WOODLAND TRUST

Hargate Forest

Management Plan 2018-2023

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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 Consequently this printed version may quickly become out of date, particularly in relation to the planned work programme and on-going monitoring observations.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:	Hargate Forest
Location:	Tunbridge Wells
Grid reference:	TQ574370, OS 1:50,000 Sheet No. 188
Area:	61.72 hectares (152.51 acres)
Designations:	Area of Outstanding Natural Beauty

2.0 SITE DESCRIPTION

2.1 Summary Description

Hargate Forest was once part of one of the great medieval forests of the Sussex High Weald. Set in an Area of Outstanding Natural Beauty, it boasts mature woodland, an amazing diversity of plants and wildlife, an intriguing history and stunning views over the surrounding countryside.

2.2 Extended Description

Hargate Forest is a large area of mixed coniferous and broadleaved woodland, immediately south of Tunbridge Wells, Kent. Apart from the main public entrance off Broadwater Down (in Tunbridge Wells, Kent), the wood lies within the Wealden District of East Sussex and is also within the High Weald Area of Outstanding Natural Beauty. The site is very prominent in the landscape particularly from the south. The underlying geology is Cretaceous Ashdown Beds which give rise to very acid, often waterlogged podzol soils.

The site was acquired by The Woodland Trust in October 1996, having previously been part of the nearby Nevill Estate. The purchase was assisted by a grant from the Heritage Lottery Fund and a very successful local fund-raising campaign organised by the Friends of Hargate Forest.

The site is well documented, being historically part of Eridge Park and the wider Waterdown Forest which was one of the four Forests of the Weald, along with Ashdown, Worth and St Leonards. Map and other evidence suggest a history of open heath being enclosed piecemeal and ‘improved’ in the post-medieval period. The site was known as Hargate Forest and planted with conifers from the 1846 Tithe map. 'The Old Carriageway', a route between Eridge Castle and St Mark’s church, also dates from this time. The ride was originally lined by exotic conifers (some of which are still in place) and rhododendrons which were cleared in 2009.

The Forest contains a variety of woodland types and other habitats. There are areas of semi-mature conifers (Scots and Corsican pine, western hemlock, larch and Douglas fir) planted in 1950 and 1960. The north-east of the site has a large area of younger mixed conifers (Corsican pine, Scots pine, Norway spruce, Japanese Larch) planted in 1986. The southern part of the wood south of Sprat’s Brook is largely broadleaved, with part known as the Old Forest (Cpt 4c). This area along with the gills containing Sprat's Brook and its tributaries, contain a number of ancient woodland indicator species such as wood anemone and bluebell as well as coppiced trees although none of the site is listed as ancient woodland. There are 3 areas of mixed broadleaved re-stocking planted in 1993 and 1995 (Cpts 2b, 3e and 4a).

At the highest point of the site (c130m) is an area of open lowland heathland. This was created from areas of windblown and fire-damaged conifer plantations in 1998 and extended in 2009. The eastern part is known locally as Mount Nod and provides views across Broadwater Warren to Ashdown Forest. Ground flora includes heather (ling), cross-leaved heath, purple moor grass and dwarf gorse.

The site has a good network of wide rides and smaller paths which allow for high levels of public access. Some rides also have a high conservation value due to their ground flora. Broadview and The Link are also important extensions of the heathland areas having much heather and purple moor-grass.

Since acquiring the site the Woodland Trust has undertaken various works including conifer thinning and extensive clearance of Rhododendron ponticum. Three ponds have also been re-instated and a large pond created in-line with Sprat's Book. The main access track from Broadwater Down was up-graded and a larger turning-circle installed in 2001 to allow better access by timber lorries for thinning operations. This surfacing was extended in 2012.

3.0 PUBLIC ACCESS INFORMATION

3.1 Getting there

By bus:
The nearest bus stop is at the junction of Broadwater Down and Eridge Road, around 60m from the entrance to the wood. There is a regular bus service from the railway station and the town centre.

By train
The nearest train station is Tunbridge Wells, around 3.2km (two miles) from the wood.
For up-to-date information on public transport, visit traveline.org.uk, or telephone 0871 200 22 33.

By car
From Tunbridge Wells, head south on the A26 (Eridge Road). Continue for around 2km (1.25 miles) and then turn left on to Broadwater Down. There is no car park at the wood, but cars may be parked along Broadwater Down, taking care not to block driveways and pavements.

3.2 Access / Walks

The only official public entrance is from the south side of Broadwater Down, a residential street, around 60m east of the A26 Eridge Road. Entrance is via a metal (RADAR) kissing gate adjacent to double metal field gates. There is permissive access through the bunker area via a kissing gate on Broadwater Down, around 350m east of the main entrance.

