



Lake Wood

Management Plan 2016-2021

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THE WOODLAND TRUST

INTRODUCTION

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

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

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

PLAN REVIEW AND UPDATING

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 Consequently this printed version may quickly become out of date, particularly in relation to the planned work programme and on-going monitoring observations.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

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

WOODLAND MANAGEMENT APPROACH

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

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

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

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

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

The following guidelines help to direct our woodland management:

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

SUMMARY

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

1.0 SITE DETAILS

Site name:	Lake Wood
Location:	Uckfield
Grid reference:	TQ463217, OS 1:50,000 Sheet No. 198
Area:	8.46 hectares (20.91 acres)
Designations:	Ancient Semi Natural Woodland, Ancient Woodland Site, County Wildlife Site (includes SNCI, SINC etc)

2.0 SITE DESCRIPTION

2.1 Summary Description

A magical combination of water and trees gave Lake Wood its name and has inspired generations of visitors. Home to dormice and almost 60 species of bird, including kingfisher and heron. A tunnel cut through rock completes the path around the lake.

2.2 Extended Description

Lake Wood is a 20 acre ancient woodland site on the western edge of Uckfield, East Sussex, on the boundary between the Low Weald and High Weald National Character Areas. The site was acquired by the Woodland Trust in 1993 from the Streatfeild family who had owned the wood since 1789. The site is bounded by farmland to the north, West Park Local Nature Reserve to the south (across Rocks Road) and the Uckfield by-pass to the west.

In the first half of the nineteenth century the southern part of the site was landscaped in the style of Capability Brown. An existing pond was enlarged by the building of an earth dam which created a 3 acre spring-fed lake. Carriage drives were put through the site including a tunnel under Rocks Road and a route across the dam. Many exotic and native trees and shrubs were planted, some of which still survive as large specimen trees. The site already benefited from the dramatic sandstone outcrops along the sides of the valley that runs east/west across the site. Where the rocks formed the shoreline of the new lake structures were cut into them including steps, tunnels and a boat-house.

The northern part of the site is largely overstood mixed coppice and semi-mature birch with oak standards which provides excellent dormouse habitat. The dormice have been monitored at Lake Wood since 2008, contributing to the National Dormouse Monitoring Programme. Ground flora includes extensive displays of wood anemones in the spring as well as coarse vegetation such as bracken and bramble.

The storm of 1987 seriously damaged the site, blowing down many of the large specimen trees and approximately 100 oak standards allowing the spread of invasive *Rhododendron ponticum*. Since acquiring the site the Woodland Trust has cleared the rhododendron, with a lot of work being carried out by volunteer work parties. The clearance has revealed the Cretaceous Ardingly sandstone outcrops within the wood which are of geological interest as well as the lower plants (mosses, lichens, ferns) that grow on them. The removal of the rhododendron has also allowed the natural regeneration of trees and some heather on the rocks.

The site is well used by local people but suffers from regular anti-social behaviour problems such as camping, fires, litter and vandalism.

Geology: Cretaceous Ardingly Sandstone/Grinstead Clay (Lower Tunbridge Wells Sand)

Soil: stagnogleyic argillic brown earth

Rainfall: 800mm per annum

3.0 PUBLIC ACCESS INFORMATION

3.1 Getting there

By bus

Nearest bus stop: High Street, Uckfield, 0.8km (½ mile) from the wood via Church Street and Rocks Road.

By train

Nearest train station: Uckfield, 1.2km (¾ mile) from the site, following the High Street, Church Street and Rocks Road.

For further information on public transport, contact Traveline or call 0871 200 2233.

By car

Lake Wood is situated to the west of Uckfield, just under one kilometre from the town centre via Church Street and Rocks Road.

There is no car park at the wood, but cars may be parked in the two lay-bys on Rocks Road, opposite the wood and in the eastern gateway. Care is needed when crossing the road and walking along the verge as there is no pavement.

