WOODLAND TRUST

Hucking Estate

Management Plan 2019-2024

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MAPS

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 Consequently this printed version may quickly become out of date, particularly in relation to the planned work programme and on-going monitoring observations.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:	Hucking Estate
Location:	Hollingbourne
Grid reference:	TQ843575, OS 1:50,000 Sheet No. 188
Area:	281.71 hectares (696.12 acres)
Designations:	Ancient Semi Natural Woodland, Area of Outstanding Natural Beauty, Site of Local Nature Conservation Importance, Tree Preservation Order

2.0 SITE DESCRIPTION

2.1 Summary Description

Hucking Estate (281.61 hectares) is located around the village of Hucking, 15.2km (9.4 miles) north east of Maidstone, Kent and is situated on the North Downs where there are extensive views from the escarpment edge across the Weald of Kent. Hucking Estate is also within the Kent Downs Area of Outstanding Natural Beauty. It was the largest property bought by The Woodland Trust in England at the time in 1997 at 234.66 ha in area and contained only 72.9ha of ancient woodland and 161.76ha of intensively farmed arable land. In 2017, a further 46.95ha was purchased comprising of permanent grazing land and chalk grassland (44.79ha) and a small area of ancient woodland (2.16ha) extending north from the northwest corner of the original purchase. In 2019, Hucking Estate is a mixture of 27% ancient woodland (75.06ha), 49% woodland creation or secondary woodland including natural regeneration areas (139.81ha) and 24% open land mostly grazed by livestock (66.84ha) of which 5.8ha is species-rich chalk grassland with up to 22 chalk grassland indicator species.

The land which now forms Hucking Estate was acquired so that the Woodland Trust could embark on a restoration of the landscape and support Sir John Lawton's principle for existing wildlife sites to be bigger, better managed and t more joined up via habitat creation initiatives. Like many similar farmland landscapes on the North Downs, Hucking Estate had suffered from the ever intensive

farming practices of the 1960's to 1980's where woodlands and hedges were sacrificed to create a greater area of farmed land. Hucking Estate itself had approximately 46.2ha of woodland removed between 1870 and 1997, with the bulk of this removed since 1961; 45% of this woodland loss was from within the area purchased in 2017 which saw approximately 21.2ha of ancient woodland removed during this period.

The restoration project started by undertaking extensive woodland creation in 1998 and 1999, and more recently between 2008 and 2012, by planting trees and using natural regeneration to establish certain areas. This established new woodlands around the areas of ancient woodland to buffer and protect them and also to link up isolated small ancient woodland areas. At the same time a number of new hedgerows were established along previous old historical field boundaries. In 1999 all the remaining arable land was converted to grassland. The 2017 acquisition area will be used to create secondary woodland using natural processes at a scale rarely seen in the southern England, and to protect important chalk grassland areas. This will provide opportunities for nature to express itself, and assist greater species movement through the landscape by reducing the pressures on nature resulting from modern farming systems and human intervention, encouraging more woodland and trees through natural regeneration and managing the existing woodland to create more space and light.

The ancient woodland areas (and corresponding sub compartment number) of Long Wood (1h, 1j), Round Wood (1i), Calves Wood, Crabtree Wood and Eastfield Wood (2c,2d), Stubs Wood (3b), Smokes Wood (3c, 3d), Squawlands Wood, Pudding Dane and Bolton's Wood (3f, 3g), Ten Acres and Chitts Wood (3e), Forest Wood (3h) and Hall Wood (6b) are a mixture of oak standards with mixed broadleaved coppice areas of hornbeam, field maple, ash and hazel, with some areas of pure sweet chestnut. There are also some fine specimens of small leaved lime and mature beech trees within the woodland which are approximately 200 years old. Typical ancient woodland indicators such as bluebell and wood anemone are abundant within the ancient woodland areas with bramble. Red campion, foxglove, lords and ladies, early purple orchid, primrose, rosebay willow herb and yellow archangel can also be found. Where the soils are thinner over the chalk on the valley sides there is a subtle change with a greater amount of ash, field maple and yew with dog's mercury in the ground flora.

The ancient woodland areas are managed to produce a mixture of actively coppiced areas, over mature coppice areas managed as high forest and areas of over mature coppice managed by minimal intervention to allow natural process to shape the habitat. Eastfield Wood (2d) is a small area of the ancient woodland notified as a Local Wildlife Site.

Within the woodland creation areas there are 3 areas which are leased to Forest Research (FR). In one area FR is conducting research on the choice of tree species and different seed sources to combat the influences of climate change; the remaining 2 areas are part of the research to locate provenances of common ash trees which are resistant to the ash dieback fungus.
The site contains numerous sites of archaeological interest including an ancient Drove Road, chalkwells, marl pits and potential iron-ore workings.

Hucking Estate has a good network of permissive paths, public rights of way and a bridleway. There are 2 way-marked routes, the longer of the 2, the Landscape Trail enables the visitor to view a number of interpretation structures which adds to the visitor experience. There is also a way-marked link to and from the North Downs Way long distant path. There is a car park, with access under a height barrier with a 2 metre clearance located off Church Road east of Hucking village.

2.2 Extended Description

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3.0 PUBLIC ACCESS INFORMATION

3.1 Getting there

By bus: The nearest bus stop is at Hollingbourne Church, approximately one and a half miles walk along road and footpaths to the closest entrance at Hucking. From Hollingbourne, the road climbs up a very steep hill onto the North Downs, but once at the top, the road to Hucking Estate is reasonably flat with some gentle inclines to negotiate. The walk will take approximately 35 minutes.

By train: The nearest railway station is at Hollingbourne – about a 35 minute walk away. For details of train services call 0871 200 22 33 or visit www.traveline.org.uk Directions from the station: Take the path from the car park up the bank immediately opposite the old station building and turn right over the stile and join the public right of way. Follow this into the field and carefully cross the railway – using the kissing gates. Follow the public right of way straight ahead across the fields, heading towards Allington Farm at the foot of the Downs. On reaching the road (Pilgrims Way) turn left and then immediately right at the entrance to Allington Farm. Follow this track (which is part of the old Droveway) past the cottages and up onto the Downs. When you reach the top of the hill you will be at Hucking Estate.

By car: From Junction 7 of the M20 – take the A249 towards Sittingbourne for approximately 7.1 km (4.4 miles). Turn right following the brown tourist signs for Hucking Estate. Remain on this narrow road for approximately 3.2 km (2 miles) turning left onto Church Road opposite the Hook and Hatchet Inn where there is parking available for visitors to the Hook and Hatchet Inn. The Woodland Trust car park is a further 1.2 kms (0.75 mile) from the Hook and Hatchet Inn to the east of Hucking village on Church Road which has space for around twenty cars. This has a height restriction barrier at the entrance. From here, access to the woods can be gained via an all access kissing gate, where there is an information board and a leaflet dispenser.

OS Explorer 148, Landranger 188, TQ843575.

3.2 Access / Walks

There are 13 possible entrances into Hucking Estate, seven of them on Public Footpaths with pedestrian only kissing gates for access. The main entrance points are from the car park off Church Road, Hucking where an all access kissing gate leads onto the path network.

There are two way-marked trails to follow – a short one and a longer one. The short 'blue' route is just over a mile, takes approximately 30 minutes and starts from the Hook and Hatchet Inn where visitors can also park and gain entry on to the estate via an 'all access' kissing gate. The longer 'red route', known as The Landscape Trail, is just over 3 miles and takes around 1 ½ hours, starting from the Woodland Trust's car park.

The whole of the Hucking Estate is open access, and a network of permissive footpaths and Public Rights of Way enable visitors to wind their way through the mature woodland, new planting areas, and across the chalk grassland. A bridleway passes through the estate, accessed from a horse stile beside the Church at Hucking, to the track or Drove Road which links Colyers Went with Allington Farm on the Pilgrims Way.

All paths within the fields and the woodland are of unmodified grass and earth surface, which can get slippery and muddy when wet. The majority of the paths have gentle inclines and visitors may encounter cattle or sheep in the fields at various times during the year.

The North Downs Way National Trail also passes through Hollingbourne and the local area. For more details of this route and other walking opportunities, visitors can pick up a leaflet at Christopher's village shop in Hollingbourne or the Maidstone Tourist Information Centre on 01622 602169.

4.0 LONG TERM POLICY

In fifty years' time, Hucking Estate will be a resilient landscape retaining its ancient woodland and secondary woodland areas covering approximately 78%. The remaining area will be restored chalk grassland habitat and semi-natural open ground habitats, which will be kept open by grazing. The woodland areas will contain a diverse structure providing a good range of different habitats typical of this native broadleaved woodland type of NVC W10 oak/hornbeam woodland on the thick clay with flint soils to W8 ash/field maple on the thinner soils over chalk. Within the ancient woodland areas there will be a mosaic of actively coppiced areas interspersed amongst stored coppice managed as high forest areas and abandoned coppice areas managed through minimal intervention. Within the secondary woodland areas, there will be a similar mixture of actively coppiced areas, managed high forest areas, areas managed through minimal intervention and wood pasture. Linking up the active coppice areas will be a wide ride habitat centred on some of the main tracks whose edges are coppiced on a short rotation.

