

Stanley Wood

Management Plan 2020-2025

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THE WOODLAND TRUST

INTRODUCTION

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

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

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

PLAN REVIEW AND UPDATING

The information presented in this Management plan is held in a database which is continuously being amended and updated on our website. Consequently this printed version may quickly become out of date, particularly in relation to the planned work programme and on-going monitoring observations.

Please either consult The Woodland Trust website www.woodlandtrust.org.uk or contact the Woodland Trust

(wopsmail@woodlandtrust.org.uk) to confirm details of the current management programme.

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

WOODLAND MANAGEMENT APPROACH

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

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

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

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

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

The following guidelines help to direct our woodland management:

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

Grid reference: SO805019, OS 1:50,000 Sheet No. 162

Area: 38.29 hectares (94.62 acres)

Designations: Ancient Semi Natural Woodland, Ancient Woodland Site, Area of

Outstanding Natural Beauty

2.0 SITE DESCRIPTION

2.1 Summary Description

Stanley Wood is part of a cluster of Woodland Trust owned woods in close proximity on the Cotswold Scarp. The Woodland Trusts 'Cotswolds Woods' (Penn Wood, Stanley Wood, Coaley Wood, Laycombe Wood) are made up of 4 individual woods totalling 138.22 Ha. All 4 sites connect and link into the wider wooded landscape which defines the Cotswold scarps. The Cotswolds hosts a significant ancient woodland resource which strengthens ecological and landscape connectivity, with beech a nationally important feature, particularly along the scarp and incised valleys. The Woodland Trusts Cotswold Woods are managed with cohesive conservation and public access objectives that fit with those of the Cotswold landscape.

The Woodland Trust's sites are all part of the National Character Area 107: Cotswolds, and are all within the Cotswolds Area of Outstanding Natural Beauty (AONB). The woodlands on the Cotswold escarpment are identified as an important landscape feature in the Cotswolds AONB Management Strategy. The Cotswold beech woodlands are of high conservation value due to the landscape mosaic of deciduous woodland with rides and open semi-natural habitat and permanent pasture. All are within an area designated a Special Landscape Area and lie within the Greater Cotswolds Natural Area 69.

Stanley Wood (Cpts 5a,b,c,e,f) is a 38 hectare predominately broadleaf Ancient Semi-Natural Woodland (ASNW) with remnant Plantation on Woodland sites. Stanley Wood is contiguous with The Woodland Trust's - Penn Wood to the north, and the sequential compartment numbers reflect this. Buckholt Wood - a privately owned ancient semi-natural wood borders Stanley Wood to the west. The woodland scarp forms one continuous stretch of woodland from Coaley Peak Picnic Site in the south to Selsey Common in the north east, running along the B4066. Stanley Wood is 0.7 kilometres north east on the scarp of Coaley wood.

The Woodland Trust's Cotswold Woods are not served by any official WT car parks, but as with much of the Cotswold ridges, parking is available in many formal and informal lay-bys and pull-ins directly connected to the sites. One large public car park at Coaley Peak Picnic Site, managed by Gloucestershire Wildlife Trust (formerly Glos Council), provides parking for much of the area and the network of recreational space along the Cotswold Scarp. The Cotswold Way, a National Trail, runs through various parts of Penn and Stanley Woods as part of the central Cotswolds region, and all woods are serviced by an extensive PROW and permissive path network.

Cotswolds bat populations are a particularly significant species group and are important in a national context. The range of species includes pipistrelle, Daubenton's, Brandt's, noctule, brown long-eared, Natterer's, and whiskered, and barbastelle. Of particular significance are the breeding and hibernating populations of greater horseshoe lesser horseshoe bats.

The geology of woodlands across the Cotswolds scarps is diverse, with a variety of geological horizons from the top to bottom. Within Stanley Wood are previously worked large scale quarries - now fenced; and sunken tracks and lanes all exposing these variations.

2.2 Extended Description

Stanley Wood is part of a cluster of Woodland Trust owned woods in close proximity on the Cotswold Scarp. The Woodland Trusts 'Cotswolds Woods' (Penn Wood, Stanley Wood, Coaley Wood, Laycombe Wood) are made up of 4 individual woods totalling 138.22 Ha. All 4 sites connect and link into the wider wooded landscape which defines the Cotswold scarps. The Cotswolds hosts a significant ancient woodland resource which strengthens ecological and landscape connectivity, with beech a nationally important feature, particularly along the scarp and incised valleys. The Woodland Trusts Cotswold Woods are managed with cohesive conservation and public access objectives that fit with those of the Cotswold landscape.

