalyan Balsam Control - Volunteers and contractors work -	01/08/15
2015	AW - Visitor Access Maintenance	Cut vegetation surrounding car park, and along the footpaths as per attached plan to spec 2.1	25/09/15
2015	AW - Visitor Access Maintenance	Footpath improvements north and south banks.	31/10/15
2015	PE - Interpretation & Signage	Picnic area and signage at Bilton beck/ nidd gorge to tie in with new sustrans cycle route	31/10/15
2015	PE - Events - General	Quarterly event days to tie into National Events Programme	20/11/15
2016	AW - Visitor Access Maintenance	Cut vegetation surrounding car park, and along the footpaths as per attached plan to spec 2.1	29/05/16
2016	AW - Visitor Access Maintenance	Cut vegetation surrounding car park, and along the footpaths as per attached plan to spec 2.1	31/07/16

2016	AW - Visitor Access Maintenance	Cut vegetation surrounding car park, and along the footpaths as per attached plan to spec 2.1	25/09/16
2016	AW - Visitor Access Maintenance	Footpath improvements north and south banks.	01/10/16

APPENDIX 1: COMPARTMENT DESCRIPTIONS

Cpt No.	Area (ha)	Main Species	Year	Management Regime	Major Management Constraints	Key Features Present	Designations
1a	24.58	Sycamore	1940	High forest	No/poor vehicular access to the site, Very steep slope/cliff/quarry/mine shafts/sink holes etc	Ancient Semi Natural Woodland, Informal Public Access	Ancient Semi Natural Woodland, County Wildlife Site (includes SNCI, SINC etc)
<p>Current designation from the NCC Inventory of Ancient Woodland 1987 is semi natural ancient woodland. The riverside trees in this compartment are mainly alder but the predominantly tree is sycamore, accounting for approximately 40- 60%. Other species present include oak, wild cherry, birch, rowan, ash and beech. Bilton Banks contains several mature yew (100 years plus) but the majority of trees appear under 100 years of age. It is thought that extensive areas of the compartment were felled during the second World War, which perhaps accounts for the age structure of the wood with few over mature specimens. Under storey species include hazel, holly and bramble. Natural regeneration is mainly of sycamore. Elm is present in place with some sucker growth. Ground flora contains some large areas of garlic, bluebells and dogs mercury. Bracken is also extensive in places. A small area of new tree planting of was undertaken in Oak Bank in 1999 with donations from Taylors Tea. Tree species included oak, ash, birch and cherry. Many of the trees succeeded along with a small amount of natural regeneration. The compartment is to be managed as minimum intervention high forest. Minor work will be undertaken to keep the footpaths open and free of obstructions such as fallen trees.</p>							
2a	0.70	Corsican pine	1967	PAWS restoration	Very steep slope/cliff/quarry/mine shafts/sink holes etc	Ancient Semi Natural Woodland, Informal Public Access	Ancient Semi Natural Woodland
<p>A nearly pure stand of Corsican pine (P67) situated on a very steep embankment to the north of the main access road. The area was not thinned until 2000 when selective thinning was undertaken. The compartment also contains approximately 5% broadleaved species including oak, sycamore, ash and willow. These are mainly situated along the southern boundary of the compartment although isolated trees can be found within it.</p>							
2b	0.25	Corsican pine	1967	PAWS restoration		Ancient Semi Natural Woodland, Informal Public Access	Ancient Semi Natural Woodland

<p>Small area of nearly pure Corsican pine (P67) situated on a steep slope between the forest road and River Nidd. Mixed broadleaved and larch (compartment 3B) forms the northern boundary with sitka spruce (compartment 5a) to the south and in a thin strip alongside the river on the western boundary. A small number (5%) of broadleaved species are present, mainly along the forest road boundary but occasional thin drawn birch are within the compartment. The compartment was first thinned in 2000.</p>							
2c	1.40	Corsican pine	1967	PAWS restoration		Ancient Semi Natural Woodland, Informal Public Access	Ancient Semi Natural Woodland, County Wildlife Site (includes SNCI, SINC etc)
<p>Small area of pure Corsican pine (P67) situated on a steep slope between the forest road and the hill fort. Broadleaved woodland along the northern boundary with sitka spruce compartment to the south. The road forms the south western boundary which has a band of broadleaved species along the boundary including birch, thorn, oak and dog rose. Occasional thin drawn birch and sycamore are within the compartment. Compartment thinned for the first time in 2000.</p>							
2d	0.50	Corsican pine	1967	PAWS restoration	No/poor vehicular access to the site	Ancient Semi Natural Woodland, Informal Public Access	Ancient Semi Natural Woodland
<p>Pure stand of Corsican pine (P67) situated on a land at the top of a steep embankment and adjacent to the houses on Appleby Avenue. The area has had several small thin to waste operations since 2000. Isolated broadleaved trees are within the compartment.</p>							
3a	1.80	Larch (hybrid)	1967	PAWS restoration	Very steep slope/cliff/quarry/mine shafts/sink holes etc	Ancient Semi Natural Woodland, Informal Public Access	Ancient Semi Natural Woodland
<p>The current designation from NCC inventory of ancient woodland (1987) is an ancient semi natural woodland site. The compartment consists of a mixed plantation of larch, ash, beech and sycamore (P1967). Limited under storey and the ground flora is limited in parts, probably due to the dense shading from beech.</p>							
3b	1.00	Larch (hybrid)	1967	PAWS restoration		Ancient Semi Natural Woodland, Informal Public Access	Ancient Semi Natural Woodland

