



Hammond's Copse

Management Plan 2019-2024

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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 Consequently this printed version may quickly become out of date, particularly in relation to the planned work programme and on-going monitoring observations.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:	Hammond's Copse
Location:	Newdigate
Grid reference:	TQ212441, OS 1:50,000 Sheet No. 187
Area:	29.64 hectares (73.24 acres)
Designations:	Ancient Semi Natural Woodland, Green Belt, Planted Ancient Woodland Site

2.0 SITE DESCRIPTION

2.1 Summary Description

Take a walk along well-maintained paths and a waymarked nature trail, and you may spot a sparrowhawk. The pond is home to dragonflies and newts.

2.2 Extended Description

Situated on the northern edge of the Surrey Low Weald and 1.5 miles north of the village of Newdigate in rural southern Surrey, Hammond's Copse (29.65ha) is an integral component in the local mixed landscape of woodlands, livestock and arable agriculture and prominent hedgerows in undulating countryside.

Hammond's Cope was traditionally oak and hazel woodland; however, part of the woodland was converted to Scots and Corsican pine conifers in the 1970s, namely areas of subcompartment 1a, 3a, and 4b (approx. 18ha). These areas are now designated as plantation on ancient woodland sites (PAWS). Almost all of the remaining area (11.5ha) is designated ancient semi-natural woodland according to the Ancient Woodland Inventory. A very small segment (0.15ha) next to Sandpit Cottages is the only non-designated component of the whole woodland.

The soils of Hammond's Copse comprise of slowly permeable, seasonally wet, slightly acidic but mostly base-rich loamy drift over Weald Clay bedrock. Oak is the most common broadleaf in the canopy with frequent birch regenerating into the mid-storey and hazel the dominant feature of the understorey. Ash is extremely rare and beech is absent from site. Bramble, bracken, bluebell, and wood anemone are all common in the ground flora. The soil type, in conjunction with the expressed woodland species on site indicates a National Vegetation Community (NVC) consistent with W10 - Pedunculate oak bracken-bramble woodland.

Hazel is the dominant feature of the shrub layer, though willow, holly, hawthorn, and alder buckthorn - which is an acid loving shrub - are also present in areas. The field layer of this woodland is comprised mainly of a bramble and bluebell community, though a number of other ancient woodland indicator species are also present including dog's mercury, yellow archangel, and primroses. Bracken is locally abundant in some PAWS zones (subcpt 1a and 3a) as well as in recently cut coppice coupes.

This consequent poor drainage of this soilscape and almost flat site can make access and management difficult during wet conditions. A small watercourse has also been partially blocked to create a valuable seasonal pond located centrally, which can swell in wet weather and make the main path to the west of it, waterlogged in sections.

Roe deer are active on site and slowing, though not fully impeding, regeneration of PAWS zones and hazel coppiced coupes. Other animal species include waterfowl species, tawny owls, sparrowhawks, and foxes. Silver-washed fritillary and white admiral butterflies have also been recorded on site.

Hammond's Copse has a good network of well-maintained permissive and public paths and is popular with many of the locals.

There are two public footpaths crossing the site and one surfaced bridleway connecting from the northern entrance off Broad Lane to the eastern entrance between subcpts 1a and 2a. During the spring, visitors are drawn from further afield to admire the bluebell display and the dawn chorus.

There is currently a high level of third party activity at Hammonds with a weekly forest school; volunteer events hosted by the Gatwick Greenspace Partnership (GGP); and autumn/winter coppicing carried out by the Surrey Hedgelaying Society. The GGP volunteers carry out conservation work in the wood over the whole year and have a varied involvement from ride-side coppicing to fence building to culvert maintenance.

3.0 PUBLIC ACCESS INFORMATION

3.1 Getting there

Hammonds Copse is situated approximately 1.5 miles north of the village of Newdigate. The wood can be accessed from two entrances off Broad Lane or by one of five entrances from surrounding rights of way. The southern entrance off Broad Lane has parking for a limited number of cars in the adjacent layby and a pedestrian squeeze gap to access the wood. The northern entrance off Broad Lane has no parking and a wide horse gate leading onto the public bridleway. All the other entrances to the wood, which link to public rights of way have stiles, except the northeastern entrance on the bridleway which has a wide horse gate.

