

# **Stratton Wood**

# Management Plan 2018-2023

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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 Consequently this printed version may quickly become out of date, particularly in relation to the planned work programme and on-going monitoring observations.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 <a href="www.woodlandtrust.org.uk">www.woodlandtrust.org.uk</a> 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 <a href="www.woodlandtrust.org.uk">www.woodlandtrust.org.uk</a>. Our woods are managed to the UK Woodland Assurance Standard (UKWAS) and are certified with the Forest Stewardship Council® (FSC®) under licence FSC-C009406 and through independent audit.

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

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

The following guidelines help to direct our woodland management:

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

**Location:** Kingsdown, Swindon, Swindon, Wanborough, nr Swindon

**Grid reference:** SU165889, OS 1:50,000 Sheet No. 173

SU114884, OS 1:50,000 Sheet No. 173 SU206835, OS 1:50,000 Sheet No. 174

**Area:** 53.70 hectares (132.70 acres)

16.39 hectares (40.50 acres) 18.88 hectares (46.65 acres)

**Designations:** Area of Landscape Value, Community Forest, County Wildlife Site

(includes SNCI, SINC etc), CSS application alongside Warneage 2018

-2023 Agreement no. 496045

Community Forest, County Wildlife Site (includes SNCI, SINC etc)

Agreement no. 496045, Community Forest

# 2.0 SITE DESCRIPTION

# 2.1 Summary Description

As Stratton Wood, Purton Wood and Warneage Wood within Swindon are all managed under similar woodland management regimes and provide public access benefits to a large local population as well as providing partnership and landscape scale opportunities. These woods all share the same key features:

- 1. Secondary woodland
- 2. Mixed habitat mosaic
- 3. Connecting people.

Their ability to deliver these is increased when all the woods are considered holistically and therefore during the 2018 Management Plan review they were all placed into a single 'Group' Management Plan. Therefore please see the Swindon Woods Management Plan which can be found under the Trust's Stratton Wood.

# Stratton Wood (compartment 1a-2b) summary description

This large and vibrant young woodland, purchased in 1994 and planted in 1995, provides visitors with a range of habitats to explore, including wildflower meadows, seasonal ponds and areas of mature trees. It was planted as part of the Great Western Community Project and includes a good network of paths.

# Purton Wood (compartment 3a) summary description

Purchased in 1998 and planted between 1998 and 2005 as part of the Great Western Community Forest. Species planted included oak, ash, hazel and willow. The site is adjacent to Moulden Hill Country Park, owned by Swindon Borough Council.

# Warneage Wood (compartments 4a, 5a) summary description

Warneage Wood was acquired in 1993 and planted with help from local people in 1994/95 with a mix of native broadleaf trees - mainly oak and ash, field maple, small leaved lime, alder and willow. Shrubs including hazel, hawthorn and guelder rose were also planted. The site's mix of woodland, grassland and ponds was added to in February 2014 when an orchard of 15 heritage varieties of Wiltshire apple trees was planted by the local community. The name Warneage Wood was chosen by the local community to reflect the history of the area.

# 2.2 Extended Description

The Swindon Woods complex is formed of three separate predominantly woodland sites around Swindon: Stratton Wood, a 53-hectare mixed native broadleaved woodland and meadow area to the town's north eastern edge; Purton Wood, a 16-hectare predominantly native broadleaved woodland site located on the town's north western edge and Warneage Wood, an 18-hectare site of mixed

woodland and meadow located a few miles south east of Swindon itself within the village of Wanborough. All of the woods were created/planted during the 1990s and early 2000s as part of the Great Western Community Forest Project (GWCF) - one of 12 community forests close to major population centres in England where local people and organisations are working together to create a better environment. Both Stratton and Purton have been designated County Wildlife Sites for their high quality habitat.

In terms of landscape, all were planted over former farmland and frequently the previous field layout is still evident from mature hedgerows in and around the planted woodland areas. Stratton Wood falls within National Character Area (NCA) 109 Midvale Ridge, an area significant for its geology and calcareous grassland (9% of the NCA is woodland), while Warneage and Purton Woods fall into the NCA (108) - Upper Thames Clay Vales National Character Area (NCA), a broad belt of open, gently undulating lowland farmland on predominantly Jurassic and Cretaceous clays (3% woodland cover). Combined, these sites are an important contribution to the woodland cover within both NCAs as well as incorporating other locally typical characteristics including mature hedgerows and hedgerow trees, and willow and poplar trees adjacent to watercourses.

Considered 'urban woods', the sites tend to be bordered by a mixture of intensively developed land, notably for housing, industry and recreation. Stratton's southern boundary is the A419 with developed housing beyond, to the east lies a crematorium and to the west the current farmland is due to be developed with the building of 1650 houses within the current plan period; Stanton Park, a local country-park run by Swindon Borough Council is located a few hundred metres to the east. At Purton, surrounding landuse is mostly farmland but there has been a recent expansion of developments particularly to the north of the site. Mouldon Hill Country Park is adjacent to the site (also managed by Swindon Borough Council). Combined, the cluster of woodland sites represents an important refuge for wildlife and people away from the ever-expanding urban areas of the town. Warneage is slightly more distanced from the town's expanding urbanised area, but is located close to the area of future development termed 'New Eastern Villages', currently the surrounding land-use a mixture of farmland, housing and recreation.

The three sites viewed together provide an interesting mosaic of native broadleaved woodland, open species rich grassland meadows, hedgerows, scrub and ponds supporting a wide range of associated species of flora and fauna. Species of note include sweet-briar, skylark, small blue butterfly, meadow vetchling, rough hawkbit and ladies bedstraw (Stratton), large-leaved lime, sweet vernal grass, cuckoo flower and head wood-rush (Purton), as well as a number of veteran trees (notably willow at Warneage). There are also a number of historic and conservation features across each site, the most evident an old (now restored) stone barn at Warneage.