Through the active management of selected coppiced areas within the ancient woodland and secondary woodland areas, this will be ideal habitat for a range of invertebrate, bird and mammal species, including woodland specialist species which rely on temporary open space. Areas of managed high forest will be evolving a multi layered canopy as interventions by thinning provides gaps in the canopy for natural regeneration and stump regrowth to become established. This will also provide additional habitats for invertebrates and birds. The areas of stored coppice and abandoned coppice habitat being managed through minimal intervention will see an increase in the age of the trees and an increase in dead and decaying wood habitat, which will in turn support a large range of saproxylic invertebrates and fungi. In addition as the trees senesce there will be an increasing prevalence of coppice stools splitting and falling apart. This will not only help to generate more dead and decaying wood but also allow the regeneration of an understorey through increasing light levels. This is to be expected as a previously managed coppice woodland converts to a more semi natural woodland habitat through minimal intervention. The developing wood pasture forming on areas being left to natural processes since 2019 will still be in a juvenile state with evolving scrub and woodland and future veteran trees beginning to be identified.

The semi-natural open ground habitat will be grazed to create a diverse sward, scrubby margins alongside ancient woodland edges and maturing trees outside woodlands providing the links and connections for wildlife between woodland blocks.

The presence of invasive trees and shrubs such as rhododendron and cotoneaster will continue to be monitored and controlled. Deer numbers will be monitored and controlled if numbers become too high to prevent the woodland from regenerating

Although the site will retain its tranquil character, it will be visited by visitors each year who appreciate and respect walking in a wooded landscape with diverse habitats and archaeological features, along a well-maintained network of paths.

Many of the Tree Charter principles are brought to life at Hucking Estate, such as "sustain landscapes rich in wildlife", "plant for the future", "grow forests of opportunity and innovation", "protect irreplaceable trees and woods", "make trees accessible to all", "combat the threats to our habitats" and "strengthen our landscapes with trees".

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 Semi Natural Woodland

Description

Hucking Estate is typical of ancient semi natural woodland (ASNW) growing on clay with flints over chalk bedrock supporting a tree, shrub and ground flora vegetation community of NVC (National Vegetation Community) W10, oak woodland with bramble and bracken and W8, ash, field maple woodland with dog's mercury. There are small areas which contain NVC W12, beech woodland with dog's mercury, W21, hawthorn and ivy scrub woodland and W25, bracken with bramble under scrub. There is one area of woodland (Eastfield Wood - part of cpt.2d) which is classified as Site of Nature conservation Interest (SNCI) as an example of mixed coppice woodland with standards which include some veteran small leaved lime trees.

The ancient woodland found at Hucking Estate sits within a landscape of similar traditionally coppice managed woodlands on the North Downs. The ground flora within the ancient woodland is not especially diverse although there is an abundance of bluebell and wood anemone flowering in spring. 10 BAP species of bird have been recorded (bullfinch, hawfinch, lapwing, linnet, marsh tit, starling, song thrush, skylark, tree pipit, turtle dove) as well as 21 species of butterfly such as white admiral, orange tip, red admiral, marbled white, small heath, purple hairstreak and a county important species the silver-washed fritillary. A small area of rhododendron in cpt.3e was eradicated in 2000.

Some ASNW areas at Hucking Estate were planted up with sweet chestnut during the 18th century with retained oak standards. The majority of the coppice areas which were not converted to sweet chestnut still contain the native mixed broadleaved species dominated by ash, hornbeam, hazel and birch with invading sycamore. Historically, the ASNW at Hucking Estate and in the neighbouring estates and woods such as Gorham with Admiral Wood were managed as coppice with standards for 100's of years, so providing a network of temporary open space habitat. Since Woodland Trust ownership in 1997, the ASNW has been managed to provide a broader range of habitats of coppice (44%), high forest (15%) and minimal intervention (41%) areas. The majority of the oak standards retained within the coppice are veteran trees. Management is carried out to sustain and nurture veteran trees within minimal intervention areas.

A network of managed wide rides in Smokes Wood and Bolton's Wood (Cpt 3) provides additional temporary open ground and scrub habitats, being managed by short-rotation coppicing and mowing. These wide rides link up the areas under coppice management with the semi natural open space habitats and woodland creation areas.

Throughout the ASNW there are relics of human disturbance as recorded in the archaeological survey carried out by Dr. Nicola Bannister (1998). Features such as chalk pits, shallow quarrying sites and ancient boundaries or woodbanks have been recorded.

Ash dieback (Hymenoscyphus fraxineus) was noted within the ASNW in 2012 and most obviously seen affecting young natural regeneration at that time. By 2018, a significant proportion of mature ash trees were showing signs of crown reduction with some trees almost dead. The resulting increase in light levels to the woodland floor has seen an increase in bramble growth and regeneration of ash, hazel, hawthorn and sycamore.

Five sub compartments have been set aside as minimal intervention areas (1h, 1i, 3a, 3b and 3h) totalling 15.60ha to allow natural processes to shape their habitat.

Significance

Ancient semi-natural woodland (ASNW) is a dwindling and irreplaceable habitat and as such all remnants of ancient woodland needs to be protected from further loss. On the North Downs the ASNW areas are predominately situated within an intensive farmed (arable) landscape, with little habitat connectivity. This has been reversed at Hucking Estate to produce a better connected landscape, with areas of ASNW buffered and linked by woodland creation.
Protection of ASNW is a key objective of the Woodland Trust. The 75.1ha of ancient semi-natural woodland at Hucking Estate is significant particularly now that it is set within a connected landscape which is being managed sympathetically for the benefit of biodiversity.

Opportunities & Constraints

Opportunity:
To use this site to demonstrate a landscape scale management/restoration and resilient wooded landscapes. To enable Forest Research and other external organisations to use the site for research.

Constraints:
A small part of Hucking Estate is bounded by arable farmland which is currently being actively farmed and thus there is no opportunity to link to other woods or other semi-natural habitats from this part.
The clay soils which become wet in winter time and the European Protected Species status of dormouse which are present, restricts the seasons in which active management work can be accomplished.

Factors Causing Change

Plant health:
Ash dieback fungus identified on site in 2012 will have a long term effect on the wood through the killing of ash trees. Retain ash trees for as long as possible so that resilient trees can be identified and retained.
Ash forms a minor component within the canopy through the majority of the ASNW, however there are a minority of isolated areas of ASNW where ash is the dominant species in the canopy.
In losing ash in ash dominated canopies, an increase in bramble and invasive scrub is to be expected. In this situation, where there is no significant natural regeneration of site native broadleaves or regenerating understorey this can result in the structure of the woodland and its habitat potentially being harmed. Re stocking with site native mixed broadleaves following coppicing/clearance of dying ash trees should be considered. Sycamore is to be accepted as a component of the resulting woodland.

Deer:
Currently absent, but deer may move into the site. If present, deer impact assessments will be carried out and culling may be required if ancient woodland components are being damaged and threatened.

Invasive plants:
Rhododendron and cotoneaster were present within the ancient woodland. The presence of threatening invasive species will be monitored to ensure they are absent or minor with containment and eradication work carried out if necessary.

Climate Change:
This may bring changes and negative affects to the ancient woodland habitats. Aim to keep canopy as closed up as possible.

Long term Objective (50 years+)

Woodland biodiversity tends to be greater in wooded areas which are structurally diverse in terms of their age, species, edge habitat potential, understory and dead and decaying wood component.
The long term objective is to develop varied and robust native woodland with diverse and complex structure within the different woodland habitat types such as managed high forest, coppice, standards, rides, dead and decaying wood, areas left to develop by natural processes and all well represented within this woodland. This will be achieved through thinning, coppicing and retaining standards and other interventions such as ride side management.
Areas to coppice during particular plan periods will be dictated by their rotation age and their condition as a result of windblow and tree disease. The aim is to achieve a diverse age range of actively coppiced areas covering approximately 35ha connected to semi-natural open ground habitat, other secondary woodland areas managed by coppicing and to a maintained wide ride habitat of approximately 5km in length, all set within an ancient woodland matrix formed of managed high forest and over mature coppice managed as minimal intervention where natural processes will be allowed to shape the habitat. This will result in some of the coppice stools collapsing and splitting apart. This latter habitat will be showing the development of more naturalised woodland characteristics with a broader age range of trees through increasing amounts of regeneration, a developing woody shrub layer and the proportion of standing and fallen dead and decaying wood will be increasing.
To maintain this diverse habitat to ensure survival of a healthy and secure ground flora with appropriate deer numbers (if deer are present). The presence of threatening invasive species to be absent or minor with containment and eradication work as necessary.

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

The short term objective is to contribute towards the creation/ maintenance of structurally diverse woodland within a resilient woodscape through coppicing, thinning, ride management and the removal of exotic invasive species if present. This will be achieved through:
- Coppicing
Approximately 9.5ha of mixed broadleaved coppice to be felled through the plan period (4.2ha in 2019, 3.9ha in 2021, 1.4ha in 2023). Standards will be retained within the areas coppiced and the recruitment of “new” standards will occur to create (in the long term) a density of approximately 20-30 per ha, with additional standards recruited where necessary each time the areas are coppiced. Standards are to be a mixture of long term species (oak, hornbeam, wild cherry). Adjacent cants will not be cut until the coppice regrowth has reached a minimum of 2m in height with successful regrowth of cut stools, supplemented with natural regeneration of tree species to maintain an adequate stocking density where coppice stools have died of no less than 1100 stems per hectare. Approximately 3.36ha of ash rich coppice to be cut in Eastfield Wood (2d10) retaining existing oak and small leaved lime standards.

- Re planting of ash rich areas following coppicing in south end of cpt.3e (cant 3e14) 1.49ha and in Eastfield Wood (2d10) if natural regeneration of site native broadleaves and existing understorey is insufficient. Restock @1600/ha with: field maple 20%, hornbeam 30%, wild cherry 10%, wild service tree 10%,birch 10%, small leaved lime 10%.

- Veteran tree management
Halo thinning around 10 veteran trees scattered through the minimal intervention areas of cpts.3b and 3g. Underwood and previously coppiced trees to be cut up to 5m beyond drip line of veteran tree canopy.

- Ride edge management
During the plan period a 3 zone wide ride habitat with short rotation coppiced edges is to be maintained along approximately 5km of rides maintaining pinch points where designated. There will be an annual programme of works to cut the vegetation within the 3 zones with zone 1 areas cut annually, zone 2 areas cut on a rotation of 3-5 years, and zone 3 areas cut on a rotation of 10-12 years, and all cut in a piecemeal fashion. This will accentuate the woodland edge habitat providing valuable temporary open space coppice habitat.

- 5-yearly formal woodland condition assessment to be undertaken across the whole site to inform next management plan review. Assessments will cover this key feature.

5.2 Secondary Woodland

Description

Since 1997, approximately 107.18 ha of secondary woodland (approximately 196,300 trees and shrubs) has been established, mostly by planting with the majority (approximately 75ha) established between 1998 and 1999 and 32.18ha established more recently between 2008 and 2012 including areas developing with natural regeneration. Species planted included pedunculate oak, hornbeam, wild cherry, sweet chestnut, beech, ash, field maple, hawthorn, hazel, whitebeam and yew. Three main woodland types have been planted to mimic W8, W10 and W12 woodland according to the National Vegetation Classification (NVC). Within the planting design, open rides and glades were left in strategic places to add diversity and interest.

The purpose of creating secondary woodlands was to increase the wooded area of Hucking Estate. The positioning of the secondary woodland was planned so that the majority of this habitat buffers existing ancient woodlands, links up small isolated ancient woodland blocks to form larger and more contiguous woodlands and thus creates the conditions and opportunities for wildlife migration by increasing the permeability of the landscape.

The opportunity to convert through natural processes approximately 32.63ha of permanent pastureland to secondary woodland following the 2016 purchase (in cpts.6a, 6c, 6e, 6f, 6h and 6i) is at a scale rarely seen in southeast England. Commercial grazing ceased in 2018. However, livestock will be reintroduced at low numbers in the long term to help shape and create this habitat. The changes which will come about through natural processes of tree and scrub regeneration as well as how wildlife responds to these changes will be monitored. This new woodland habitat will buffer ancient woodland within cpt.6b, but also extend out and link up to Squirrel Wood, a large privately owned woodland to the north of Hucking Estate.

A long term study to analyse and record the changes which occur to the soil chemistry of ex arable farm land following the creation of woodland and plotting the changes as these areas mature to become secondary woodland was started by the Woodland Trust in 2000 using 76 permanent plots. Records of how the ground flora changes are also being recorded. Comparisons are being made with adjacent ANSW soils and ground flora.

Two other long term monitoring projects have been set up by Forest Research which will continue to be monitored. In 2011 a 1.96ha species migration trial plot containing oak, wild cherry and ash was planted to assess whether native tree species can be given a ‘helping hand’ in adapting to a warmer climate by mixing local trees with those from European provenances of the same species. In 2013, a 2ha plot was planted with different UK provenances of ash to see if there were any provenances or individual trees which show a resistance to ash dieback fungus (Hymenoscyphus fraxineus). In 2016 a second ash provenance trial site was established in the northwest of cpt.4a. This latter trial tested ash trees that had, pre ash-dieback, been part of an “elite” tree selection programme, selection being on form, growth rates and timber quality, run by the Future Trees Trust.

Significance

New native planting of this kind increases the area of native woodland in an area of the country where there is intensive and increasing development (road construction, Channel Tunnel rail link, housing development etc.).

Through establishing secondary woodlands next to ASNW habitats, this is designed to make the ASNW more robust in the face of climate change by buffering the core ancient woodland areas as well as helping to join up isolated blocks of woodland to form bigger woods and to provide a more connected landscape.

The study of woodland creation on ex arable soils will help understand the soil chemistry changes which occur over the decades since trees become established. Between 1999 and 2012 the soil chemistry analysis shows that the legacy of intensively managed arable farm soils with altered soil parameters of P, K, Mg, N, C (phosphorus, potassium, magnesium, nitrogen, carbon) and pH status when compared to ASNW and undisturbed soils has caused minor effects on tree growth. The planted trees particularly of oak, small leaved lime and hornbeam have tended to fair better closer to the margins of existing mature ASNW where the pH values are lower and soil nutrients are more favourable. In addition, natural regeneration of tree species within the planted areas is now forming a significant component of the species composition. This is particularly so where the planting is adjacent to mature ASNW and downwind of them, and where canopy closure by the planted species has shaded out the competing grassy vegetation so allowing seedlings to develop more easily.

The large scale of the natural regeneration project (in cpts.6a, 6c, 6e, 6f, 6h and 6i), is rare in the SE of England.

Opportunities & Constraints

Opportunities:
To continue the decades long term monitoring project on soils which started in 2000 to measure the changes in soil chemistry and PH to see the affects these have on tree growth and also survey the change in ground flora following woodland creation on arable land. There will be an opportunity to publish the findings in forestry and scientific journals once a clear trend in the results has been picked up.

To enable surveys to be carried out on site to determine whether the initial concept, at the time of purchase (1997), of using secondary woodland creation to buffer ancient woodland and to link up isolated blocks of ancient woodland has provided the permeable landscape for wildlife to move through.

To continue hosting Forest Research ash trial plots.

To create significant areas of secondary woodland to buffer and link ancient woodland habitats. This follows the Lawton principle of bigger, better and more joined up.

To engage with Forestry Research or colleges within the industry to design a suitable monitoring programme to help monitor the changes and progress of natural processes.

Engage with colleges, universities and students to undertake research.

Low intensity grazing within cpts.6a, 6c, 6e, 6f, 6h and 6i will be implemented in future years and these areas will be surveyed to monitor species richness and diversity, the success of natural processes and to inform any changes that be required with stock and stocking density.

Constraints:
The extent and the design of tree planting have been subject to Environment Impact Assessments (EIA) and considerations for landscape character through the North Downs AONB's management plan.

New native woodlands or secondary woodlands are species poor for 100's of years compared to ASNW areas, particularly if ASNW is not adjacent to new plantings.

Factors Causing Change

Plant health:
Ash dieback, identified on site since 2012, is having a big impact on young ash trees within the secondary woodland causing many of the ash trees to die. This will cause a negative effect in the long term by the loss of ash from these areas. Natural regeneration of other mixed broadleaves on site is expected to fill in gaps created by dead ash over the next 5-10 years. Retain ash trees as long as possible so that resilient trees can be identified and retained.

Deer:
Currently absent, but may move into the site. When present, deer impact assessments will be carried out and culling may be undertaken if ancient woodland components are being damaged and/or threatened.

Grey squirrels:
Production of high quality timber is not an objective of the Woodland Trust, so grey squirrel damage is currently of low concern. If damage causes significant numbers of trees to die then grey squirrel control may be needed. There is as yet the unknown threat that grey squirrel damage could increase the infection of tree diseases such as chestnut blight.

Invasive plants:
Cotoneaster was present within the secondary woodland. The presence of threatening invasive species to be absent or minor with containment and eradication work is carried out if necessary.

Climate Change:
This may bring changes and negative affects to the woodland habitats. Aim to keep canopy as closed up as possible.

Natural regeneration and scrub:
Lack of natural regeneration would seriously affect the pace of development of the project. Excessive development of one species or dominance of scrub will be a temporary but negative effect on the species richness of the habitat.

Long term Objective (50 years+)

In 50 years' time this habitat will be maturing and providing the opportunities and conditions for species migration between ancient woodland areas aided by silvicultural management options to provide different habitat types to maximise and increase the biodiversity interest.

The use of livestock will be used to produce a wood pasture habitat within a part of the secondary woodland area.

Areas to coppice during particular plan periods will be dictated by their age, with conversion from a "single stem plantation" to multiple stem coppice occurring when the trees are 25-30 years of age. The aim is to achieve a diverse age range of actively coppiced areas connected by a maintained wide ride habitat which links up areas under coppice management within all woodland areas across the site.

Thinning of secondary woodland areas will have encouraged the development of an understorey through natural regeneration making them more resilient habitats.

Secondary woodland managed by minimum intervention will be showing the development of semi natural woodland characteristics with increasing signs of regeneration and a developing woody shrub layer. The proportion of standing and fallen deadwood within the secondary woodland will be increasing. Periodic interventions through thinning maybe necessary to encourage the development of an understory.

The presence of threatening invasive species to be absent or minor with containment and eradication work as necessary.

Through the long term monitoring projects, data will be collected to increase the scientific knowledge to inform guidance, strategies and policies for future site management.