There is a good network of paths to walk throughout the wood. The public bridleway is surfaced east to west with rough stone. All other paths and tracks in the wood are unsurfaced. There are two railway sleeper boardwalks crossing the wet areas of the stream in the east near the boundary of subcpt 2a and 2b and just south of the five-ways junction next to the pond. There are also three foot bridges scattered across ditches and streams in subcpts 1a and 2b. All other waterway crossings are culverted.

The nearest bus-stop is on Parkgate Road next to the Surrey Oaks pub. Parkgate Road joins the southern end of Broad Lane. It is a short walk of 500m to the southern entrance of the wood from the bus-stop, although there are no pavements next to the road and vehicles can drive fast down the road. There are no public toilets close by; the nearest public place would be over five miles away in Crawley or Dorking; however, toilets are available in the Surrey Oaks pub for customers.

For further information about public transport please contact Traveline - www.traveline.org.uk Tel: 0870 6082608

3.2 Access / Walks

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4.0 LONG TERM POLICY

In the long term, the conifers in Hammond's Copse will continue to be gradually thinned until the woodland is predominantly broadleaf species with only a remnant of conifer remaining (<20%). The thinning will be done gradually to prevent a large increase in bracken and bramble which are prone to accelerated growth under more open canopy conditions and have a tendency to smother natural regeneration of the native broadleaved trees and woodland specialist ground flora.

With only the rare ash tree present, the wood is not expected to change from ash dieback. However, the oak trees which make up a high percentage of the broadleaf canopy are suffering from oak decline. Pinpointing the specific cause of the decline on this site would be difficult without more research, but the wet nature of the site is likely a key contributing factor. It may even get worse as climate change brings wetter winters overtime. If a percentage of the oak were to die-off there would be an increase in valuable deadwood habitat for insects, birds, bats, and fungal communities. However, if the rate of this dieback were to occur rapidly, the resulting explosion of bracken and bramble growth coupled with deer grazing pressure is likely to impede the natural regeneration of any replacement species. The condition of the woodland will be monitored regularly and remedial actions will be applied if required. These could include things such as deer management, bracken/bramble control, and/or tree planting if necessary.

As traditionally coppiced hazel woodland, the coppice management of the hazel coupes (subcpt 2a and 2b) will continue to shape some areas of the woodland. The area of worked coupes may be expanded into subcpt 4a if there is enough local volunteer support to sustain the expansion.

The Trust will ensure that the public can enjoy safe and appropriate open access to Hammonds Copse by carrying out regular tree safety inspections in Zone A and B areas; maintaining the entrances and signage; checking that the bridlepath and main footpaths remain safe and unblocked; and cutting back vegetation along the main routes each year. The Trust will also continue to encourage the involvement of the local community in the wood via coppice management, outdoor volunteering, forest schools, and other gentle recreational activities.

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

All but a small area (0.15ha) next to the houses along the western boundary of Hammond's Copse is designated as either ancient semi-natural woodland (ASNW) or plantation on ancient woodland sites (PAWS). The woodland structure is varied with 1970s Corsican and Scots pine conifer plantation, broadleaf high forest dating from approximately 1940s, hazel coppice with oak standards dating from circa 1900, much older mature oak trees along external boundaries, and a large open water pond in the centre of the site.

Most of the designated ASNW areas are mainly oak canopy with birch, field maple, hazel, hawthorn and holly. However, near to the southern boundary of the site is a community of the ancient woodland indicator, wild service tree. Other interesting tree features include some gnarly coppice stools of oak and field maple scattered throughout the conifer plantations, a couple of old yews on the field boundaries, and communities of aspen and alder along the streambanks.

There are four separate PAWS zones containing 1970s Corsican and Scots pine, all in various state of restoration across the site. Specialist woodland flora that are particularly indicative of ancient woodland, such as bluebell and yellow archangel, are still present under the majority of the exotic conifer tree planting. The PAWS zones in the north (subcpt 1a and 3a) retain over 50% conifer canopy and further removal will be required to advance the ancient woodland restoration in the future. However, competition from bramble and bracken is particularly vigorous on this site and so thinning before the canopy has sufficiently closed in to shade out the undesirable weeds poses the greatest threat to the ancient woodland remnants within those areas. The two zones in subcpt 4b are considered secure under current conditions, with proportions of conifers just over 20% composition of the canopy and a good showing of ancient woodland indicators in the ground flora including bluebell, primroses, and wood anemone.