In terms of visitor access, Stratton is the only site with a large car park (for approximately 15 cars) and is easily accessible from the A419; access for Purton and Warneage is via the path network and on-road parking (parking is available at Moulden Hill Country Park adjacent to Purton Wood). A good network of paths give suitable public access within each site, including circular walks of varying lengths. Each site is also well connected to the wider landscape through the public right of way network. The cluster of sites that is Swindon Woods has been selected as one of the Woodland Trust's top 250 'Welcoming sites' in the UK for people.

# 3.0 PUBLIC ACCESS INFORMATION

# 3.1 Getting there

Directions to main entrance:

#### Stratton Wood:

- 1. From central Swindon, take the A4312 (Drakes Way).
- 2. At the roundabout take the second exit B4006, Swindon Road, heading north.
- 3. At the mini roundabout adjacent to the Crown Inn, take the first exit to remain on B4006 heading north
- 4. At the crossroads with Arkells Brewery and The Kingsdown Arms, turn right onto the B4141, Kingsdown Road. Go over the A419.
- 5. The car park is on the left hand side approx. 150m after the A419 bridge.

# Purton Wood:

- 1. From Swindon take Thamesdown Drive which runs round the north western side of the town.
- 2. Turn into Moulden Hill Country Park.
- 3. Walk west, passing lake on left hand side and cross over river using footbridge.
- 4. Entrance to Purton Wood is along this path on the right hand side.

# Warneage Wood:

- 1. From Swindon take the A2459 east past the Great Western Hospital
- 2. Take second exit at roundabout with A419 onto road called Pack Hill
- 3. Follow road for 1 mile through the village and take third road on left called Kite Kill
- 4. After 0.4miles the road bends round a 90 degree right hand turn onto Rotten Row. There are a number of entrances to the Wood along Rotten Row.

# Stratton Wood: public transport

By bus: Stagecoach number 10 bus stops at Kingsdown Arkells Brewery, a 15 minute walk away. Although there is a bus stop directly outside the main entrance to the wood on Kingsdown Road, at the time of the management plan review, no buses currently service this stop. For up to date information please contact Traveline on 0871 200 22 33 or visit http://www.traveline.info/

By train: The nearest train station is on Station Road, Swindon, approximately six miles from the main entrance to Stratton Wood. However, the main bus terminal for all routes, is located a two-minute walk from the train station.

# Purton Wood - Public transport

By Bus: There is a bus stop, Queen Elizabeth Drive near the Tawny Owl pub, a few minutes walk (pavements and road crossings), from the Mouldon Country Park entrance. The stop is serviced by route 15/15A, operated by Thamesdown Buses. For further information regarding timetables, contact Swindon Borough Council http://www.swindonbus.info/timetables.asp or the bus company directly on 01793 428 428.

By train: The nearest train station is located on Station Road in the centre of Swindon approximately 4 miles from the easterly entrance to Purton Wood. The main bus terminal for all routes, is located a 2 minute walk from the train station.

# Warneage - Public transport

By Bus: There is a bus stop (Cross Keys) on Burycroft, on the northern edge of the site, another bus

stop (College Green) outside the most eastern entrance on Rotten Row (southern edge of the site) and another (Kite Hill Bottom) near the southern edge of the site. As of January 2019, these stops are served by the 46A and 48A services. For further information regarding timetables, the bus company should be contacted directly on 01793 428428 or http://www.thamesdown-transport.co.uk/index.shtml

By train: The nearest train station is located on Station Road in the centre of Swindon approximately 5 miles from the main entrance to Warneage. The main bus terminal for all routes, including those which pass Warneage Wood, is located a 2 minute walk from the train station

# 3.2 Access / Walks

Stratton Wood: There are seven official entrances to Stratton wood, with the main entrance through the car park located on Kingsdown Road (B4141). There is a good network of paths and rides throughout the site, including a 0.6 mile circular surfaced path which starts and ends at the car park and is suitable for pushchairs and people who are less abled. This connects with broad flat rides and glades, two wild flower meadows and the public footpath network. Circular routes of varying lengths and routes connect to the wider public footpath network, but these are unsurfaced and may be narrow and muddy in places after heavy rain. The site is very flat.

Purton Wood: There are five official pedestrian entrances to Purton Wood. These are at the western, middle and eastern ends of the Sustrans route 45 cycle and bridle path which runs along the southern edge of the site and one entrance is from the north west, along a public footpath. A number of permissive and public footpaths form various routes around and through Purton Wood. The Sustrans route along the southern boundary is loosely surfaced but all other paths are grass. The site is flat but can be waterlogged and muddy at times.

Warneage Wood: There are 16 entrances to Warneage Wood which are comprised of kissing gates and or open footbridges/access points. Parking is possible in the village of Wanborough, with consideration to residents. There are no surfaced paths within the woodland and although the site is relatively flat, it is prone to seasonal water-logging and therefore the paths can be un-even underfoot and muddy at times. Permissive paths link with the public rights of way allowing circular routes around the site

# 4.0 LONG TERM POLICY

Healthy, mature and attractive, sustainable native broadleaved woodland with a diverse structure supporting a wide range of species and associated habitats and providing wider connectivity within the adjacent landscape. This will be created and maintained largely through natural processes although some limited intervention may be occasionally required to enhance and/or protect specific features.

Areas of mixed mosaic habitat will be managed to provide a range of mixed and interacting niche habitats enhancing woodland connectivity while safeguarding specialist open habitat flora and fauna. This patchwork of 'ecotones' will form a shifting and dynamic mosaic that changes its boundaries, composition and structure over time as part of the natural succession process, but one continually maintained through a combination of cutting and scrub clearance to represent the full range of habitat type supporting all associated species. Ponds should remain in a healthy condition and become fully integrated as part of the overall mixed habitat mosaic.