3.2 Access / Walks

There are two entrances off Rocks Road - a stile at the eastern end and a kissing gate at the western end. The various paths within the site take in the woodland and the lake and include several sets of steps (stone and wooden) and a tunnel through the rocks. None of the paths are surfaced and can become very muddy in places after wet weather. Gradients are gentle to moderate.

4.0 LONG TERM POLICY

To maintain Lake Wood's biodiversity, historic interest and natural beauty for the benefit of wildlife and people, there will need to be variety of structure and vegetation across the site. For the majority of the wooded area this can be achieved by a policy of minimum intervention, ie no silvicultural operations such as coppicing. The site will also be free from the damaging effects of invasive species such as *Rhododendron ponticum*. Dead or dying trees will be retained unless they pose a safety risk to surrounding roads and well-used paths. The specimen exotic tree species such as the conifers will be retained for their natural lifespan and any regeneration of these species will be retained unless it poses a threat to native woodland species.

The sandrock outcrops will be largely kept clear of heavily-shading vegetation. This will require periodic, small-scale clearance or thinning of trees and shrubs, as identified through regular condition monitoring of the site. Periodic management of the trees and shrubs along the ride and path network will add to the structural diversity of the site by introducing some temporary open ground and scrub habitat as well as helping to maintain and improve public access to the site.

Lake Wood will continue to provide a low-key but visually impressive amenity, mainly for local visitors. The site will be regularly maintained, with clear Woodland Trust branding at the entrances but no on-site interpretation is envisaged. The anti-social behaviour problems will be monitored and dealt with in conjunction with the police when necessary.

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 Historic Landscape

Description

The landscaping of Lake Wood occurred in the late eighteenth and early nineteenth century after the site became part of the Rocks Estate, owned by the Streatfeild family, in 1789. An existing spring-fed pond was enlarged by the building of the dam. Various features were carved out of the sandstone outcrops including tunnels, steps and a cave-like boathouse. A sandstone-block wall was built on the boundary along Rocks Road. Rides suitable for use by horse and carriage were also put through the wood via a tunnel under Rocks Road. The landscaping along with the planting of exotic trees and shrubs was designed to create an extension of 'the Gardens and Pleasure Grounds of Rocks House' and provide 'picturesque and romantic walks', a fashion of the time pioneered by Capability Brown.

Many of these physical landscape features are still present on the site along with some large specimen trees, both conifers and broadleaves. The storm of 1987 blew down much of the remaining original planting and their decaying hulks can be seen across the site. The highly invasive and damaging *Rhododendron ponticum* was also probably introduced at this time but has now largely been eradicated from the site. Other non-threatening species such as azaleas are also still present.

Significance

The site is an interesting example of a designed historic landscape which has been allowed to develop naturally over 100+ years. In the last 20 years it has been sympathetically restored to remove the threat from invasive rhododendron and to preserve its historic features. In addition to its aesthetic and historic value the site contains important habitats such as veteran trees, sandrock outcrops, standing open water and ancient woodland.

Opportunities & Constraints

Constraints: the landscape features such as the lake, dam, retaining wall, steps, caves and tunnels can be seen as site hazards which need to be considered when restoration, access and management are considered.

Anti-social behaviour can cause damage to features and vegetation.

Opportunities: restoring and maintaining some elements of the historic landscape which will also improve various wildlife habitats present on the site, eg rhododendron control and sandrock habitats.

Factors Causing Change

Dieback and death of specimen trees.

Natural regeneration of birch, sycamore etc.

Squirrel, deer and rabbit damage to regeneration and young trees.

Invasive species eg rhododendron (if not controlled).

Long term Objective (50 years+)

In the long term Lake Wood should retain some key components of the historic designed landscape such as the lake, rock structures, boundary wall and large specimen trees (exotic and native). The site will be free of damaging invasive species such as rhododendron.

The dam will be in good, sound condition with the appropriate water level control in place (culvert) and with suitable vegetation on the downstream face to maintain stability (currently cherry laurel). The boundary wall will need to remain in place as it retains soil in some sections but its construction may be of a different material due to the lack of availability of the original sandstone blocks. Many of the existing over-mature trees will have died or been windblown but another cohort of mature trees will have been recruited as potential veteran trees across the site. These are likely to be predominantly oak but other species should also be present. Tree cover on and around the sandrock outcrops will not compromise their geological and botanical interest.