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3.0 PUBLIC ACCESS INFORMATION

3.1 Getting there

Penn and Stanley Woods sit on the Cotswold scarp close to Stroud, just above the villages of Middleyard and Kings and Leonard Stanley. Selsley village lies a mile to the north east and Woodchester the same to the east.

Parking is available at the neighbouring Coaley Peak Picnic Site and Viewpoint, or on Selsey Common. There are several large laybys also on the B4066.

Public transport services currently link Stroud with Nympsfield via the road adjacent the site. The nearest stop is located at The Bell; Selsley Common located 2km away to the north east. www.traveline.info

The site is easily accessed at multiple entrances from the adjacent B4066 between Stroud and Dursley, and from the village lanes and footpaths of Middleyard and Kings and Leonard Stanley.

The Cotswold Woods form part of the central Cotswolds in the AONB guide https://www.cotswoldsaonb.org.uk/wp-content/uploads/2018/12/Explore-Booklet-2018-web.pdf

There are no known public toilets close to the woods. Public toilets are located in Stroud, Stonehouse, and Wooton-under-Edge. Stroud District council publish a list of the services open to the public which can be accessed at https://www.stroud.gov.uk/community-and-living/public-toilets

3.2 Access / Walks

4.0 LONG TERM POLICY

In fifty years-

Ancient Woodland Site:

A diverse and continuous mixed broadleaf woodland canopy will exist across all of the ancient woodland and secondary woodland areas, broken occasionally by semi-natural glades, rides and open space to provide associated habitats. Areas of Plantation on Ancient Woodland (PAWS) will have been restored through a gradual restoration approach to a predominantly broadleaved composition. ASNW and PAWS areas will be managed seamlessly with good vehicle access through a Continuous Cover Forestry (CCF) approach, utilising selective thinning interventions to create and maintain an irregular woodland structure with a diverse range of predominantly native broadleaved species supporting the highest levels of biodiversity. Deer populations will be managed at levels enabling natural regeneration processes to occur unimpeded by browsing. Open space will be created and maintained through a network of rides and small glades promoting transitional woodland habitat and associated species. Both standing and fallen deadwood will provide a significant habitat. Existing and future veteran trees will be protected and actively managed for as part of the adopted silvicultural strategy, using halo and selective thinning as appropriate.

Connecting People:

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 this complex of outstanding woodland. An attractive and serviceable network of tracks, paths, and parking areas 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 welcoming, well-maintained entrances, access furniture, signage and other infrastructure to better facilitate use by a wider range of visitors. 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. 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 Ancient Woodland Site

Description

Stanley Wood (Cpts 5a, b, c, d, e, and f) is a 38 hectare predominately broadleaf Ancient Semi-Natural Woodland (ASNW) with a small area of remnant Plantation on Woodland (PAWS). Remnants of the original semi-natural woodland dominated by beech Fagus sylvatica with ash Fraxinus excelsior, wild cherry Prunus avium and yew Taxus baccata occur across the site. It is bordered with Woodchester Park SSSI a 214 ha property to the east of Stanley wood, which is one of only 17 known British breeding roosts for the greater horseshoe bat.

The soils at Stanley Wood are thin and calcareous with exposed scree in places. The underlying geology is Jurassic Oolithic limestone. A number of archaeological sites (Scheduled Ancient Monument (SAM) 32367; SMR79 and SMR's 4110, 4111, 4112, 5134, 5216, 16931 and 21059) are also adjacent to the site, but these do not continue into the woodland. Within the woodland there are two well preserved sunken trackways, historically used as routes to and from markets in Kings Stanley and Leonard Stanley; the wheel ruts can still be seen worn into the bedrock. There is also a large fenced disused quarry within the WT boundary in the south west corner next to Coaley Peak, which contains geological workings on an impressive scale.

The majority of the woodland across the 'Cotswold Woods' management unit is ancient seminatural in composition, with a good majority most closely resembling NVC W12 Fagus sylvatica - Mercurialis perennis (Beech- Dog's Mercury) woodland, with large areas of mainly secondary ash and sycamore developing where beech is lacking in dominance. This is largely interwoven with occasional areas more closely resembling NVC W8 Fraxinus excelsior - Acer Campestre - Mercurialis perennis (Ash - Field Maple - Dogs Mercury), with ash, oak, elm, sycamore and whitebeam. Holly, field maple, Whitebeam and hazel are all present within the understorey . There are some large mature beech also on the upper slopes of Penn and Stanley Woods. In some areas where larger trees have been felled and pioneer species such as birch and sallow have colonised well. Young beech, ash and sycamore are growing well almost everywhere and should ensure the woodland remains a broadleaf high forest.