Archaeological structures are visible along the boundaries and whilst still present internally, are often more difficult to spot due to bramble growth. These archaeological features which include woodbanks, veteran coppice stools and a historic hollow way (subcpt 3a) illustrate historic management and compartmentalisation of Hammonds Copse. An archaeological report commissioned in 2002 suggests that the external boundaries of the wood have not changed since at least the mid-19th century, but clues from the surrounding fields indicate the woodland was once much larger than it is today.

Large areas of Hammond's Copse were traditionally managed as hazel coppice with oak standards. This is evidenced by the quantity of viable stools which were worked in the distant past and are still worked now in the present day. Specifically all of subcpt 2a and the western corner of subcpt 2b are managed on a 7-year coppice rotation by the local craftsmen of the Surrey Hedgelaying Society. There are further areas of unmanaged hazel coppice in subcpt 4a.

Deer grazing is a limiting factor for regeneration. Whilst it is not fully prohibiting the regrowth in recently worked areas (i.e. coppice coupes and PAWS zones), it is slowing it down. This is not a new constraint as deer fencing had been used around recently coppiced coupes up until approximately 10 years ago. There is also evidence of old deer exclosures which have long since started to fall apart but there is a visible difference between the vegetation inside the remnant of the exclosures and outside them.

The pond in the centre of the site provides an interesting habitat feature. It was created decades ago by damming up a stream that flows west to east through the site. The water level fluctuates and in drier summers, the area of open water falls drastically. The area around the pond has a high proportion of willows and other hydrophilic vegetation. However, the surrounding vegetation has grown thick in recent years, so that it could be easy to miss the pond if not looking for it.

There are a limited number of ash on site and so the onset of ash dieback is not expected to have an impact on the structure or health of this woodland. However, there is a high proportion of oak trees which seem to be suffering and experiencing chronic oak decline (COD). The forecast is that Britain will see a decline in oak health and oak numbers overall. This may have a drastic effect on the woodland structure of Hammond's Copse over the long-term.

Significance

The restoration of plantations on ancient woodland sites (PAWS) is a core area of Woodland Trust work. The gradual removal of conifers will remove a significant threat to the survival of the ancient woodland components.

The amount of ASNW left in Britain has been drastically reduced over the last century. Approximately 40% of England's ASNW is found in the South East. ASNW is very important due to the continuity of woodland cover over hundreds of years which allows for a diverse range of wildlife and vegetation to develop over time that cannot be found in new woodland creation sites.

The hazel coppice with oak standards provides an excellent example of one of the oldest systems of woodland management in England and Hammond's Copse is still popular with local craftsman for practicing the traditional craft of hedgelaying.

Opportunities & Constraints

Opportunities

- Expand the area worked by hazel coppicing into areas not worked for a very long time (subcpt 4a).

Constraints

- The degree of coarse vegetation growth is a constraint to the on-going restoration of PAWS zones. The bramble and bracken overgrowth threaten the survival and development of specialist woodland flora and regeneration of native broadleaves in parts of the wood.

- The wet nature of the site can make access and some compartments difficult to work.

- Past timber felled to waste may make some compartments difficult to extract the timber.

Factors Causing Change

- Natural regeneration within the PAWS zones changing the component structure towards a higher percentage of broadleaf species.
- Spread of coarse species such as bramble and bracken outcompeting woodland specialist species.
- Pest/diseases/environmental factors resulting in loss or damage to trees. Oak decline is likely to have an impact on the health/population of oak trees at Hammond's Copse.
- Climate change - greater increase in extreme events has the potential to cause woodland restructuring (i.e. windblow during storm events or extensive waterlogging during wetter seasons).
- Damage to tree regeneration and coppice regrowth from deer browsing.