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

The short term objective is to contribute towards the creation/ maintenance of structurally diverse woodland as part of a resilient woodscape through coppicing, thinning, ride management, the removal of invasive species (if present), planting new areas and maintaining recently planted areas. This will be achieved by:

- Ride edge management
During the plan period a 3 zone wide ride habitat with short rotation coppiced edges is to be maintained along approximately 0.5km of rides in cpt.4a to correspond with similar work in the adjacent ASNW habitat. There will be an annual programme of works to cut the vegetation within the 3 zones with zone 2 areas cut on a rotation of 3-5 years, and zone 3 areas cut on a rotation of 10 -12 years, and all cut in a piecemeal fashion. This will accentuate the woodland edge habitat providing valuable temporary open space coppice habitat.

- Natural regeneration
To allow approximately 32ha of former pasture land acquired in 2016 in sub cpts. 6a, 6c, 6e, 6f, 6h and 6i to naturally regenerate.

- Maintenance of woodland creation areas
The 2 ash provenance trial sites established in 2013 and 2016 will complete during this plan period. The deer fences will be removed by Forest Research and both trial areas will be left to natural processes, with resilient ash retained for future use by Forest Research.

- Survey and understand the changing woodland structure
To continue to permit Forest Research access to their species trial plot on climate change and their ash provenance plots researching into resistance to ash dieback fungus.

To plot the changes through regular surveys of natural processes occurring in cpts.6a, 6c, 6e, 6f, 6h and 6i, starting in 2020 with surveys every 3 years. This research based on fixed transects/plots will look at the species composition and speed at which natural regeneration colonises out from ancient woodland in cpt. in cpt.6b into cpts. 6a and 6c. It will also look to see if the rate of spread and composition varies between windward or lee side of the ancient woodland in cpt.6b.

Review the planned re-survey of the long-term soil and vegetation monitoring within cpt.3b, 3d and 4a and adapt if required to carry out appropriate surveys, which may include an assessment of tree growth, ground flora content and soil chemistry in 2022.

In 2020 to survey secondary woodland creation areas planted 1998/99 to obtain information on the permeability these habitats provide for wildlife migration, looking at ground flora, mammals and fungi.

- 5-yearly formal woodland condition assessment to be undertaken to inform next management plan review. Assessments will cover this key feature.

5.3 Semi Natural Open Ground Habitat

Description

The semi-natural open ground habitat comprises the following four areas totalling 66.84ha:
A) Ex arable land converted to grassland in 1999 and grazed by livestock within cpts.5a, 5b and 5c (49.57ha);

B) Ex arable land converted to grassland in 1999 and subsequently planted in 2012 with fruit trees to form the community orchard at the northeast end of cpt.5b (1.18ha);

C) Ex arable land in cpt.5d converted to grassland in 1999 near the Church Road car park which is kept open for internal views (3.93ha);

D) Chalk-rich grassland of 5.8ha along with areas of improved grassland within cpts.6d and 6g (12.16ha).

More details about each area follows:

A) The conversion of ex arable land in cpts.5a, 5b, 5c and 5d to native grassland in 1999 was through sowing native grass seed mixtures. No artificial or organic fertilisers have been applied to this habitat since their conversion from arable to grassland. These areas are situated on the escarpment of the North Downs, within the dry valley and in the northern area of Hucking Estate north of Church Road. The dry valley is a typical landscape feature of the North Downs AONB often without woodland and grazed by livestock, and this feature has been restored at Hucking Estate. The grass swards still show immaturity in terms of their sward content due to their high soil nutrient status following decades of arable farming. There are however certain “species-rich areas” within the fields west and north of Hucking village within the dry valley. These areas match with some of the most species-rich MG5 grassland sub-communities of meadow vetchling (Lathyrus pratensis) and lady’s bedstraw (Galium verum) and are to be found on the banks to the valley where historical intensification and cultivation was presumably too difficult to achieve. As well as being species-rich, these specific areas and the surrounding field are in support of a high number of invertebrate and bird species. 7 BAP bird species have been recorded within the semi-natural open space habitat: grey partridge, turtle dove, skylark, song thrush, linnet, bullfinch, corn bunting.
The Hollingbourne Downs SSSI lies close to the southern part of Hucking Estate.
30 individual trees were planted in 2011 across this habitat in cpts.5a, 5b and 5c each within a post and rail stockade to replace trees lost to the previous intensive agricultural use. A further 50 livestock proof stockades were installed during 2015 and 2016. These areas are grazed by livestock.
1.6 km of new hedges were planted along known historical boundaries within the farmed landscape and along certain road edge boundaries.

B) The conversion of ex arable land to native grassland followed the same methods as described in A) above. A community orchard was planted in 2012 at the northeast end of cpt.5b. It is designed as a traditional orchard with wide planting distances, growing 86no fruit trees on vigorous root stock, and containing a mixture of apples (desert and cookers), plums, cherries and quince. The intention is to grass the grassy sward once the trees are out of reach of livestock.

C) The conversion of ex arable land to native grassland followed the same methods as described in A) above although creeping red fescue was the dominant grass species planted. Visitors can

appreciate the internal views as they begin their walk from the Church Road car park into the site, with views up to the Norman aged church in Hucking. This area is kept open by cyclical cutting of grass/scrub habitat.

D) As part of the 2017 acquisition chalk-rich grassland covering approximately 4.9ha in 6d and 0.9ha in 6g forms parts of compartments 6d (10.3ha) and 6g (1.86ha). The remaining areas within 6d and 6g contain improved grassland. The chalk-rich grassland is the most diverse and richest ground flora at Hucking Estate. 22 indicator species have so far been identified from surveys in 2016 and 2017 include: bee orchid, bladder campion, burnet saxifrage, carline thistle, downy oat-grass, dwarf thistle, fairy flax, field scabious, glaucous sedge, greater knapweed, hairy rock cress, harebell, marjoram, pyramidal orchid, quaking grass, rough hawkbit, salad burnet, small scabious, upright brome, wild basil, wild thyme and yellow-wort.
Careful grazing of this habitat will help ensure its survival and maintain its species richness.

Significance

Species diversity is much greater in semi natural grassland areas than in intensively farmed areas. With 68% of farmland in Kent managed fairly intensively this means semi-natural habitats such as grassland have suffered considerable losses in the 20th Century. Any opportunity to create or restore such habitats will have a significant impact upon the landscape and to the species that rely on them.
80% of the UK's chalk grassland area has been lost since 1945 due to intensive farming practices. Chalk grassland is home to an incredibly rich and diverse range of plant and insect life. Kent holds 5% of the UK resource, so chalk grassland is rare and fragmented making any remnants important habitats to conserve and manage.
An estimated 2/3 of traditional orchards have been lost from the UK farmed landscape since 1960. Many of these orchards contained regionally important fruit tree varieties, but also provided important semi natural habitats.

Opportunities & Constraints

Opportunities:
Through less intensive land use there is an opportunity to increase the species diversity and richness by introducing a more appropriate grazing regime with rotational and phased grazing.
Fields contained in cpts.5a-5c will be left fallow in rotation for a minimum of 12 months during this plan period to assess the diversity of species and what would be the most appropriate management techniques in order to increase the quality of the grasslands and the species that rely on it. Surveys or monitoring need to be undertaken during the spring/summer months to inform future management.
The species rich chalk grassland purchased in 2017 has been poorly managed in recent years so we have an opportunity to protect, restore, enhance and increase the area of species rich chalk grassland through appropriate management. Suitable grazing is to be implemented over the winter months (October to March each year).
To establish an appropriate monitoring regime to inform of any changes as well as the right stocking levels and future management.
Establishment of an orchard with Kent varieties, wildflower meadow and engagement with local people to manage it.

Constraints:
Being able to find a suitable grazier within the locality who is willing and able to graze the areas of open habitat as identified within this key feature.
Phased grazing is less attractive for commercial stock owners, with the added risk of pernicious and noxious weeds becoming established.
Ragwort may start to dominate the open areas if grazing isn't present and therefore suitable control methods will need to be implemented to prevent its spread onto neighbouring land.
Pests and diseases affecting fruit trees.
Inappropriate or excessive pruning.
Dominance of rank vegetation and coarse grasses.

Factors Causing Change

Over/under grazing – not having suitable stock, density and a reliable grazier who is willing to work with us and meet the aims and objectives of this habitat.
Ragwort may start to dominate the open areas if grazing isn't present and therefore suitable control methods will need to be implemented to prevent its spread onto neighbouring land.
Dominance of rank vegetation and coarse grasses will be a negative effect for this habitat which may require a change of management style

Long term Objective (50 years+)

During the next 50 years the amount of open semi natural open ground will decrease by approximately 5ha so that within Hucking Estate this habitat is reduced from 66.84ha to 61.84ha or 22% of the site.

In 50 years' time the main grazing areas contained in cpts.5a, 5b, 5c, 6d and 6g will contain chalk grassland plant communities where this habitat is present and all areas to have a range of grasses of varying heights and meadow flora will be well-represented and managed through rotational grazing and cutting. The grassy sward in the traditional orchard area will be managed in the similar way.

Successional scrub growth should be allowed to develop around the edges of the fields in cpts.5a, 5b, 5c adjacent to ancient woodland areas so as to soften the woodland/field boundaries and to provide a richer and more naturalised woodland edge habitat. Scrub to extend out into the fields by up to 15 – 20m but to cover no more than 5ha of the habitat in cpts.5a, 5b, 5c. All chalk grassland habitat in cpts.6d and 6g to remain free from scrub encroachment.