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

The historic landscape features will be maintained where appropriate and necessary and monitored to ensure they are in good, safe condition. In the 5-year plan period this will include the following:-

- Annual inspection of the lake overflow and maintaining the laurel on the dam as a hedge.
- Ongoing repair programme to boundary wall/fence and emergency repairs as necessary. Approx 200m of E section to be repointed/rebuilt 2016 and 2017. The wall will be free of encroaching and damaging vegetation such as ivy.
- Remove approx. 30% of birch and holly etc from in front of rock outcrops on N side of valley, Cpt 1a.

5.2 Ancient Semi Natural Woodland

Description

The whole site is classified as ancient semi-natural woodland although much of it was extensively modified in the late 18th and early 19th centuries by the enlargement of the lake and the planting of exotic trees and shrubs. The northern part of the site (Cpt 1b) has a species composition and structure more typical of Wealden ancient woodland on base-poor sandy soils (NVC W10b) with coppiced hazel, hornbeam and sweet chestnut and semi-mature oak standards. Other species include holly, sycamore and birch, particularly in areas windblown in 1987 and subsequently left to regenerate.

Ground flora includes woodland specialist species such as wood anemone, bluebell, wood sorrel, tutsan, primrose, wood spurge, Solomon's seal, wild garlic, early purple orchid and moschatel. Areas with a light tree canopy tend to have a ground flora dominated by coarse species such as bracken and bramble. Other important species found in the wood include dormouse, yellow-necked mouse, great crested newt and five species of bat.

Significance

ASNW now covers just 2% of the UK and it is one of our richest habitats. Approximately 40% of England's ASNW is found in the south east with the High Weald being a concentration. ASNW is very important due to the continuity of woodland cover over hundreds of years. This allows for a diverse range of wildlife and vegetation to develop over time that cannot be found in new woodland. Ancient woodland is irreplaceable and the prevention of its loss is one of the main aims of the Trust. Lake Wood has a well-studied and rich wildlife population close to an urban population. Its previous history has produced a unique site.

Opportunities & Constraints

Constraints: the size of the woodland and difficult access limit management options.

Opportunities: to allow the woodland to develop with minimal intervention while monitoring key species such as dormice.

Factors Causing Change

Tree disease including ash dieback (*Hymenoscyphus fraxineus*) and ink disease in sweet chestnut (*Phytophthora* spp).

Deer, rabbit and squirrel damage to existing trees and inhibiting natural regeneration.

Long term Objective (50 years+)

The woodland will be allowed to develop largely by the processes of natural succession, with a long term increase in mature and veteran trees (broadleaved and the occasional conifer), and standing and fallen deadwood. Some structural diversity will be provided by the senescence and eventual regeneration of birch stands that grew up in the late 20th century. Canopy gaps will also be created by the death and windthrow of larger trees or loss of certain species due to disease. Some management of trees along rides and around the sandrock outcrops will add another structural element to the tree cover. There should be no damaging invasive species present.

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

To allow the process of natural succession to take place, no silvicultural interventions will take place within the majority of the woodland. To maintain and improve the ecological condition of the site the following objectives will be met in the 5-year plan period:-

- Any remaining rhododendron (scattered plants) will be controlled across the site. Also laurel seedlings in the valley west of the dam. The preferred method will be by hand-pulling.
- To improve the ride network and the ecological condition of the sandrock outcrops some tree felling will be undertaken. This will concentrate on the historic carriage drive in the west of the site and the rock outcrops along the north side of the dry valley in the east of the site. Operations planned for 2016 and 2018.

5.3 Informal Public Access

Description

The site is visually attractive with the lake, rocks and specimen trees. It is well used by local people and others from further afield (WT access category B: regular usage, 5-15 people using one entrance per day). There are 2 pedestrian access points from Rocks Road although parking is very limited. The rides and paths around the site take in the wooded area, the lake-shore and the rock outcrops. The site's attractive nature and close proximity to Uckfield also leads to regular, on-going issues with anti-social behaviour including litter, fires, camping and vandalism. There is further public access land to the south of the site in West Park.