The ASNW, PAWS and Secondary woodland features throughout all four woods is intricately mixed as a result of the successes of the many management processes undertaken during the 1950s and 60s, including thinning, felling and restocking: in some areas this consisted of pure conifer planting; while in others cleared areas were restocked with beech in mixture probably with a pine or larch nurse crop. Some areas appear to have regenerated naturally; are the result of failed plantation; or suffered severe windblow during the Great Strom of 1987. Either-way, all have led to the current mixture of regenerating beech, ash and other native broadleaves. Native species have continued to regenerate resulting in a mosaic of non-native and native plantations, intermixed with semi-natural features and native broadleaved natural regeneration, with prolific ash growth.

Seemingly, the ancient woodland inventory has struggled to cope with this complex array of historic plantings and coniferisation, and has for the most part classified much of the woodland incorporated within the management unit plan as Ancient Semi Natural Woodland (ASNW) or Plantation on an Ancient Woodland Site (PAWS). ASNW covers almost all of Stanley Wood (5a, b, c, d, and e) except a small NE block recorded as PAWS (part of 5a and 5e, and part of 5f). While much of the woodland is now dominated by a semi-natural composition be it plantation or remnant ASNW, areas of conifer remain in Stanley Wood (Scots Pine, Corsican Pine, Larch and Western Red Cedar, (Stanley 5d and 5e) and were likely generally planted in single species blocks circa P1960. Restoration work from 2000-2010 reduced the conifers from 50-20%. These areas are relatively permeable for biodiversity through light availability, especially blocks of larch plantation and native broadleaved regeneration tends to be prolific (ash) within them.

Previous management has often resulted in an even age broadleaf structure, with tall, leggy stems particularly in secondary growth of ash. The shallow soils on the steep scarp slopes cause shallow root systems and present a risk of windthrow. This is in stark contrast to mature trees (especially large beech) which likely grew in much more open conditions and thus have a far more developed root system anchoring themselves into the steep slopes. In 2017, ash dieback (ADB) was first reported across all 4 sites, and in 2019 was apparent in much of the ash across all four sites, particularly within the woodland centres. The speed of dieback in ash will dramatically affect much of the woodland composition over the coming years.

Open space

Open space is largely achieved through a number of open glades mixed with a narrow ride network lining many of the tracks. Ride edge habitat has developed a mix of herb communities of locally typical ancient woodland indicators and species characteristic of limestone grassland.

Geology

In Stanley Wood there are two well preserved sunken trackways, historically used as routes to and from markets in Kings Stanley and Leonard Stanley; the wheel ruts can still be seen worn into the bedrock. There is also a large fenced quarry in the south west corner which contains geological workings on an impressive scale.

Species

- -Woodland flora is abundant in many areas complementing the NVC type notably Ivy, Dogs mercury, Sweet woodruff, bluebell, spurge laurel, yellow archangel, sanicle, Herb Robert, hemp agrimony, wild strawberry, wood spurge as well as a number of ferns. At Stanley Wood the ground flora diversity was exceptionally high in a survey of 1987 (129 species).
- -Greater Horseshow bats are known to hibernate at the close by Woodchester Park SSSI which is known to have a breeding roost.
- -Deer are present across the woodland areas, notably roe and muntjac, and fallow are likely.

Management Access

In general management access to the woods is good with a network of tracks, but throughout most woodland areas vehicle access is limited due to the steep slopes. There is a large main entrance and track (leading to the Scout area) at Penn Wood which could be used as a turning and stacking area, and this links well to Stanley wood which has a number of good made tracks traversing the slopes. There is also a surfaced entrance further north at Penn Wood leading to a private residence. Inevitably some areas are inaccessible to forestry machinery and are likely to remain natural areas.

Management history since WT ownership:

- -Extensive windblow occurred at Penn and Stanley Wood during 1987 resulting in a dramatic increase in structural diversity across the site. Regeneration has been prolific across all areas of the wood and does not show significant levels of browsing or squirrel damage.
- -PAWs restoration activities at Stanley wood between 2000 and 2010 have reduced the proportion of conifers from 50% of the canopy to now an approximate 20% where it is no longer thought to be a threat. Work included ring barking and thinning to waste during 2002-2005.
- -Coppicing beneath powerlines in Stanley wood has previously occurred on a five year rotation through Western Power contractors.

Ash dieback is widespread within the Cotswold Woods in 2019 with significant mortality. Along the Zone A boundaries, ash will need to be annually surveyed as part of site risk assessment, and resultant future safety felling will need to be managed carefully due to the high level of ash. The B4066 road boundary is a fast moving busy country road linking Stroud and the surrounding area, although it has a fair proportion of ash present, there is also a fair proportion of other species, as does the few select property boundaries neighbouring the woods. The Zone B network of paths may need to be rationalised with restricted access on some, and safety felling on main paths, to avoid large scale safety felling due to dangerous trees, as the steep slopes and complex network of PROW running along the contours of the scarp mean many will be with reach of the tree safety zones.

Significance

The Woodland Trust is committed to the protection and restoration of ancient woodland sites and believes that semi natural ancient woodlands are irreplaceable.

- -The woodlands making up the management unit form an important BAP habitat within the Cotswold area providing not only a refuge for wildlife but also facilitating wider ecologically functioning and connectivity within the landscape.
- -The woodland forms an important landscape feature of the Cotswold escarpment within the Cotswold Area of Outstanding Natural Beauty (AONB)
- -The woodland hosts a number of important Biodiversity Action Plan (BAP) and European Protected Species, notably Greater and Lesser Horseshoe bats and dormice.

Opportunities & Constraints

- -Restructure even-aged stands highly susceptible to windthrow in order to protect wider canopy cover both from a connectivity perspective as well as landscape.
- -Investigate significance of bat population throughout scarp woodlands (likely with other partners).
- -Opportunities of joint working with NT and GWT across Cotswolds woodlands and landscape.

Constraints:

Poor accessibility to some areas.

Factors Causing Change

-Ash dieback is likely to have a major impact across the Cotswold woods. Much will depend on the required pre-emptive interventions required for health and safety purposes, which is likely to affect all roadside boundaries and public rights of way. This is likely to create an opportunity for alternative species to regenerate and create structural diversity, as long as the local deer population can be kept low enough to ensure natural regeneration opportunities can develop unhindered. There will likely be a major impact on species obligate to ash although this process will occur over time.

- -Deer browsing remains a threat to successful natural regeneration
- -Windthrow is likely to become an increasing issue where stands of even-aged trees have been unthinned on shallow soils, this will increase notably if large areas of ash also start to fail
- -Squirrels damage on SY and BE will continue to be a threat for young pole stage trees, becoming increasingly significant if the proportion of ash reduces over timer due to ash dieback

Long term Objective (50 years+)

In fifty years-

Ancient Woodland Site:

A diverse and continuous mixed broadleaf woodland canopy will exist across all of the ancient woodland and secondary woodland areas, broken occasionally by semi-natural glades, rides and open space to provide associated habitats. Areas of Plantation on Ancient Woodland (PAWS) will have been restored through a gradual restoration approach to a predominantly broadleaved composition. ASNW and PAWS areas will be managed seamlessly with good vehicle access through a Continuous Cover Forestry (CCF) approach, utilising selective thinning interventions to create and maintain an irregular woodland structure with a diverse range of predominantly native broadleaved species supporting the highest levels of biodiversity. Deer populations will be managed at levels enabling natural regeneration processes to occur unimpeded by browsing. Open space will be created and maintained through a network of rides and small glades promoting transitional woodland habitat and associated species. Both standing and fallen deadwood will provide a significant habitat. Existing and future veteran trees will be protected and actively managed for as part of the adopted silvicultural strategy, using halo and selective thinning as appropriate.

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

- Initiate regeneration felling to widen main network of rides along PROW within ASNW and secondary wood areas (Stanley Wood 5a, b, c, d, e and f) to diversify structure, promote natural regeneration, maintain temporary open and edge habitat, and increase light levels reaching ground favouring native ancient woodland flora. To include halo thinning around veteran trees where accessible, and also to increase levels of standing and fallen deadwood.
- Ash dieback tree safety assessments and subsequent felling of dead or dangerous ash along Zone A and B areas as per WT ash dieback guidance on manging ash dieback on the estate. Annual inspections, and safety works with pro-active felling where necessary. Rationalisation of non PROW permissive paths will also be needed with closure of some paths with high density of dangerous or dying ash trees.
- Creation and maintenance of new deer exclosures to monitor deer impact.
- To carry out a deer impact assessment and maintain programme of deer control accordingly.
- Commission (European Protected Species) EPS survey in Cotswold Woods to inform future management.