Trees outside woodlands within cpts.5a, 5b, 5c should provide shade and shelter for livestock and additional tree cover for the benefit of biodiversity and should number approximately 120.

Hedgerows will be diverse in structure and composition following a variety of management from laying to flailing on roadside boundaries, and minimal intervention in some areas. Boundary and hedgerow trees will be plentiful with new trees recruited and establishing after management and losses from disease such as ash dieback. These habitats will form corridors connected to the wider landscape, and will also be integrated into the site with transitional habitats such as scrub and long grass swards.

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

The short-term objective is to maintain/ enhance the diversity of the sward of the semi-natural grassland (sub-compartments 5a, 5b, 5c and 5d) and chalk grassland areas (sub-compartments 6d and 6g). This will be achieved through a combination of grazing, mechanical cutting and fallow periods without grazing or cutting. Diversity will also be encouraged through successional scrub growth on the field margins beside hedges and woodland areas in sub-compartments 5a, 5b, 5c and 5d but not at any loss of chalk grassland habitat in sub-compartments 6d and 6g.

- Grazing:
Grazing is the primary management tool for maintaining the open grassland habitat over 49.57ha within cpts. 5a, 5b and 5c. During the plan lifetime stocking levels, rotational grazing, timings for grazing between March and November and years when fields are rested will be reviewed to prevent over-grazing in any one area, and allowing the botanical interest in the sward to develop.
Successional scrub growth to be allowed to develop where permitted around the field margins next to ancient woodland areas. Noxious weeds are to be controlled, particularly ragwort.
For the known 12.16ha chalk grassland swards in cpts.6d and 6g, winter grazing with a low number of sheep from October through to the end of March the following year will ensure a diverse habitat is maintained.

- Surveys:
An annual survey of the species rich chalk grassland areas to monitor changes and effectiveness of grazing in cpts.6d and 6g.

- Mechanical cutting:
The semi-natural open ground habitat in sub-compartment 5d is to be managed by flailing the successional scrub growth on a 3 year rotation to maintain internal views for the benefit of public access.

- Fallow periods:
During each year of this plan individual fields within cpts.5a, 5b and 5c will be left fallow without grazing or mechanical cutting to monitor species diversity and richness and to establish a more appropriate grazing or management regime.

- Hedgerow management: annual flailing along road edges to occur by trimming the road side of hedge and the top to achieve a managed height of approximately 5ft (1.5 m). Allow other “internal” hedges to grow and mature.

- approximately 1935m of permanent stock fencing to be constructed around chalk grassland areas in sub compartments 6d, 6g and 6i for stock management in 2019.

- approximately 1160m of hedgerows to be planted in 2021 beside stock fences surrounding chalk grassland habitat areas in cpts.6d and 6g.

- pruning of fruit trees within community orchard as and when is necessary during the plan period; mow grass twice a year (July and September) to control rank vegetation.

5.4 Connecting People with woods & trees

Description

This site 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. The site will be managed to meet the required high standards of WSP and will provide a clear welcome with well-maintained car park, entrances, furniture, signage and other infrastructure as well as suitable paths and track surfaces across the variable ground conditions. Access will better facilitate use by a wider range of visitors.

Hucking Estate is classified by The Woodland Trust as a category A site, where there is a high level of public access (15-20 visitors using one entrance every day).
The whole of the Hucking Estate is open access, and a network of permissive footpaths and Public Rights of Way enable visitors to wind their way through the mature woodland, new planting areas, and across the chalk grassland. The public have access to the wood from 3 main formal access points – from the Woodland Trust car park off Church Road, from an entrance beside the Hook and Hatchet Pub and from a third entry point from a proposed new car park off Rumstead Road. There are also 25 other access points off the public highway or by Public Rights of Way, including the North Downs Way long distance path. All the entrances lead the visitor onto an extensive path network through Hucking Estate. There are two way-marked trails to follow. The short 'blue' route is just over a mile, takes approximately 30 minutes and starts from the Hook and Hatchet Pub where visitors can also park and gain entry on to the estate via an 'all access' kissing gate. The longer 'red route', known as The Landscape Trail, is just over 3 miles and takes around 1 ½ hours, starting from the Woodland Trust's car park. The paths can become very muddy with high use during the wet winter months. Horse riders have access along permissive routes, a bridleway and permissive routes operated through Toll Rides Off-Road Trust which link to public highways.

Hucking Estate is well used by mainly dog walkers during the daytime and serves communities from Hollingbourne (4km/2.5miles, pop. 949), Bearsted (6km/4 miles, pop. 8209), Maidstone (10km/6 miles, pop. 113,137) and others from further afield.
The Visitor Improvement Project (VIP) 2012-2014 enabled improvements to be made to the visitor experience. These included installing brown tourist signs off the A249 to help promote the site's position and how to get to it; better signage and interpretation with 5 timber structures laid out around the 2 way marked trails. Additional land was acquired in 2016/17 following a successful fundraising campaign, which increased the size of Hucking Estate by 116.47 acres (47.14ha) and creates new opportunities for visitors to explore the area.

Within a short distance (less than 10 miles) there are a number of other attractions and areas for outdoor recreation including Leeds Castle, White Horse Wood Country Park, Queendown Warren Nature Reserve, Doddington Place Garden and Bredgar and Wormshill Light Railway.

Significance

Public access to this woodland within the Kent Downs Area of Outstanding Natural Beauty enables access to a landscape containing significant areas of ASNW of great variety and interest set amongst open grazed fields and gives an opportunity for the Woodland Trust to promote the message of ancient woodland habitats and the importance of its protection. There are extensive views within the site and out of the site south across the central Weald of Kent and north towards the Medway estuary.
The North Downs Way which passes along the southern boundary has since 2013 had a way-marked detour in place. This gives walkers the opportunity to walk onto the Hucking Estate to the view point for a better view than if following the original North Downs Way route.

Opportunities & Constraints

Opportunities:
This is a large woodland site with potential to expand the types of user groups who currently visit this site, greatly helped by the fantastic display of spring flowers which are popular amongst visitors.
To be able to use the land as an educational resource for students, colleges, universities and Forest Research and public engagement.

To engage with more visitors to promote interest and connection with the habitats and management, including events, educational workshops and forest schools.

To engage volunteers to carry out conservation tasks, site monitoring and surveys.

As a demonstration site for our woodland management approach.

As an opportunity to engage with the public on the benefits of woodland creation on a large scale.

The facilities offered by the Hook and Hatchet pub are a great asset for Hucking Estate and through advertising events at the pub will widen the audience who learn about the Woodland Trust and what the Woodland Trust can offer.

The purchase of additional land in 2016 provides an opportunity for extended public access routes and a proposed additional car park subject to planning permission, which will help ease the growing pressure of public access across the original site area.
Potential for installation of visitor monitoring counters to get baseline data for number of visitors to site, which entrances are used most and most popular days and times. This data will help us to design engagement activities that best meet the needs of those visiting the site.

Public access to this woodland helps fulfil one of the Woodland Trust's corporate objectives which is ‘Life’s better with trees: Strengthening the role of trees and woods in our landscapes and communities and rekindling our love of them’; and also fulfilled in one of the 10 Tree Charter Principles: to "make trees accessible to all".

Constraints:
The clay with flint soil tends to make winter walking muddy and slippery on well used paths.
Some parts of the permissive path network contain slopes down into and out of the dry valley.
None of the permissive paths have any surfacing which makes wheelchair and buggy access difficult.
The road network within the area to access the Hucking Estate is mostly single track and twisty narrow lanes not suitable for high volumes of traffic or for large vehicles or coaches.
The rural location means that the site is only accessible by car for the majority of visitors.

Factors Causing Change

Fly Tipping, littering, anti-social behaviour, dog fouling and aggressive dog behaviour towards other visitors.
Increased visitor numbers could potentially bring conflicts with livestock and dogs.
Damage to unsurfaced paths, trampling of specialist ground flora and disturbance to wildlife through increased visitor numbers.
Proposed large housing developments in North Kent within the Medway Towns could lead to an increase in visitor numbers.

Long term Objective (50 years+)

A well established and safe network of paths for informal public access throughout Hucking Estate where responsible visitors can appreciate and respect this wood with its different habitats, archaeological and wildlife interest. The visitor numbers to be in line with its category A status with provision for parking on site in 2 car parks. The provision of way marked routes, interpretation structures, a site leaflet and information boards to be available on site.

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

During this plan period, the short term objective is to continue to provide public access at Hucking Estate which is safe and enjoyable. How this will be achieved:
- Path mowing
All rides and paths for pedestrians (approx. 17.9km) and for horses, where permitted, (approx.3.2km) within the site will be maintained annually through an appropriate cutting regime. For the plan period two cuts, in June and September, are proposed with the September cut including ride verges.

- Capital works
In 2019 to install 12no all access kissing gates to open up public access into compartment 6 on public rights of way and on new permissive routes.
To obtain planning consent and change of use by November 2019 for existing hard standing area off Rumstead Road for a car park on the edge of compartment 6c, so that this forms a third formal entranceway into Hucking Estate.
To create a new car park and associated infrastructure in quarter 1 of 2020 following permissions received for change of use.

