



WOODLAND
TRUST

Marden Park

Management Plan

2011-2016

MANAGEMENT PLAN - CONTENTS PAGE

ITEM	Page No.
Introduction	
Plan review and updating	
Woodland Management Approach	
Summary	
1.0 Site details	
2.0 Site description	
2.1 Summary Description	
2.2 Extended Description	
3.0 Public access information	
3.1 Getting there	
3.2 Access / Walks	
4.0 Long term policy	
5.0 Key Features	
5.1 Semi Natural Open Ground Habitat	
5.2 Ancient Semi Natural Woodland	
5.3 Connecting People with woods & trees	
5.4 Secondary Woodland	
6.0 Work Programme	
Appendix 1: Compartment descriptions	
Glossary	
MAPS	
Access	
Conservation Features	
Management	

THE WOODLAND TRUST

INTRODUCTION

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

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

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

PLAN REVIEW AND UPDATING

The information presented in this Management plan is held in a database which is continuously being amended and updated on our website. Consequently this printed version may quickly become out of date, particularly in relation to the planned work programme and on-going monitoring observations. Please either consult The Woodland Trust website 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:	Marden Park
Location:	Woldingham
Grid reference:	TQ369539, OS 1:50,000 Sheet No. 187
Area:	67.77 hectares (167.46 acres)
Designations:	Ancient Semi Natural Woodland, Area of Outstanding Natural Beauty, Green Belt, Site of Special Scientific Interest

2.0 SITE DESCRIPTION

2.1 Summary Description

This mosaic of ancient broadleaf woodland, newer planting and rare chalk grassland sits high on the beautiful North Downs of East Surrey. Its stunning spring flowers, amazing variety of colourful butterflies in summer and rich autumn hues make the wood a wonderful place to visit throughout the year.

2.2 Extended Description

Marden Park was acquired by The Woodland Trust in 1994 and Great Church Wood in 1986, but are now managed as one unit. Together they form the largest Trust property in Surrey, extending to some 67.3 hectares (155 acres). They are situated at relatively high elevation on the narrow plateau and dip slopes of the North Downs within Green Belt and The Surrey Hills AONB. All the land owned by the Woodland Trust is open to the public and incorporated within the Woldingham and Oxted Downs Site of Special Scientific Interest for chalk downland. A deep railway tunnel lies beneath the site, separating compartments 2 and 3, and an easement over this is owned by Railtrack.

Marden Park and Great Church Woods are predominantly broadleaf woodland with numerous veteran beech trees and secondary ash woodland. The woodlands vary greatly in character ranging from ancient semi natural woodlands covering some 16.2 hectares which includes all of Great Church Wood, large expanses of secondary woodland at various stages of development and three areas of recently restored chalk grassland amounting to 2 hectares.

A group of enthusiastic volunteers undertake regular practical tasks throughout the year and report problems. Marden Park and Great Church are very popular with members of the public and there is access between the geographically separated compartments of Marden Park via a permissive path.

3.0 PUBLIC ACCESS INFORMATION

3.1 Getting there

By bus: The 540 bus service from Caterham to Woldingham station is operated by Buses 4U (01883 732791) and runs three times a day, Monday to Friday only.

By train: Woldingham railway station is about one mile (1.7km) from the site. Turn right out of the station and walk along Church Road to the Great Church part of the woods. There is a kissing gate entrance on the right side of the road. There is also a public footpath starting from a minor road that runs from the south-west of the station.

For up-to-date information on public transport, visit traveline.org.uk (0871 200 22 33 - calls cost 12p per minute), or the Sussex County Council website at surreycc.gov.uk/roads-and-transport/buses-and-trains.

By car: Marden Park Wood is close to the village of Woldingham in Surrey. The main access point is the car park off Gangers Hill, south of the village.

From the M25, exit at Junction 6, following the A22 southbound, then the A25 westbound. This will bring you to Flower Lane, which runs into Gangers Hill.

From Woldingham, take the Northdown Road, which runs south from Station Road (the road that runs through the village centre). Follow Northdown Road for 0.8 miles. At the end of the road, turn right onto Gangers Hill and drive for 0.6 miles. The main entrance is on the right-hand side.

3.2 Access / Walks

The site has an extensive network totalling almost seven miles (11km) of maintained footpaths. The wood's two sections (east and west) are separated by Chaldon Farm but connected by common land and a permissive path. The North Downs Way and the six-mile (10 km) waymarked Woldingham Countryside Walk both run through the site.

Apart from the stone-surfaced bridleways, all paths are unsurfaced, and there are some steep slopes, especially on the minor paths. Five entrances have interpretation boards.

Access points:

The main access point is via a wide gate from the car park off Gangers Hill (to the south of Woldingham). This leads in to the larger eastern part of the woods. There is a stone surfaced public bridleway running north, and another surfaced permissive bridleway to the left of this. Some short sections of path from the main car park may be suitable for scooter users, but are not suitable for wheelchair access.

Other access points to the eastern section:

- the north end of the public bridleway which leads from the school
- the end of Church Road from St Agatha's Church (kissing gate)
- two wide horse gates off Gangers Hill (one of which links to a public footpath)
- pedestrian entrance at the north end, via a footpath (stile)
- pedestrian entrance off Gangers Hill, via a footpath.

Access points to the western section:

- a main entrance off Gangers Hill
- a smaller entrance off Gangers Hill, which links to the North Downs Way
- another entrance on the north-west side of the wood, also linking to the North Downs Way.

There are no surfaced paths through the western section of the woods and access is by either kissing gate or through a narrow gap.

Volunteer work in the wood

A group of enthusiastic volunteers undertake regular practical tasks throughout the year, including woodland thinning, coppicing of hazel, and clearing scrub.

4.0 LONG TERM POLICY

In the long term, our ancient semi-natural woods will be allowed to develop naturally, unless there is a need to maintain habitat continuity for species that are wholly reliant on it, where they survive. Our semi-natural recent-secondary woodland, which includes all new native woodland, is also allowed to develop naturally. The woodland will eventually become dominated by ash, but will also have accumulated large amounts of deadwood.

The lives of the veteran beech trees will be extended as much as possible, where safe to do so, by ensuring that the canopies of younger adjacent trees are not competing for light and overtopping

The chalk grassland meadow will be managed through a sustainable method of carefully timed sheep and goat grazing that keeps scrub down to a manageable level and encourages a wide diversity of flourishing chalk grassland wildflowers. Where practical to do so the areas of open ground will be linked and managed as one unit using grazing animals, if this remains sustainable. The grassland will be managed to prevent its loss and the surrounding woodland will be managed to create a graded structure to enhance their wildlife value.

The Trust will ensure that the public can enjoy good and appropriate open access to Marden Park by maintaining the numerous entrances and fencing, checking that the main paths remain safe and unblocked and cutting back vegetation along the main paths each year. The Trust's regular inspections, including routine tree safety inspections will continue.

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 Semi Natural Open Ground Habitat

Description

There are three areas of species rich chalk grassland at Marden Park, extending to some 2 hectares. The chalk grassland areas support some 25 species of butterfly, including the marbled white; and flora of note includes orchids such as bee orchid, greater butterfly orchid and abundant twayblade. The largest of the chalk grassland areas (compartment 5) has been stock fenced and is currently grazed on an annual basis with sheep and goats.

Significance

Chalk grassland is a key habitat listed in the UK Biodiversity Action Plan. Chalk grassland supports an extremely diverse and unique range of plant and invertebrate species and is one of the richest habitats found in the UK. Only 325 hectares or 3% of the chalk grassland resource in the SE remain in Surrey. What is left is often highly fragmented and much is still open to destruction through neglect.

Besides its biological importance chalk grassland is also an important landscape feature as well as of cultural and historical importance

Opportunities & Constraints

Constraints

Yearly cost of maintenance to prevent succession to woodland and to maintain species diversity through grazing. Both grazing and scrub control are cost items for the site

Opportunities

Coppicing and thinning work on the edges of the grassland areas and along adjoining paths could be used to create links between the six areas of grassland and to improve the woodland edge habitat. This will allow seed dispersal and facilitate invertebrate movement through the open space network

Excellent opportunity for education of visitors to the site about this unique type of habitat

Factors Causing Change

Natural succession To secondary native woodland

Long term Objective (50 years+)

The chalk grassland meadow will be managed through a sustainable method of grazing that keeps scrub down to a manageable level and encourages a wide diversity of flourishing chalk grassland wildflowers. The open grassland in compartment 5a will be linked to the areas in 3a where possible and the edges will be managed with a graded structure.

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

Improve the effectiveness of the grazing management agreement through timings, type of animal (sheep and/or goats) and number of grazing animals to achieve 70%/30% grassland/scrub in compartment 5 by 2014. A regular grazing schedule for early winter and early spring grazing should be put in place.

The area will be extended into compartment 3a to combine with an existing chalk grassland area by 2016. This will increase the size of compartment 5a to approximately 2.5Ha.

