East Woods (Plan period - 2024 to 2029)

TRUST

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Introduction to the Woodland Trust Estate

The Woodland Trust owns and cares for well over 1,250 sites covering almost 30,000 hectares (ha) across the UK. This includes more than 4,000ha of ancient semi-natural woodland and almost 4,000ha of non-native plantations on ancient woodland sites and we have created over 5,000ha of new native woodland. We also manage other valuable habitats such as flower-rich grasslands, heaths, ponds/lakes and moorland.

Our Vision is:

"A UK rich in native woods and trees for people and wildlife."

To realise all the environmental, social and economic benefits woods and trees bring to society, we:

- Create Woodland championing the need to hugely increase the UK's native woodland and trees.
- **Protect Woodland** fighting to defend native woodland, especially irreplaceable ancient woodland and veteran trees; there should be no loss of ancient woodland
- **Restore Woodland** ensuring the sensitive restoration of all damaged ancient woodland and the re-creation of native woodled landscapes.

Management of the Woodland Trust Estate

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.

The following principles provide an overarching framework to guide the management of all our sites but we recognise that all woods are different and that their management also needs to reflect their local landscape, history and where appropriate support local projects and initiatives.

- 1. Our woods are managed to maintain their intrinsic key features of value and to reflect those of the surrounding landscape. We intervene in our woods when there is evidence that it is necessary to maintain or improve biodiversity, safety and to further the development of more resilient woods and landscapes.
- 2. We establish new native woodland for all the positive reasons set out in our Conservation Principles, preferably using natural regeneration but often by planting trees, 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. Where possible, we pro-actively engage with people to help them appreciate the value of woods and trees.
- 4. The long term vision for all our ancient woodland sites is to restore them to predominantly native species composition and seminatural 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 natural and cultural heritage value of sites is taken into account in our management and in particular, our ancient trees are retained for as long as possible.
- 7. Land and woods can generate income both from the sustainable harvesting of wood products and the delivery of other services. We therefore consider the appropriateness of opportunities 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 encourage our woods to be used for 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. We maintain a network of sites for long-term monitoring and trials leading to reductions in plastics and pesticides.
- 10. Any activities we undertake are in line with our wider Conservation Principles, conform to sustainable forest management practices, are appropriate for the site and balanced with our primary objectives of enhancing the biodiversity and recreational value of our woods and the wider landscapes.

The Public Management Plan

This public management plan describes the site and sets out the long term aims for our management and lists the Key Features which drive our management actions. The Key Features are specific to this site – their significance is outlined together with our long, 50 years and beyond, and our short, the next 5 years, term objectives for the management and enhancement of these features. The short term objectives are complemented by an outline Work Programme for the period of this management plan aimed at delivering our management aims.

Detailed compartment descriptions are listed in the appendices which include any major management constraints and designations. Any legally confidential or sensitive species information about this site is not included in this version of the plan.

There is a formal review of this plan every 5 years and we continually monitor our sites to assess the success of our management, therefore this printed version may quickly become out of date, particularly in relation to the planned work programme.

Please either consult The Woodland Trust website

www.woodlandtrust.org.uk

or contact the Woodland Trust

operations@woodlandtrust.org.uk

to confirm details of the current management programme.

A short glossary of technical terms can be found at the end of the plan.

Location and Access

Location maps and directions for how to find and access our woods, including this site, can be found by using the following link to the Woodland Trust web-site which contains information on accessible woodlands across the UK

https://www.woodlandtrust.org.uk/visiting-woods/find-woods/

In Scotland access to our sites is in accordance with the Land Reform Act (of Scotland) 2003 and the Scotlish Outdoor Access Code.

In England, Wales and NI, with the exception of designated Public Rights of Ways, all routes across our sites are permissive in nature and where we have specific access provision for horse riders and/or cyclists this will be noted in the management plan.

The Management Plan

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1. SITE DETAILS

East Woods

Location:	Livingston	Grid	reference:	NT064687	OS	1:50,000	Sheet	No.	65
Area:	12.51 hecta	res (30.	91 acres)						
External Designations:	nal Designations: Long Established Woodland of Plantation Origin, Tree Preservation Order								
Internal Designations:	Click or tap	here to	enter text.						

2. SITE DESCRIPTION

East Woods are three distinct woodland blocks forming part of the Woodland Trust's holding in Livingston, West Lothian. The East Woods' sections are 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. The sub-compartment map for this site is available for reference on page 20 of this document.

The geology of the area is fine-grained basic igneous rock which gives rise to brown forest soils of reasonable fertility. Whilst there are no major watercourses present in any of the woods, there are ditches that can contain high flows of water during wet periods, running through compartment 25, also known as 'Pumpherston Wood'. 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) are thought to have been 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 poplar, larch and sycamore with beech also present.

In wetter parts of compartment 25 conifers such as larch, lodgepole pine and Sitka spruce were prone to wind blow and for this reason several areas were felled in 2018 and replanted with mixed broadleaves by 2020.