- Monitoring of antisocial behaviour
To monitor the car parks and the surrounding woodland for signs of antisocial use and liaise with Kent Police when this occurs to try and prevent it from reoccurring. The vegetation around the car park to be kept short during the summer months linked to the path cuts.

- Annual inspections
All site infrastructures such as signs and steps will be inspected annually and any remedial work undertaken in an appropriate timescale. The sculptures on the Landscape Trail to be annually checked to ensure they are fit for purpose and safe.

- Site based information and enjoyment
Provision of a site leaflet from dispensers at the Woodland Trust car park off Church Road, at the Hook and Hatchet pub and from Rumstead Road car park (when constructed). This site leaflet to be revised and with a small print run completed in 2019. A further revision and printing to take place in 2021. Revision and reprinting of all information boards on site to occur in 2020 and again in 2022.

- To provide organised opportunities and events for visitors within the plan period to enjoy the site such as through guided walks, talks and photography workshops.

- Tree safety in line with the Trusts Tree Risk Management Policy
Annual Zone A tree safety inspection. Fungal survey to be carried out once in every 24 month period in the autumn and an annual summer survey to check trees' crowns and in particular ash trees. Zone B tree safety inspections are to be carried out annually due to ash dieback fungus. Arboriculture work to be carried out when necessary.

- Site boundary management
The hedges along the public road is to be flailed in November/December each year to ensure there is no interference with users of the highway year; where applicable that there is a minimum height clearance above the full width of the highway to 5.1m.

- To liaise and work with the tenants of the Hook and Hatchet pub to enhance the public's vision of the estate.

- Potential for installation of visitor monitoring counters to get baseline data for number of visitors to site, which entrances are used most and most popular days and times. This data will help us to design engagement activities that best meet the needs of those visiting the site.

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	22.77	Oak (pedunculate)	2000	Wood establishment		Connecting People with woods & trees	Area of Outstanding Natural Beauty, Tree Preservation Order
This contains a mixture of secondary woodland (7.93ha) planted in 1999, an area of semi-natural ancient woodland (0.1ha) and an area covering 10.66 ha which is currently being grazed but awaiting conversion to secondary woodland in 2014/15. In the middle of this sub-compartment a shallow dry valley runs northwards out beyond The Woodland Trust boundary. Within this valley are a number of shallow chalk pits including a chalk hole or pit called Cobler's Hole. This sub-compartment joins onto a small area of semi-natural ancient woodland called Four Acre Wood along the northern edge beyond the Woodland Trust's boundary. Our 0.1ha area of ancient woodland links to this woodland block, and this has a ground cover typical of W10 woodland (Dogs mercury, bramble and bluebells) with hornbeam coppice stools, beech standards and wild cherry trees. Within the secondary woodland area are the 2 Forest Research long term species trial plots which cover 4.08ha, each within individually deer fenced enclosures. (1.1ha to be leased to the owner of Pond Farm in 2014 which includes the Atcost barn.)							
1b	1.46	Oak (pedunculate)	2000	High forest		Connecting People with woods & trees	Area of Outstanding Natural Beauty, Tree Preservation Order
Secondary woodland planted in winter of 1999/2000. A water pip runs beneath this sub-compartment to supply Pond Farm.							
1c	5.15	Oak (pedunculate)	2000	High forest		Connecting People with woods & trees	Area of Outstanding Natural Beauty, Tree Preservation Order
Secondary woodland planted in winter of 1999/2000. A small area exists in the extreme southwest corner next to Pond Farm which is being stocked through natural regeneration since 2009.							

1d	3.50	Oak (pedunculate)	2000	Wood establishment		Connecting People with woods & trees	Area of Outstanding Natural Beauty, Tree Preservation Order
This sub-compartment is situated on the eastern slope of the main dry valley which runs through Hucking Estate and on part of the flat plateau area above the valley. It is partly formed of 2.30ha of secondary woodland planted in the winter of 1999/2000 which links to sub-compartment 1i which is ancient woodland. A further 1.18ha on the plateau was planted in the winter of 2013/14.							
1e	2.01	Oak (pedunculate)	2014	Wood establishment		Connecting People with woods & trees	Area of Outstanding Natural Beauty, Tree Preservation Order
This sub-compartment is being stocked by natural regeneration from the mature field boundary hedge formed of mainly ash and small leaved lime which runs through the middle of it, and supplemented by tree planting in the winter of 2013/14. It was fenced off from the surrounding grazed area in 2007.							
1f	4.64	Oak (pedunculate)	2010	Wood establishment		Connecting People with woods & trees	Area of Outstanding Natural Beauty
This contains a mixture of secondary woodland established during the winter of 1999/2000 (1.86ha) along the eastern boundary next to the public highway, and the remaining area of 2.77ha which was planting under the Tree For All project between 2008 – 2010. Along the southern boundary with the public highway runs a small strip of mature mixed broadleaves (mainly ash) and within it lie 3 depressions of which the most easterly one could be an old chalk hole, measuring 4-5m diameter and 3m deep.							
1g	0.57	Oak (pedunculate)	2013	Wood establishment		Connecting People with woods & trees	Area of Outstanding Natural Beauty, Tree Preservation Order
Secondary woodland established during the winter of 2012/13.							

1h	2.31	Ash	1700	Min-intervention		Connecting People with woods & trees	Ancient Semi Natural Woodland, Area of Outstanding Natural Beauty, Tree Preservation Order
This is an area of W8 semi-natural ancient woodland known as Long Wood and is formed of mixed broadleaved coppice with occasional oak and beech standards. It is situated on the western slope of the main dry valley which runs through Hucking Estate. The ground slopes steeply down from west to east. The coppice has not been cut since 1970's, stools are widely spaced, with ash regeneration appearing in the gaps in the canopy where coppice stools have been windblown in 1987/90 or collapsed. An active badger sett lies within this sub-compartment. Ground flora dominated by dog's mercury with bluebell, moschatel (Adoxa moschatellina), wood anemone, lord's-and-ladies, toothwaite (Lathraea squamaria), yellow archangel (Lamiastrum galeobdolon) and bramble.							
1i	0.97	Ash	1700	Min-intervention		Connecting People with woods & trees	Ancient Semi Natural Woodland, Area of Outstanding Natural Beauty, Tree Preservation Order
Known as Round Wood, the oak exists as scattered standards with occasional mature ash and beech (150 - 200 years) intimately mixed with elder, sycamore coppice and maidens, field maple, hornbeam coppice, goat willow and hawthorn. Replanting of understocked areas was carried out in 1998/99 in the southern part adjacent to the road (Glass Hill) with native mixed broadleaves. The ground cover is bramble, nettle and grasses with bluebell established under the Ancient Wooded parts.							
1j	1.38	Sycamore	1700	Coppice		Connecting People with woods & trees	Ancient Semi Natural Woodland, Area of Outstanding Natural Beauty, Tree Preservation Order

This is an area of W8 semi-natural ancient woodland known as Long Wood and is formed of mainly sycamore with mixed broadleaved coppice species and the occasional oak and beech standards. It is situated on the western slope of the main dry valley which runs through Hucking Estate. The ground slopes steeply down from west to east. Ground flora dominated by dog's mercury with bluebell, moschatel (Adoxa moschatellina), wood anemone, lord's-and-ladies, toothwaite (Lathraea squamaria), yellow archangel (Lamiastrum galeobdolon) and bramble. The following coppice cants are contained within this sub compartment: 1j1, 1j2.							
2a	0.56	Oak (pedunculate)	2000	High forest		Connecting People with woods & trees	Area of Outstanding Natural Beauty, Tree Preservation Order
Secondary woodland planted in winter of 1998/1999 with native mixed broadleaves. This is a narrow strip planted along the site boundary adjacent to a public highway.							
2b	1.43	Ash	1999	Wood establishment	Diseases	Connecting People with woods & trees	Area of Outstanding Natural Beauty, Tree Preservation Order
Existing secondary woodland planted in winter of 1998/99 with native mixed broadleaves which buffers the northern end of Crabtree Wood an ancient woodland area; the remaining secondary woodland area which buffers the eastern side of Crabtree Wood and the northern part of Calves Wood in the south east corner of this sub-compartment is being stocked through extensive ash natural regeneration suffering from ash dieback fungus but also contains a small area of wild cherry planted in 1998/99.							
2c	2.50	Oak (pedunculate)	1999	High forest		Connecting People with woods & trees	Area of Outstanding Natural Beauty, Tree Preservation Order
Secondary woodland planted in winter of 1998/1999 with native mixed broadleaves as a buffer to an area of ancient woodland to its east known as Crabtree Wood. Sponsored Woodland Creation plots are situated amongst the planting.							