10% - 30% of woodland area managed as permanent or rotational open space. This will be the majority of the paths and wide rides within the wood that are cut as part of the public access management

5.2 Ancient Semi Natural Woodland

Description

All of Great Church Wood (compartment 1) and much of compartment 3 are designated as ancient semi-natural woodland. There are additional areas, particularly in compartment 4 which, although not officially designated, have extensive carpets of specialist woodland ground flora such as bluebell and dogs mercury plus coppiced and pollarded trees of a great age.

There is a wide variety of tree, shrub and ground flora species many characteristically associated with the calcareous, rendzina soils derived from the underlying chalk bedrock. These include beech, whitebeam, yew, field maple, lime, hornbeam, ash, wayfaring tree and dogs mercury.

Ancient beech trees are scattered all over the wood, with some of the greatest concentration in compartment 3.

Significance

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. In a heavily wooded area where woodland has become fragmented larger areas of woodland are able to withstand external pressures such as climate change much better. Ancient woodland is irreplaceable and the prevention of its loss is one of the main aims of the Trust.

Opportunities & Constraints

Opportunities

Retaining the ancient beech trees as long-term retentions will preserve them into the future as important landscape and wildlife features

Opportunity for educating visitors on the importance of ASNW.

Factors Causing Change

Squirrel Damage, Deer Damage

Long term Objective (50 years+)

High forest woodland maintaining a good diversity of native species and tree ages, with understory of native shrubs and young trees. Good deadwood habitat present through standing and fallen dead trees and ancient living trees. Ground flora should continue to contain specialist woodland plants, indicative of ancient woodland, including bluebell.

Veteran trees will be retained and next generation veterans encouraged through the minimum intervention policy, which will lead to species like ash and beech becoming veterans within 50-100 years.

At least 95% of cover in any one layer of site-native or acceptable naturalised species.

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

Manage the main body of the ancient woodland through minimum intervention during this plan period, retaining ancient beech trees to biological maturity (unless they pose a tree safety risk).

Coppicing areas of hazel coppice along the rides in compartment 1a will continue, to an area of approximately 0.5Ha over the plan period. Area will be continually assessed for deer browsing damage and work re-evaluated if deer pressure is too great

5.3 Connecting People with woods & trees

Description

Marden Park is part of the Welcoming Sites Programme (WSP), which aims to improve the visitor experience to this site. 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 the wood. An attractive and serviceable network of tracks and paths will further encourage the appreciation of the woodland both on the site and in the locality. The site will be managed to meet the required high standards of WSP and will provide a clear welcome: well-maintained car park, 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.

Marden Park is part of the North Downs and is located next to Woldingham (pop 2,100), an affluent village in Surrey. The wood is situated just off the M25 and is surrounded by a number of villages and towns including Oxted (pop 11,000) and Caterham (pop 21,000), and has an access A category designation (high usage with more than 20 people using one entrance per day). The whole site is open to the public for quiet informal recreation, with nearly 11km of footpaths to explore. There is a main car-park on Gangers Hill which can hold up to 12 vehicles, and several parking lay-bys along the road. There is a dedicated public bridleway, two public footpaths including part of the North Downs Way and a permissive bridleway, allowing horse riders an off-road route beside Gangers Hill. There is a waymarked trail, The Woldingham Countryside Walk, and four interpretation boards at the main entrances to the site, situated at the car park, the entrance close to Gangers Hill and Tandridge Hill Lane junction, southern stretch of Gangers Hill and the entrance off Church Road. Although close to urban populations, the site is in a rural area and access is via a single track lane.

There are no current visitor numbers available, but the woodland and car park are generally used throughout the day. Visitors are primarily dog walkers, but the wood also appeals to young and older families.

The site is adjacent to private girls' school Woldingham School and to a riding school. There are also a large number of nursery, prep and primary schools in the local area.

An established volunteer group carry out practical tasks once per month through the winter, which includes coppicing and keeping paths open. Between 10 and 15 people usually attend the volunteer task days.

There are several Woodland Trust sites within a 25km radius of Marden Park, but none in its immediate vicinity.

As the site sits within the North Downs, and the North Downs Way passes through it, this presents opportunities for promoting the woodland to hikers and ramblers, and for cross promotion of the site via relevant organisations and websites.

Significance

Marden Park and Great Church Woods provide an extensive area for quiet, informal recreation in an area of high scenic value which is appreciated by many pedestrian and equestrian visitors alike.