Throughout East Woods 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 also 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 occasionally seen along with grey squirrels and a range of birds. Smaller mammals and invertebrates can also be expected to benefit from the woodland cover, as do a number of common 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. These belts also function as windbreaks and provide some barrier to noise.

The woodlands are a good amenity for local users with each of the three woodland blocks accessible to all areas of the woodlands. Craigshill Plantation (compartment 23) is reached through Craigswood, Central Plantation (compartment 24) is located next to Craigshill East Road and Pumpherston Wood (compartment 25) is bordered by Maple Grove to the west, Grange Road to the North-west and Pumpherston Road to the east. The 19 entrance points across the whole site link to the formal tarmac footpath and cycleway networks within Livingston. Several 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.

The nearest public toilet is located at the Mall Shopping Centre, Craigshill, approximately 500m away. Toilets are suitable for the disabled (requiring a RADAR key) and are open 24 hours.

The nearest bus stop is located on Craigshill East Road, 200m away from Pumpherston Wood and Central Plantation along tarmac pavements and greenways. There is another bus stop located on Grange Road, immediately adjacent to Pumpherston Wood western entrance and 400m away from the Craigshill Plantation along Craigswood.

3. LONG TERM POLICY

East 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 and appropriate 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 wood's 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.

4. KEY FEATURES

4.1 f1 Connecting People to Woods and Trees

Description

East Woods are a well-used complex of woodlands in the east of Livingston. The current population for Livingston East & East Calder area (which includes East Woods) is estimated to be 19,752 people (2024). However, this number continues to increase in correspondence with the completion of housing developments in the area.

Tree equity is a measure of local communities' access to trees and woodland (uk.treeequityscore.org). Currently (2024), there are significant differences across the East Woods site; Compartment 24 and the northwestern section of compartment 25a have a score of 100 meaning level tree canopy cover in this area is, considered to be, appropriate for the environmental, social and economic conditions in this area. However, the rest of the site have lower scores with a score of 88 for compartment 23, and 80 for compartment 25d. The lowest score for the site covers areas south of Letham path to the end Laurel Grove (the southeastern section of compartment 25a as well as 25b and 25c) with a score of 70 out of 100- these are classified as 'High priority' areas.

There are a total of 19 entrances across the 3 compartments, each marked with a Welcoming post or board installed between 2017-2020. Internally, there are approximately 2.9km of surfaced and unsurfaced paths. This is a popular woodland for the local community as it provides peaceful access routes from housing to schools, workplaces, and other local amenities. It is also a very popular route for dog walkers. Most paths are flat and level but suffer from significant drainage issues, particularly in the north section of compartment 25. Compartment 25 experienced some path upgrades following significant tree felling works in 2018. However, repairs and drainage upgrades are required in this area. In compartment 23 there is a surfaced path enabling a semi-circular route within the compartment. The path through compartment 24a is unsurfaced and more informal.

Built features are limited on the site are limited but include a small fairy window was installed in standing deadwood in compartment 25d next to the recreation park retained during felling and a small timber sculpture present on the eastern edge of compartment 24. There are currently no benches in any of the compartments of East Woods.

Whilst there is no designated car parking for the site, there are numerous spaces on the quiet adjacent roads. 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.

Inveralmond High School, Harrysmuir Primary School, Toronto Primary school, Riverside Primary school, Howden St Andrew's Roman Catholic Primary School and Pumpherston and Uphall Community Primary School are all located within 1 mile radius of the site. However, the closest school to compartment 23a is Beatlie School and compartment 25 is Letham Primary located within a 5 minutes' walk of the site. The Early Years regularly use the site for visits to link with lessons. The area has also previously been a popular spot for external forest school providers to use with permission from the Site Management team. Letham primary school use compartment 25 for outdoor classroom activities throughout the year. This area has also been used previously by the Air Cadets that have a local base located next to the site.

There are a number of Volunteer Wardens across Livingston. In 2024, a new Woodland Warden was recruited to specifically cover East Woods to regularly report on issues and site condition. There is also a Woodland Working Group (WWG) for West Lothian which conducts practical work across the Woodland Trust sites, including East Woods.

Locally a group known as 'West Lothian Litter Pickers' has been created by enthusiastic volunteers. Although this is an independently managed group, the members do cover many of the Woodland Trust sites in Livingston, including East Woods, and elsewhere in West Lothian. Their work helps to keep the sites clear of rubbish as well as encouraging community engagement for the sites and reporting any issues of concern.

A free 'Magical Woodland Walk' event with the Environmental Arts and Education organisation 'Rowanbank' was hosted at East Woods in 2022. This was attended by approximately 70 people from the local area. In May 2024, an event called 'Love your Craigswood' was hosted in compartment 23a where the Woodland Trust collaborated with the Growing Together Partnership, