



Kings Wood

Management Plan 2017-2022

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THE WOODLAND TRUST

INTRODUCTION

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

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

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

PLAN REVIEW AND UPDATING

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 Consequently this printed version may quickly become out of date, particularly in relation to the planned work programme and on-going monitoring observations.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

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

WOODLAND MANAGEMENT APPROACH

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

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

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

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

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

The following guidelines help to direct our woodland management:

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

SUMMARY

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

1.0 SITE DETAILS

Site name:	Kings Wood
Location:	London Apprentice nr St. Austell
Grid reference:	SX007487, OS 1:50,000 Sheet No. 204
Area:	58.52 hectares (144.61 acres)
Designations:	Ancient Semi Natural Woodland, Ancient Woodland Site, Area of Outstanding Natural Beauty, Braydon Forest Project, County Wildlife Site (includes SNCI, SINC etc), Heritage Coast, Nature Conservation Site, Planted Ancient Woodland Site

2.0 SITE DESCRIPTION

2.1 Summary Description

Kings Wood is part of a panoramic wooded terrain that slopes down the breath-taking Cornish landscape of Pentewan Valley. It is a designated County Wildlife Site, highly regarded for its rich ground flora and fantastic scenic views across the stunning south coast of Cornwall.

2.2 Extended Description

Kings Wood lies on the west facing valley side of the Pentewan Valley, which runs roughly north south from the town St Austell to the fishing village of Mevagissey. It sits within the 'South Coast - central section of the Cornwall AONB and within the Cornish Killas National Character Area profile (No 152) which covers all on the county other than where granite outcrops rise through the sedimentary base rocks which have their own character profiles. The Killas are characterised by an undulating agricultural upper landform fairly devoid of trees and woods, but are incised by steep sided often heavily wooded valleys that carry watercourses to the rugged coast. As such Kings Wood and the Pentewan valley are typical of this. The wood is designated as Ancient woodland some of which is Semi-natural (ASNW) while others as plantations on Ancient Woodland Sites (PAWS)

Kings Wood forms a substantial part of the woodland that cloaks both sides of this valley and as such is a prominent landscape feature in that locality. The ground slopes steeply from the flatter agricultural land on the valley tops down to the broad valley bottom adjacent to the St Austell River. The upper drier slopes are mostly ASNW and mainly populated with mature and stored coppice oak, with areas of sycamore, beech, sweet chestnut, ash and birch. The more accessible mid slopes form much of the PAWS and are often populated with non-native species such as Southern Beech Douglas and Noble Fir, Sitka Spruce and Western Hemlock all planted for commercial reasons in the 1970s however due to irregular past management often these species are not in pure stands but in intimate mixtures with native broadleaves. The valley bottom and river corridor areas were once used for tin streaming and associated activities and due to this intensive management and the wet nature of the ground are generally stocked with younger broadleaf species like ash and alder interspersed with small clumps of partially failed conifers. This area is also notable for its rich wet woodland ground flora communities and is designated a county wildlife site. Elsewhere ground flora varies according to the woodland and soil types and ranges from very little under the conifers to bryophyte and fern communities, bramble, heather, bilberry and bluebells. Larch was a predominant conifer species in the woodland until 2010 when it became infected with the disease *Phytophthora ramorum* and had to be felled under a plant health notice. These areas were partially stocked with broadleaf regeneration following on-going restoration works but they will remain more 'open' and create a different structure from the rest of the wood for many years to come. The wood can be seen by locals from their dwellings, by visitors at local campsites and amenities and those travelling along B3273 to and from St Austell and Mevagissey. Given its proximity to St Austell and nearby villages and its good road and public transport access links and the adjacent Pentewan Leisure Trail and parking facilities Kings Wood is a very popular destination particularly for recreation and dog walking and by many others with environmental interests.

3.0 PUBLIC ACCESS INFORMATION

3.1 Getting there

By bus:

There are regular bus services travelling along the A3273, with a stop at London Apprentice that leaves a 750m (half a mile) walk to the wood, and one at Sun Valley Holiday Park where a walk of 100m accesses the leisure trail and a further 500m walk reaches the car park entrance.

By train:

The nearest rail station can be found in St Austell, with regular services running to and from the station each day.

For further information on public transport, contact Traveline on 0871 200 2233 or visit traveline.org.uk

By car:

Travelling south along the B3273, just after London Apprentice and 70m after the Kings Wood Restaurant, turn left onto an unclassified road with business signage. Follow this as far as the road goes, round to the right past the businesses, and through a narrow wooded strip until it rises sharply for a short distance and then opens into the adjacent car park. Or follow the B3273 approximately 2 mile south of London Apprentice where there is a roadside parking area, or a bridge that crosses the St Austell River into a small car park on the Leisure Trail.

The car parks at both entrances are each adequate for eight cars but are often full at popular times of the day/year. However, additional parking is also available at other locations along the access tracks and roads used to reach the entrances.

By bike:

The wood can be accessed by cycles from St Austell and Pentewan by following the Leisure trail that runs between the wood's western boundary and the St Austell River. Cycling is not permitted in the wood but locking posts and rail fencing are available at all entrances for securing cycles during visits.

3.2 Access / Walks

Kings Wood has two access points. One is located along an unclassified track that turns left off the B3273 just after London Apprentice and the Kings Wood Restaurant. Follow the track along the river and through a narrow wooded strip until it rises sharply for a short distance and opens into a turning area with two management and public access gates.

The second access is reached by continuing for just over 3km (approx. 2 miles) along the B3273 until the road widens and a bridge turns off the road across the river and into a small car parking area on the Pentewan Leisure Trail. From here access can be gained through a 1.2m hunters gate onto a woodland track or from various smaller points along the leisure trail.

Within the wood are two surfaced tracks, one of which is fairly level, and a number of narrower paths which together run along the contours of the slopes. These are linked into a woodland path network by other tracks that can be narrower, steeper and more challenging, but also offer the chance to visit the wilder and less accessible parts of the wood. These higher tracks are supported by wooded banked steps in some places and seats are conveniently placed so walkers can admire the woods and views.

The paths that run through the lower sections of the woodland tend to be wetter and can become quite muddy in wet weather, so suitable footwear is advised.

The Pentewan Leisure Trail follows a strip of land along the western boundary between the wood edge and the St Austell River and provides good access for horse, pedestrian and cycle. It forms part of the Cornish Way and therefore links the wood to local towns, villages and other amenities.

4.0 LONG TERM POLICY

Kings Wood will continue to help deliver the Woodland Trust's Trusts aims and objectives of No further loss of ancient woodland, to protect native woods, trees and their wildlife and help to inspire everyone to enjoy and value woods and trees and help provide woods with open access close to everyone's home, developing the recognition that trees and woods are an essential part of a healthy environment.

In recognition of its designation as a Plantation on an Ancient Woodland Site as well as its landscape and conservation importance Kings Wood will be restored to predominantly broadleaf woodland with a wide and varied species, age and size structure, robust understory, ground flora communities, standing and fallen deadwood in line with the Woodland Trust's restoration approach. The majority of the conifers will be removed, although a small proportion of select species, excluding those that regenerate freely, will be retained for aesthetic and conservation benefits.

The Ancient semi-natural woodland areas and those areas of a more secondary woodland nature interspersed throughout the site will be managed as predominantly broadleaf high forest through a limited intervention continuous cover management regime. The woodland will have a diverse species, age and size woodland and shrub layer structure and a rich and varied woodland flora. The canopy will be occasionally broken with lower level shrub and wood edge habitat that line glades, water courses and track sides

Invasive species such as Rhododendron, Laurel, Himalayan balsam and Japanese Knotweed, , will continue to be controlled and eradicated as and when they occur in order to reduce the shading and other detrimental effects they would have on ancient woodland flora

The high recreational value of the wood will continue to be recognised by inclusion as one of the Trust's 'Welcoming Sites' making up the top 250 sites managed by the Woodland Trust for People; access provision will have been enhanced and managed to a high standard to reflect this. A developed engagement plan will set out the ongoing programme of people-orientated activity/interpretation. The wood will remain a popular destination for local and holidaying visitors alike and all will be welcomed into the site by accessible paths and tracks that provide a range of attractive and interesting routes throughout the easier and more challenging parts of the wood throughout the year. Entrances, signs and furniture provided will be maintained in good condition. Paths will link to vistas and viewpoints and link where possible to the wider public footpath, highways and sustainable trail network. Car parking facilities will provide adequate space for those driving to the wood and 'locking' structures for cycles.