The site has a good network of wide rides and smaller paths. The main entrance leads onto a wide ride, which is level and stone-surfaced for around 800m. Beyond the surfaced section, the rides are covered by grass, other vegetation or bare soil. There are some steep sections, and surfaces may be muddy in wet weather, with some sections waterlogged throughout the winter. There are other smaller paths which lead to more remote parts of the wood. These are steep in places and may be partly blocked.

There are two walks around the forest:
• The 1.6km (one-mile) green route which takes around 30 minutes. The path is wide and surfaced, and there is a gentle hill with a slight to moderate gradient.
• The 3.2km (two-mile) red route which takes around an hour.

There are some hills with moderate gradients, and the paths are unsurfaced, with some tree roots, ruts, holes and bumps. Some sections of the paths get muddy in winter or after rain.

Both routes are detailed on the information board at the main entrance and are well signposted.

4.0 LONG TERM POLICY

In 50 years' time Hargate Forest will be predominantly broadleaved woodland with areas of lowland heathland and acid grassland in the form of managed large clearings, glades and wide rides. Some mature conifers will be present across the site providing additional structural variety and aesthetic value as well as particular ecological niches.

In order to achieve this vision, a continuous-cover silvicultural approach will be adopted to aid transformation of the areas that are currently predominantly conifer towards a predominantly broadleaved canopy. Future canopy species are likely to be oak, birch, beech, rowan, yew and holly that are already present within the conifer stands. Mature specimens of Douglas fir, Scots pine and larch could make up 20% of the canopy.

The continuous-cover approach excludes clear-felling and uses targeted, selective thinning on a 5-10 year cycle to favour existing broadleaved trees, areas of natural regeneration as well as conifers that can be grown as a timber crop and some that will make long-term retentions. Existing veteran trees (mainly beech) will be retained as long as possible and the next cohort of veterans will emerge from current semi-mature oak and beech, mainly in the southern half of the site.

As conifer stands are thinned the existing heathy ground flora will continue to develop and natural regeneration of desirable tree species will be recruited into the understorey initially and into the canopy in the long term. The site will be free of damaging invasive species such as rhododendron.

There will continue to be an area maintained as open heathland with associated plant species and extensive external and internal views. Areas of broadleaved trees surrounding the open heath and along major ride edges will be managed to provide a buffer to the surrounding high forest. Coppicing small sections on a regular basis will provide a succession from temporary open ground, through dense scrub, to semi-mature trees. The older broadleaved areas along the gills and in the Old Forest will be allowed to develop naturally with minimum intervention and will continue to be of high biodiversity value.

The extensive network of paths and rides will be maintained to cater for high visitor numbers while retaining the site's natural appeal and tranquillity as far as is possible. The entrances will be maintained in good condition to provide a welcoming aspect to visitors, both local and from further afield.

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 Long Established Woodland of Plantation Origin

Description

This key feature covers the majority of the site which can be classed as wooded heath. The site has an intermittent history of being wooded since at least the early 18th century (Roper, 2008) and with conifers being present since the mid-19th century (Bannister, 2011). It currently includes productive plantations of exotic and native conifers and younger plantations of native broadleaves. The ground flora is similar in composition throughout but varies greatly in quantity, influenced by the level of shading and previous invasion by Rhododendron ponticum. There is heather, bracken and bramble throughout with extensive areas of mosses, particularly in wet flushes and along stream-sides. The tributary gills are of very high biodiversity value containing extensive mosses, liverworts and ferns as well as native broadleaves. On the gill sides are occasional bluebells.

There are 2 distinct age-classes of conifer present. The central part of the wood, mainly between Broadview ride and Sprat's Brook gill, contains mature (P50) Douglas fir, Scots and Corsican pine with a few remaining Sitka spruce on the edges of the tributary streams. Within the conifers are broadleaves typical of the wet, acidic soils of this area: oak; birch; rowan; holly; yew. In the north-west of the site western hemlock, Japanese larch and Corsican pine (P60) dominate while again there are a few broadleaves including oak, beech, birch and rowan. The north-east section of the wood is largely younger mixed conifers (P86), mainly Corsican pine with some Scots pine and Japanese larch and Norway spruce.

The mature conifers have been thinned at intervals over the last 20 years, with the younger conifers having their first thin in 2013. All areas of rhododendron have been cut and an annual programme of control by herbicide application has been in place subsequently.

There are 3 main areas of broadleaved planting (Subcpts 2d, 3e and 4a). These were established in 1993 and 1995 at 1100 trees/ha. There is now extensive natural regeneration of birch and goat willow in these areas. In areas where conifer crops have been removed or failed there are naturally regenerated birch stands, particularly along Broadview. Small sections of these birch stands were coppiced during the period 2012-17.