The Welcoming Site Programme will lead to a series of lasting upgrades that will improve the visitor experience, increase the range of visitors, and accommodate the ever increasing local population visiting this complex of mixed woodland, open habitat and amenity. An attractive and serviceable network of access tracks and paths will further encourage the appreciation of the woodland complex both on the site and in the locality. The complex of sites will be managed to meet the required high standards of the Welcoming Site Programme and will provide a clear welcome; well-maintained car park(s), 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 potentially including those with mobility constraints and/or those with young children using off road pushchairs. Paths will also continue to provide more able-bodied visitors with access to the wider and wilder areas of the sites. Interpretation will bring the sites together and promote the interests and key features of the complex as a whole and in context with the wider local landscape. An engagement plan will set out a developed programme of engagement activities and events further enhancing people's visit to the site. The site will be a truly valued resource in the local community and well respected.

# 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 Secondary Woodland

# Description

The main element of the key feature is the large blocks of young planted native broadleaved trees and shrubs, planted between the mid to late 1990's and early 2000's across the three sites. The main species include often intimate mixtures of ash, oak, silver birch, field maple and willow with small leaved lime and alder also present at Warneage (see compartment information for more detailed descriptions). For the most part the plantation blocks are even-aged and un-thinned, although as there is varying density of understorey species included in the planting mixture (hazel, hawthorn, guilder rose, blackthorn and dog rose), the structure does vary within stands and across the three sites. Much of the minor species planting has been located along the edge of the main planted blocks with the aim of providing a transitional structure to a woodland edge type habitat, further bordered by mowed grassy strips. Natural regeneration within the planted areas can be seen at varying densities across all three sites. While for the most part planting has been very successful, there are some very patchy areas best described within the mixed mosaic habitat section.

Ground flora within the planted areas is varied within and across all three sites. In many areas there is still high competition from grass species which is expected to diminish as the canopy continues to close. Species found here tend to be generalist species such as grasses, nettle and herb robert.

In many areas, old former farm field boundary hedgerows including large specimen trees (CF1 and CF3), scrub and woodbanks (HF6) are becoming integrated with the new plantings. These mature long-standing ecological features provide important habitat niches and a source of associated woodland flora and fauna which are gradually being able to colonise the wood as it matures. Combined, the planted areas, hedges and the good network of rides within the sites, provide good connectivity within the site as well as providing habitat corridors connecting the sites to the wider landscape.

Management has been largely limited to initially establishment and then coppicing back ride edges (primarily for access) and mowing of grassy strips to promote a ride-side like woody edge.

Ash dieback is confirmed as present on site and will have a long term impact on the structure and composition of the woodland areas.

# Significance

The three woods form an important area of native broadleaved woodland, a UK BAP priority habitat in a landscape which is increasingly dominated and under threat from urbanisation and development.

The woods form a significant proportion (14%) of the Great Western Community Forest (GWCF) and contribute to the percentage of woodland within the two NCAs notably 108 The Upper Thames Clay Vales. Stratton and Purton woods have both been designated County Wildlife Sites (CWS)

With current and planned expansion of Swindon over the coming years, these woods will become increasingly important refuge for woodland biodiversity.

# **Opportunities & Constraints**

# Opportunities:

 Development of ash dieback and related mortality of ash presents an opportunity to develop further stand structure across the sites as well as potential enrichment planting to increase species diversity in ash dominated areas

#### Constraints:

- Across the sites geology/soil type tends to result in wet ground for much of the year potentially hindering management interventions.
- High public access means safety is a key issue during management works
- Various historic features and conservation features to consider when undertaking any management works to ensure these are not damaged by any site works

# **Factors Causing Change**

- Invasion by non-native/invasive species notably Himalayan balsam (Purton, onsite and at Warneage plants have been found (and removed) outside of WT ownership,in the local area, although none noted onsite at time of Management Plan review)
- Windblow damage particularly with increasing age of mature willows / willow pollards
- Deer browsing damage
- Grey squirrel damage on young broadleaves
- Pest and diseases Ash dieback is evident across all three sites and will likely have a significant impact on the future composition and structure of the woodland blocks as well as the wider biodiversity of the site due to the high proportion of planted ash. However, alternatives species are already present on site.
- High levels of competition from coarse vegetation nettles/grass/brambles inhibiting natural tree regeneration

# Long term Objective (50 years+)

Healthy, mature and attractive sustainable native broadleaved woodland with a diverse structure supporting a wide range of species and associated habitats and providing wider connectivity within the adjacent landscape. This will be created and maintained largely through natural processes although some limited intervention may be occasionally required to enhance and/or protect specific features.

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

- Halo thin suppressed non-ash trees in heavily dominated ash areas to promote development of long term woodland canopy in light of ash dieback (Stratton cpts 1a and Warneage cpts 4a, 5a)
- Control Himalayan balsam by pulling at Purton Wood (cpt 3a) as required with the aim of long term eradication
- Rotational ride-side coppicing and mowing (Stratton cpt 1b) to maintain transitional woodland edge habitat
- Monitoring of development of ash-dieback and assessment of any potential supplementary planting to maintain long term canopy where it is under threat.

# 5.2 Mixed Habitat Mosaic

# Description

In addition to the woodland component, the three sites contain a wide ranging mix of open grassland, meadow, orchards (Conservation Feature CF 4 Warneage and Conservation feature CF3 Stratton) and ponds, interwoven with the planted woodland block and hedgerow features.