5.2 Connecting People with woods & trees

Description

Stanley Wood sits on the Cotswold scarp south of Stroud, just below the villages of Kings Stanley and Leonard Stanley, adjacent to the Woodland Trusts Penn Wood. Parking is available along several large laybys and pull-ins on the B4066, in Middleyard and Kings Stanley, or on Selsey Common. A formal car park owned by Gloucestershire Wildlife Trust at the neighbouring Coaley Peak Picnic Site and Viewpoint to the south is the main base for most walkers in the area with PROW linking all the Cotswold Woods and The Cotswold Way national trail. Public transport services currently link Stroud with Nympsfield via the road adjacent the site. The nearest stop is located at The Bell; Selsley Common located 2km away to the north east. www.traveline.info

The site is easily accessed at multiple entrances from the adjacent B4066 between Stroud and Dursley, and from the village lanes and footpaths of Middleyard and Kings Stanley. PROW and permissive path entrances are either open or kissing gates. There are many Public Rights of Way (PROWs) throughout Penn and Stanley woods. All public footpaths have steep sections except the Cotswold Way. While the PROWs are not surfaced they are freely draining and naturally stony. Public bridleways cross parts of the site, and a permissive bridleway adjacent to the B4066, surfaced by the Woodland Trust in 2002, provides a flat, well surfaced linear route through the sites. This route links Selsley Common, Penn and Stanley Woods and Coaley Peak. Entrances on the bridleway routes are open or with bridleway gates.

The Cotswold Woods form part of the central Cotswolds in the AONB guide https://www.cotswoldsaonb.org.uk/wp-content/uploads/2018/12/Explore-Booklet-2018-web.pdf

There are no known public toilets close to the woods. Public toilets are located in Stroud, Stonehouse, and Wooton-under-Edge. Stroud District council publish a list of the services open to the public which can be accessed at https://www.stroud.gov.uk/community-and-living/public-toilets

Access/Infrastructure

Stanley Wood, and the Woodland Trusts Cotswold Woods are not served by any official WT car parks, but as with much of the Cotswold ridges, parking is available in many formal and informal lay-bys and pull-ins directly connected to the sites. One large public car park at Coaley Peak Picnic Site and managed by Gloucestershire Wildlife Trust (formerly Glos Council) provides parking for much of the area and the network of recreational space along the Cotswold Scarp. The Cotswold Way connects much of the surrounding countryside with a national trail, as well as many footpaths and bridleways, both designated and permissive. Public transport is good with bus services connecting many of the area's Cotswold villages, with larger towns such as Stroud. The Cotswold Woods form part of the central Cotswolds in the AONB guide https://www.cotswoldsaonb.org.uk/wp-content/uploads/2018/12/Explore-Booklet-2018-web.pdf

General Communication Drivers

The sites lend themselves to visits by both the local community and visitors to the area via the Cotswold Way. The local population is made up of several large and small towns in the immediate area including: Stroud, Cam & Dursley, Wooton-under-Edge, Stonehouse, and Nailsworth; and many other neighbouring villages, mean the sites are in easy reach of a relatively large population. The neighbouring Coaley Peak Picnic Site and Viewpoint is managed by Gloucestershire Wildlife Trust and provides a large free public car park and picnic site, and along with neighbouring

Woodchester Park (National Trust) are both popular visitor attractions in the area.

The sites contain some of the best examples of publicly accessible woodland habitat available in the area, with many neighbouring woodlands in private ownership. Beech woods within the Cotswolds are nationally important feature which strengthens ecological and landscape connectivity, and the Cotswolds hosts a significant ancient woodland resource with beech especially a particularly distinct and prominent feature. There are several prominent viewpoints from the Cotswold scarp across the area, notably at the popular GWT managed Coaley Peak. There are also quieter, but still great views across the landscape particularly at the Coaley Wood main entrance.

Current signage branding is a mixture of large and small di-bond welcome boards, and road-side signs installed in 2018 and 2019. There are no orientation boards onsite. Overall interpretation could be improved given the important habitat, and long distance trails running through 3 of the sites. Some of these contain wooden way-marker national trail posts, but many are now worn and weathered.

Events: There are currently no WT events operated within this complex of sites. It is likely that events would be popular especially in school holidays when families are likely to visit. Outside school holiday, local events may be popular for smaller interest groups, as will events on the Cotswold Way. External horse riding, cycling and running organisations run occasional events along the PROW network that pass through WT land, but are mainly coordinated from surrounding land. These are run under their own insurance and risk.