The low level horse riding that has historically taken place in the wood will be allowed to continue, but will not be promoted or increased.

Cycling in the wood will not be encouraged and measures will be implemented as and where necessary to prevent unauthorised mountain biking due to conflicts with woodland conservation, and other informal public access

The wood will be managed as required to fulfil all Highways clearances, safety and other legal obligations

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

Kings Wood stands on the west facing valley slopes of the Pentewan Valley reaching down from the drier upper undulating agricultural plateaus to the wetter alluvial soils of the river valleys and is typical of the Cornish Killas National Character Areas and the South Cornwall Area of Outstanding Beauty in which it lies.

It forms a substantial part of the woodland in the valley and is therefore a major landscape feature for visitors and locals using the, visiting or travelling through the valley.

The upper slopes were predominantly wooded with oak, much of which was historically coppiced for tan bark, charcoal production as part of the lime industry and small round-wood until the relevant demands reduced around the early 1900s. Some felling may have taken place during the two world wars but most of the southern steeper slopes (Cpt2a) are now densely wooded with stored oak coppice interspersed with sweet chestnut, some mature beech and occasional patches of sycamore.

The understorey is often well shaded out and colonised by dense holly. The more accessible and much of the more gently sloping northern areas of the wood (cpt1a and b) and southern mid slopes (Cpt 2b) hosted a mature broadleaf high forest of oak and sweet chestnut until the 1970s when substantial areas were clear-felled and restocked with plantations of commercially targeted Norway and Sitka spruce, Douglas and Noble fir, Western hemlock and Japanese larch, Scots pine and beech plus occasional coupes of Southern Beech. Some of these have remained in an almost 'pure' species stand while others appear to have been more intermittently managed which has allowed broadleaf regeneration and coppice to recolonize and this has often resulted in intimate mixtures of broadleaf and conifer species. The wood has therefore developed a wide range of ages, species and size structures which was further diversified in 2010 when approximately 4hectares of larch became infected with phytophthora ramorum and was clear-felled under a plant health notice. All broadleaf regeneration that had developed during past restoration processes was retained to help re-establish the woodland, but as much of this was young there are considerable areas of open canopy throughout the wood.

The lower levels of the slopes and the flatter alluvial areas of the wood adjacent to the St Austell river form cpt 2c. These areas show signs of widespread excavation indicative of tin streaming and other mining related works and land drainage works. Numerous water courses collect water from valley slope springs and flow through the area and these form a very wet and often boggy soil structure with various permanently and seasonally wet ponds. The site also contains two larger but heavily silted ponds once used to collect water which were then emptied via sluices so that the water could run down the valley to Pentewan where it would wash clay, sand and other sediments from the harbour and maintain adequate depth for ships to enter and exit. Due to this, more recent management, the woodland, while designated as ancient, is more representative of natural secondary woodland with much younger tree ages and poorer size diversity but some mature oaks remain on the higher and drier 'islands' throughout, The large area that 2c covers combined with the predominantly broadleaf stocking, rich flora and the wet ground conditions help this area form an example of wet woodland important enough in Cornwall to be designated as a County Wildlife Site.

Significance

This is a relatively large area of Ancient woodland in the county that is under conservation management. It helps to fulfil the local, regional and national Ancient Woodland and wet woodland habitat and biodiversity Action plans as well as those for restoring Plantations on Ancient Woodland sites. Given its location, ease of access and conservation values it is a flagship site for the Trust and well known throughout the county's conservation and woodland organisations. It is also likely to offer good PR potential regarding PAWS restoration. It helps fulfil the Trust's aims of protecting native woods, trees and their wildlife for the future and to Inspiring everyone to enjoy and value woods and trees.