Significance

Long established secondary woodland can be a very biodiverse habitat, supporting a large range of species. Hargate Forest lies within the diverse landscape of the High Weald which includes extensive woodland, restored heathland and farmland, providing a habitat network beyond the boundaries of the site.

Its documented history suggests that it originated from 'waste', both heath and wood, and has had little if any agricultural improvement that has substantially altered the soils.

Within the plantations are areas of semi-natural habitat such as heathland and sphagnum bog. The wood currently contains a good range of tree species and age-classes and a varied ground flora for the soil types present. Regular thinning of conifers has allowed continued growth of existing broadleaves, the development of natural regeneration and the re-emergence of the heathy ground flora.

Opportunities & Constraints

Opportunities:-
To realise the potential timber income from thinning to subsidise other habitat management within the site.

Constraints:-
Steep slopes, gills and soils prone to waterlogging limit access by harvesting machinery.

Factors Causing Change

Invasive rhododendron.
Natural regeneration of birch, Scots pine, oak, western hemlock, Douglas fir etc.
Changes in species composition due to disease eg Dothistroma needle blight on pine spp.
Deer browsing on natural regeneration of desirable tree species.

Long term Objective (50 years+)

Conifers will no longer dominate the canopy although scattered specimen trees including Douglas fir and Scots pine will be retained as part of the woodland matrix. The conifer canopy will be replaced by young and maturing native broadleaved trees with an associated wide range of flora and fauna typical of heathy High Weald woodland. Oak and birch will be the main canopy species alongside beech, rowan, holly, willow and yew.

In places the high forest woodland will grade into scrub, heathland and, in the wetter areas, bog. There will be a full range of age-classes from saplings to veteran trees and the proportion of standing and fallen deadwood will have increased. Invasive species such as rhododendron will not be a threat to any components of the habitat.

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

During this plan period thinning will continue in both the younger and older conifer stands, rhododendron regrowth and seedlings will be controlled and structural diversity will be increased by managing stands of birch and ride-sides. This will be achieved by the following:-

- Selective thinning of approx 11 ha mixed conifers (CP, SP) in Subcpts 2b and 3g in 2018. Removal of approx 25% conifers to favour broadleaved trees, ride-edges and patches of natural regeneration.
- Selective thinning of approx 13ha mixed conifers (SP, DF, CP) in Subcpts 1d, 3a, 3b, 3c and 3d in 2020. Removal of approx 20% conifers to favour broadleaved trees, ride-edges, gills and patches of natural regeneration.
- Selective thinning of approx 4.5ha mixed conifers (WH, JL, CP) in Subcpt 1b in 2022. Removal of approx 25% conifers to favour broadleaved trees, ride-edges, mature SP and patches of natural regeneration.
- Coppice approx 2ha birch in total in Subcpts 1d, 1c, 2a and 3b over the period 2019-23. Subsequent regrowth should be a minimum of 1.5m in height before adjacent areas are coppiced.
- Annual control of rhododendron regrowth and seedlings by herbicide application. Net area to treat approx 0.5ha.
- Undertake deer impact assessment October 2018.
- Undertake 5-yearly PAWS assessment of conifer areas and deer impact assessment across the site. Next due 2023.

5.2 Natural Secondary Woodland

Description

This key feature relates to The Old Forest (Subcpt 4c) and to the Sprat's Brook gill area (Subcpt 3f). As with the rest of the site, this area has an intermittent history of being woodland although the steep sides of the gill have probably always been wooded. Over the last 100 years or so the Old Forest has developed into a 2-storey, semi-natural broadleaved woodland with a canopy dominated by pedunculate oak. The understorey contains much birch, planted oak (P95) and some sweet chestnut coppice. Towards the southern end the oak is replaced by more open, mature birch. The Old Forest also contains some of the largest and oldest trees on the site, mainly beeches approximately 200 years old.

Ground flora is typical of long-established woodland on more base-poor soils in the High Weald. Woodland plants including bluebell, yellow pimpernel and lily of the valley are present although not in the abundance that would be expected in ancient woodland. Bramble becomes extensive where light levels are higher.

Sprat’s Brook rises in the east of the site from a sphagnum bog and flows westwards, with the valley narrowing in places to form a typical Wealden gill. This has small cascades, waterfalls, sandrock exposures and much coarse woody debris. The warm and humid microclimate of the gill makes it a haven for mosses, liverworts and ferns. There is a recently created pond at the western end of the gill but its wildlife value is compromised by visitors’ dogs using it on a regular basis. The tributary streams flowing in from the north have similarly wildlife-rich valleys and gills associated with them although previous conifer planting and rhododendron compromised them for decades.