Welcome Sites: Current visitor numbers are unknown. There are no known current user groups other than the general public although the sites are likely to be interesting to conservationists, historians, geologists, walkers/ramblers and horse riders.

There are few barriers to access in general, although there is limited Woodland Trust parking and no clear way marked circular routes which may deter some visitors. Information on the terrain of walks is also limited and often many routes include long sections of steep paths/tracks, although a good network of linear tracks along the contours do provide good year round access.

Volunteering: There are currently no volunteers operating at these sites, except for several Parish Council tree wardens that help monitor the site, and report fallen trees and access issues. The Cotswold Voluntary Wardens have worked across Penn, Stanley and Coaley Wood from time to time in the past.

Schools: There are several schools near-by in the local area, predominantly based around Stroud, Dursley and Wooton-under-Edge. Currently there is no formal engagement between them and The Woodland Trust at these sites.

Forest Schools: None currently at Stanley Wood. Although the scout camp area in Penn Wood adjoins the site and cubs and scouts use the woods from time to time on the public right of way network.

Wider Community Engagement: currently minimal

Horseriders - Public and permissive bridleways cross all of the sites. A permissive bridleway in Penn and Stanley Wood adjacent to the B4066 was created in 1995 with funding from the council, the British Horse Society and local funders to provide a safe, flat, well surfaced linear route through the sites, avoiding the B4066. This route links Selsley Common, Penn and Stanley Woods, Coaley Peak, and Woodchester Park, with bridleways heading north and south into neighbouring villages. Entrances on the bridleway routes are open or with bridleway gates.

Permissive bridleways at Penn, Stanley and Coaley Woods all underwent some re-surfacing work in 2002 (Penn and Stanley Wood) thanks to grant aid from the Gloucestershire Environment Trust. Use of the wrong paths and occasional building of horse jumps has damaged the terrain in places, and causes tension between different path users, inc walkers, cyclists and horse riders. Signage and gate improvements have taken place frequently in recent years.

Cyclists - Increasing numbers of mountain bikers use the permissive as well as public bridleways within the woods, including during night-time. Use of the wrong paths and speed of travel can cause tension between different path users, inc walkers, cyclists and horse riders. Access points opening up from the along the B4066 boundary by cyclists has caused damage to the ground flora and sections of fencing were installed in 2018 to prevent this along with improved signage.

Significance

The Woodland Trusts Cotswold Woods are all within the Cotswolds Area of Outstanding Natural Beauty (AONB), and connect and link into the wider wooded landscape which defines the scarps, Beech woods within the Cotswolds are a nationally important feature.

The Cotswold Woods provides a destination for a diverse visitor base throughout the year and is popular with local people from the surrounding towns and countryside. It provides several stretches of the Cotswold Way National Trail, and is utilised regularly by walkers, specialists, locals, forest schools and more.

The sites have been selected as one of the top 250 sites owned by the Woodland Trust which are likely to see further investment in the visitor experience in near the future.

Opportunities & Constraints

Opportunities:

- To engage with a large number of people across the Woodland Trusts Cotswolds Woods, which connect and link into the wider wooded landscape;
- Improve access infrastructure to provide year-round circular walk options, with areas accessible for buggies and off-road wheelchairs;
- To refresh the entrance configuration including new interpretation boards and associated signage;
- Wider partnership collaboration across whole of Cotswolds woods/AONB and partner NGO's.
- To reconfigure the car parking lay-bys and pull-ins to enable better usage of the space available.

Constraints:

- The steeper slopes across the sites restrict access to some areas by those people with mobility limitations.

Factors Causing Change

- Possible increase in anti-social behaviour with increasing visitor numbers.
- Illegal use of PROW by motorbikes
- Use of public footpaths by horse riders and cyclists
- Ash dieback and reconfiguration of permissive path routes.

Long term Objective (50 years+)

Connecting People:

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 this complex of outstanding woodland. An attractive and serviceable network of tracks, paths, and parking areas 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 welcoming, well-maintained entrances, access furniture, signage and other infrastructure to better facilitate use by a wider range of visitors. 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. 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)

- Improve the entrance configuration by installing new orientation boards and associated threshold signage that brings the surrounding sites together and promotes the interest and key features and in context with the wider local landscape;
- Maintain and improve the existing PROW and most used permissive path network in favourable condition, liaising with the Cotswold Voluntary Wardens and Cotswold AONB, GCC PROW Team, and local volunteers;
- Explore funding opportunities to implement further engagement activities in tandem with geological interpretation/activity.
- Reconfigure the car parking lay-bys and pull-ins to enable better usage of the space available.
- Maintain the site as easily accessible, attractive, well maintained and safe woodland. The path network and entrances should remain in good condition and appropriate for level and type of use and in accordance with access categories.
- Ensure visitor safety via ongoing tree and infrastructure monitoring regime and remedial works as necessary.

