

# **Crawford's Wood**

# Management Plan 2017-2022

## MANAGEMENT PLAN - CONTENTS PAGE

## ITEM

Page No.

Introduction

Plan review and updating

## Woodland Management Approach

Summary

- 1.0 Site details
- 2.0 Site description
  - 2.1 Summary Description
  - 2.2 Extended Description
- 3.0 Public access information
  - 3.1 Getting there
  - 3.2 Access / Walks
- 4.0 Long term policy
- 5.0 Key Features
  - 5.1 Connecting People with woods & trees
  - 5.2 New Native Woodland
  - 5.3 Open Ground Habitat
- 6.0 Work Programme
- Appendix 1: Compartment descriptions
- Appendix 2: Harvesting operations (20 years)

Glossary

## MAPS

Access Conservation Features Management

## THE WOODLAND TRUST

## INTRODUCTION

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

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

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

## PLAN REVIEW AND UPDATING

The information presented in this Management plan is held in a database which is continuously being amended and updated on our website. Consequently this printed version may quickly become out of date, particularly in relation to the planned work programme and on-going monitoring observations. Please either consult The Woodland Trust website <u>www.woodlandtrust.org.uk</u> or contact the Woodland Trust (wopsmail@woodlandtrust.org.uk) to confirm details of the current management programme.

There is a formal review of this plan every 5 years and a summary of monitoring results can be obtained on request.

## WOODLAND MANAGEMENT APPROACH

The management of our woods is based on our charitable purposes, and is therefore focused on improving woodland biodiversity and increasing peoples' understanding and enjoyment of woodland. Our strategic aims are to:

- · Protect native woods, trees and their wildlife for the future
- · Work with others to create more native woodlands and places rich in trees
- Inspire everyone to enjoy and value woods and trees

All our sites have a management plan which is freely accessible via our website <u>www.woodlandtrust.org.uk</u>. Our woods are managed to the UK Woodland Assurance Standard (UKWAS) and are certified with the Forest Stewardship Council® (FSC®) under licence FSC-C009406 and through independent audit.

In addition to the guidelines below we have specific guidance and policies on issues of woodland management which we review and update from time to time.

We recognise that all woods are different and that the management of our sites should also reflect their local landscape and where appropriate support local projects and initiatives. Guidelines like these provide a necessary overarching framework to guide the management of our sites but such management also requires decisions based on local circumstances and our Site Manager's intimate knowledge of each site.

The following guidelines help to direct our woodland management:

- 1. Our woods are managed to maintain their intrinsic key features of value and to reflect those of the surrounding landscape. We intervene when there is evidence that it is necessary to maintain or improve biodiversity and to further the development of more resilient woods and landscapes.
- 2. We establish new native woodland using both natural regeneration and tree planting, but largely the latter, particularly when there are opportunities for involving people.
- 3. We provide free public access to woods for quiet, informal recreation and our woods are managed to make them accessible, welcoming and safe.
- The long term vision for our non-native plantations on ancient woodland sites is to restore them to predominantly native species composition and semi-natural structure, a vision that equally applies to our secondary woods.
- 5. Existing semi-natural open-ground and freshwater habitats are restored and maintained wherever their management can be sustained and new open ground habitats created where appropriate.
- 6. The heritage and cultural value of sites is taken into account in our management and, in particular, our ancient trees are retained for as long as possible.
- 7. Woods can offer the potential to generate income both from the sustainable harvesting of wood products and the delivery of other services. We will therefore consider the potential to generate income from our estate to help support our aims.
- 8. We work with neighbours, local people, organisations and other stakeholders in developing the management of our woods. We recognise the benefits of local community woodland ownership and management. Where appropriate we allow our woods to be used to support local woodland, conservation, education and access initiatives.
- 9. We use and offer the estate where appropriate, for the purpose of demonstration, evidence gathering and research associated with the conservation, recreational and sustainable management of woodlands. In particular we will develop and maintain a network of long-term monitoring sites across the estate.
- 10 Any activities we undertake will conform to sustainable forest management principles, be appropriate for the site and will be balanced with our primary objectives of enhancing the biodiversity and recreational value of our woods and the wider landscapes.