2d	11.85	Ash	1700	Coppice		Connecting People with woods & trees	Ancient Semi Natural Woodland, Area of Outstanding Natural Beauty, Tree Preservation Order
This sub-compartment is formed of 2 areas of semi-natural ancient woodland Crabtree Wood and Eastfield Wood which is joined together by a narrow strip of ancient woodland beside Broadstreet Hill public highway. Crabtree Wood is a mixture of W10 woodland on the higher ground and W8 on the slopes down into the shallow valley which runs through this area. It is an ancient woodland area which has been mainly managed as coppice with standards and contains mixed broadleaved coppice species with oak standards. A small area of oak high forest is situated in the north west of this sub-compartment. Ground flora dominated by bramble, bluebell and patches of bracken under gaps in the canopy. A substantial lynchet runs north east-south west through this sub-compartment at the southwest end. Eastfield Wood is a Site of Nature Conservation Interest and predominately W10 woodland with a small area of W8 along the eastern side. The ground flora contains a good mix of common woodland plants: bramble and bluebells dominate the more acidic clays (W10) but moschatel (Adoxa moschatellina), early purple orchid (Orchis mascula), greater burnet saxifrage (Pimpinella major), early dog-violet (Viola reichenbachiana), Wood anemone and dog's mercury (Mercurialis perennis) are common in the calcareous W8 part. The tree species are dominated by ash and field maple managed historically for coppice with oak and the occasional small leaved lime standard. The following coppice cants are contained within this sub compartment: 2d1, 2d2, 2d3, 2d4, 2d5, 2d6, 2d7, 2d8, 2d9.							
2e	8.28	Oak (pedunculate)	1999	Wood establishment		Connecting People with woods & trees	Area of Outstanding Natural Beauty, Tree Preservation Order
This contains an area of secondary woodland (5.22ha) planted in 1998 which buffers along the eastern side of Eastfield Wood and the southern boundary of Crabtree Wood, and an additional area (3.06ha) planted in the winter of 2011/12 which extends the planting down into the slopes of the dry valley giving the valley woodland boundary a more naturalised edge to it.							
2f	2.42	Oak (pedunculate)	1999	High forest		Connecting People with woods & trees	Area of Outstanding Natural Beauty, Tree Preservation Order

Secondary woodland planted in winter of 1998/1999 with native mixed broadleaves. This is a narrow strip planted along the site boundary adjacent to Broadstreet Hill public highway at the top of the scarp slope of the North Downs.							
2g	3.38	Oak (pedunculate)	1999	High forest		Connecting People with woods & trees	Area of Outstanding Natural Beauty, Tree Preservation Order
Secondary woodland planted in winter of 1998/1999 to buffer the edges of Smokes Wood.The boundary between sub-compartment 2g and 5c is approximately the alignment of the ancient ridgeway route along the crest of the North Downs.							
2h	0.94	Ash	1999	High forest		Connecting People with woods & trees	Area of Outstanding Natural Beauty, Tree Preservation Order
Secondary woodland planted in winter of 1998/1999 which was planted to buffer the western side of Forestall Wood along the southern site boundary at the top of the scarp slope of the North Downs.							
2i	14.01	Oak (pedunculate)	1999	Coppice	Diseases	Connecting People with woods & trees	Area of Outstanding Natural Beauty, Tree Preservation Order
Secondary woodland planted in winter of 1998/1999 to buffer the edges of Smokes Wood with an area being left for natural regeneration in the far southeast of this area which contains ash suffering from ash dieback disease. Due to ash dieback disease the 2.30ha of natural regeneration area will be planted with mixed native broadleaved trees in winter of 2014/15. Sponsored Woodland Creation plots are situated amongst the secondary woodland. Along the eastern side of this sub-compartment runs the ancient track called the Droveway. The following coppice cants are contained within this sub compartment: 2i1, 2i2, 2i3.							
2j	2.01	Oak (pedunculate)	1999	Wood establishment		Connecting People with woods & trees	Area of Outstanding Natural Beauty, Tree Preservation Order

Secondary woodland planted in winter of 1998/1999 with native mixed broadleaves along the northern edge with the public road. A smaller area (0.78ha) on the plateau was planted in the winter of 2011/12 with native mixed broadleaves.							
3a	1.41	Ash	1700	Min-intervention		Connecting People with woods & trees	Ancient Semi Natural Woodland, Area of Outstanding Natural Beauty, Tree Preservation Order
Known as Hucking Bank, this sub-compartment forms a west to south westerly facing bank with a steep slope down into the valley from east to west. This was once a linear chalk quarry, with a scarp face of 4-10m high. Trees of W8 woodland type are found here mainly yew with some ash and beech which was partly windblown with some of the windblown areas replanted with ash, beech and yew in 2000. Regeneration of elder and wild clematis has filled in most of the unplanted gaps.							
3b	7.82	Hornbeam	1700	Min-intervention		Connecting People with woods & trees	Ancient Semi Natural Woodland, Area of Outstanding Natural Beauty, Tree Preservation Order
This forms the northern part of the core ancient woodland area at Hucking Estate which includes Stubbs Wood and part of Smokes Wood. It is classified as a W10 woodland type with a ground flora dominated by bluebell and bramble. Historically the trees in this sub-compartment have been managed as coppice with oak standards, with coppice stools of hornbeam, ash, field maple, sycamore, hazel and hawthorn. The majority of the coppice stools are now too old to coppice. The south western edge along the edge of the dry valley has a number of old chalk quarry workings dug into the valley side.							
3c	5.78	Sweet chestnut	1800	Coppice		Connecting People with woods & trees	Ancient Semi Natural Woodland, Area of Outstanding Natural Beauty, Tree Preservation Order

Part of Smokes Wood core ancient woodland area, this sub compartment is formed of sweet chestnut and native mixed broadleaved coppice with oak standards and is classified as a W10 woodland type with a ground flora dominated by bluebell and bramble. It also contains part of the managed wide ride habitat. The “Living Log” sculpture is situated at the major ride junction. The following coppice cants are contained within this sub compartment: 3c1, 3c2, 3c3, 3c4, 3c5.							
3d	10.65	Sweet chestnut	1800	High forest		Connecting People with woods & trees	Ancient Semi Natural Woodland, Area of Outstanding Natural Beauty, Tree Preservation Order
Part of Smokes Wood core ancient woodland area, this sub compartment contains sweet chestnut coppice which has been singled and thinned to convert it towards high forest. The northwest part contains ash and field maple coppice. It is classified as a W10 woodland type with a ground flora dominated by bluebell and bramble. It also contains part of the managed wide ride habitat.							
3e	18.75	Sweet chestnut	1800	Coppice		Connecting People with woods & trees	Ancient Semi Natural Woodland, Area of Outstanding Natural Beauty, Tree Preservation Order
London Wood, Chitts Wood and Ten Acres all part of the core ancient woodland area form this sub compartment, which contains mostly sweet chestnut coppice with some native mixed broadleaved species such as ash, hazel and field maple. Chitts Wood contains a collection of over mature beech trees which are all in a state of decline due to their age. It is classified as a W10 woodland type with a ground flora dominated by bluebell and bramble. It also contains part of the managed wide ride habitat along the Drove way which is itself the route of an ancient track. An old chalk hole is located next to the Drove way in Ten Acres which has security fencing around its perimeter to prevent access. This chalk well was surveyed in 1965 by the Swale Archaeological Research Group who reported it in Archaeologia Cantiana, and was reported to be in good condition. Between 1965 and 1998 it was filled with rubbish and soil and this was cleared out by the Kent Underground Unit in 2006 for a potential bat habitat and subsequently fenced. At the southern end of Ten Acre Wood next to the Drove way is a line of excavations which are now water filled and appear as a pond today. These were marked on the 1801 map and have been identified as iron diggings in the Lenham Beds. The northern boundary of Chitts Wood has a bank situated along its edge with the Drove Way, and this is the Parish boundary between Hollingbourne and Hucking and was probably established after the Norman Conquest. The following coppice cants are contained within this sub compartment: 3e1, 3e2, 3e3, 3e4, 3e5, 3e6, 3e7, 3e8, 3e9, 3e10, 3e11, 3e12, 3e13, 3e14, 3e15.							

3f	1.74	Sycamore	1800	Coppice		Connecting People with woods & trees	Ancient Semi Natural Woodland, Area of Outstanding Natural Beauty, Tree Preservation Order
This compartment is formed by Pudding Dane Wood as part of the core ancient woodland area and contains mostly sycamore coppice with some native mixed broadleaved species such as ash, hazel and field maple and oak and ash standards. It is classified as a W10 woodland type with a ground flora dominated by bluebell and bramble. The following coppice cants are contained within this sub compartment: 3f1, 3f2.							
3g	11.01	Oak (pedunculate)	1700	High forest		Connecting People with woods & trees	Ancient Semi Natural Woodland, Area of Outstanding Natural Beauty, Tree Preservation Order
This compartment is formed by Squawlands Wood and Bolton's Wood as part of the core ancient woodland area. It is classified as a W10 woodland type with a ground flora dominated by bluebell and bramble. The central part of this sub-compartment has an open characteristic to it with a more scrubby woodland type of mature hawthorn trees and oak standards. Historically this was woodland but was converted to agriculture in the late 1600's approximately and reverted back to woodland again during the early 20th century. The southern part is ash coppice which has been singled and thinned to convert it towards high forest. This sub compartment also contains part of the managed wide ride habitat.							
3h	3.09	Oak (pedunculate)	1700	Min-intervention		Connecting People with woods & trees	Ancient Semi Natural Woodland, Area of Outstanding Natural Beauty, Tree Preservation Order
This compartment is formed by Forestall Wood as part of the core ancient woodland area and is at the southern end of Hucking Estate at the top of the scarp slope of the North Downs and which is W8 woodland type.							

4a	21.46	Oak (pedunculate)	2000	High forest		Connecting People with woods & trees	Area of Outstanding Natural Beauty, Tree Preservation Order
Secondary woodland established during the winter of 1999/2000 with mixed native broadleaves and open ground or unplanted land which is converting to secondary woodland. The main southern area planted buffers the eastern side of Stubbs and Smokes Wood. The existing secondary woodland consists of 3 separate areas which were planted totalling 16.38ha, except for 0.73ha in the south western block which has been established through natural regeneration. The natural regeneration area consists of goat willow and ash at present. Significant regeneration nearest to the semi-natural ancient woodland edge is now occurring through the planted area, particularly now that canopy closure has started which shades out the competing grass rich ground vegetation. 21 species have been recorded: ash, goat willow, pedunculate oak, hawthorn, bramble, downy birch, sallow, sycamore, clematis, hornbeam, dog rose, blackthorn, dogwood, silver birch, hazel, buddleia, aspen, gorse, field maple, and ivy. Through the middle of this sub compartment are 2 additional areas set aside for natural regeneration which was started in 2005. Good regeneration of hawthorn, oak and ash are occurring.							
4b	1.75	Oak (pedunculate)	2011	High forest		Connecting People with woods & trees	Area of Outstanding Natural Beauty, Tree Preservation Order
Secondary woodland established during the winter of 2011/12 with mixed native broadleaves.							
4c	0.92	Oak (pedunculate)	1900	High forest		Connecting People with woods & trees	Ancient Semi Natural Woodland, Area of Outstanding Natural Beauty, Tree Preservation Order
Part of Spratts Dane Wood of W8 woodland type semi-natural ancient woodland, contains mature mixed broadleaved coppice of Sweet chestnut, hazel, birch, some aspen and scattered oak standards in the northwest part of this compartment. To the south and east there is a higher concentration of oak standards over mainly hazel coppice. Ground cover dominated by bluebells. An open chalkhole is present in this compartment.							

4d	2.20	Oak (pedunculate)	1999	High forest		Connecting People with woods & trees	Area of Outstanding Natural Beauty, Tree Preservation Order
Secondary woodland established during the winter of 1999/2000 with mixed native broadleaves. It also includes an area of ex arable land on its eastern side which is converting to secondary woodland through natural regeneration with oak, hazel and hawthorn being recorded.							
5a	18.18	Open ground	1999	Wood pasture		Connecting People with woods & trees	Area of Outstanding Natural Beauty, Tree Preservation Order
Semi-natural open space area to be grazed. In 2011, 9 individual oak trees were planted across this sub compartment as trees outside woodlands each surrounded by a post and rail corral.							
5b	13.60	Open ground	1999	Wood pasture		Connecting People with woods & trees	Area of Outstanding Natural Beauty, Tree Preservation Order
Semi-natural open space area to be grazed. This also includes approximately 1.18ha set aside for the community orchard immediately south of Hucking village and the village church containing 86 fruit trees (apple, cherry and plum) planted since 2012. In 2011, 7 individual oak trees were planted across this sub compartment as trees outside woodlands each surrounded by a post and rail corral.							
5c	18.29	Open ground	1999	Wood pasture		Connecting People with woods & trees	Area of Outstanding Natural Beauty, Tree Preservation Order
Semi-natural open space area to be grazed. In 2011, 9 individual oak trees were planted across this sub compartment as trees outside woodlands each surrounded by a post and rail corral.							

5d	3.93	Open ground	1999	Non-wood habitat		Connecting People with woods & trees	Area of Outstanding Natural Beauty, Tree Preservation Order
Ex arable land which is not part of the grazing area, but is being kept open by mowing. In 2011, 5 individual oak trees were planted as trees outside woodlands.							
6a	9.09	Hawthorn species	2018	Wood establishment	Gullies/Deep Valleys/Uneven/ Rocky ground	Connecting People with woods & trees	Area of Outstanding Natural Beauty
Area of permanent pasture purchased in 2016, to be left to regenerate to native broadleaved woodland. This whole sub compartment was completely wooded during the 19th century. 9.09ha of ASNW was therefore removed during the 19th and 20th centuries.							
6b	2.16	Ash	1700	High forest	Gullies/Deep Valleys/Uneven/ Rocky ground	Connecting People with woods & trees	Ancient Semi Natural Woodland, Area of Outstanding Natural Beauty, Tree Preservation Order
The remnant and only area left called Hall Wood (which used to be more extensive), ASNW woodland of mostly ash with hornbeam and field maple. Hall Wood is situated on the north-western slope of the dry valley through cpt.6 and is contiguous with Grinnels Wood on the south-eastern side of the valley and the Woodland Trust boundary. Bluebell, wood anemone and bramble are the ground cover where present.							
6c	5.88	Hawthorn species	2018	Wood establishment		Connecting People with woods & trees	Area of Outstanding Natural Beauty
Area of permanent pasture purchased in 2016, to be left to regenerate to native broadleaved woodland. This occupies a flat plateau position along the edge of a dry valley. Approximately 1.8ha of ASNW was removed during the 19th and 20th centuries.							
6d	10.30	Open ground	2018	Non-wood habitat	Gullies/Deep Valleys/Uneven/ Rocky ground	Connecting People with woods & trees	Area of Outstanding Natural Beauty
Area of permanent pasture purchased in 2016 which contains a significant chalk grassland sward over 4.69ha on the steep slopes which is to be retained and grazed. Cpt.6d is formed of the south easterly facing steep valley side and valley bottom of a dry valley. Approximately 5.55ha of ASNW was removed during the 19th and 20th centuries.							

6e	2.66	Hawthorn species	2018	Wood establishment		Connecting People with woods & trees	Area of Outstanding Natural Beauty
Area of permanent pasture purchased in 2016, to be left to regenerate to native broadleaved woodland. Approximately 0.33ha of ASNW was removed during the 19th and 20th centuries.							
6f	9.02	Hawthorn species	2018	Wood establishment	Gullies/Deep Valleys/Uneven/ Rocky ground	Connecting People with woods & trees	Area of Outstanding Natural Beauty
Area of permanent pasture purchased in 2016, to be left to regenerate to native broadleaved woodland. This occupies a flat plateau position along its western edge and steep slopes of a dry valley along the eastern side. Approximately 3.46ha of ASNW was removed during the 19th and 20th centuries. Along the eastern edge is a 0.35ha remnant strip of ANSW along the edge of Hayes Lane.							
6g	1.86	Open ground	2018	Non-wood habitat	Gullies/Deep Valleys/Uneven/ Rocky ground	Connecting People with woods & trees	Area of Outstanding Natural Beauty
Area of permanent pasture purchased in 2016 which contains a significant chalk grassland sward over 1.03ha on the steep slopes which is to be retained and grazed. Cpt.6g is formed of the south easterly facing steep valley side and valley bottom of a dry valley. Approximately 1.7ha of ASNW was removed during the 19th and 20th centuries.							
6h	1.66	Hawthorn species	2018	Wood establishment		Connecting People with woods & trees	Area of Outstanding Natural Beauty
Area of permanent pasture purchased in 2016, to be left to regenerate to native broadleaved woodland. This cpt. occupies the valley bottom position of a dry valley along the eastern side of Hayes Lane.							
6i	4.31	Hawthorn species	2018	Wood establishment		Connecting People with woods & trees	Area of Outstanding Natural Beauty
Area of permanent pasture purchased in 2016, to be left to regenerate to native broadleaved woodland. This cpt. occupies the valley bottom and shallow slopes of a dry valley. Arable crops were being grown in this cpt. up until at least 2000.							

Appendix 2: Harvesting operations (20 years)

Forecast Year	Cpt	Operation Type	Work Area (ha)	Estimated vol/ha	Estimated total vol.
2019	2d	Thin	3.36	48	160
2019	3e	Coppice	1.25	100	125
2020	1j	Coppice	0.72	122	88
2020	2f	Thin	1.96	10	20
2020	3c	Coppice	1.08	139	150
2020	3e	Coppice	0.87	57	50
2021	1j	Coppice	0.67	149	100
2021	3e	Coppice	0.79	13	10
2021	3e	Coppice	0.85	173	147
2023	3c	Coppice	1.56	160	250
2023	3e	Coppice	0.81	142	115
2023	3e	Coppice	0.63	119	75
2025	2d	Coppice	1.12	89	100
2025	2d	Coppice	0.65	123	80
2025	3e	Coppice	1.31	61	80
2025	3e	Coppice	1.31	145	190
2026	2d	Coppice	0.68	96	65
2026	2i	Coppice	0.53	38	20
2026	2i	Coppice	0.28	36	10
2026	3c	Coppice	0.86	99	85
2026	3e	Coppice	0.80	50	40
2028	1a	Thin	6.76	10	68
2028	1b	Thin	1.46	10	15
2028	1c	Thin	5.15	10	52
2028	1d	Thin	3.50	10	35
2028	1f	Thin	4.64	10	46
2028	2a	Thin	0.56	9	5
2028	2c	Thin	2.50	10	25
2028	2d	Coppice	0.64	94	60
2028	2e	Thin	5.22	10	50
2028	2g	Thin	3.38	10	34

2028	2h	Thin	0.94	11	10
2028	2i	Coppice	1.55	35	55
2028	3c	Coppice	0.70	160	112
2028	4a	Thin	14.38	10	140
2028	4d	Thin	1.21	8	10
2029	2d	Coppice	0.36	125	45
2030	2d	Coppice	1.01	119	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.