Long term Objective (50 years+)

The restoration of PAWS is a key objective of the Woodland Trust's work strategy. Within the long term (50 years' +) the PAWS areas within Hammond's Copse will all be predominantly broadleaved in character with less than a 20% conifer component. All ancient woodland components, such as specialist woodland flora, ancient trees, deadwood and archaeological features will be rated as restored or secure and any threats to their survival such as competition from coarse vegetation such as bracken and bramble will have been removed or significantly reduced. The resulting mixed stands of high forest will be managed on a continuous cover silvicultural system to produce uneven-aged, self-regenerating stands of high conservation and amenity value. The hazel coppice coupes will continue to be managed on rotation and other semi-natural woodland areas will be managed by minimum intervention and allowed to develop through natural processes such as canopy collapse followed by natural regeneration. As a result, there will be an increasing volume of coarse woody debris (standing and fallen) throughout the site. The programme of ride management will develop a network of rides throughout the wood, supporting a diverse herb and grassland community rich in invertebrate interest and providing connectivity for wildlife to move through the wood. The deer impact on site will be such that it is not impeding the regeneration of recently worked PAWS areas, coppice coupes and ride edges.

Pests, diseases, and environmental factors are likely to have an impact on the population of oak trees on site, causing oak numbers to decline. This is likely to increase the level of standing deadwood on site and increase the available roosting habitat for bat species. It may also lead to an increase in the proportion of birch and aspen on site. However, annual monitoring will track the state of trees on site and if any remedial actions are required, they will be introduced to protect the overall biodiversity of the woodland.

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

This plan period will have a management regime aimed at on-going PAWS restoration, traditional coppice management, and ride management. This will be achieved by:

- Carry out mid-summer survey of state of bramble and bracken in PAWS zones 1 and 2 in 2020 to determine appropriate year to conduct conifer extraction.
- By 2024, thin out up to 30% of conifers in PAWS Zone 1 and 2.
- Coppice up to 1.85ha of existing hazel coppice coupes in subcpt 2a and 2b by 2024. Trial one new coppice coupe in the overgrown areas of subcpt 4a. If achievable with the help of volunteers and adequate regrowth observed, expand area of hazel coppice rotation into 4a.
- Cutback willow to open up view to pond from the bench in subcpt 3a in winter 2019/2020.
- Carry out 550m of ride management (over three separate rides) in subcpts 3a and 4a.
- Remove remnants of old deer exclosures by 2021.

5.2 Connecting People with woods & trees

Description

Hammonds Copse is a 30ha (73 acres) PAWS woodland part of the Welcome Sites Programme (WSP). The WSP is a Woodland Trust initiative which aims to improve recreation and access provision at our key sites. The WSP 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 site. An attractive and serviceable network of tracks and paths will further encourage the appreciation of the woodland. The site will be managed to meet the required high standards of WSP and will provide a clear welcome: well-maintained entrances, furniture, signs and other infrastructure as well as sustainable path and track surfaces across the variable ground conditions where appropriate. Improved access will better facilitate use by a wider range of visitors. An engagement plan will set out a plan for engagement activities, further enhancing public visits to the site.

Hammond's Copse offers a quality visitor experience in line with its Woodland Trust category A access designation (high usage with more than 20 people using one entrance per day). The site is open to the public for quiet informal recreation. There are seven entrances to the site in total - two off of Broad Lane and another five from surrounding rights of way. There are information boards at the two main entrances off Broad Lane and welcome signage at the other entrances, installed in 2019. Two public footpaths (nos. 293 & 295) cross the site and a good network of permissive paths are maintained throughout. The public bridleway through Hammond's Copse is also a popular cut through for horse riders connecting from Broad Lane to public bridleway (no. 433) in the east.

Hammond's Copse is located in the Mole Valley District Council area of the County of Surrey. Much of the surrounding area is agricultural except for a development of country residential homes immediately west of the site between Broad Lane and Mill Lane. The nearest village is Newdigate, Surrey approximately 1.5 miles southwest of the site with a population just under 2000. The larger town of Dorking is 6 miles north and Crawley is 9 miles south -totalling nearly 200,000 people within 10 miles. The nearest schools are located in Newdigate, including two primary schools. There are a further four primary schools within a 2 mile radius of the site, and one private school up to Year 11.