## SUMMARY

This public management plan briefly describes the site, specifically mentions information on public access, sets out the long term policy and lists the Key Features which drive management actions. The Key Features are specific to this site - their significance is outlined together with their long (50 year+) and short (5 year) term objectives. The short term objectives are complemented by a detailed Work Programme for the period of this management plan. Detailed compartment descriptions are listed in the appendices which include any major management constraints and designations. A short glossary of technical terms is at the end. The Key Features and general woodland condition of this site are subject to a formal monitoring programme which is maintained in a central database. A summary of monitoring results is available on request.

## 1.0 SITE DETAILS

Site name:	Crawford's Wood
Location:	Aspull
Grid reference:	SD605081, OS 1:50,000 Sheet No. 109
Area:	19.96 hectares (49.32 acres)
Designations:	Community Forest, Green Belt

## 2.0 SITE DESCRIPTION

## 2.1 Summary Description

Crawford's wood is located the village of Aspull, near Wigan. It is an attractive establishing woodland, planted with mixed broadleaved trees in the winter of 1996/97. South facing with a mixture of woodland and open unsurfaced grassy paths, the woodland links via footpaths and permissive bridleway with adjacent mature woodland, the nearby Haigh Hall Country Park, Leeds Liverpool Canal and lady Mabel's Wood (Woodland Trust). The wood is popular with dog walkers and ramblers and due to its urban fringe location is accessible to a large number of people.

## 2.2 Extended Description

Crawford's wood occupies land one mile east of Wigan and on the west side of the village of Aspull, its southern compartment lies alongside the B 5238 Wigan Road. The site is mostly flat with a moderate gradient and SW aspect in the north and eastern sections. It is a woodland creation site planted in the winter of 1996/97. Approximately 54% of the area is new plantation (11.1Ha) the remaining area (9.1ha) is a mixture of rides, paths and open grassland. The planting mix was dominated by oak and ash with wild cherry, alder, silver birch, rowan and woody shrubs such as hazel, guelder rose, dog rose, and hawthorn. To reflect the species in the nearby Haigh Plantations small stands of lime and horse chestnut have also been planted.

Prior to Woodland Trust ownership the recent management of the site has been as pasture. The local geology comprises of middle coal measures/strata overlain with boulder clay, a fault in the strata runs just to the north of the bridle path. Consequently like much of the local area mining has affected the landscape and ground conditions. Records suggest the existence of a capped mineshaft in the area just west of the management access off Manor Grange (exact location is unknown). Further capped shafts lie adjacent to the western boundary. The southern meadow area was mined for topsoil, gravel and clay deposits in 1969 and backfilled with waste and scrapings (clay and sandstone) derived from construction works on the M61.

The site is popular with dog walkers and ramblers and due to its urban fringe location is accessible to a large number of people. Many of the footpaths crossing the site link to public rights of way and open areas such as Haigh Hall Country Park and the Leeds Liverpool canal towpath.

## 3.0 PUBLIC ACCESS INFORMATION

3.1 Getting there

Crawford's Wood is located in the village of Aspull which is approximately 1 mile east of the town of Wigan. The wood has seven pedestrian access points. Two of the pedestrian access points are located on the sites western boundary to the rear of Manor Grove. Four pedestrian access point are located on the sites western boundary and border farmland. One more pedestrian access point is located on the sites south eastern boundary to the rear of Wigan Road. The access point on the eastern boundary to the rear of Manor Grove is also suitable for horses. The permissive bridleway runs in an east -west direction for approximately 440 metres before linking into a public bridleway which runs north-south just outside the woods western boundary. All the pedestrian access points are squeeze gaps. The permissive bridleway access points are also not suitable for wheelchairs or pushchairs. The access point lead to approximately 2.5 kilometres of formal and informal footpaths. The majority of the footpaths are not surfaced and consist of unmodified earth and grass. The footpaths can become slippery and muddy when wet.

Parking is available on nearby local roads such as Manor Grove but may be limited.

Nearest public toilet: Located approximately 3 miles away at Asda Superstores, Robin Park Wigan. Toilets are suitable for disabled users.

Nearest bus stop: Located at Holly Road, which is approximately 50 metres away from the wood. Holly Road is a suburban road with a pavement. Information from the traveline website. Further information about public transport is available from Traveline- www.traveline.org.uk or phone 0870 608 2608

3.2 Access / Walks

## 4.0 LONG TERM POLICY

The long-term intention is to create and maintain a site with an intimate and rich mosaic of habitats that compliments the surrounding landscape and provides a workable balance between the Woodland Trusts access policy and woodland management principles.

The secondary woodland will be managed as a mixed, native species, high forest. The wood will be as diverse as possible in species and in tree age class so it is as resilient as possible to future changes.

At this current time (2017) there appears no practical rational for maintaining the open space, the meadow area is wet making it very difficult to mow, the domination of juncus reed means the hay crop would be of no value or use. Heavy disturbance by dogs means that the area is of no value to ground nesting birds. Therefore the open areas will be managed as transitional habitats and allowed to scrub up and eventually succeed to woodland over a long period of time.

We will strive to provide a good standard of access provision and visitor facilities at the wood. This will be achieved by providing a network of well-managed paths & entrances for pedestrian access. Continued investment in visitor facilities will be made at the wood to ensure it is welcoming. The wood will be made as safe as practicable through regular safety inspections of high-risk tree zones and access infrastructure.

## 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 Connecting People with woods & trees

Description

This site is part of the Welcoming Sites Programme, which aims to improve the visitor experience to this site. The Welcoming Site Programme will lead to a series of lasting upgrades that will improve the visitor experience and will likely increase the number and range of visitors to the wood. An attractive and serviceable network of tracks and paths will further encourage the appreciation of the woodland both on the site and in the locality. The site will be managed to meet the required high standards of the Welcoming Site Programme and will provide a clear welcome: entrances, furniture, signs and other infrastructure as well as sustainable path and track surfaces across the variable ground conditions. Access will better facilitate use by a wider range of visitors. The site will be a truly valued resource in the local community and well respected.

## Its position in the landscape

Crawford's Wood is located on the north-western edge of the small town of Aspull. Approximately 2.5miles from the town centre of Wigan, it is bounded to the east by housing and the B5238 Wigan Road. To the west is open grassland and beyond the historic woodlands of Haigh Hall-a listed building and historic grounds, built in the early 1800's for the 7th Earl of Balcarres, now managed as a hotel and leisure facilities (Metropolitan Borough of Wigan)

## General description of the access

The site is well used and has approximately 2.5km of formal and informal paths, 440m of permissive bridle path and seven public entrance points linking the compartments to Aspull, other local footpaths and Bridleways, and to Upper Wood at Haigh Country Park. The paths and access offer circular and through walks and provide easy access to site features. Crawford's Wood was planted as community woodland and is part of the Red Rose Forest.

## The visitor profile

The majority of visitors to the woodland are locals within easy walking or driving distance, offering very easy access for local people to enjoy informal recreation and access to nature very close to where they live. Many of the visitors walk further afield making use of the extensive path and bridleway network and the adjoining mature woodlands

## Events, activities and volunteering

There are currently no people engagement events planned for Crawfords Wood and it does not have any formal volunteer group, although there are volunteer and friends of groups that operate at Haigh Hall and also nearby on the Leeds Liverpool Canal (Canal and Rivers Trust). Volunteers from the Woodland Trust Smithills Estate occasionally visit.

## Nearby Woodland Trust sites

Crawford's Wood is part of a complex of establishing native woodlands around the Wigan area, including Lady Mabel's Wood and Kirkless Wood. All three woodlands are accessible from one to another via footpaths and bridleways and with the Haigh Hall Country Park form an almost continuous accessible green space. The largest site in England for the Woodland Trust sites nearby at Bolton - Smithills Estate

## Significance

In accordance with the Woodland Trusts general aims the site is open to the public for quiet informal pedestrian activities. It is part of the Red Rose Forest, and its juxtaposition alongside Haigh Hall Country Park and close to the village of Aspull means that it extends the opportunities available for informal recreation both locally and in the heavily populated and urban area of Greater Manchester.

## **Opportunities & Constraints**

A lack of car parking provision at the site will always limit the number of visitors to the wood. Visitors are on the whole likely to be local people who have walked from the nearby housing estate. The site is also permanently wet and the path network which is unsurfaced is likely to limit the visitor experience over large parts of the wood at that time of year. The high usage and close proximity of an urban population also mean that the site is subject to fairly intense use during the summer months, at which times "use" can manifest itself as miss-use and over-use. Wear and tear on open spaces; disturbance of wildlife by dogs; fires; den building; vandalism; unauthorised motor bike access and fly tipping are perennial problems in urban woodlands that need to be taken into consideration when creating or improving access.

The site offers great potential for engagement with volunteers and community woodland groups. There could be potential to develop the wood allotment model or similar and there is also possible local business opportunities linked to coppicing, wood fuel, charcoal and events / training. The sites close proximity to a large population coupled with its habitat value and management requirements will provide excellent opportunities for use by local interest, field study, and volunteer groups, and will give rise to opportunities during public consultation to present and explain the Trusts overall aims. There may be opportunities to develop wider volunteer partnerships with the nearby Woodland Trust Smithills Estate as well as other organisations such as the Canal and Rivers Trust. There is an opportunity to improve the welcome, with a revamp of the entire site signage, waymarking and existing entrances. The short term upgrades in infrastructure, trails and on site interpretation would support the needs of the local visitor groups, as well as providing potential development opportunities for events, volunteering and community engagement. Given the size of the site and range of habitats and areas there is also potential for engagement with volunteers and community woodland groups, as well as the potential to develop areas dedicated to forest Schools without having any major impact on the site or other users. Woodland Trust Schools schemes (Green Tree Schools, DEFRA and People Postcode Lottery programmes) should be encouraged to make use of the wood, and there could be potential for developing an onsite education area and resources.

## **Factors Causing Change**

Anti-social problems, such as litter, fly-tipping, vandalism and illegal camp fires occur occasionally and are difficult to tackle proactively. Pressure from bridleway users to extend the existing network beyond the existing permissive path are on-going. Increased numbers of visitors would require significantly improved infrastructure on the site and greater engagement capacity with visitors, volunteers, and community engagement. The wood does require a greater level of annual maintenance, with a periodic (maximum 10 year) refurbishment of the entire welcome facilities, utilising bespoke and robust infrastructure.

## Long term Objective (50 years+)

The woodland will provide an extensive area of native broadleaved woodland, for quiet informal recreation to a wide range of users both from the local community and from further afield (visitors linking a visit to the woodland and Haigh Hall Country Park). The use of the site will be promoted through positive relationships locally with neighbouring tourist destination sites, with good signage and interpretation.

Entrances and signage will have a welcoming appearance and there will be a network of wellmaintained paths providing a range of circular routes suitable for walkers with viewpoints over a range of varied habitat types. Interpretation or waymarking that is integrated with, or compliments existing routes and tourist opportunities will provide visitors with information on directions and points of interest.

The use of the site for education will have increased, and linked with other Woodland Trust sites in the area, will have a sustainable events and schools programme established, including demonstrations and workshops, and as an educational and recreational resource. Volunteering would ideally be active and linked to or complement the activity locally and at Haigh Hall.

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

Access provision will be in keeping with WT access guidelines. Achieved by ensuring that: Entrances & signage are welcoming to visitors and well maintained (annually).

All managed paths are kept well-drained and free from encroaching vegetation by strimming, and that access features (e.g. bridges, steps, entrances, boundary features, etc. are kept in good order (annually).

The site is kept safe and welcoming by: repair of vandalism (when needed); clearing of fallen or dangerous trees where access is obstructed (as needed); and regular site safety surveys (as per risk assessment).

The visitor welcome & experience will be further enhanced by the following infrastructure improvements by the end of the current plan period:

Significant improvement to the welcome signage, including replacement of the existing signs, and potentially waymarkers at key locations through the woodland. Minor entrances will be formalised with a consistent access standard (eg kissing gate and named welcome and exit signs)

The network of paths will be maintained at least once per plan period, with a more regular maintenance (surfacing and drainage) of the permissive surfaced route.

Furniture, including feature benches, information points will be maintained annually or as required.

New volunteer activity and volunteer roles will be developed and encouraged, where the opportunities arise, although these are unlikely to be proactively developed.

Identified areas of the woodland will be available for education, with forest schools and other local user groups suited to the aims and objectives of the Woodland Trust will be encouraged wherever possible.

## 5.2 New Native Woodland

### Description

Approximately 54% (11.1Ha) of the area is new plantation (planted winter 1996/97) with a few remnant sections of hedgerow. The young plantings are in large blocks of mixed native broadleaves interspersed with rides and open ground. Made soils and poor drainage during wet summers made establishment of the trees difficult to begin with and some areas were beat up on a regular basis. However the young plantation is now fully established.

#### Significance

The creation of new native species woodland is one of the Woodland Trusts core objectives. Crawford's Wood lies close to existing mature mixed oak, beech and ash plantations on Haigh Country Park and serves to compliment and diversify woodland structure and habitat variety in the local area. On a regional scale woodland cover is below the national average, Crawford's Wood was planted as part of the regions Red Rose Forest initiative designed to increase and enhance woodland cover across the Greater Manchester.

#### **Opportunities & Constraints**

The plantation has a complex mix of trees with widely different growth rates, forms, tolerances and growth requirements, all planted in a mosaic of small stands. The planted trees growth rate is acceptable and the site has now taken on the appearance of young woodland.

The site is on the whole abutted by farmland and housing , hence the sites ecological value will always be limited due to a lack of surrounding semi natural habitats.

An opportunity exists during public consultation and media coverage to incorporate and refamiliarise the local populating with the Woodland Trusts aims and objectives.

Factors Causing Change

Tree disease particularly ash dieback.

## Long term Objective (50 years+)

The aim is to create a high forest of mixed predominantly native broadleaves The wood will be managed predominantly as a recreational and landscape feature. Regeneration of both natives and non-native species will be accepted.

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

Thinning work will be carried out in 2022 to promote age & species diversity on site.

A Woodland Condition Assessment will be carried out in the final year of the current plan period. This will make recommendations as to the management of the site, key elements of which are likely to include open ground, the effects of ash disease and the development of natural regeneration.

## 5.3 Open Ground Habitat

## Description

Approximately 9.1 hectares (46%) of the site has been left as open ground. The eastern half of the site contains a large meadow and firebreak (between the plantations and St David's Crescent) with two small ponds located centrally. A large meadow area also exists in the southern half of the site. The area supports a variety of grassland communities from wet flushes totally dominated by rush, to mixed meadow grass sward dominated by red fescue (seeded in 1996). The southern meadow was mined for top soil, gravel and clay deposits in 1969 and back filled with waste and scrapings the resultant soil is shallow and graded as made land with very poor drainage, and despite an annual hay cut since 1997 is now 80% rush bed. Four small ponds were also created on site in 2011.

## Significance

The open meadow area to the south of the site is thought to be important for winter wading birds. Through allowing natural development in the wetter areas and managing for structural variety along the woodland marginal zones the Trust can further diversify the sites habitat value.

## **Opportunities & Constraints**

Despite a regime of annual hay cuts, a number of large wet flushes and a succession of wet summers in the 1990's has led to colonisation of much of the area by rush's degrading the value of the hay produced. The opportunity exist to further diversify the habitat within the site by letting these areas develop naturally to scrubland and further tree planting could also occur. Unfortunately high usage by dog walkers compromises the value of many areas for nesting birds.

#### Factors Causing Change

Development of scrub.

Long term Objective (50 years+)

Manage the open space as a transitional habitat allowing scrub woodland to develop.

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

The open ground will be allowed naturally to transition to a scrubland area via natural regeneration with annual grass cutting limited to pedestrian specification and along the back of St David's Way. The open space could also provide opportunities for enrichment planting as a reaction to ash disease or through involvement with local communities through existing Woodland Trust initiatives.

6.0 WORK PROGRAMME					
Year	Type of Work	Description	Due By		

## APPENDIX 1: COMPARTMENT DESCRIPTIONS

Cpt No.	Area (ha)	Main Species	Year	Management Regime	Major Management Constraints	Key Features Present	Designations
1a	20.20	Ash	1997	High forest	Housing/infrastru cture, structures & water features on or adjacent to site, Mostly wet ground/exposed site, People issues (+tve & - tve), Services & wayleaves, Site structure, location, natural features & vegetation, Very steep slope/cliff/quarry/ mine shafts/sink holes etc	Connecting People with woods & trees, New Native Woodland, Open Ground Habitat	Community Forest, Green Belt

Compartment 1A consists of 54% new woodland plantation and 46% open ground and rides (11.1ha & 9.1ha respectively). The woodland blocks were planted in 1997, in small complex stands of native woodland species, the mix was made more complex by high losses and subsequent beat-up during establishment. The plantings are dominated by oak and ash with, wild cherry, birch, alder, rowan, goat willow, small leaved lime and a variety of woodland shrubs mainly hazel, dog rose and guelder rose. The open ground supports a variety of grassland communities from areas dominated by rush to mixed meadow grasses. The compartment has a slight to moderate gradient with a southwest aspect and poor drainage across its south-western and northern slopes. The compartment is bounded by housing to the east and south and farmland to the west and north.

## Appendix 2: Harvesting operations (20 years)

Forecast Year	Cpt	Operation Type	Work Area (ha)	Estimated vol/ha	Estimated total vol.
2022	1a	Thin	11.00	20	220

## GLOSSARY

## Ancient Woodland

Ancient woods are defined as those where there has been continuous woodland cover since at least 1600 AD. In Scotland ancient woods are defined strictly as sites shown as semi-natural woodland on the 'Roy' maps (a military survey carried out in 1750 AD, which is the best source of historical map evidence) and as woodland all subsequent maps. However, they have been combined with long-established woods of semi-natural origin (originating from between 1750 and 1860) into a single category of Ancient Semi-Natural Woodland to take account of uncertainties in their identification. Ancient woods include Ancient Semi-Natural Woodland and plantations on Ancient Woodland Sites (see below). May support many species that are only found in ancient woodland.

## Ancient Semi - Natural Woodland

Stands in ancient woods defined as those consisting predominantly of native trees and shrubs that have not obviously been planted, which have arisen from natural regeneration or coppice regrowth.

## Ancient Woodland Site

Stands in ancient woods that have been converted to plantations, of coniferous, broadleaved or mixed species, usually for timber production, including plantations of native species planted so closely together that any semi-natural elements of the understorey have been suppressed.

## **Beating Up**

Replacing any newly planted trees that have died in the first few years after planting.

## Broadleaf

A tree having broad leaves (such as oak) rather than needles found on conifers (such as Scots pine).

## Canopy

The uppermost layer of vegetation in a woodland, or the upper foliage and branches of an individual tree.

## Clearfell

Felling of all trees within a defined area.

## Compartment

Permanent management division of a woodland, usually defined on site by permanent features such as roads. See Sub-compartments.

## Conifer

A tree having needles, rather than broadleaves, and typically bearing cones.

## Continuous Cover forestry

A term used for managing woods to ensure that there are groups or individual trees of different ages scattered over the whole wood and that some mature tree cover is always maintained. Management is by repeated thinning and no large areas are ever completely felled all at once.

## Coppice

Trees which are cut back to ground levels at regular intervals (3-25 years).

### Exotic (non-native) Species

Species originating from other countries (or other parts of the UK) that have been introduced by humans, deliberately or accidentally.

## Field Layer

Layer of small, non-woody herbaceous plants such as bluebells.

## Group Fell

The felling of a small group of trees, often to promote natural regeneration or allow planting.

## Long Term Retention

Discrete groups of trees (or in some cases single trees) that are retained significantly past their economic felling age. Operations may still be carried out within them and thinning is often necessary to maintain stability.

## Minimum Intervention

Areas where no operations (such as thinning) will take place other than to protect public safety or possibly to control invasive exotic species.

## Mixed Woodland

Woodland made up of broadleaved and coniferous trees.

## National vegetation classification (NVC)

A classification scheme that allows an area of vegetation to be assigned to the standardised type that best matches the combination of plant species that it contains. All woodlands in the UK can be described as being one of 18 main woodland types (W1 - W18), which principally reflect soil and climatic conditions. For example, Upland Oakwoods are type W11, and normally occur on well drained infertile soils in the cooler and wetter north and west of Britain. Each main type can be subdivided into numerous subtypes. Most real woods contain more than one type or sub-type and inevitably some woods are intermediate in character and can't be properly described by any sub type.

## Native Species

Species that arrived in Britain without human assistance.

## Natural Regeneration

Naturally grown trees from seeds falling from mature trees. Also regeneration from coppicing and suckering.

#### **Origin & Provenance**

The provenance of a tree or seed is the place where seed was collected to grow the tree or plant. The origin is the geographical location within the natural range of a species from where seeds/tree originally derives. Thus an acorn collected from a Turkey oak in Edinburgh would have an Edinburgh provenance and a southern European origin.

#### **Re-Stocking**

Re-planting an area of woodland, after it has been felled.

#### Shrub Layer

Formed by woody plants 1-10m tall.

#### Silviculture

The growing and care of trees in woodlands.

## Stand

Trees of one type or species, grouped together within a woodland.

#### Sub-Compartment

Temporary management division of a compartment, which may change between management plan periods.

#### Thinning

The felling of a proportion of individual trees within a given area. The remaining trees grow to fill in the space created.

#### Tubex or Grow or Tuley Tubes

Tubes placed over newly planted trees or natural regeneration that promote growth and provide protection from animals such as rabbits and deer.

#### Weeding

The control of vegetation immediately around newly planted trees or natural regeneration to promote tree growth until they become established. Either by hand cutting or with carefully selected weed killers such as glyphosate.

#### Windblow/Windthrow

Trees or groups of trees blown over (usually uprooted) by strong winds and gales.

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

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