Significance

Access to woodland provides an improved quality of life with benefits to both mental and physical health. Lake Wood provides the local community with a visually impressive site with an interesting history and very good wildlife habitat. Increasing the public's enjoyment and understanding of woodland is one of the main aims of the Trust and allowing open access to its sites is a crucial part of achieving this.

Opportunities & Constraints

Constraints: limited parking; adjacent busy roads; seasonally waterlogged soils; site hazards (lake, steps, cliffs). Anti-social behaviour.

Factors Causing Change

The public use of the site has increased over the years and is set to continue to increase as the local population expands.

Long term Objective (50 years+)

The wood will have a network of rides and paths open to the public, maintained as appropriate with its usage. It is not anticipated that the site will have additional signage and interpretation. Anti-social behaviour will not threaten the site's intrinsic visual appeal, visitor safety or wildlife habitat.

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 Lake Wood which is safe and enjoyable. This will be achieved by:-

- Annual ride/path cutting and entrance maintenance.
- Tree safety surveys and any resulting remedial work. Zone B survey every 3 years, next due: July 2018.
- Annual steps inspection of steps, wall, fences and lake overflow.
- Clear litter as necessary. To be carried out by WT staff, volunteers and contractors.
- Any serious anti-social behaviour issues reported to the police.

6.0 WORK PROGRAMME

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

Cpt No.	Area (ha)	Main Species	Year	Management Regime	Major Management Constraints	Key Features Present	Designations
1a	4.11	Mixed broadleaves	1850	Min-intervention	Gullies/Deep Valleys/Uneven/Rocky ground, Housing/infrastructure, structures & water features on or adjacent to site	Ancient Semi Natural Woodland, Informal Public Access	Ancient Woodland Site, County Wildlife Site (includes SNCI, SINC etc)
<p>Southern part of the site including man-made lake with dam (approx. 1ha) and Cretaceous sandrock outcrops forming the edges of a dry valley running from E to W. The area contains large, mature native and exotic trees planted in the first half of the 19th century. Species include beech, lime, sweet chestnut, horse chestnut, sycamore, coast redwood, Wellingtonia and Monterey pine. The eastern and western arms of the lake have wet woodland with alder, willow and birch. Previously heavily infested with <i>Rhododendron ponticum</i>, now removed and controlled. Cleared areas have regenerated mainly with birch and sycamore. In the more open areas ground flora is dominated by coarse species such as bracken and bramble. To the south the site is bounded by a historic sandstone block wall along Rocks Road, with similar mixed habitat on the other side of the road.</p>							
1b	4.32	Oak (pedunculate)	1900	Min-intervention	Gullies/Deep Valleys/Uneven/Rocky ground, Sensitive habitats/species on or adjacent to site	Ancient Semi Natural Woodland, Informal Public Access	Ancient Semi Natural Woodland, County Wildlife Site (includes SNCI, SINC etc)
<p>Northern part of the site. Ancient semi-natural woodland (NVC W10b). Significant windblow of large trees in 1987 has giving rise to areas of birch regeneration. Overstood hazel and hornbeam coppice with oak standards in the west. Semi-mature birch, oak standards and mixed overstood coppice (sweet chestnut, birch, hazel, sycamore) occasional conifer in east. Ground flora contains abundant wood anemone along with bracken and bramble. To the west is the A22. To the north is farmland (mainly grass) with some young woodland in the west.</p>							

GLOSSARY

Ancient Woodland

Ancient woods are defined as those where there has been continuous woodland cover since at least 1600 AD. In Scotland ancient woods are defined strictly as sites shown as semi-natural woodland on the 'Roy' maps (a military survey carried out in 1750 AD, which is the best source of historical map evidence) and as woodland all subsequent maps. However, they have been combined with long-established woods of semi-natural origin (originating from between 1750 and 1860) into a single category of Ancient Semi-Natural Woodland to take account of uncertainties in their identification. Ancient woods include Ancient Semi-Natural Woodland and plantations on Ancient Woodland Sites (see below). May support many species that are only found in ancient woodland.