The grassland across the sites can be divided into two types - those of a floristically richer sward which are cut more regularly (Stratton cpts 2a, 2b and Warneage cpts 4a, 5a) and those that are either less rich / contain more shrub/natural regeneration/left unplanted due to presence of powerlines /archaeology and remain generally uncut (with the exception of path cuts). The best quality species rich grassland is located at Stratton (cpts 2a, 2b) and Purton - notable species include: sweet vernal grass, cuckoo flower, greater bird's-foot trefoil, heath wood-rush (Purton) and sweet-briar, meadow vetchling, rough hawkbit, quaking grass and ladies bedstraw (Stratton). The grassland areas at Warneage (cpts 4a and 5a) contain many rushes (Juncus spp) and course tussocky grass (Dyschampsia spp) in addition to various hay grasses, buttercups, ragged robin and other wildflowers. The grasslands and scrub margin across the sites are frequently adjacent to the larger areas of planted woodland, providing early stage transition/succession habitat completing both woodland and open habitat types.

There are permanent ponds (Purton conservation feature CF2 and Warneage Conservation feature CF1) and seasonal ponds (Stratton x 4 and Warneage x3 Conservation feature CF2) across the sites. Palmate newts have been seen in the largest of the four ponds at Stratton Wood

The sites' diverse structure created through the mixed habitat mosaic supports a wide range of species, notably birds, butterflies, small mammals as well as vascular plant species and invertebrates. Recorded birdlife include Jay, green woodpecker, goldfinches, bullfinches, song thrush, tawny and barn owls, with notably garden warbler and grasshopper warbler at Purton Wood. Butterfly species include gatekeeper, common skipper, common blue (Stratton Wood), green veined white, peacock and comma. Stratton is noted as being the most northerly population of the Small Blue butterfly in Wiltshire. Skylarks have been known to nest in the wildflower meadows where harvest mouse nests have also been found (Stratton).

# Significance

- Both Purton and Stratton have been designated as County Wildlife Sites
- Species rich lowland grassland is a UK BAP habitat
- Continuation lowland grassland contributes to the respective NCAs total proportion from a landscape perspective
- Enhanced connectivity between habitat types including woodland key features creating and supporting associated transitional/succession dynamic habitat for range of species.
- With current and planned expansion of Swindon over the coming years the mixed habitat mosaic will become increasingly important as a refuge for associated species.

# **Opportunities & Constraints**

# Opportunities:

Invite surveyors to assess Warneage Wood for County Wildlife Site potential

#### Constraints:

- Underlying geology meaning the sites are often wet for much of the year which limits the scope for management interventions.
- Blocking of management access gates by local residents
- Various conservation and historic features to consider when undertaking any management works.

# **Factors Causing Change**

- Increase in visitor numbers disturbing nesting birds (dogs etc.)
- increased risk of fires potentially detrimental to grassland/meadow areas
- scrub encroachment into meadow/grassland areas if unmanaged resulting in loss of associated habitat
- Invasive/noxious weeds in the ponds and meadows/grassland areas
- Pest and diseases Ash dieback is evident across all three sites and will likely have a significant impact on the future composition and structure of the woodland blocks as well as the wider biodiversity of the site due to the high proportion of planted ash. However, alternatives species are already present on site.

# Long term Objective (50 years+)

Areas of mixed mosaic habitat will be managed to provide a range of mixed and interacting niche habitats enhancing woodland connectivity while safeguarding specialist open habitat flora and fauna. This patchwork of 'ecotones' will form a shifting and dynamic mosaic that changes its boundaries, composition and structure over time as part of the natural succession process, but one continually maintained through a combination of cutting and scrub clearance to represent the full range of habitat type supporting all associated species. Ponds should remain in a healthy condition and become fully integrated as part of the overall mixed habitat mosaic.

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

- Combination of mowing/cutting/coppicing/scrub clearance to maintain the full range of mixed habitat type within shifting mosaic supporting all associated species (Stratton cpts 1a-2b, Purton cmpt 3a, Warneage cmpts 4a, 5a)
- Cut and collect grass meadows (Stratton cpts 2a, 2b, Warneage cpts 4a, 5a) maintain and enhance diverse species richness.
- Monitoring of development of ash-dieback and assessment of any potential supplementary planting to maintain long term canopy where it is under threat.

# 5.3 Connecting People with woods & trees

# Description

#### Access Infrastructure

Combined, the sites are well designed nature reserves created with public access, recreation and enjoyment in mind.

Stratton Wood is the most easily accessible to visitors if arriving by car; there is a car park for approximately 15 cars off the Kingsdown Road, B4141. At Purton and Warneage woods, parking is available on the public highway or in the case of Purton, at the adjacent car park at Moulden Hill Country Park.

#### Stratton Wood

Stratton Wood is the most accessible woodland for those of restricted mobility - from the car park, there is a short circular surfaced path (loosely bound gravel) which lends itself to use by trampers and child buggies. Access across the wider site is good with a number of flat routes although much is unsurfaced and so can become muddy in winter or wet periods. There are a total of seven access points into the site but only one by car. The main car park contains a litter bin and the adjacent surfaced route contains two dog waste bins both of which are emptied by Stratton St Margaret Parish Council by agreement.

The site's general appearance is good however the current height barrier is rather unsightly, there is a motorbike barrier which may feel unwelcoming to some visitors (although perfectly functional), the lay out of the car park doesn't maximise potential parking space and current waymarking does not fit with current branding.

# Purton Wood

There are 5 official pedestrian entrances to Purton Wood. These are at the western, middle and eastern ends of the Sustrans route 45 cyclepath and public bridle path which runs along the southern edge of the site and one entrance is from the north west, along a public footpath. A number of permissive and public footpaths form various routes around and through Purton Wood. The Sustrans route along the southern boundary is loosely surfaced but all other paths are grass. The site is flat but can be waterlogged and muddy at times.

# Warneage

There are 16 entrances to Warneage Wood which are comprised of kissing gates or open footbridges/access points. Parking is possible in the village of Wanborough, with consideration to residents. There are no surfaced paths within the woodland and although the site is relatively flat, it is prone to seasonal water-logging and therefore the paths can be un-even under-foot and muddy at times. Permissive paths link with the public rights of way allowing circular routes around the site. The site is in a popular area for walking, as it is close to the Ridgeway; an ancient route and Long Distance Path, which lies 3km to the southeast along Ermine Street (a Roman road). Information boards are found at the main entrances from the north and south which highlight the background to the wood and the various routes that can be taken around and through the site.

# General Communication Drivers

The sites are currently unconnected in terms of branding and communications. It is envisaged as part of the cluster management plan process that general communication drivers can be brought together to provide seamless branding and communications across the sites.

In general the main attraction for visitors is to enjoy nature on the doorstep of this ever-expanding town - a refuge away from our busy day to day lives. The main attraction is the now well established young woodland plantations, open grassland and wild flower areas often doubling up as large open amenity space, young planted orchard trees and the wide range of species that inhabit the site. Current drivers in situ are as follows:

# Stratton

A partnership project with Swindon Borough Council (ongoing since 2013) who own nearby Stanton Park resulted in joint information boards and joint way marking, with short, medium and long walks possible around and between both sites. There is also a joint leaflet for the two sites as well as a leaflet for Stratton Wood; the former is being re-printed during 2018. An information board can be found in the car park with a further information board at the north eastern entrance /exit onto Kingsdown Lane - a public right of way running along the northern boundary and which links Stratton Wood to Stanton Park. The site currently hosts two large legacy banners near the main car park. In addition to large areas of planted broadleaved woodland, open grassland and flower meadows often with a spectacular display in summer, there is also a small orchard consisting of 15 heritage Wiltshire apple varieties and 15 other fruit trees (cherry, pear, plum and quince), planted in 2013 with local scouts and through a partnership project with the Wiltshire Wildlife Trust and Swindon Borough Council's Big Tree Plant.

#### Purton

Most of the site was planted with native broadleaves between 1998 and 2000. The south eastern corner was planted as part of the Woodland Trust's 'Woods on your doorstep' millennium project and is known locally as Berriman's Wood. The two fields on the eastern side, adjacent to the river were planted in 2005. The millennium feature at Berriman's Wood is a parish marker stone which was part of a wider parish Council millennium project. The stone is situated at the western end of the site, engraved Purton Parish Council 2000. There is also a mile marker type stone adjacent to the parish boundary stone. The adjacent site of Mouldon Hill Country Park provides extended potential routes and added interest to visitors. There is currently no onsite interpretation but there is the opportunity to work in partnership with Swindon Borough Council to produce joint interpretation for Mouldon Hill and Purton, as has been done with Stratton Wood and Stanton Park.

# Warneage

Formally nine pasture fields, separated by hedgerows, ditches, streams, ponds and a bridleway known locally as Green Lane, the site was acquired in 1993 with funding aided by the Countryside Commission (now Natural England) and public donations. Warneage Wood was planted with help from local people in 1994/95. An old stone built barn/cart shed (Historic Feature HF1) at the main entrance on the northern boundary has local and Wiltshire-based historic value and was restored in 2014. A new orchard was planted in the north east part of the site in 2014 using 15 heritage Wiltshire apple varieties (Conservation Feature CF4). There is an older orchard in the south west part of the site, (Conservation Feature CF4) which was planted in 1996 by local school children. The older orchard is situated just west of the site of the Warneage Cottages, (Conservation Feature CF3). Just to the north of the Cottages site is the site of Warneage Farm/Manor (Conservation Feature CF2), a

large farmstead, once situated on the western edge of the site. A very old orchard (outside of Woodland Trust land) can be found to the south of the 1996 planted orchard, beyond the old hedgeline. Information boards have been installed at the two main entrances and a board detailing the history of the site, using information from local volunteers /contacts can be found at the main entrance on the northern boundary.

#### **Events**

The sites lend themselves to the running of WT branded events and potentially others, notably Stratton with its car park, but also potentially Purton, possibly jointly with near Moulden Hill, and Warneage making use of the historic barn. However, historically those tried in 2014 were poorly attended. A scout group currently runs a night walk at Stratton each year.

# Visitor Experience

The sites lend themselves to visits by the local community and visitors to the area. The local population is large due to the location near Swindon and surrounding villages although exact visitor numbers are not known. It's likely that Stratton Wood receives the highest number of visitors mostly by car. Main user groups are dog walkers and families, but the sites will be of interest to conservationists, historians, geologists, walkers/ramblers.

# WT Direct Volunteering

WT Volunteers have been involved with each site to varying degrees both directly and in partnership with Swindon Borough Council; Corporate volunteering has also more recently taken place at Stratton. Our aim will be to increase volunteering and further enhance corporate volunteering opportunities.

#### Stratton

Volunteers have been involved with the wood for a number of years, initially with the consultation and design of the site and particularly since the partnership project with SBC (started in 2014), undertaking practical conservation tasks through the winter months. Volunteers also currently undertake butterfly transects and a group of volunteers undertake a mix of coppicing/scrub clearance/dead-hedging and hedge-laying. Corporate groups from Nationwide have volunteered undertaking coppicing/hedge laying activities since 2016

#### Purton

Volunteer bird ringing project since 2016

# Warneage

Hazel coppicing has been undertaken by volunteers recently. This is a continuation of connections made in 2012 to develop a project 2013/14 (funded by Biffa), with the aim to revitalise the use of the site and re-engage with the community, which included onsite coppicing 2013-15.

#### Schools

Wanborough School do occasionally use Warneage Wood, but this is not through any formal agreement.

Schools were involved with Stratton Wood in 2014 but it is not known if any schools currently use Stratton Wood.

Wider Community Engagement

At Stratton a local scout group runs night walks each year

At Warneage the local scouts and a bush craft company make use of the historic barn. The bushcraft company also uses Stratton, Warneage and Purton Woods, for licenced activities for school groups, children's parties, guides and scouts and educational visits.

# Significance

These three sites provide a significant and accessible area with a variety of habitats, easily accessible from Swindon and the surrounding villages. They are flat, with generally wide grassy rides, meaning the woods are immensely popular within the local area. These woodlands contain important habitats and associated species, conservation and historic features.

The woods are an important part of the Great Western Community Forest (GWCF) and Purton was planted as a 'Woods on your doorstep' millennium project.

Warneage Wood is specifically mentioned in the Draft Wanborough Neighbourhood plan - Policy 7 - Open spaces and Woodland, showing how the wood is recognised locally as an important site to a large number of people...." Warneage Wood is of great importance to the village. Well used and much prized....an important feature of an area of non-coalescence and the rural buffer between Wanborough village and the Eastern villages development."

There are a number of historical and conservation features that make the sites special and interesting to visit and important for cultural, historical and biodiversity reasons. The historic features also show evidence of previous land use, which is a key feature of the National Character Areas 108 and 109.

The proximity of two country parks managed by Swindon Borough Council - Stanton and Moulden Hill provides potential partnership opportunities.

The woods have been chosen together as one of the top 250 sites owned by The Woodland Trust as part of the Welcoming Sites Programme. These sites have high potential to highlight the Woodland Trust and its work to a wide range and number of people. The sites lend themselves to future engagement opportunities, education/outdoor opportunities, partnership working and improving the welcome for current visitors and provide a significant addition to the local rights of way networks.

# Opportunities & Constraints

Access Infrastructure

Opportunities:

- To enhance parking at Stratton to increase potential parking capacity as a direct consequence of adjacent developments
- Promote more accessible surfaced circular routes across all sites adequately waymarked
- To explore parking facilities at Warneage in association with the Parish Council
- To promote parking and access to Purton Wood with Swindon Borough Council at Moulden Hill
- To provide adequate litter bins and dog waste bins across the sites in co-operation with Stratton St Margaret Parish Council (Stratton)
- To upgrade the general welcome across all three sites, enhancing/refreshing signage, removing

# real and/or perceived barriers to access

#### Constraints

- Fly tipping and littering in and around the woods.
- Lack of responsible dog ownership dog mess not being disposed of responsibly and dogs off leads and out of sight and control of owners
- Underlying ecology means the woods can be wet for much of the year limiting access
- Blocking of management access gates by local residents, e.g. when needing access for an event
- Limited parking Purton has no parking and Warneage Wood has no car park and there is limited on street parking in the village. Stratton car park currently holds approx. 15 cars
- · Lack of waymarked trails at Warneage and Purton Woods may deter some visitors
- Lack of information boards /interpretation material at Purton may deter some visitors

# **General Communication Drivers**

# Opportunities:

- Better promotion of sites through interpretation, website, leaflet, social media
- Potential expansion of dedication products on offer
- To upgrade site based interpretation so it is seamless across the 3 sites under one Swindon based brand potentially in partnership with Swindon Borough Council

# **Events**

# **Opportunities**

- Develop events programme across the three sites linked to objectives of the WSP remain involved with Stratton Festival and further develop relationship with Stratton Council Fete
- Increase membership activities across the three sites
- Increase number of brand moments across the three sites

#### Constraints:

• Limited parking at Purton and Warneage, and current at capacity parking at Stratton likely to be unsuitable for increased footfall due to adjacent developments.

# Visitor Experience

# Opportunities:

- To create a seamless visitor offer across the three sites and link visits with further activities on offer throughout the year and introduce visitors to the work of WT
- To gain better insight into the number and type of visitors currently visiting the site, and identify any real and/or perceived barriers to access and enjoyment of the sites Constraint:
- Planned housing developments adjacent to Stratton and further in the vicinity of the other sites
  could detract from their natural feel. A large increase in visitors could be detrimental for existing
  visitors' enjoyment of the site. Widespread upgrades will be needed to accommodate a large
  increase in visitors and visitor-types, potentially detracting from people's enjoyment of the site but
  also at significant cost to WT.

# WT direct volunteering

# Opportunities:

- Continue to expand number of volunteers and activities carried out by them
- Explore potential opportunities for non-site based volunteer activities with existing volunteer base
- Further develop partnership with Swindon Borough Council to collaborate over the use and

engagement of local volunteers, sharing administration task as appropriate

- Develop potential for mass volunteering events/activities
- Look to build upon current corporate volunteering potential at the site and develop further relationships locally

# Constraints:

Tasks delivered by volunteers need to be appropriate to site management and WT staff resources.
 Currently a limited range of tasks that can be delivered by volunteers due to relatively low intervention approach of management.

# Schools

# **Opportunities**

Develop a future schools offer promoting use of site for forest school etc.

# Wider Community Groups

# Opportunities:

- Develop a future community group offer promoting use of the sites for variety of activities;
   Warneage parish council interested in working on amenity access project
- Potential to develop a joint vision for facilities and access with neighbours at Warneage Wood e.g. investigate feasibility to develop a small car parking area if there is significant demand and if current parking facilities are deemed no longer suitable.

# **Factors Causing Change**

- Increase in visitor numbers and related effects on site e.g. Persimmon Homes are planning a new large housing development (1650 homes) on the land immediately to the north west of Stratton with a related construction of a road bridge over the A419 linking directly to the main area of Swindon. The result is likely to be a very large increase in use of Stratton wood, although the local increase may also have a wider impact on Purton and Warneage woods. The development and associated increase in visitors is likely to put significant pressure on the existing access infrastructure which is likely to be inadequate to cope with the increase in footfall and lead to an increase in anti-social behaviour on the edge of Stratton including fly-tipping, vandalism, potential use by unauthorised vehicles, fires etc.
- Swindon Borough Council is introducing parking charges at many of its sites, which will likely
  increase pressure at Stratton where there is currently no charge. This may also have a knock on
  effect at Purton and Warneage in terms of increasing visitor numbers
- Ash dieback is likely to lead to large scale mortality of ash trees creating both a potential health and safety issue as well as detracting from the overall visit across the sites for a number of years
- With current and planned expansion of Swindon over the coming years in addition to that mentioned above, these woods will undoubtedly become used by a higher number of people which will increase access and management pressures. Currently the entrances along the north western and northern boundaries at Stratton are very little used, with Purton and Warneage being used by mainly local people so developments will greatly change usage in the sites/parts of the sites which have historically been quieter.
- Canopy closure over paths making the paths muddier and less accessible
- Misuse such as fly tipping/fires/motorbikes/vandalism
- Ground conditions and level of water table/flooding, particularly at Warneage Wood, but at all sites may potentially be affected by local development.

Long term Objective (50 years+)

The Welcoming Site Programme will lead to a series of lasting upgrades that will improve the visitor experience, increase the range of visitors, and accommodate the ever increasing local population visiting this complex of mixed woodland, open habitat and amenity space. An attractive and serviceable network of access tracks and paths will further encourage the appreciation of the woodland complex both on the site and in the locality.

The complex of sites will be managed to meet the required high standards of the Welcoming Site Programme and will provide a clear welcome; well-maintained car park(s), 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 potentially including those with mobility constraints and/or those with young children using off road pushchairs. Paths will also continue to provide more able-bodied visitors with access to the wider and wilder areas of the sites. Interpretation will bring the sites together and promote the interests and key features of the complex as a whole and in context with the wider local landscape. An engagement plan will set out a developed programme of engagement activities and events further enhancing people's visit to the site. The site will be a truly valued resource in the local community and well respected.

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

The Welcoming Sites Programme aims to provide lasting upgrades for visitors, enhancing all aspects of their enjoyment of our sites. During the plan period this will be achieved through:

- Upgrade the general welcome signage across all three sites, with new WT branding, enhancing/refreshing existing signage.
- Development of existing circular routes across all 3 sites to promote easy, clearly defined access notably to channel increased visitor numbers through likely local housing development
- Upgrade surface of promoted circular routes where appropriate to increase range of visitor accessibility and cope with increased visitor traffic - standard should enable tramper and off-road pushchair use
- Waymark main promoted routes to assist orientation and wider interpretation
- Install new orientation boards at main entrances across all 3 sites highlighting routes of circular walks
- Explore feasibility and potential funding to increase parking capacity at Stratton to cope with likely increased visitor footfall as part of local housing developments
- Upgrade existing height barrier to provide a more welcoming entrance at Stratton wood
- Explore potential parking facilities at Warneage in association with the Parish Council
- Explore potential to promote parking and access to Purton Wood in conjunction with Swindon Borough Council at Moulden Hill
- Ensure adequate litter bins and dog waste bins are provided across the sites in co-operation with Stratton St Margaret Parish Council (Stratton) and Wanborough Parish Council (Warneage) and Swindon Borough Council (Purton) [bins only currently provided at Stratton Wood)- plus potentially needing to increase the current number on bins and regularity of collections if required
- Increase number of benches throughout sites through promotion of dedication product offers
- Explore alternatives to unwelcoming motorbike barrier at Stratton Wood
- Rotational ride-side coppicing and mowing (Stratton cmpt 1b) to maintain open canopy along woodland edge providing dry path surface
- Undertake tree safety works identified through inspections/safety visits/reports
- Potential to explore catchment level approach to water levels/flooding e.g. liaising with the

Wanborough Parish Council.

An engagement plan will set out a more developed programme of engagement activities and events further enhancing people's visit to the sites, however this is likely to include:

- Better wider promotion of sites through interpretation, website, leaflet, social media
- Development of an events programme across the three sites linked to objectives of the WSP
- Increase of membership activity across the three sites
- Increase number of brand moments across the three sites
- To gain better insight into the number and type of visitors currently visiting the site, and identify any real and/or perceived barriers to access and enjoyment of the sites
- Continue to expand number of volunteers and activities carried out by them
- Explore potential opportunities for non-site based volunteer activities with existing volunteer base
- Further develop partnership with Swindon Borough Council to collaborate over use and engagement of local volunteers, sharing administration tasks as appropriate
- Develop potential for mass volunteering events/activities
- Look to build upon current corporate volunteering potential at the site and develop further relationships locally
- Develop a future schools offer promoting use of site for forest school etc.
- Develop a future community group offer promoting use of the sites for variety of activities

# 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	0.00	Oak (pedunc ulate)	1995	High forest	Archaeological features, Legal issues, Sensitive habitats/species on or adjacent to site, Services & wayleaves		Area of Landscape Value, Community Forest, County Wildlife Site (includes SNCI, SINC etc)

Sub compartment 1a encompasses the previous MP compartments 1a, 1b, 1c, and part 2a thus covers most of the southern half of Stratton Wood. There is an old hedge running approximately east/west through the site. 1a is to the south of this hedge.

The A419 forms the southern boundary, the B4141 Kingsdown Road forms the eastern boundary and farmland forms the western boundary although this is scheduled for development in the near future.

The car park and main entrance are on the eastern side, off the A4141. A tarmac path leads through a motorbike barrier and onto a surfaced path (compacted stone) which leads onto a short circular walk within 1a. There are further old hedgelines running north/south and east/west through the compartment (conservation feature CF1).