Tree species along the stream include mature oak and beech (with some large veteran trees), birch, alder, willow, aspen and yew. Like the rest of the Forest this area had a major invasion of Rhododendron ponticum which has now largely been removed.

Significance

Both the woodland and gill habitats are important at a regional and national level. These areas also represent the most natural habitats on the site, having a long history as woodland and being dominated by native tree and ground flora species.
Previous and ongoing management has removed the threat from invasive rhododendron and Himalayan balsam that was present along the stream. The heavy shade and needle litter from conifers, in and close to the gill, has also been removed gradually over the last 20 years of the Trust’s ownership.
The Sprat's Brook gill is typical of deeply-incised, small stream valleys in the High Weald with their distinct geology and microclimate which supports regionally and internationally rare lower plant floras.

Opportunities & Constraints

Opportunities:-
To use these areas as minimum intervention zones, buffering more actively managed conifer stands.

Constraints:-
Sensitive area for ground flora therefore any operations need careful planning and timing.
Steep slopes and soils prone to waterlogging restrict use of machinery.
Use of herbicides needs careful monitoring due to proximity of water courses and important ground flora.

Factors Causing Change

Invasive species such as rhododendron and Himalayan balsam.
Natural regeneration of unwanted species such as Douglas fir.
Collapse of veteran trees and subsequent succession of gaps.
Deer browsing of regeneration of desirable tree species.

Long term Objective (50 years+)

In the long term these areas will be dominated by large, over-mature oaks which will be beginning to develop veteran characteristics. Another cohort of future veterans will begin to develop from species such as beech and yew. Shorter lived species such as birch and the current veteran beeches will collapse creating canopy gaps that will succeed through bramble and birch scrub to semi-mature mixed broadleaves. There will continue to be a range of other site-appropriate tree species present, in several age-classes, including rowan, alder, holly, aspen and willow.

Ground flora will continue to include woodland specialist species such as bluebell and lily-of-the-valley in the Old Forest and a wide range of ferns, mosses and liverworts in the gills.

Invasive non-native species such as rhododendron and Himalayan balsam will not pose a threat to the overall biodiversity of the area.

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

During this plan period management will focus on controlling any remaining rhododendron and monitoring for the presence of Himalayan balsam.

- Annual control of rhododendron regrowth and seedlings by herbicide application (mainly in Subcpt 4c) during March (weather permitting).
- Biennial monitoring of Sprats's Brook for Himalayan balsam. Next due June 2018.
- Undertake deer impact assessment October 2018.
- 5-yearly woodland condition assessment. Next due May 2023.

5.3 Semi Natural Open Ground Habitat

Description

Hargate Forest lies entirely on the Cretaceous Ashdown Beds which naturally give rise to highly acidic podzol soils that support lowland heathland habitat when unimproved and not heavily shaded. Historical evidence suggests Hargate has never been extensively cultivated but has had a long history as ‘waste’, both as heath and woodland. Heather grows extensively on the site wherever light levels permit. The first areas of open habitat (west section of Subcpt 1c and most Subcpt 2d) were cleared of burnt conifers and birch scrub following a spate of fires in 1997. Heather regenerated well and the areas were subsequently managed as open lowland heathland under a Countryside Steward Scheme agreement from 1998 to 2008. The section linking these two areas was clearfelled of young pine in 2009 and the eastern area extended, creating a total area of approx 4 hectares.

At the western end the area slopes steeply down to the west from a high point of approx 130m from where there are extensive views to the west and south-west. This area is known locally as Mount Nod. The rest of the area is relatively level and poorly drained in places.

The area now contains a mix of heather (Calluna vulgaris), cross-leaved heath (Erica tetralix), bracken, purple moor grass (Molinia caerulea) and bramble. There is also a single plant of royal fern (Osmunda regalis). Common and dwarf gorse also occur occasionally. Natural regeneration of birch is frequent, along with Scots pine, rowan, goat willow and western hemlock. This has been controlled annually by mowing and more recently by weed-wiping with herbicide. There are small clumps of pine and birch in Subcpt 2d and a fringe of mixed broadleaves around the boundaries with adjoining Montacute Field, which is outside of WT ownership.

The heathland area connects with wide rides known as The Link to the east and Broadview to the south. Both of these rides have a heathy ground flora including heather and Molinia. There is also a small (approx 0.25ha) area of acid grassland in the north-east corner of Subcpt 4a and a 20m-wide firebreak along the boundary with Strawberry Close (Subcpt 1a).

Significance

The area of lowland heath in southern England has declined drastically over the last 100 years due to lack of grazing, afforestation and development. It is a UKBAP Priority Habitat and Sussex BAP habitat. It is also a man-made habitat that needs regular management to maintain its high biodiversity value. The area around Tunbridge Wells has many small scattered heathland fragments and to the south-west is the Ashdown Forest, the largest area of lowland heath in the country. The RSPB are also undertaking a major heathland restoration project on the nearby Broadwater Warren, 1.5km to the west.

