



East Woods

Management Plan 2019-2024

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THE WOODLAND TRUST

INTRODUCTION

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

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

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

PLAN REVIEW AND UPDATING

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 Consequently this printed version may quickly become out of date, particularly in relation to the planned work programme and on-going monitoring observations.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

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

WOODLAND MANAGEMENT APPROACH

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

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

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

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

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

The following guidelines help to direct our woodland management:

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

SUMMARY

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

1.0 SITE DETAILS

Site name:	East Woods
Location:	Livingston
Grid reference:	NT064687, OS 1:50,000 Sheet No. 65
Area:	12.51 hectares (30.91 acres)
Designations:	Long Established Woodland of Plantation Origin, Tree Preservation Order

2.0 SITE DESCRIPTION

2.1 Summary Description

Set in an accessible position on the eastern side of Livingston, these woods provide a great green space for nearby residents and workers. Well-maintained footpaths make them a popular place for joggers and dog walkers and the area is well served by buses.

2.2 Extended Description

East woods are three distinct woodland blocks forming part of the Woodland Trust's holding in Livingston, West Lothian; located in the Craigshill area on the eastern edge of Livingston, adjacent to Pumpherston. The woodlands lie on a gently south easterly facing slope at an altitude of 110 - 140m above sea level.

Whilst there are no major watercourses present in any of the woods, there is a ditch that can contain high flows of water during wet periods, running through Pumpherston Wood. The geology of the area is fine-grained basic igneous rock which gives rise to brown forest soils of reasonable fertility. In most areas, a slight natural slope results in reasonable drainage. However, flatter parts of Pumpherston Wood and a lack of natural drainage often results in seasonally waterlogged soils. The climate of Livingston is described (by MLURI) as moist lowland and foothill with moderate exposure and moderate winters.

The East woods are mixed plantations, from two main periods. Craigshill Plantation (compartment 23) and the western section of Pumpherston Wood (compartment 25) were probably planted in the mid to late 19th century as typical estate woodlands comprising mixed broadleaves -primarily oak and beech - and Scots pine. Some of these original trees are still present, particularly in Pumpherston Wood. Below this mature canopy is an emerging sub canopy of mixed species from both planting and natural regeneration, including groups of sitka spruce, sycamore and beech. Both of these areas are shown on the OS map of 1860 and are therefore classified in the Ancient Woodland Inventory as Long Established Woodlands of Plantation Origin (LEPO).

Compartment 24 and the southern section of Pumpherston Wood are of more recent origin and were probably planted around the time that the adjoining housing areas were built in the 1960s. Compartment 24 is principally Scots pine with sycamore and beech. The southern section of Pumpherston Wood comprises single species blocks of sycamore grey alder, lodgepole pine and larch. In wetter parts the conifers are prone to wind blow and for this reason several areas have been felled and replanted with mixed broadleaves.

The ground flora varies with ground conditions. When compared with other sites of conservation interest, the value of these woodland blocks is limited by their relatively small size and high edge effect, combined with the presence of a high proportion of non-native species. Unfortunately all three woodland blocks suffer from regular vandalism and fires and also suffer from regular household dumping.

However, the woodlands are still of importance for local biodiversity as they represent small reserves of more natural vegetation within the built environment. Larger mammals such as deer are rarely seen, but grey squirrels and a range of birds, smaller mammals and invertebrates can be expected to benefit from the woodland cover, as do a number of common woodland and woodland edge plants.

The woodland belts are an important part of the infrastructure of Livingston, providing separation, screening, and an attractive backdrop to the various residential developments. The belts also function as windbreaks and provide some barrier to noise.

The woodlands are a good amenity for local users and contain a number of informal paths and desire lines accessed from entrance points which link to the formal tarmac footpath and cycleway networks. A number of tarmac paths also pass through or run along the edges of the various woodland blocks. There is no on-site parking, however parking is available in adjacent streets.

3.0 PUBLIC ACCESS INFORMATION

3.1 Getting there

East Woods are located in the Craigshill area on the eastern edge of Livingston. The three woodland blocks are generally accessible directly from the surrounding suburban roads and pavement network. There are numerous entrances to each of the blocks. Craigshill Plantation is reached through Craigswood, Central Plantation from Craigshill East Road and Pumpherston Wood from Maple Grove to the west, Grange Road to the north-west and Pumpherston Road to the east. There is access to all areas of the woods.

Due to the layout of the woods, most routes are linear, but return routes are available on tarmac paths outwith the woodland boundaries and the paths link into a wider network of paths and Greenways throughout Livingston. Most of the tracks are of a beaten earth nature, with a number of short 'sleeper'-type bridges where they cross ditches. The sites are gently sloping north to south and the tracks only wet or muddy in small patches. Pumpherston Wood has a floodlit tarmac route crossing through it, as well as a section of blaise-surfaced path. Both Craigshill and Central Plantations have a number of informal routes within them.

There is no on-site parking, but parking is available in many surrounding suburban streets - there is access to all sites by tarmac floodlit pavements and Greenways.