Conservation and historical features found in this compartment:

CF1- notable trees (including veterans) and mature hedges:

CF2 - Seasonal ponds

HF3 - A 'Highworth Circle' which may be medieval, is visible on aerials as a crop mark (compartment 1a, at western end in clearing) It is found In the southern part of the sub compartment, and was identified by the Wiltshire Archaeological Society.

HF5 - Rectilinear features, possibly a small settlement

Other contraints are: Wayleaves/services - several overhead and underground services cross the compartment.

This large sub compartment contains an interesting network of rides, paths and wayleaves that effectively divides the new planting areas into irregular blocks. Tree species planted include ash, oak, field maple, wild service tree, crab apple, goat willow as well as shrubs such as blackthorn, hazel and holly. Pyramidal orchids are found in the western and central sections of the sub compartment.

A seasonal stream runs north south through the sub compartment. This stream has an associated old hedgerow with it which contains mature ash and crack willows. Where the stream meets the old hedge that forms the northern boundary of the sub compartment, there are four seasonal ponds which were created in 2013 (Conservation Feature CF2).

1b	14.00	Ash 1995	High forest	Archaeological features, Legal issues, Sensitive habitats/species on or adjacent to site, Services &	Area of Landscape Value, Community Forest, County Wildlife Site
				,	

A large sub-compartment covering the upper half of the Wood. (Previous MP compartments Old 1d and part 2b). The old field boundary hedgerow (conservation feature CF1) forms the southern boundary, Kingsdown Mobile Home Park and the Crematorium form the eastern boundary, Kingsdown Lane, a Byway, forms the northern boundary and farmland forms the western boundary, although this is scheduled to be developed in the near future.

Alongside the Mobile Home park boundary, an orchard was planted in November 2013 (Conservation Feature CF3) with help from the 1st Stratton Cub Scouts group, through funding from Swindon Borough Council's Big Tree Plant, which bought the Conference pear, Morello cherry, Victoria Plum, Czar Plum and Meech's prolific quince varieties with 15 heritage apple trees supplied by Wiltshire Wildlife Trusts' Traditional Orchard Project: Corsley Pippen, Julia's late golden, Roundway Magnum Bonum, Mary Barnett, Bedwyn Beauty, and Choristor Boy - all on MM106 rootstock

Conservation and historical features found in this compartment:

CF1- notable trees (including veterans) and mature hedges

CF3 - orchard

HF1 - A scatter of Neolithic worked flint tools (1997) in the area near to the Crematorium

HF6 - Wood bank along Kingsdown Lane

Other constraints are: Wayleaves/services - several overhead and underground services cross the compartment.

Historic Feature HF1 A scatter of Neolithic worked flint tools (1997) in the area near to the Crematorium and this area was planned to echo the more parkland planting style of the adjacent Crematorium and also due to contraints of archaeology and underground gas main.

Historic Feature HF6 - an old wood bank runs along the northern boundary adjacent to Kingsdown Lane

The sub compartment was mainly planted with a small trial area in the northern section, in the north western corner of the main planted area, with the north/south hedge forming the western boundary and Kingsdown lane hedge forming the northern boundary where direct seeding was trialled, - tree seeds were sown at high density in a random fashion on prepared ground. The area has a very natural feel to it compared to the planted lines of trees. However, at this part of the site, it seems the shrub species have worked well and the tree species not worked quite so well. The area was not known to be fenced off during establishment and there is deer pressure on the site so whether this was a factor or not, or whether the tree species started off well and struggled later is unknown e.g. due to environmental factors. There are pyramidal orchids found in this area of the Wood.

There are four seasonal ponds in the north eastern corner

1b is bounded to the west by a stream, running in a ditch with associated mature ash and crack willows; to the north by the path and hedgerow separating 1b from 1d; to the east by sub-cpt 1a and to the north east by the electricity sub-station.

2a	5.40	Ash	1995	Non-wood habitat	Archaeological features, Sensitive habitats/species on or adjacent to site	Area of Landscape Value, Community Forest, County Wildlife Site (includes SNCI,
						SINC etc)

Sub-cpt 2a is on the western side of the site and is managed as an area of restored grassland/wildflower meadow. The perimeter is 1a and a copse of trees was planted in the northwestern corner of the open meadow.

The meadow contain many indigenous grassland species, Ox-eye daisy, Bird's-Foot Trefoil, Black Medic, Self-Heal, Black Knapweed, ribwort plantain, pyramidal orchid and also supports many insects such as butterflies, and birds such as sparrowhawks, skylarks and owls. The Small Blue butterfly was discovered in 2012 - the most northerly known population in Wiltshire.

The area was left unplanted due to archaeological interest - Historic Feature HF2 - A rectangular enclosure with internal divisions, crop marks and some flint worked tools being found onsite

2b	6.50	Ash	1995	Non-wood	Archaeological	Area of
				habitat	features,	Landscape
					Sensitive	Value,
					habitats/species	Community
					on or adjacent to	Forest
					site	

Sub-cpt 2b is in the north western corner of the site and is managed as an area of restored grassland/wildflower meadow This meadow support similar species of flowers, grasses and wildlife to 2a.

The area was left unplanted due to archaeological interest - Historic Feature HF4 - Undated crop marks

# Appendix 2: Harvesting operations (20 years)

Forecast Year	Cpt	Operation Type	Work Area (ha)	Estimated vol/ha	Estimated total vol.
2020	1a	Thin	3.25	6	20
2020	1a	Thin	3.25	26	85
2020	1a	Thin	1.00	35	35
2020	1a	Thin	3.00	17	50
2020	1b	Selective Fell	1.00	5	5
2021	1b	Thin	6.62	6	40

# **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.