Simple, regular management can now maintain this area of open habitat which supports locally important populations of species of birds including woodlark and tree pipit as well as reptiles such as common lizard. The open space and views also add greatly to the amenity value of the woodland.

Opportunities & Constraints

Opportunities
To maintain an attractive, open area of internationally important lowland heathland within a large woodland.
To maintain extensive external and internal views.
To provide an area of habitat within a wider local network of similar habitat.

Constraints.
Timing of operations is important to avoid ground nesting birds.
Steep slope in Subcpt 1c.
High fire risk.
High levels of public access limit grazing potential and cause disturbance to ground-nesting birds.

Factors Causing Change

Natural regeneration of birch, willow etc
Spread of bracken.

Long term Objective (50 years+)

In the long term the extent of open habitats, comprising managed heathland and grassland, wide rides and glades will total approximately 15% of the site. Key ground flora species will include heather, cross-leaved heath and purple moor grass, with common and dwarf gorse. The heathland area will be buffered by birch and willow scrub of various age-classes, both within the 2 subcpts and also in adjoining stands.

The main ride network will be maintained to a sufficient width to allow ground flora species to flourish and ride edges will be managed on a short rotation to create a graded structure.

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

During this plan period the open heathland area will be maintained at its current extent and the ride network will be managed, with a 2-zone system created where appropriate and possible. These objectives will be achieved through the following:-

- Annual bracken-rolling (August). Subcpts 1a, 1c, 2d. Approx 2ha.
- Annual control of scrub on heathland by weed-wiping (September). Subcpts 1c, 2d. Approx 1ha
- Annual mowing of ride network (October). Approx 3250m.
- Annual ride-side coppicing (Sept-Nov). Approx 1000m in total over the plan period.

5.4 Connecting People with woods & trees

Description

Hargate Forest is part of the Welcoming Sites Programme (WSP), a Woodland Trust initiative which aims to improve recreation and access provision at our key sites. The WSP will lead to a series of lasting upgrades that will improve the visitor experience and will likely increase the number and range of visitors to this site. An attractive and serviceable network of tracks and paths will further encourage the appreciation of the woodland, both on the site and in the locality. The site will be managed to meet the required high standards of WSP and will provide a clear welcome: well-maintained entrances, furniture, signs and other infrastructure as well as sustainable path and track surfaces across the variable ground conditions where appropriate. Improved access will better facilitate use by a wider range of visitors. An engagement plan will set out a plan for engagement activities, further enhancing public visits to the site.

Hargate Forest lies on the southern fringe of Tunbridge Wells, Kent (pop 64,783) with approx 4,500 people living within 1km of the site. With its mature conifers, open heathland and extensive views across the High Weald, it provides a rural, semi-natural amenity very close to the town centre. It complements other publically-accessible open space nearby such as RSPB Broadwater and Tunbridge Wells, Rusthall and Southborough Commons. There are also 3 other smaller Woodland Trust woods within the town: Friezland, Hurst and Nellington.

There are 2 entrances off Broadwater Down where there is on-street parking. Both entrances have kissing gates suitable for disabled access with a RADAR key. At the western end of Broadwater Down the entrance leads onto a wide surfaced ride known as Hargate Strait which runs south into the wood for approx 800m. Permissive access has also been agreed with the Nevill Estate to provide a second access point 350m east along Broadwater Down through 'the Bunker Area'. From this entrance a surfaced path runs approx 200m to the start of the Trust's ownership. Both entrances have an information board, posters and dog-bins.

The network of wide rides totals approx 3.5km and added to the narrower paths within the trees, allows for walks of various lengths and can take in a wide variety of woodland types and a selection of internal and external views. Other than Hargate Strait, no other rides are surfaced and conditions can be extremely wet underfoot in places.

The site has hosted various events over the years and is regularly used for Forest Schools sessions.

Significance

Hargate Forest provides a large area of woodland and other habitat for informal recreation to a large local population. It is used by many people who arrive on foot rather than by car. It is a good example of woodland under active management for multiple objectives.

Although immediately adjacent to a large urban area the site has a very rural feel to it which is added to by extensive views over the surrounding heavily-wooded landscape, a designated Area of Outstanding Natural Beauty. The long period of use of the site by the public has led to an extensive knowledge of its history and wildlife.

Opportunities & Constraints

Opportunities
To improve the ‘welcome’ at the 2 main access points in terms of signage and infrastructure.
To provide a programme of events for the wider public plus opportunities for schools etc.
To maintain the ride network for the benefit of both public access and biodiversity.