As a more rural site, most visitors will travel to site by vehicle. Limited off-street parking is available for 4-5 cars at the southern entrance off Broad Lane. However, the site is also connected to the nearest urban centre by public transport. The nearest bus stop is next to the main southern entrance off Broad Lane, serviced by the number 522 from Dorking. Another bus stop located ½ mile away, next to the Surrey Oaks pub on Parkgate Rd is serviced by the number 21. The walking route from this stop to the entrance to the woods is not paved and the road can be busy with fast moving cars.

It's a popular woodland with local dog walkers and during the spring, visitors from further afield come to enjoy the bluebell displays and the dawn chorus. Other regular activities on site include winter hazel coppicing carried out by the local hedgelaying society, and approximately five volunteer events annually hosted by the Gatwick Greenspace Partnership. Apart from the third party volunteer opportunities, the site also has one volunteer warden to act as the eyes and ears for the Woodland Trust on site.

A further three Woodland Trust ancient woodland sites are located within 3 miles, including Ricketts Woods, Edolphs Copse, and the SSSI site, Glovers Wood.

Significance Copse provides open access to a significant area of accessible, natural greenspace and is a valued, local woodland for people living nearby. The current high level of site usage for activities and volunteering mean that Hammonds Copse is a very important site for local people to become involved and understand about ancient woodland habitat, PAWS restoration, and conservation. The diversity of habitat types (conifer woodland, hazel coppice, mixed broadleaf ancient woodland, and large central pond) makes Hammond's Copse a particularly valuable site for people to enjoy a varied experience whilst on site.

Opportunities & Constraints

Opportunities

- Scope to improve waymarking on site;
- Work with the council to replace worn out stiles at public footpath entrance points;
- There is potential to host legacy events at Hammond's Copse
- Higher usage of the site during the bluebell displays in the Spring could present a seasonal opportunity for the membership development team.

Constraints

- Some paths can be very wet during the winter and early spring; and
- Horse trespass off the main bridleway has been a problem in the past and barriers across the paths off of the bridleway are needed to continue to prohibit horse access.

Factors Causing Change

- Footpath creep due to wet, muddy conditions
- Desire line altering paths and creating new routes

Long term Objective (50 years+)

Hammond's Copse will continue to offer a quality visitor experience in line with a WT category A Welcoming Site Programme access designation. Free and open access will continue to provide the local communities and surrounding area with a well-maintained site with walking paths and entrance infrastructure. Information boards, waymark signs, and suitably placed benches will provide a welcoming atmosphere to visitors. The Woodland Trust will continue to support local community engagement including volunteer opportunities to help care for the wood and forest schools enquiries.

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

During this plan period, the objective is to provide a quality experience for visitors which is safe and enjoyable.

- Approximately 4km of paths and entrance points will be maintained to allow continued access across the site. This will include annual stumping of paths and ride edges and cleaning/repairing entrance signage and infrastructure as required at the six external entrances plus the four internal access points that separate the bridleway from the rest of the site.
- Reinforce the rotting birch barriers used along the southern edge of the bridle path with new timbers in 2019 to prevent horses going off bridleway into other parts of the wood.
- Remove remaining old waymarker posts where several have already rotted away or disappeared within plan period. Install new maps at main entrances and replace signage at all entrance points in 2019.
- Regular tree safety inspections - annually for Zone A and every 2 years for Zone B. Follow up tree safety work will be carried out as needed.
- Ensure continued support of the Gatwick Greenspace Partnership volunteer group through meeting with them at least once a year and agreeing a yearly work programme. Continue to work with the Surrey Hedgelaying Group in carrying out coppice management.

