



Kirkton 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 Consequently this printed version may quickly become out of date, particularly in relation to the planned work programme and on-going monitoring observations.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:	Kirkton Woods
Location:	Livingston
Grid reference:	NT028659, OS 1:50,000 Sheet No. 65
Area:	6.33 hectares (15.64 acres)
Designations:	Long Established Woodland of Plantation Origin, Tree Preservation Order

2.0 SITE DESCRIPTION

2.1 Summary Description

Kirkton Woods set in the unlikely surroundings of a Kirkton Science and Technology Park but none the less they are peaceful havens for wildlife and walking. The section opposite Fraser Rd links up with the Almond Pond East continuing on to Easter Breich. Parking a layby close by with good wide footpath which also links up to Almondvale Heritage Centre in Livingston Village. Mixed woodland with areas of wetlands and reed beds. Good place in the autumn for wild raspberries and blackberries.

2.2 Extended Description

Kirkton Woods form part of the Woodland Trust's holding in Livingston, West Lothian and consist of four separate woodland blocks located to the west of Livingston. The woods are located within the industrial estates of Kirkton Campus, with 2 blocks (compartments 34 and 35) located to the north of the area, just south of the River Almond, while compartments 36 and 37 lie to the south. Compartment 36 consists of the southern end of a shelterbelt which extends beyond the Woodland Trust's boundary and which separates the area from adjacent farmland. Compartment 37 screens an industrial site within the campus. The woods lie on a shallow north-facing slope between the altitudes of 110m and 124m above sea-level.

The underlying geology of the area is sedimentary sandstones/ limestones/ shales of the

Carboniferous-Dinatian period. Soils are derived from a glacial till of carboniferous sedimentary sandstones and shale. They are generally brown forest soils with gleying, of the Rowanhill association and are characterised by slowly permeable clayey horizons at varying depths between 40 and 80cm. The MLURI climate map identifies the area as fairly warm, moist lowland and foothill, being moderately exposed with moderate winters.

The woodland areas making up 'Kirkton Woods' cover an area of approximately 6.4ha and are in the main made up of more recent plantings dating from around the 1950's. The western half of compartment 36 is much older and is classed in the Ancient Woodland inventory as Long Established Woodland of Plantation Origin as it is recorded as being present on the OS maps 1860. This belt now contains two distinct age-groups of trees; the older western half made up of a mature stand including Scots pine with oak, sycamore, beech, Norway maple and ash and the younger eastern half made up of single species stands of conifers and broadleaves, which include Scots pine, Sitka spruce, Douglas fir, hybrid larch, sycamore, beech, ash, willow and Norway maple.

When compared to other sites of conservation interest, the conservation value of the woods is limited by small block size and high edge effect, combined with the presence of a high proportion of recently established non-native species. However, they are important for local biodiversity as they represent small reserves of more natural vegetation within the built environment. In some areas there has also been relatively long continuity of woodland cover. Larger mammals, such as roe deer are uncommon, 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. Current knowledge suggests there are no particular species of interest and a relatively low diversity of species as a whole within the woods. However, compartments 34 and 35 do form part of the north-western arm of the Almond Valley Greenway, the wildlife corridor which runs along the River Almond through Livingston. Some areas of this corridor are recorded as containing a relatively high diversity of flowering species, although these areas do not include areas occupied by the two woodland compartments.

The woodland areas are an important part of the infrastructure of Livingston, providing separation, screening, and an attractive backdrop to the various industrial developments.

Due to their size and location within the industrial estate, many compartments have little in the way of managed internal access except for a short section of the greenways footpath network which passes compartment 34 with a whin dust path down the western south bank of the River Almond. A tarmac footpath/cycleway runs along the length of compartment 37, with the narrow woodland belt screening this from adjacent industry. An informal un-surfaced path runs the length of compartment 36 and is used regularly by horse riders. The southern wood entrance lies close to a new bridleway entrance near Gavieside Bridge.

Management access for the woods is generally taken off road verges or via designated sections of the tarmac path network.

3.0 PUBLIC ACCESS INFORMATION

3.1 Getting there

Kirkton Woods are located in the industrial estates of the Kirkton Campus area on the western side of Livingston. The four woodland blocks are generally accessible directly from the surrounding suburban roads, centred around Simpson Parkway. There is barrier-free access to all areas of the woods, though there are few paths in Blocks 34 & 35.

All of the blocks are small independent pockets of woodland and due to their layout most routes are linear and used by local walkers accessing the property on foot. Blocks 34 & 35 provide access to the south bank of the River Almond. The paths are all well-surfaced, either aggregate or tarmac, except in Gavieside Strip (Block 36) where there is a linear beaten earth route that can be muddy in places. The paths link into a wider network of paths and Greenways throughout Livingston, which provide some links between the blocks. The site is largely flat.

There is no on-site parking, but parking is available on a number of neighbouring roads within the industrial estates - there are not always pavements to access all sites, particularly along the B7015 by Block 36.

Nearest public toilet: Almondvale Shopping Centre, Almondvale South, approximately 1.5km away - toilets suitable for the disabled, not open 24 hours.

Nearest bus stop: McIntosh Road, approximately 500m away from Blocks 34 & 35 along Simpson Parkway (no pavements) and 800m away from Block 36 along McIntosh Road and the B7015 (no pavements).

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 woodland areas under continuous cover where possible, maintaining at least 10% natural regeneration as and when it occurs, and to enhance those areas which are currently predominantly coniferous through gradual conversion to predominantly native broadleaf uneven-aged woodland. Wherever possible, native and to a lesser degree non-native natural regeneration will be utilised and released. Planting gaps with native species will be considered if there is insufficient regeneration. Individual examples and groups of specimen conifers, particularly Scots pine which is featured throughout West Lothian, will be retained however regeneration of these species will be monitored to maintain a mixed, predominantly broadleaved character woodland.

An increase in native tree species will facilitate the development of native healthy ground flora communities. 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

There are limited routes through and around most of these woods and there is no on-site parking although parking is available in adjacent streets. The paths are generally straight through or cross routes that link directly onto the Greenway and pavement network of Livingston. These also provide access to long distance routes and provide for shorter circular routes using soft and surfaced paths.

Significance

Two of these woods provide enjoyable woodland walks in a peri-urban setting and are used by the local community for walking and running. They provide a chance to promote access to a safe natural environment close to where people live. They form 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 improve access facilities and respond reactively to user demand. To further promote and use the woodlands as an educational resource
 Constraints - Linear nature of site constrains potential for circular routes within the site.

Factors Causing Change

New development/ fly tip 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

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

- Annual path cut and vegetation clearance (June) in all blocks where necessary
- Litter pick every month and pro-active fly tipping monitoring
- 8 Entrance upgrades , removal of old redundant gates/fencing and signage(2019/2020)
- Annual inspection of fences/paths and internal structures
- Street light pruning in necessary blocks (2019/2021)
- 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 western half of Gavieside Strip (cpt 3a), the diversity of this wood has been greatly compromised due to past management history and little or no features of continuous woodland cover remain. However it is a significant natural feature within the local urban landscape, despite intensive management in the past and fragmentation by development. The woods form a landscape infrastructure and attractive backdrop and screening for the various industrial developments in the area.

Significance

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 safety fellings and light thinning.

Constraints

Small scale of woodland and high 'edge effect'

Factors Causing Change

Wetter areas with broadleaves also subject to some windblow/ climate change/ pests and diseases/squirrel damage

- 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 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.

- The impacts of deer, rabbits, squirrels and tree diseases will be monitored through the Woodland Trust's woodland condition assessment process.
- Monitor fly tip dumping along boundaries in the woodland edge
- 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.

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
33a	1.36	Scots pine	1900	High forest			
<p>'Rosebank Strip' A narrow strip within Kirkton Campus which contains even aged mature Scots pine and beech with a belt of mature sitka spruce on the eastern side. The shrub layer consists hawthorn, beech, elder, birch, Scots pine and alder with a mixed hedge running along the western edge. Ground flora is generally poor with brambles, soft grasses and the occasional broad buckler fern. Deadwood is sparse and often limited to small amounts in mature canopy.</p>							
34a	0.75	Sitka spruce	1950	Min-intervention			
<p>'Weir Wood' A small, generally round shaped wood, originally planted for structural purposes within the Kirkton Campus. Effectively landlocked by roads to the west and south, industry to the east and the River Almond to the north, this is a stand of mixed woodland including, mature willow, alder, beech, ash, sycamore, Scots pine, larch and occasional sitka spruce. The understorey includes frequent elder and the occasional beech with hawthorn on edges. The ground flora is very poor. Deadwood is limited to arisings from earlier light thinning and the occasional blown conifer.</p>							
35a	1.53	Mixed broadleaves	1950	Min-intervention			
<p>An area of mixed woodland (25-60yrs old) which screens the Campus from the north, particularly views from Almond Valley Heritage Centre. Species include semi-mature beech and ash, sycamore, willow, Scots pine, larch, Douglas fir and sitka spruce. Understorey, restricted in the main to the northern and southern tips of the wood, includes rowan, ash, hawthorn and birch. Ground flora is generally poor and consists brambles, nettles and soft grasses with no significant deadwood.</p>							
35b	1.50	Sycamore	1970	High forest			
<p>'Gavieside Strip' Mixed stand containing semi-mature/ mature Norway maple, sycamore, ash, gean, beech, Scots pine, Douglas fir, alder and oak planted to buffer the older woodland to the west and provide greater screening to the industrial units to the east. In 2006 2 discreet stands of spruce were clearfelled to start restructuring this belt with the aim of establishing a more native woodland cover. The understorey includes alder, hawthorn, rowan, strong ash regeneration particularly under sycamore canopy, beech and sycamore. Replanted by volunteers in 2007</p>							
36a	1.19	Mixed broadleaves	1900	High forest			

'Gavieside Strip' Mature stand of Scots pine and mixed broadleaves, ash, elm, sycamore, beech and pedunculate oak that borders open farmland to the west and cpt 3b to the east. Understorey includes abundant beech regeneration with frequent sycamore and occasional elm, holly and hawthorn. Small patches of underplanted conifers are being over shaded by the mature canopy and are dying off. The ground flora consists of soft grasses with patches of brambles and nettles. Occasional deadwood from fallen limbs or safety fellings as well as good levels of deadwood in the mature crowns.

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.