<p>The current designation from NCC inventory of ancient woodland (1987) is an ancient semi natural woodland site. The compartment consists of a mixed plantation of larch, ash and sycamore (P1967). The boundary to the forest track contains a broadleaved boundary with dense shrubs but the remaining are has limited under storey shrubs but the ground flora is more varied.</p>							
4a	4.60	Mixed broadleaves	1967	Min-intervention	No/poor vehicular access within the site	Ancient Semi Natural Woodland, Informal Public Access	Ancient Semi Natural Woodland
<p>Predominantly broadleaved woodland of mainly sycamore and ash with occasional larch, western red cedar, Scots and Corsican pine. The trees appear to be about (P1967) as with the much of the northern bank woodland. Sycamore and ash are mainly multi-stemmed trees from coppice stools. Much of the compartment contains very steep slopes and rock outcrops making silvicultural work very difficult.</p>							
4b	2.40	Mixed native broadleaves	1967	High forest	No/poor vehicular access to the site	Ancient Semi Natural Woodland, Informal Public Access	Ancient Semi Natural Woodland
<p>The compartment contains predominantly broadleaved trees, mainly sycamore and ash with occasional larch. Trees appear to be slightly older than compartment 4a and probably date from after war time clearances. Most trees have formed single stems. The northern part of the compartment contains some wet, fairly flat areas, but two thirds of the compartment has very steep slopes and small rock outcrops.</p>							
4c	4.50	Mixed broadleaves	1900	High forest		Ancient Semi Natural Woodland, Informal Public Access	Ancient Semi Natural Woodland
<p>This large area contains mainly sycamore(60%) and ash (20%) with occasional oak (10%). Small number of elm, hazel and rowan accounting for 10% .. The percentage of sycamore deminishes alongside the river, where ash makes up about 60% of the canopy. The riverside boundary of the compartment is lined almost by entirely alder trees.</p>							
4d	0.78	Mixed native broadleaves	1940	High forest	Very steep slope/cliff/quarry/mine shafts/sink holes etc	Ancient Semi Natural Woodland, Informal Public Access	Ancient Semi Natural Woodland
<p>The compartment contains the site of a former quarry and borders housing to the north and the River Nidd on its southern edge. It consists of mainly mature sycamore - P1940, with limited under storey, some hazel, holly and thorn.</p>							

5a	3.10	Sitka spruce	1967	PAWS restoration		Ancient Semi Natural Woodland, Informal Public Access	Ancient Semi Natural Woodland, County Wildlife Site (includes SNCI, SINC etc)
<p>Pure stand of sitka spruce (P67) situated mainly on a gentle sloping land but there is one steep embankment within the compartment. The spruce also continues as a narrow band of trees alongside the river to the north of the main block. The area was not thinned until 2000 when line and selective thinning undertaken. A few isolated tall drawn birches can be found within the compartment, along with an odd oak, but this area is in the main 95% spruce. The riverside boundary does contain a strip of mainly alder with occasional trees being other hardwood species such as sycamore, willow, ash and oak. At the eastern end of the compartment are a few Corsican pines. The spruce trees have exceptionally good form with tall straight stems and top heights of nearly 30m.</p>							

Appendix 2: Harvesting operations (20 years)

Forecast Year	Cpt	Operation Type	Work Area (ha)	Estimated vol/ha	Estimated total vol.
2014	2a	Thin	0.70	214	150
2014	2b	Thin	0.33	152	50
2014	2c	Thin	1.61	93	150
2014	2d	Thin	0.50	200	100
2014	3a	Thin	1.80	56	100
2014	3b	Thin	1.00	100	100
2014	5a	Thin	3.10	48	150

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.