Constraints
WT does not own the land at either entrance.
Lack of car parking.
Lack of links to the wider public rights of way network.
Geology and soils lead to extensive waterlogging during wet weather.
Potential conflict caused by high levels of public access (particularly dog-walkers) and nature conservation.

Factors Causing Change

Increasing development and population density in the immediate and wider urban area will put additional pressure on the site in terms of visitor numbers, increased anti-social behaviour and parking difficulties.

The RSPB has a 'dogs on leads' policy at Broadwater Warren from March-September. This causes a significant increase in dog-walkers to Hargate during this period, further adding to conflict with other users and wildlife.

Long term Objective (50 years+)

To provide a safe, enjoyable and varied woodland experience for visitors, with a good network of maintained routes, entrances and infrastructure in line with the site's inclusion in the Woodland Trust’s Welcome Sites Programme.

The site should be well-liked, used and respected by the community who will play some part in its upkeep such as by litter-picking, recording wildlife or acting as ‘ears and eyes’ for the Trust.

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

Over the next 5 years the site will see improvements to its signage, entrances and ride network and a programme of events will be delivered. This will be achieved by the following:-

- Signage/information upgrade at 2 public entrances (2019).
- Annual path maintenance programme (May/June and September) on approx 3500m of wide ride + 2000m of minor rides and paths.
- Develop an engagement plan for the site, including events, Forest School and volunteering, as appropriate (2019).
- Undertake approx 1000m of ride-side coppicing during the plan period – see semi-natural open ground habitat KF.

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	1.15	Birch (downy/silver)	1950	Min-intervention	Very steep slope/cliff/quarry/mine shafts/sink holes etc	Connecting People with woods & trees	Area of Outstanding Natural Beauty
Northern boundary of the wood adjoining houses in Strawberry Close. This area is partly open ground (felled 1998) with a ground flora including heather, bracken and bramble. Also NW finger of woodland leading to the main management and public entrance off Broadwater Down. WT ownership stops approx 20m from the management gate. This area is owned by Nevill Estate. Management track upgraded 2001. W of the track the wood slopes steeply to the boundary and consists of mature birch, rowan and occasional oak. This also extends upslope E of the track to the W end of the open ground.							
1b	5.38	Western hemlock	1960	PAWS restoration	Landscape factors, Very steep slope/cliff/quarry/mine shafts/sink holes etc	Connecting People with woods & trees	Area of Outstanding Natural Beauty
Semi-mature mixed conifers (P60) and broadleaved tree regeneration. The west facing slope either side of the management track comprises approx 2ha western hemlock which was last thinned in 2016. Includes some hemlock and broadleaved regeneration (oak, birch, beech, rowan) in gaps and on edges. A small area (0.4ha) west of the track was restocked with WH and beech in 1995. The level area east of the hemlock comprises approx 1ha of Japanese larch with extensive bracken cover. East of the larch, to the boundary with Montacute field is approx 2ha Corsican pine. There are also occasional mature Scots pine within the Subcpt.							
1c	2.69	Open ground		Non-wood habitat	Landscape factors, Sensitive habitats/species on or adjacent to site, Very steep slope/cliff/quarry/mine shafts/sink holes etc	Connecting People with woods & trees	Area of Outstanding Natural Beauty

Formerly conifer plantation restored to lowland heathland. The conifers were cleared following fires in 1999 and additional felling in 2009. The area to the east is known as Mount Nod and enjoys views across the Weald Forest Ridge. A strip of mixed broadleaves (oak, birch etc) remains along the boundaries with Montacute Field. There are 2 small clumps of Scots pine in the W section. Ground flora includes extensive heather (Calluna vulgaris) and purple moor grass (Molinia caerulea) with rare cross-leaved heath (Erica tetralix) and dwarf gorse (Ulex minor).							
1d	1.17	Scots pine	1950	High forest		Connecting People with woods & trees	Area of Outstanding Natural Beauty
W section is P50 Scots pine, similar in structure and composition to Subcpts 3a (N half) and 3b. Within the open canopied pine stand there are mixed broadleaves including oak, birch rowan, holly and yew both as canopy trees and understorey, Ground flora is dominated by bracken with some heather where light levels are higher. The eastern half is dominated by birch arising from a previously failed SP plantation from the mid 1980s. The southern section of the birch along Broadview ride was coppiced in c2013.							
2a	11.10	Corsican pine	1986	PAWS restoration	Sensitive habitats/species on or adjacent to site	Connecting People with woods & trees	Area of Outstanding Natural Beauty
Predominantly P86 mixed conifers: Corsican pine (60%); Scots pine (30%); Norway spruce (5%); Japanese larch (5%). It also includes birch, oak, yew, willow and rowan regeneration and occasional semi-mature trees. The subcpt is surrounded by and bisected by wide rides often with extensive heather cover. The ride to the S is known as Broadview, to the E is The Old Carriageway and through the centre is The Link. There are also smaller rides within the area which have been enhanced by cleaning and brashing of the conifer crop for 5m on each side. First commercial thin in 2013. Heather, bramble and bracken ground flora developing.							
2b	2.16	Oak (pedunculate)	1993	High forest		Connecting People with woods & trees	Area of Outstanding Natural Beauty
P93 mixed broadleaves: oak, sweet chestnut, wild cherry. 3m spacing. Natural regeneration of birch, willow etc. Extensive bracken particularly in N of subcpt. Mature oak along S boundary.							
2c	0.59	Scots pine	1930	High forest	Very steep slope/cliff/quarry/ mine shafts/sink holes etc	Connecting People with woods & trees	Area of Outstanding Natural Beauty
P1930 Scots pine. There is an old quarry in the centre of the subcpt, up to 4m deep and with steep sides. The N and E boundaries are marked with a post and wire fence in poor condition. Previously heavily infested with rhododendron which was cleared in 2010 along with edges of Old Carriageway.							