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
5a	26.30	Mixed broadlea ves	1950	High forest	Gullies/Deep Valleys/Uneven/ Rocky ground, No/poor vehicular access within the site, Very steep slope/cliff/quarry/ mine shafts/sink holes etc	Ancient Woodland Site, Connecting People with woods & trees	Ancient Semi Natural Woodland, Area of Outstanding Natural Beauty

SW - This large sub-compartment runs the whole length of the wood some 2.3 km along the north-facing Jurassic limestone escarpment. At its widest it is 400m and at its narrowest 120m wide and throughout the slopes are steep. The average gradients vary between 20 and 66%. The strip of woodland bordering the B4066 county highway is 2.5km long and has been designated a Tree Safety Zone A.

Compartment 5a incorporates most of the pedestrian and management access points. Parking for up to 8 cars is available opposite the glider club entrance at NGR 8060601912. This entrance point doubles for management access, it links the area with the stoned permissive bridleway route via a track along the edge of a small portion of land owned and retained by the Glider club. There are 11 other pedestrian or bridleway access points. Routes within the woodland suitable for management access include the permissive bridleway route that the Woodland Trust created (running the entire east-west length of the site); the two lengths of designated PROW bridleways and the RUPP; the section of the Cotswold Way National Trail within the eastern end of the woodland; a steep PROW footpath route linking the Cotswold Way to the permissive bridleway route; a steep PROW footpath route linking the RUPP/Bridleway intersection to the permissive bridleway; a steep spur section of permissive trackway from the permissive bridleway that dissects the western side of compt. 5d. Given the steep gradient of the slopes the management tracks and path network is extensive, yet it dominates the flatter section along the top and bottom of the scarp and still leaves pockets of very inaccessible woodland. The Cotswold Way and bridleways run east to west along the south of the site. Deep historic holloways run south to north linking the northern villages of Leonard Stanley and Middleyard (one designated a RUPP and the other a bridleway).

Much of the southern external boundary of compartment 5a is demarked with post and wire fencing; this is in state of disrepair and some sections can no longer be made out on the ground.

A dog leg section of overhead power lines dissect the site's mid-eastern section east of the Gliding Club. The power companies are responsible for the clearance of developing scrub beneath these lines and are under cyclic coppice management.

There are a number of spectacular beech specimens both along the ancient boundaries/sunken tracks and within the matrix of the wood. Following the clearance of much of the woodland during the 1950's there appears to have been some planting of conifers (Larch and Corsican pine) during the 1950s but nowhere does this exceed 5% in this sub-compartment.

Understorey is variable. In some locations Hazel dominates whilst in others Yew, Hawthorn, Beech, Holly and Hazel form a sub-canopy. The most common ground flora species are Ivy (Hedera helix), Dog's mercury (Mercurialis perennis), Sweet woodruff (Galium odoratum), Bluebell (Hyacinthoides non-scripta), Male fern (Dryopteris filix-mas) and Hartstongue fern (Phyllitis scolopendrium).

Throughout the sub-compartment are a number of quarry workings of varying scale.

5b 4.05	Mixed broadlea	1950	High forest	No/poor vehicular access		Ancient Woodland Site,
	ves			1	People with	Area of Outstanding Natural Beauty

SW - This sub-compartment has very similar characteristics to 5a but has fewer large Beech trees and in addition to Ash contains a scattering of Larch and Corsican pine forming circa 10-15% of canopy where it is densest. Following restoration thinning 2002-2005 it is not thought that they are impacting negatively on the habitat value of the ancient woodland site, the threat level imposed by the conifers is low and it is thought that the ancient woodland communities are secure. However Much of the ash shows signs of chalara ash dieback. The under-storey and ground flora are similar to that of 1a.

Management access is via the RUPP to the east and the permissive bridleway route to the south. Ground conditions throughout are very steep. Overhead power lines used to cross very closely to the western end of the compartment but these were removed in 2010. The permissive bridle path goes through 1B parallel to the B4066 and the RUPP forms the compartments southern boundary. Sections of the RUPP are steep. The removed power lines form the western compartment boundary.