Opportunities & Constraints

Constraints

Despite having two substantial management tracks within the wood the steep slopes and radiating paths limit management access throughout much of the woodland area

Wet ground conditions affect management access to restore and diversify cpt 2c

The enforced clear-felling of the Pr infected larch in 2017 has affected the gradual approach to woodland restoration by removal of a deciduous canopy cover and the increased light has allowed rapid development of dense bramble which might limit tree regeneration.

Coastal location does increase exposure levels of trees and woodland on upper slopes.

Sporadic high levels of mountain bike access creating trails through the wood and affecting ground flora

The site is identified as being infected with Phytophthora ramorum which may infect Sweet Chestnut and may limit the movement of timber

Poor management access to some areas

Opportunities

The wood is included in the Welcome Sites Programme

Improvement of the peripheral track network by grading, draining and widening in places would facilitate management access and enhance public access

Manage the woodland via selective thinning and felling and manage dense holly colonisations to help regenerate and diversify the woodland habitat.

Erection of Deer exclosures to identify whether browsing is adversely affecting natural regeneration of trees and ground flora.

Factors Causing Change

Squirrel Damage esp. to advanced BL regeneration and semi-mature trees
Natural regeneration of species likely to adversely affect light levels/restoration so may include western hemlock but also possibly species like beech, sycamore and holly which although considered an acceptable part of the woodland species mix are already forming dense canopies in places and increases may be detrimental if not managed.
Wind Damage through blow and exposure esp. to conifers on top of slopes,
Diseases - Ash die-back - ash is quite prominent in many areas of the wood as early and semi-mature elements of the canopy and ADB may have a substantial impact on the restructuring opportunities for the wood.
- Phytophthora Ramorum is present in the wood and may cause larger scale die-back of sweet chestnut and require statutory felling. High levels of inoculum may adversely affect ground flora and other species including Ash.
- Chestnut blight could also infect SwCh and oak in the wood
Fly tipping of garden waste introducing NNIs
Adjacent and internal watercourses introducing NNIs from 'upstream' infestations' particularly during flood episodes.

Long term Objective (50 years+)

The wood will be restored to predominantly native broadleaf woodland with varied age and size structure. The trees will have a wide age and size diversity and those in maturity will have large crowns of 'open grown' form with improved stability for longer term retention. Their maturity will also offer good standing deadwood habitat while high levels of lying deadwood will be present from wind damage and thinning operations. Ground flora and particularly ancient woodland species will have migrated and recolonised the restored conifer areas and developed through canopy shade reduction to form sustainable populations.

The Planted ancient woodland areas will have been restored to predominantly native species woodland with a developing age, size and species structure either, robust shrub and understorey layers and ancient woodland flora.

Non-native and invasive species such as rhododendron/laurel growth and conifer regeneration will have been controlled

Water courses will be in good condition with riparian zones managed to provide dapple shade and good water flow.

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

Continue restoration process throughout PAWs areas (Cpt 1) by selective thinning of pure conifer canopies and selective thinning of conifers within intimate broadleaf mixtures to enhance protection and development of precursor broadleaves, ancient woodland flora, deadwood and other remnants and move towards a predominantly broadleaved species woodland habitat

Manage secondary woodland and BL 'PAWS' areas (Cpt1 and 2) to reduce dense shade cast by planted beech, sycamore etc. and naturally regenerating holly via selective thinning to increase light levels and improve conditions for natural regeneration of flora and trees to develop.

Continue management of non-native invasive species within the whole wood, but particularly cpt 2 to eradicate existing JKW, balsam, laurel and rhododendron presence, prevent colonisation of new outbreaks and help deliver restoration.

Manage areas of Cpt 1 and 2 where larch was clear felled to control dense bramble and scrub growth and encourage establishment and development of natural regeneration and restock gaps if there is insufficient regeneration

Continue management of the roadside wood edges and boundaries with the leisure trail via tree safety works, thinning and shrub coppicing to deliver statutory highways clearances aesthetic benefits and to maintain user safety.

Maintain and, as necessary, upgrade track network throughout the wood leading up to and following harvesting operations to facilitate management access and support future public access. In particular this applies to tracks in Cpt 1 and 2 which are naturally surfaced and can suffer rutting after heavy machinery use.

Undertake deer impact assessments as a part of the 5 yearly Woodland Condition assessment to monitor population and damage levels and to guide deer damage control measures, such as erecting exclosures, as necessary

Increase levels of standing and fallen deadwood throughout the whole woodland as part of on-going thinning and tree safety operations and the retention of natural 'self-thinning' processes to benefit fungal and invertebrate species but in particular those areas in Cpt 1 and 2 which have been coniferised and lack this important habitat

Maintain water courses in a healthy condition with good levels of dapple shade and by allowing natural processes to build up riffles, trash dams as floods where these do not threaten other woodland habitats or other land.

Manage occasional misuse and abuse of the wood (e.g. unauthorised mountain bike access, fly-tipping) as necessary to protect the woodland habitat from damage

5.2 Connecting People with woods & trees

Description

Kings Wood is located within 3 miles of St Austell, Cornwall's largest town, and the popular destination fishing village of Mevagissey as well as a number of thriving smaller villages and communities. The Pentewan Valley also hosts a number of camping, touring and holiday complexes. There is, therefore a large permanent local population which is then dramatically increased by visitors during the holiday season from Easter to early Autumn. This high amenity and recreation value led to the wood being one of only 14 WT sites across the UK to be included in the Trust's Millennium Wild about Woods project which improved and extended paths and tracks into the farther reaches of the wood to encourage people to explore the woods wilder areas. Standing on steeper valley slopes and wetter valley bottom land the woodland is rich but this wider woodland access is limited by slopes, wet soils and distances to more abled visitors. These routes do however offer people to chance to visit the wet woodland, tin streaming areas, silt ponds, old ruined cottages, and an unusual retaining wall on the eastern boundary which is topped with inward projecting flagstones suggesting it was built to keep animals in the wood or out of the adjoining land, once an historical deer park.

Two stoned surfaced tracks extend through the middles of the northern (Cpt1) and Southern (Cpt2) parts of the wood; Neither is fully wheelchair accessible but can be accessed by buggies and many types of self-propelled mobility type scooters and trampers. The track through Cpt2 is practically level and straight and follows the contour through much of the wood. The woodland slopes steeply below and that allows views though the woodland canopy out across the local landscape and down towards the river it. Above the track the ancient woodland tree grow up and arch outwards creating an imposing impression of the wood. The track extending through Cpt 1 extends up a moderate slope to the centre of the wood before turning sharply back on itself before reaching the upper edges of the wood. From here the views are much wider, but the climb is less suited to less abled visitors than the southern track. From these tracks other tracks and paths branch off up or down hill accessing wilder areas and forming circular routes or links to public rights of way or the leisure trail beyond. Most of these other paths are naturally rather than stone surfaced and can be seasonally wet and muddy. Steps help traverse steepest slopes and benches are located at strategy locations around the wood to offer resting places on longer routes. Of particular note is a circular route that passes a stone wall that forms the eastern boundary of Compartment 2 this wall has flagstones laid on its top that project inwards to the wood which suggests it was built to stop animals leaving the wood or to stop predators entering into the adjacent farmland that was once a deer park. The path also passes the ruin of an old cottage, thought to be the home of the gamekeeper for the old estate. A second path circles down through the wet woodland in cpt 3 and along a raised strip of land that might have formed an old tram way or cart track that served the tin streaming and mining activities in that areas. Both of these tracks are naturally surfaced

The wood can be easily reached by car, or via public transport and lies adjacent to the Pentewan leisure trail which then forms part of the Cornish Way, part of the national cycle route scheme. Car parking is available for approximately 8 cars at each of the two main entrances. Combined with the leisure trail, which is within WT ownership, but is leased to Cornwall Council, it is estimated that the property has around 40,000 visits per year.

At the time of acquisition there was a history of low key horse-riding by small number of local villagers. This has been allowed to continue since, but on the basis that the riding is limited to a set

route of hard tracks that are able to best withstand wear and tear and avoid conflict with walkers on narrower paths. The number of riders is gradually reducing and will gradually be phased out rather than promoted. The riders operate a self-policing system to ensure the right routes are used and there is no misuse of the wood.

Significance

The woodland is located close to the town of St Austell and other large villages and close to a number of caravan and camp site and other tourist amenities. It is easily accessible by car, on foot, bus or bicycle along the Cornish Way/Pentewan leisure trail which is on land owned by the Trust, but leased to Cornwall Council. It receives an estimated 40000 visitors per year. Given these facts it is well used and is considered to be a flagship site for the Trust within the county. In 2000 the wood was selected as 1 of only 14 sites across England for the WT's Wild about Woods project to increase public understanding, enjoyment and appreciation of ancient woodlands and in 2017 was selected for the first phase of the Trust's Welcome Sites Programme, the top 250 WT sites managed for people. It helps fulfil the Trust's aims Inspiring everyone to enjoy and value woods and trees.

Opportunities & Constraints

Opportunities

Inclusion in the Trusts WSP which could support improvement of the two main management tracks to facilitate access by a wider range of less abled visitors and the improvement of a selected number of paths and tracks around the wood to create more accessible and attractive circular routes
 Improve parking facilities and the 'welcome' offered by erecting new entrances and signage and exploring potential to increase capacity and create circular routes.

Work with Cornwall Highways to improve the Byway Open to all Traffic (BOAT) as the perceived 'ease of access to the wood.

Review current interpretation on site and develop aligned with the requirements of the WSP
 Development of engagement plan including a programme of events/engagement opportunities

Constraints

Paths and tracks are often shaded, wet and steep and therefore may reduce accessibility and general enjoyment of the woodland walks offer.

Car park surfaces often uneven and pot-holed, making entry and exit 'problematic at times.

The Byway Open to all Traffic (BOAT) that extends from London Apprentice to the wood is very low priority for Cornwall Highways and is very potholed and doesn't encourage access and then crosses the carpark which causes erosion and maintenance problems

Factors Causing Change

Inappropriate use of wood by horse riders and mountain bikers.

Fly-tipping

Vandalism

Anti-social behaviour in car parks

Heavy canopy shade causing muddy tracks surfaces

Water run-off eroding tracks.

Long term Objective (50 years+)

The Welcoming Site Programme will lead to a series of lasting upgrades that improve the visitor experience and will likely increase the number and range of visitors to the wood. An attractive and serviceable network of tracks and paths through the variety of types of woodland which will provide views and vistas of the local landscape and encourage the appreciation of the woodland both on the site and in the locality. The access will be managed to meet the required high standards of the Welcoming Site Programme and will provide a clear welcome, well maintained car parking, 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 including those constrained by mobility needs or young children in buggies. Paths will also continue to provide more abled bodied visitors with access to the wider and wilder areas of the wood An engagement plan will set out a developed programme of engagement activities and event 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)

Repair and improve surfaces of the car parking facilities, by grading and filling potholes, improving water drainage and re-surfacing as necessary.

Complete access audit, repair, renew and improve entrance gates, associated fencing and install new signage at woodland entrances to meet the required WSP standard

Develop interpretation theme and associated infrastructure promoting use of enhanced access Grade, level, drain and improve track and path surfaces, and renew and repair steps and other infrastructure to enhance the visitor experience at Kings Wood and provide greater levels of accessibility along main tracks and to maintain access along priority circular routes through the wood.

Manage track and path side woodland to create structural diversity, reduce overhang, encroaching growth and shade etc. to help path surfaces dry more quickly and to create lighter and brighter and more attractive access routes.

Work with Cornwall Highways to improve surface of BOAT leading from London Apprentice to Kings Wood so that visitor experience of the wood is not reduced by experience of the journey to it.