2d	2.90	Open ground		Non-wood habitat		Connecting People with woods & trees	Area of Outstanding Natural Beauty
This Subcpt is a continuation of Subcpt 1c to the W. Cleared of conifers in 1998 following several fires and managed as lowland heath since. The area of extended to the E to join up with The Link ride in c2012. The area has extensive heather (Calluna vulgaris), purple moor grass, bracken and one royal fern plant. Management has been by a mix of mowing, bracken rolling and more recently weedwiping scrub. There are 2 clumps of predominantly pine on the NW side and the boundary with Montacute field to the NW is multi-aged mixed broadleaves including oak and birch.							
3a	1.73	Scots pine	1950	PAWS restoration		Connecting People with woods & trees	Area of Outstanding Natural Beauty
P50 mixed conifers and broadleaves between main management ride and boundary to W with farmland. Scots pine in north of subcpt and Douglas fir in south with occasional oak, larch, birch, rowan. In the north of the subcpt is a small pond fed by a culvert under the main ride from the ditch along the edge of subcpt 1c. Ground flora is dominated by bracken and bramble.							
3b	5.72	Scots pine	1950	PAWS restoration	Mostly wet ground/exposed site, Very steep slope/cliff/quarry/ mine shafts/sink holes etc	Connecting People with woods & trees	Area of Outstanding Natural Beauty
Predominantly P50 Scots pine. Last thinned in 2007.Pine at the eastern end of the subcpt is of poor form and size due to the severity of the rhododendron invasion. Ground flora is now dominated by bracken with heather in more open areas. The stand also contains oak, birch, rowan, holly and yew of various age classes. A small stream with ferns and mosses alongside flows south out of the subcpt and under the main ride (Ridgeback) to the south. Along part of the northern boundary with Broadview ride is a strip of birch up to 40m wide, sections of which have been coppiced 2014-17.							
3c	5.02	Douglas fir	1950	PAWS restoration	Archaeological features, Gullies/Deep Valleys/Uneven/ Rocky ground	Connecting People with woods & trees	Area of Outstanding Natural Beauty
P50 Douglas fir with some P50 Sitka spruce in the ghylls, occasional semi-mature oak and frequent birch. Other species include rowan, holly, yew, Scots pine and larch. The subcpt contains a tributary stream to Sprats Brook in a ghyll with extensive mosses, ferns and bluebells under alder, birch, and willow. The stand is predominantly clear of ground and shrub layers due to shading however where light does penetrate ground flora includes mosses, ferns and ocasionally bluebells.							
3d	4.57	Scots pine	1950	PAWS restoration	Mostly wet ground/exposed site	Connecting People with woods & trees	Area of Outstanding Natural Beauty

Scots pine [P50] with 0.5ha of Corsican pine [P50] in the south west corner. Well thinned stand (last thinning 1998) with most of previous rhododendron invasion now removed and regrowth controlled. Ground flora dominated by bracken with some heather. Several wet flushes with spagnum moss. Tributary ghyll with seasonal stream with yew, oak, beech etc still containing rhododendron.							
3e	1.58	Mixed native broadleaves	1995	High forest		Connecting People with woods & trees	Area of Outstanding Natural Beauty
Mixed broadleaves [P95] - Oak 50%; Sweet chestnut 30%; wild cherry 10%; MB 10%. Also natural regeneration of birch, goat willow etc and extensive bracken. Originally established at 3m spacing.							
3f	4.73	Mixed native broadleaves	1900	Min-intervention	Gullies/Deep Valleys/Uneven/ Rocky ground, Sensitive habitats/species on or adjacent to site	Connecting People with woods & trees	Area of Outstanding Natural Beauty
Semi-natural ghyll woodland along a stream known as Sprat's brook. In the western part there are mature oak, beech and yew with understorey of alder, goat willow, birch, rowan and holly. In the east there are mature birch, oak and beech with occasional yew and rowan. Ground flora throughout includes many fern, moss and liverwort species. Other ground flora species include bluebell, yellow pimpernel, lesser celandine and wood sorrel. At the western end of the subcpt, south of the stream there is a small pond. The western half of the subcpt is crossed by several small informal paths with footbridges. Invasive Himalayan balsam has been present in the past and controlled by pulling. It is currently present in small quantities.							
3g	3.32	Corsican pine	1986	PAWS restoration		Connecting People with woods & trees	Area of Outstanding Natural Beauty
P86 Corsican and Scots pine with occasional Japanese larch and Norway spruce. This is a continuation of the stand in Cpt 2a to the north of Broadview ride. There are some stands of coppiced birch along the ride and the occasional semi-mature oak. The main part of the subcpt has been cleaned and brashed but not thinned. There is extensive heather in most of the Subcpt and previous rhododendron invasion has been largely eradicated.							
4a	2.54	Mixed native broadleaves	1993	High forest	Archaeological features, Sensitive habitats/species on or adjacent to site	Connecting People with woods & trees	Area of Outstanding Natural Beauty

Oak & wild cherry planted in 1993 with abundant birch and goat willow natural regeneration. The subcpt contains old conifer stumps and appears to have been ploughed. Ground flora is dominated by bramble with some rushes and grasses. The western boundary has a fringe of mature birch, willow and oak along a boundary bank. The northern edge of the subcpt is the edge of the ghyll and in the north eastern corner is a notable colony of lily of the valley (Convallaria majalis). Theeastern boundary is formed by a woodbank with some mature oak, beech and yew. An area of approx 0.4ha of the planting has been cleared in the north east and kept open by annual mowing.This is a damp ridge & furrow rushy grassland named West Rough which is particularly good for invertebrates.							
4b	1.27	Mixed broadleaves	1970	High forest	Archaeological features	Connecting People with woods & trees	Area of Outstanding Natural Beauty
Secondary woodland with abundant birch, goat willow, frequent oak, occasional Norway spruce, western hemlock and sycamore (approx P70). No understorey present. Ground flora consists mainly of mosses, bramble and some ferns. The southern boundary is a woodbank running parallel to the road (Bunny Lane). In the south western corner there is a management gate although no legal management access at this point. Access is by permission from Nevill Estate, owners of 'ransom strip' along the road, south of the woodbank.							
4c	4.96	Oak (pedunculate)	1900	Min-intervention	Sensitive habitats/species on or adjacent to site	Connecting People with woods & trees	Area of Outstanding Natural Beauty
Semi-natural woodland known locally as The Old Forest. Two storied high forest with an open canopy of oak and occasional beech. Understorey of planted oak [P95] (0.9ha), abundant birch regeneration, occasional chestnut coppice, yew, rowan, beech and holly. There are 3 very large over-mature beech trees which are beginning to break up and decay. To the south the canopy is dominated more by mature birch. This southern area was extensively invaded by rhododendron until clearance during the winter of 01/02. The clearance revealed extensive windblow from 1987 along the southern edge. There is another large colony of lily of the valley in this area. Ground flora in the subcpt also includes bramble, bracken, bluebell, wood anemone and various sedges, rushes and mosses.							

Appendix 2: Harvesting operations (20 years)

Forecast Year	Cpt	Operation Type	Work Area (ha)	Estimated vol/ha	Estimated total vol.
2018	2a	Thin	8.00	31	250
2018	3g	Thin	1.00	27	27
2019	1d	Coppice	0.40	100	40
2020	1d	Thin	0.50	30	15
2020	3a	Thin	1.00	30	30
2020	3b	Thin	4.50	33	150
2020	3c	Thin	4.00	30	120
2020	3d	Thin	3.50	29	100
2021	1c	Coppice	0.40	100	40
2022	1b	Thin	4.50	44	200
2023	2a	Thin	8.00	31	250
2023	2a	Coppice	1.00	100	100
2023	3g	Thin	1.50	33	50
2026	3b	Coppice	0.50	100	50
2028	1b	Thin	4.50	44	200
2028	2a	Thin	8.00	50	400
2028	3g	Thin	2.50	40	100
2030	3a	Thin	1.00	30	30
2030	3b	Thin	4.50	33	150
2030	3c	Thin	4.00	25	100
2030	3d	Thin	3.50	29	100

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.