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	4.64	Corsican pine	1972	PAWS restoration	Mostly wet ground/exposed site	Connecting People with woods & trees	Green Belt, Planted Ancient Woodland Site
<p>A maturing stand of Corsican pine planted in the 1970s. The stand was selectively thinned in 2002 and 2011. Bluebells still carpet the woodland floor with some wild honeysuckle but bramble and bracken overgrowth threaten the ancient woodland remnants of this subcompartment. Mixed broadleaf regeneration is rare beneath the conifers but has formed established strips along the stand edges. The broadleaves include hazel coppice, birch, beech, oak, wild cherry, aspen, willow, field maple and hornbeam. The understorey comprises occasional hazel, elder and hawthorn. Public bridleway 433 forms the southern boundary.</p>							
2a	3.60	Mixed native broadleaves	1988	Coppice	Mostly wet ground/exposed site	Connecting People with woods & trees	Ancient Semi Natural Woodland, Green Belt
<p>Hazel coppice with oak standards cut on a 7 year rotation by volunteers. Overstorey of oak standards, with some specimens suffering from oak decline. The ground flora consists of bluebell carpets and primroses. Bracken is present though not dominant. The compartment is bounded by an earthbank to the east and a seasonal stream to the south.</p>							
2b	1.04	Mixed native broadleaves	1900	High forest		Connecting People with woods & trees	Ancient Semi Natural Woodland, Green Belt
<p>Oak high forest dating from around 1900 with a scattered hazel understorey, parts of which were last coppiced around 1996. Birch of natural regeneration origin from the 1940s is more dominant in the west. Aspen and alder are more dominant along the southern streamside edge. Ground flora includes bluebell carpets, honeysuckle, bracken and stitchwort.</p>							
3a	7.75	Corsican pine	1976	PAWS restoration		Connecting People with woods & trees	Green Belt, Planted Ancient Woodland Site
<p>A plantation from 1976 of intimately mixed Scots and Corsican pine. Conifers had been thinned by volunteers prior to 2005 allowing growth of mixed broadleaf species namely oak, birch, hazel, hawthorn and aspen all of which would have been established around the same time as the pine. There is the occasional mature oak standard and the understorey includes a small proportion of oak, hawthorn and hazel regeneration. Ground flora contains bracken, bluebell and some foxglove, which has emerged following thinning. Public footpath 295 traverses this compartment.</p>							

4a	4.93	Mixed native broadleaves	1940	High forest	Mostly wet ground/exposed site	Connecting People with woods & trees	Ancient Semi Natural Woodland, Green Belt
<p>A stand of mixed broadleaves principally oak, with aspen, hazel, holly, blackthorn, elder and ash. Bracken, discontinuous bluebell carpets, nettle, bramble, honeysuckle, primroses, and dogs mercury all make up the ground flora which is very diverse. Public bridleway 433 traverses this compartment in the north.</p>							
4b	7.79	Mixed native broadleaves	1940	High forest		Connecting People with woods & trees	Ancient Semi Natural Woodland, Green Belt
<p>A stand of mixed woodland containing remnants of Scots/Corsican pine plantation from 1979 interspersed with mixed broadleaves of a similar age and some larger semi-mature oaks from the 1940s. The broadleaves, many of which are of coppice origin from the time of replanting, include birch, aspen, oak, holly and field maple. There are clumps of wild service trees along the southern boundary and scattered mature oaks along the western boundary. The understorey is patchy and dominated by birch regeneration in the north, but good diversity overall, including hazel, hawthorn, alder buckthorn, holly, and willow. Ground flora contains small areas dominated by bramble or bracken, but ancient woodland indicator species such as bluebell are also abundant. There is sufficient deadwood from the pines felled to waste by volunteers prior to 2005. Public footpath 293 traverses the compartment and footpath 295 forms the western boundary.</p>							

Appendix 2: Harvesting operations (20 years)

Forecast Year	Cpt	Operation Type	Work Area (ha)	Estimated vol/ha	Estimated total vol.
2019	2a	Coppice	0.40	13	5
2020	2a	Coppice	0.40	13	5
2020	3a	Ride edge Coppice	0.25	8	2
2020	3a	Ride edge Coppice	0.36	7	2.5
2021	2a	Coppice	0.40	13	5
2021	3a	Ride edge Coppice	0.32	6	2
2022	1a	Thin	3.75	40	150
2022	2a	Coppice	0.40	13	5
2022	3a	Thin	6.00	30	180
2023	2b	Coppice	0.40	13	5
2024	2a	Coppice	0.40	13	5
2025	2a	Coppice	0.40	13	5
2026	2a	Coppice	0.40	13	5
2027	1a	Thin	3.75	40	150
2027	2a	Coppice	0.40	13	5
2027	3a	Thin	6.00	29	175
2028	2a	Coppice	0.40	13	5
2029	2a	Coppice	0.40	13	5
2030	2a	Coppice	0.40	13	5

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.