Develop engagement plan setting out programme of engagement activity within plan period

6.0 WORK PROGRAMME

Year	Type of Work	Description	Due By
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APPENDIX 1: COMPARTMENT DESCRIPTIONS

Cpt No.	Area (ha)	Main Species	Year	Management Regime	Major Management Constraints	Key Features Present	Designations
1a	16.28	Oak (sessile)	1920	PAWS restoration	No/poor vehicular access within the site	Ancient Woodland Site, Connecting People with woods & trees	Ancient Woodland Site, Area of Outstanding Natural Beauty, Heritage Coast, Other
<p>Sub Cpt 1a AWS (includes original sub cpts a, to k) Area of Kings Wood, named Shepherdshill Wood and occupying the area of woodland north of the BOAT that bisects the property. Designated as PAWS on AWI the woodland varies from almost pure broadleaf high forest to almost pure Conifer high forest. Much of the compartments was felled and restocked with a range of BL and Conifer species in the 1970. Intermittent management appears to have allowed broadleaf coppice and regeneration to recolonize some areas therefore most of the southern and western areas are predominantly mature oak and sweet chestnut high forest with occasional remnant conifers, Western and north-western sections are stocked with predominantly younger beech, sweet chestnut and Norway spruce in a more intimate closed canopy mixture where even the BLs are casting high shade on the woodland floor. Northeast and eastern areas are predominantly almost pure stands of western Hemlock, Noble Fir, Douglas fir and Sitka spruce with fingers of mixed broadleaves and limited regeneration intruding between and around their edges. Occasional very large beech, oak and Sweet chestnut exists within. A central coupe of approximately 0.5ha was clear felled of Pr infected larch in 2010. The compartment is serviced by a stoned management track and a small number of natural surfaced tracks radiating from it.</p>							
2a	2.58	Douglas fir	1960	PAWS restoration	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 Woodland Site, Area of Outstanding Natural Beauty, Heritage Coast, Other
<p>Sub Cpt 2a AWS (includes original sub cpts 2a, b, c and d) Consists of two areas of Douglas Fir with almost full stocking and canopy cover and therefore presenting the greatest threat to remnant ancient woodland communities. Between these is a narrow retention of mixed broadleaved however with shade from the adjacent conifers and a predominance of Sycamore and beech which in themselves casts a high level of shade ground flora and understorey communities are equally sparse throughout. Occasional sweet chestnut coppice stems and holly along with a few naturally regenerating sycamores are present under the Douglas fir. The sub compartment has a moderately steep westerly aspect. Access is not possible in the sub-cpt but the main management track runs along one side and a narrow track cuts through the southern end.</p>							

2b	9.45	Oak (sessile)	1920	High forest	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, Heritage Coast, Other
<p>Sub Cpt 2b ASNW (includes original sub cpts 2e, f and g) Consists of mixed broadleaf woodland on the drier upper valley slopes. The majority is of stored oak and chestnut coppice with maiden trees of both species interspersed throughout and long the upper boundary. Towards the southern end the woodland changes to a more high forest structure however this was badly wind damaged in the 1990 gales and as a consequence contains many crown damaged but standing trees with dense bramble, that has taken advantage of the high light levels, below. Occasional sycamore, beech and oak regeneration is forcing its way through this and will sufficient to help regenerate the woodland structure while the standing trees help to provide deadwood and niche habitats. To the south of this is a narrow strip of woodland, felled during 2010 when the larch became infected with <i>Phytophthora ramorum</i>. As such this area is clear of a mature over-storey other than that provided by 20 mature beech trees but has a good stocking of multi-aged broadleaved regeneration developed during past restoration processed and retained during the felling. The sub-cpt has a steep westerly aspect and is largely inaccessible other than in its southern end.</p>							
2c	14.11	Oak (sessile)	1920	High forest	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 Woodland Site, Area of Outstanding Natural Beauty, Heritage Coast, Other
<p>Sub Cpt 2c AWS Consists of the woodland on the lower edges of the steep valley slopes before they level out into the wet woodland and in many ways have more similarities to 2b, but being is separated from it by the wide management track through the compartment. Predominantly of mature and over-mature maiden oak and Sweet Chestnut with frequent large over-mature holly between. In the 1960s some strips were felled and restocked with larch or <i>Nothofagus</i>. Low management of both resulted in native broadleaves re-establishing amongst to a level where they formed an intimate mixture. As with larch elsewhere across the site, the larch elements were felled due to <i>Phytophthora ramorum</i> infection in 2010. These felled areas are generally quite well stocked with broadleaves but of a much younger age and size range. The main management track runs along its upper (eastern) edge while a naturally surfaced track runs along its lower (western edge) and as the sub-cpt is long but narrow this provides adequate management access.</p>							
3a	10.27	Mixed broadleaves	1960	High forest	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 Woodland Site, Area of Outstanding Natural Beauty, Heritage Coast, Other