Marden Park's proximity (25km) to Langley Vale Wood (LVW) (the SE's largest and highest profile wood as a First World War Centenary Site and planned Destination Site) means that large scale events at LVW will also target communities local to Marden Park. In the short-to-medium term, engagement activities will focus on LVW to make best use of WT resources, however this will be reviewed with each Management Plan review.

Marden Park's location within the M25, within 30km of London and surrounded by towns and villages presents potential opportunities for activity in the site that ties in with the Woodland Trust's Urban agenda and urban campaigns.

Opportunities & Constraints

Constraints

The on-going cost of maintaining all public and permissive paths to a safe condition; including tree surgery, repair of structures, cutting back vegetation and fallen trees

Horse rider encroachment off the permissive bridleway in compartment 3 is a problem and needs addressing

Opportunities

Educating the many users of the wood about how woodlands are managed by putting up informative signs whenever operations and grazing are happening, to explain the reason for management.

Potential for activities linked to WT's Urban programme

Factors Causing Change

An increase in visitor numbers could cause a detrimental impact on the wood. A recent increase in bike use and anti-social behaviour in the wood could worsen. Marden Park is popular with dog walkers and dog walking companies - if this was to increase significantly it could have a detrimental effect on the visitor experience.

Long term Objective (50 years+)

Marden Park woods should continue to offer a high quality visitor experience in line with a category A access designation. The woodland will provide an extensive area of quiet informal recreation to a wide range of users both from the local community and from further afield. The use of the site by visitors will be promoted through positive relationships with neighbouring tourist destination sites, with good signage and interpretation.

Entrances and signage will have a welcoming appearance and there will be a network of well-maintained paths providing a range of routes suitable for walkers with viewpoints over a range of varied habitat types, integrated with active woodland management and wherever possible linking to the surrounding path network. Interpretation and waymarking that is fully integrated with and/or complements existing routes will provide visitors with information on routes and points of interest.

Horse riding routes should be clear and well signed. The local volunteer group should continue to be an important element in helping to manage the woods.

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

Access provision will be in keeping with WT access guidelines, achieved by ensuring that:

Maintain free and open public access through a well maintained network of paths, entrances and signs. Entrances & signage are welcoming to visitors and well cared for (annual inspection).

All managed paths are kept well-drained and free from encroaching vegetation by strimming, and that access features (e.g. bridges, steps, entrances, boundary features, etc. are kept in good order (annual inspection) - a 3m path cut twice per year on all major footpaths and 2m either side of the bridle paths twice per year.

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

Annual inspections to ensure access provision is sufficient and that the access category is appropriate.

Tree safety inspections to be carried out at least once every 18 months on Zone A - to include one autumn and one summer inspection every 3 years. Zone B inspections to be carried out every 36 months.

Arboriculture work to be carried out as appropriate

Resurfaced car park and updated signage to create more welcoming area for visitors.

Ensure continued support for the local volunteer group through meeting with them at least twice a year and agreeing a yearly work programme.

5.4 Secondary Woodland

Description

At least half of Marden Park is comprised of secondary woodland. Lower elevations are dominated by dense hawthorn scrub with emergent ash. This gradually merges into ash dominated high forest at the higher elevations. Scattered ancient beech trees can be found in compartments 3 and 4, with tree species including whitebeam, field maple and hazel found throughout. Ground flora contains specialist woodland plants including wild garlic, bluebell and dogs mercury.

Significance

The stands of secondary woodland are important because they are largely native woodland. Large areas have developed naturally from scrub and the composition and structure is therefore very natural and likely to support a good diversity of wildlife. The secondary woodland contains features normally to be found in ancient woodland, such as ancient trees and large areas of bluebells.

Opportunities & Constraints

Opportunity

To allow natural woodland to develop

Factors Causing Change

Squirrel damage, Deer damage

Long term Objective (50 years+)

The secondary woodland will be managed as high forest, containing largely native species. The healthy understory and drifts of specialist woodland flora will be maintained, along with the large ancient beech trees. Young secondary woodland will succeed to high forest with minimum intervention.

Veteran trees will be retained and next generation veterans encouraged through the minimum intervention policy, which will lead to species like ash and beech becoming veterans within 50-100 years.

At least 95% of cover in any one layer of site-native or acceptable naturalised species.

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

Manage the main body of the secondary woodland through minimum intervention during this plan period, retaining ancient beech trees to biological maturity (unless they pose a tree safety risk).