5c	1.74	Mixed broadlea ves	1980	vehicular access within the site	Woodland Site, Connecting	Woodland, Area
					People with woods & trees	of Outstanding Natural Beauty

SW - This compartment is bounded by the B4066 to the south and the permissive bridleway track at the crest of the escarpment; it is comparatively flat. It was thinned in 2001 during which a number of potentially hazardous trees were removed. Beech was favoured for removal during this operation as it is notoriously difficult to assess the risk they pose to traffic on the B4066. The thinning was also seen as an attempt to increase the stability of the woodland along the top of the scarp.

Ash, Oak, Larch, Silver birch and some Sycamore now form the semi-mature open canopy. All the sub-canopy and larger regeneration was coppiced to facilitate thinning; this has since grown back as a developing shrub layer despite deer browsing evidence. In the higher light environment bramble dominates the ground flora although Dog's mercury and Sweet woodruff are occasionally present. Recent regeneration is largely of Ash much showing adb.

5d	4.38	Mixed broadlea ves	1970	Very steep slope/cliff/quarry/ mine shafts/sink	·	Ancient Woodland Site, Area of
					People with woods & trees	Outstanding Natural Beauty

SW - This sub-compartment lies in the mid-portion of the scarp slope and has its north eastern boundary delineated by the electricity power lines. It is a complex assemblage of both broadleaved and coniferous trees. The proportion of conifers (Corsican and Scots pine, Larch and Western red cedar) varies considerably only becoming more dense in small isolated pockets. It was apparent in 2003 that the vigour of some of the pines was reduced by an attack by Pine-shoot beetle (Tomicus piniperda). The conifers were thinned as part of restoration works over the period 2002-2005. The threat level imposed by the conifers is low and it is thought that the ancient woodland communities are secure.

Broadleaves are present in the canopy (mostly ash and Sycamore) and in the prolific sub-canopy Beech, Ash, Sycamore, Hazel, Yew and Field maple abound. Much of the ash shows signs of chalara ash dieback. Despite the presence of conifers the ground flora is abundant and throughout consisting of Ivy, Herb Robert (Geranium robertianum), Hemp agrimony (Eupatorium cannabinum), Wild strawberry (Fragaria vesca), Wood spurge (Euphorbia amygdaloides), Hartstongue fern and sedges.

Some of the broadleaves may be pre-cursor trees growing from stumps of the former ancient woodland but on the whole the strong broadleaved element is derived from regeneration.

5d is served with a steep track from the permissive bridleway route along the top or southern boundary of the compartment.

5e	2.77	Mixed broadlea ves	1970	High forest	vehicular access within the site, Very steep	Woodland Site, Connecting People with	Area of Outstanding
					slope/cliff/quarry/ mine shafts/sink		Natural Beauty
					holes etc		

SW - This sub-compartment lies to the west of the electricity power lines and is very similar in character to 5d but contains a higher proportion of Western red cedar. It is thought that the scattering of small, sub canopy WRC is a consequence of suppression rather than seeding. The strong remnant communities of regenerating broadleaves and ancient woodland flora species are present throughout as per compt. 5d.

The conifers were thinned as part of restoration works over the period 2002-2005. The threat level imposed by the conifers is low and it is thought that the ancient woodland communities are secure. The sub-canopy and ground flora are similar to those of 5d.

5f	2.00	Beech	1970	High forest	No/poor	Ancient	Ancient
					1	Connecting People with	Area of Outstanding

SW - An area of closely planted beech plantation established circa 1950. Forming a full and dense canopy that has been thinned previously and is now beginning to self thin. Ground flora is dominated by ivy and ferns reflecting the low light levels since canopy closure. There are rare hazel shrubs notably along the edge but no other shrub or understorey. Little viable regeneration is found. Self thinning is problematic on the northern end of the compartment where the trees on very steep slopes overhang the Cotswold way and regularly pull out of the shallow soils and fall to block the path.

Appendix 2: Harvesting operations (20 years)

Forecast Year	Cpt	Operation Type	Work Area (ha)	Estimated vol/ha	Estimated total vol.
2020	5a	Thin	26.30	19	500
2020	5b	Thin	4.05	21	85
2020	5c	Thin	1.74	20	35
2020	5d	Thin	4.38	19	85
2020	5e	Thin	2.77	20	55
2020	5f	Thin	2.00	25	50

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.