Sub compartment 3a (includes original sub cpts 3 a and b) is a large area situated on the lower reaches of Kings Wood standing on the flatter alluvial soils between the bottom of the valley slope and the St Austell river. As such it collects water run-off from the valley and is generally all wet woodland. Soils can be extremely wet and boggy in many areas, but as the land was historically used for tin streaming and has a very uneven form these boggy areas are often interspersed with permanent and ephemeral ponds and streams as well as drier raised areas, banks and ridges. The woodland consists of a diverse range of species - Alder, willow and ash in the wetter areas; Oak, Ash, Sweet chestnut, Birch, Beech and Turkey oak with occasional large hollies on drier areas. . Age ranges between species and location from circa 1850 to 1940 with small coupes of Sitka Spruce and larch the conifer dating from 1960s. Understorey remains occasional with holly and scattered hazel coppice. Ground flora varies according to soil conditions but ranges from flag iris, saxifrages, and wet woodland species, to bryophytes, bluebells, dog's mercury and bramble. At the southern end of the wood there are two silted ponds that used to be used to hold water that was then released to flush silt from Pentewan harbour. As with elsewhere in the wood, in 2010 the area of larch at became infected with *Phytophthora ramorum* and was felled under a statutory plant order. As such this area is clear of a mature over-storey but has a good stocking of multi-aged broadleaved regeneration developed during past restoration processed and retained during the felling

3b	5.84	Oak (sessile)	1920	High forest	Mostly wet ground/exposed site, No/poor vehicular access within the site	Ancient Woodland Site, Connecting People with woods & trees	Ancient Woodland Site, Area of Outstanding Natural Beauty, Heritage Coast, Other
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Sub compartment 3b (includes original sub cpts 3c) is a large area situated on the lower reaches of Kings Wood standing on the flatter alluvial soils between the bottom of the valley slope and the St Austell river. Largely this is the same as 3a however it is not designated as ancient woodland within the AWI and therefore classed as secondary. As such it collects water run-off from the valley and is generally all wet woodland. Soils can be extremely wet and boggy in many areas, but as the land was historically used for tin streaming and has a very uneven form these boggy areas are often interspersed with permanent and ephemeral ponds and streams as well as drier raised areas, banks and ridges. The woodland consists of a diverse range of species - Alder, willow and ash in the wetter areas; Oak, Ash, Sweet chestnut, Birch, Beech and Turkey oak with occasional large hollies on drier areas. Age ranges between species and location from circa 1850 to 1940 with small coupes of Sitka Spruce and larch dating from 1960s. Understorey remains occasional with holly and scattered hazel coppice. Ground flora varies according to soil conditions but ranges from flag iris, saxifrages, and wet woodland species, to bryophytes, bluebells, dog's mercury and bramble. At the southern end of the wood there are two silted ponds that used to be used to hold water that was then released to flush silt from Pentewan harbour. As with elsewhere in the wood, in 2010 the area of larch at became infected with *Phytophthora ramorum* and was felled under a statutory plant order. As such this area is clear of a mature over-storey but has a good stocking of multi-aged broadleaved regeneration developed during past restoration processed and retained during the felling

Appendix 2: Harvesting operations (20 years)

Forecast Year	Cpt	Operation Type	Work Area (ha)	Estimated vol/ha	Estimated total vol.
2018	1a	Thin	3.20	94	300
2018	2a	Thin	1.00	100	100
2020	1a	Thin	4.50	50	225
2021	2b	Thin	9.50	50	475
2022	2c	Thin	9.00	50	450
2023	1a	Thin	5.00	80	400
2023	2a	Thin	2.00	60	120
2023	3a	Thin	10.00	50	500
2024	3b	Thin	6.00	50	300
2025	1a	Thin	4.50	50	225
2028	1a	Thin	5.00	80	400
2028	2a	Thin	2.00	60	120

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.