6.0 WORK PROGRAMME

Year	Type of Work	Description	Due By
------	--------------	-------------	--------

APPENDIX 1: COMPARTMENT DESCRIPTIONS

Cpt No.	Area (ha)	Main Species	Year	Management Regime	Major Management Constraints	Key Features Present	Designations
1a	5.02	Ash	1970	Coppice	Very steep slope/cliff/quarry/mine shafts/sink holes etc	Connecting People with woods & trees	Ancient Semi Natural Woodland, Area of Outstanding Natural Beauty, Green Belt, Site of Special Scientific Interest
<p>This compartment is known as Great Church Wood. Mixed broadleaves including ash, field maple, oak, whitebeam and wild cherry dating largely from two periods; the 1930's and 1970's. Individual specimen beech and yew also occur. Ash is dominant in the canopy and hazel coppice predominates in the understory, complemented by frequent hawthorn and blackthorn. Oak occurs more commonly in the north. The ground flora reflects the ancient woodland designation and contains dense bluebell carpets, dog's mercury and occasional herb paris. Bracken, bramble and clematis are abundant wherever the canopy is open.</p>							
2b	9.96	Hawthorn species	1960	Min-intervention	Housing/infrastructure, structures & water features on or adjacent to site, Very steep slope/cliff/quarry/mine shafts/sink holes etc	Connecting People with woods & trees	Area of Outstanding Natural Beauty, Green Belt, Site of Special Scientific Interest
<p>This compartment is dominated by ash to the east, with a greater coverage of blackthorn and hawthorn mixed with the ash in the west. There are occasional birch, whitebeam, beech, yew, field maple, lime and elm. The understory is mainly blackthorn, dogwood, elder, privet, clematis and hazel. There are mature beech at and just to the north of Ganger's Hill car park. There are extensive carpets of mosses under the denser hawthorn and dogs mercury in particular is frequent throughout, especially in the more open areas to the west. Other understory species include bramble, clematis, elder, holly and ground ivy. There is an air vent for the railway tunnel (cylinder structure) owned by Railtrack, to the SW edge and Ganger's Hill car park in the far east</p>							
3a	20.11	Ash	1950	Min-intervention	Archaeological features	Connecting People with woods & trees	Area of Outstanding Natural Beauty, Green Belt, Site of Special Scientific Interest

<p>The main canopy species are dominated by a mixture of ash and mature beech, with occasional lime, hornbeam, horse chestnut, hawthorn, oak and yew The understory consists of ash, beech, elder, dogwood, hawthorn, sycamore, hazel, blackthorn, yew, wild cherry and field maple Ground flora is lush and also shows good variety including dogs mercury, bramble, fern, foxglove, clematis, primroses and bluebell. Three small areas of chalk grassland exist on the eastern side of the compartment, which are managed on an annual cutting cycle. There is an air vent (cylinder structure), owned by Railtrack, in the north-east.</p>							
3b	7.87			Min-intervention	Archaeological features	Connecting People with woods & trees	Ancient Semi Natural Woodland, Area of Outstanding Natural Beauty, Green Belt, Site of Special Scientific Interest
<p>The main canopy species are dominated by a mixture of ash and mature beech, with occasional lime, hornbeam, horse chestnut, hawthorn, oak and yew The understory consists of ash, beech, elder, dogwood, hawthorn, sycamore, hazel, blackthorn, yew, wild cherry and field maple Ground flora is lush and also shows good variety including dogs mercury, bramble, fern, foxglove, clematis, primroses and bluebell.</p>							
4a	22.02	Hawthorn species	1950	Min-intervention	Very steep slope/cliff/quarry/mine shafts/sink holes etc	Connecting People with woods & trees	Area of Outstanding Natural Beauty, Green Belt, Site of Special Scientific Interest
<p>This compartment is secondary woodland. The south and west of this compartment are dominated by hawthorn and blackthorn, with beech and Corsican pine to the north and east. The rest of the compartment is a mix of mature beech and ash. There are occasional hornbeam, wild cherry, oak, European larch and Norway spruce. The understory consists of ash, beech, hazel, yew, holly, birch, willows, elm, elder, field maple and clematis. Ground flora consists of dogs mercury, bluebell, ferns, lords and ladies and wild garlic. There is an area of restored chalk downland meadow in the north adjoining the North Downs Way which traverses this compartment.</p>							
5a	2.78			Non-wood habitat		Connecting People with woods & trees	Area of Outstanding Natural Beauty, Site of Special Scientific Interest
<p>This compartment is the main chalk grassland area of the site. It has a mixture of ash, blackthorn and hawthorn scrub with a wide variety of chalk grassland wildflowers. The western side has some semi-mature ash which was thinned in 2008. This area was enlarged in 2017 by connecting with a second area of grassland and fencing the whole as one unit, so grazing management can be introduced</p>							

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.