Ancient Semi - Natural Woodland

Stands in ancient woods defined as those consisting predominantly of native trees and shrubs that have not obviously been planted, which have arisen from natural regeneration or coppice regrowth.

Ancient Woodland Site

Stands in ancient woods that have been converted to plantations, of coniferous, broadleaved or mixed species, usually for timber production, including plantations of native species planted so closely together that any semi-natural elements of the understorey have been suppressed.

Beating Up

Replacing any newly planted trees that have died in the first few years after planting.

Broadleaf

A tree having broad leaves (such as oak) rather than needles found on conifers (such as Scots pine).

Canopy

The uppermost layer of vegetation in a woodland, or the upper foliage and branches of an individual tree.

Clearfell

Felling of all trees within a defined area.

Compartment

Permanent management division of a woodland, usually defined on site by permanent features such as roads. See Sub-compartments.

Conifer

A tree having needles, rather than broadleaves, and typically bearing cones.

Continuous Cover forestry

A term used for managing woods to ensure that there are groups or individual trees of different ages scattered over the whole wood and that some mature tree cover is always maintained. Management is by repeated thinning and no large areas are ever completely felled all at once.

Coppice

Trees which are cut back to ground levels at regular intervals (3-25 years).

Exotic (non-native) Species

Species originating from other countries (or other parts of the UK) that have been introduced by humans, deliberately or accidentally.

Field Layer

Layer of small, non-woody herbaceous plants such as bluebells.

Group Fell

The felling of a small group of trees, often to promote natural regeneration or allow planting.

Long Term Retention

Discrete groups of trees (or in some cases single trees) that are retained significantly past their economic felling age. Operations may still be carried out within them and thinning is often necessary to maintain stability.

Minimum Intervention

Areas where no operations (such as thinning) will take place other than to protect public safety or possibly to control invasive exotic species.

Mixed Woodland

Woodland made up of broadleaved and coniferous trees.

National vegetation classification (NVC)

A classification scheme that allows an area of vegetation to be assigned to the standardised type that best matches the combination of plant species that it contains. All woodlands in the UK can be described as being one of 18 main woodland types (W1 - W18), which principally reflect soil and climatic conditions. For example, Upland Oakwoods are type W11, and normally occur on well drained infertile soils in the cooler and wetter north and west of Britain. Each main type can be subdivided into numerous subtypes. Most real woods contain more than one type or sub-type and inevitably some woods are intermediate in character and can't be properly described by any sub type.

Native Species

Species that arrived in Britain without human assistance.

Natural Regeneration

Naturally grown trees from seeds falling from mature trees. Also regeneration from coppicing and suckering.

Origin & Provenance

The provenance of a tree or seed is the place where seed was collected to grow the tree or plant. The origin is the geographical location within the natural range of a species from where seeds/tree originally derives. Thus an acorn collected from a Turkey oak in Edinburgh would have an Edinburgh provenance and a southern European origin.

Re-Stocking

Re-planting an area of woodland, after it has been felled.

Shrub Layer

Formed by woody plants 1-10m tall.

Silviculture

The growing and care of trees in woodlands.

Stand

Trees of one type or species, grouped together within a woodland.

Sub-Compartment

Temporary management division of a compartment, which may change between management plan periods.

Thinning

The felling of a proportion of individual trees within a given area. The remaining trees grow to fill in the space created.

Tubex or Grow or Tuley Tubes

Tubes placed over newly planted trees or natural regeneration that promote growth and provide protection from animals such as rabbits and deer.

Weeding

The control of vegetation immediately around newly planted trees or natural regeneration to promote tree growth until they become established. Either by hand cutting or with carefully selected weed killers such as glyphosate.

Windblow/Windthrow

Trees or groups of trees blown over (usually uprooted) by strong winds and gales.