Nearest public toilet: The Mall Shopping Centre, Craigshill, approximately 500m away - toilets suitable for the disabled (require a RADAR key) and open 24 hours.

Nearest bus stop - Craigshill East Road, 200m away from Pumpherston Wood and Central Plantation along tarmac pavements and Greenways. Or Grange Road, immediately adjacent to Pumpherston Wood western entrance and 400m away from Craigshill Plantation along Craigswood.

Further information about public transport is available from Traveline Scotland - www.travelinescotland.com

3.2 Access / Walks

4.0 LONG TERM POLICY

The woods will be managed as a sustainable natural resource to safeguard their public amenity and biodiversity value and in line with the Woodland Trust's corporate objectives of improving and enhancing biodiversity, encouraging public access and enhancing people's enjoyment of woodlands.

The long term intention is to maintain these woodlands under continuous cover where possible, and to enhance those areas which are predominantly coniferous through gradual conversion to native broadleaf woodland. Wherever possible native natural regeneration will be utilised but planting with native species will be considered if there is insufficient regeneration. Along housing, industrial and roadside boundaries the woodland edges will be replaced with species of smaller stature to improve biodiversity and reduce conflict between woods and neighbouring land uses. In addition, standing and fallen deadwood will be retained where it is safe to do so.

Livingston was developed with an extensive network of street lit, tarmac cycleways and footpaths, linking north to south and east to west. Many of the Trust's woods border these routes and this often negates the need to improve internal woodland paths beyond their beaten earth standard.

Due to the woods location within the central belt and close proximity to large populations, the intention is to use the woods to improve and raise awareness, through education, of the biodiversity, recreation and health benefits woodlands provide.

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 Informal Public Access

Description

East woods are a well-used complex of woodlands in the east of Livingston. Internally there approximately 2.9km of surfaced and unsurfaced paths with numerous entrances. There is no on-site parking, although parking is available in nearby streets. The paths, although generally straight 'through' routes, link directly onto the Greenway and pavement network within Livingston and Pumpherston giving access to long distance routes as well as linking onto Letham Park.

Significance

The woods provide enjoyable woodland walks, within an urban setting and is used by the local community for walking and running. The site provides a chance to promote access to a safe, natural environment close to where people live. It forms an essential part of the local access network, providing varied and alternative routes as well as linking to longer distance routes.

Opportunities & Constraints

Opportunities - To further develop access facilities within the site responding reactively to user demand. To further promote and use the woodland as an educational resource.
Grow relationships through regeneration group to build stronger community input into the public use of the wood
Constraints - Linear nature of site constrains potential for circular routes within the site.

Factors Causing Change

New developments completed in 2012 adjacent to compartment 25. Additional litter already an issue.

Vandalism to signs, posts, benches and other site infrastructure & motorised access, Paths edges growing in, reducing visibility and potentially resulting in personal safety concerns by users

Increase of public use

1) Senescing beech - The ongoing senescence of the large mature mainly beech trees which are such a feature in the West Lothian landscape and tend to be of a similar age. They are becoming increasingly vulnerable to storm damage and disease which is becoming a challenge to deal with in terms of tree safety and also maintenance of the treed landscape and is expected to become even worse in coming years.

2) Windblow - Most of the spruce and larch planted as part of LDC landscaping is reaching its terminal height at which it is vulnerable to windblow.

3) Chalara on ash. Ash is a frequent species and is well suited to the clay soils of West Lothian. Young trees already badly affected and some mature trees also. Removes one of the more suitable species for replanting.

4) Phytophthora ramorum. 2 SPNs already issued in the Livingston area and likely to spread.

5) Increased development - various schemes have / are being built and large new developments are currently being planned for north, SW and SE Livingston.

6) Squirrels, rabbits and roe deer are all present and likely to prevent trees developing into healthy, mature trees.

Long term Objective (50 years+)

To maintain and enhance public access for informal recreation.

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 East wood which is safe and welcoming. This will be achieved by:

- Two path cuts annually (June and August) in all blocks where necessary
- Litter pick every month and pro-active fly tipping monitoring
- Entrance upgrades at 16 entry points with 3km of path upgrades
- Path upgrades and repairs in blocks indicated on management map (2020/2022) and re assess in the next plan review (3km)(2023)
- Annual inspection of fences/paths and internal structures
- Regular tree safety inspections

5.2 Long Established Woodland of Plantation Origin

Description

The woodlands LEPO status is confirmed by its existence on the 1860 OS map. Made up of the majority of Craigshill Plantation (cpt 23) as well as much of the northern strip of Pumpherstons Wood (cpt 25), the diversity of the woods has been greatly compromised due to past management history and very few features of continuous woodland cover remain. However these woods are a significant natural feature within the local urban landscape, despite intensive management in the past and fragmentation by development. The woods form an attractive backdrop and screening for the various housing and other developments in the area.

Significance

The amount of ancient woodland left in Britain has been drastically reduced over the last century. The woodland is on the Ancient Woodland Inventory as LEPO on 1860 maps, which indicates a relatively high biodiversity potential. The woods are a significant feature of the local landscape and provide screening and shelter between housing developments and industrial estates. They form an integral component of the local landscape.

Opportunities & Constraints

Opportunities

To improve the biodiversity value of the woodland and ground flora by continuing to manipulate the canopy and species composition through thinning of conifers.

Constraints

Small scale of woodland and high 'edge effect'.

Factors Causing Change

Windblow has resulted in clearing some areas of spruce/lodgepole pine on a larger scale and earlier than anticipated. Wetter areas with broadleaves also subject to some windblow./ climate change/ pests and diseases(P.Ramorum)/squirrel damage

Long term Objective (50 years+)

To create and maintain a diverse, mixed age and mixed species woodland habitat in perpetuity. Species composition will be mostly native though a proportion of conifers and non-native broadleaves will be accepted. Improvements to the canopy should help towards supporting a variety of ground flora communities.

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

To maintain the varied composition and structural diversity of the woodland. This will be achieved by minimum intervention in the majority of the wood and small scale felling in 3 small compartments:

- The impacts of deer, rabbits, squirrels and tree diseases will be monitored through the WT's woodland condition assessment process . Squirrel damage is increasing.
- Monitor garden waste/ dumping along boundaries in the woodland edge for increasing garden escapes across all blocks (hotspots) by removing waste and regular inspections every 2months of boundary inspections.
- Assess natural tree regeneration and browsing within open areas every 5 years when management plan is reviewed to ensure that native species are abundant or dominant and successfully establishing.
- Clear fell and clear windblow in compartments 25c/25d of sitka spruce/lodgepole pine and scots pine (1.2ha) (2018)
Restock accordingly as per felling license through community tree planting event (through regeneration group)

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
23a	2.66	Beech	1910	Min-intervention		Informal Public Access	Long Established Woodland of Plantation Origin
<p>'Craigshill Plantation' Stand of mixed woodland with mature oak and beech which remains from the original Craigshill plantation. Borders footpaths to the south and west with housing to east and open ground to the north. The understorey is patchy with areas left open but some sycamore and spruce (planted around 1960) and occasional birch, beech and rowan around the edges. There is little ground vegetation under the beech and spruce canopies but some brambles in open areas and edges. Nettles prevail to the north east, possibly the result of continued dumping of garden rubbish. There is deadwood in the form of fallen trees but fires are a problem in this wood.</p>							
24a	0.83	Sycamore	1960	Min-intervention		Informal Public Access	
<p>'Central Plantation' Stand of mature Scots pine and sycamore with beech, larch and ash which borders roads to the north and east with housing to the south and industrial units to the west. There is little or no understorey due to dense canopy and there is a maintained beech hedge on the east and a hawthorn hedge on the south side. The ground flora is also very sparse due to little light penetration but there are brambles in the more open areas. There is fallen deadwood but fires are a problem in this wood.</p>							
25a	5.15	Beech	1960	Min-intervention		Informal Public Access	Long Established Woodland of Plantation Origin
<p>'Pumpherstons Wood' Mature belt of mixed policy woodland this is a stand of oak, beech, Scots pine, ash, poplar and sycamore. This sub cpt now forms as a screen between the industrial land (Houstoun Industrial estate to the north and the residential land to the south and is a prominent feature when viewed from the south. Understorey of strong beech regeneration, with occasional rowan, willow, birch, hawthorn and occasional planted oak. Ground flora is mixed and dependant upon canopy density but where strong is dominated by a mix of brambles, nettles and soft grasses. Varied dead wood ranging from some larger felled stems along with some smaller branchwood though this is minimal due to the fire risk.</p>							
25b	1.04	Mixed broadleaves	1900	Wood establishment		Informal Public Access	

Four distinct areas of establishing young mixed woodland of oak, ash, birch, gean, willow, hawthorn with a mix of Scots pine, planted around 2000/2001 following clear felling. Some mature larch, retained as screening remains to the south of no 3 Letham Holdings. Ground flora is dominated by grasses and brambles. Deadwood is limited but comprised of old stumps and arising following chipping/mulching prior to planting.

25c	1.71	Mixed broadleaves	1960	High forest	Housing/infrastructure, structures & water features on or adjacent to site	Informal Public Access	
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Mature stands of generally single species lodgepole pine or sitka spruce with a small stand of mixed broadleaves towards the boundaries and the southern edge. Made up of sycamore, ash and beech. Understorey is sparse with occasional elder, birch and hawthorn. Likewise ground flora is sparse but where light allows brambles and grasses predominate. Deadwood is occasional in the form of stumps or standing dead suppressed stems.

25d	1.11	Scots pine	1965	High forest	Services & wayleaves	Informal Public Access	
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Stand of polestage conifer plantation and mixed broadleaves that borders a road to the east and industrial land to the west and north, with housing to the south. Conifer blocks of Sitka spruce, Scots pine and larch with broadleaves including sycamore and beech. Understorey of elder and odd hawthorn beneath conifers. Sparse ground flora under conifers but where light allows it is dominated by grasses and nettles. Some fallen deadwood but most found in canopy.

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.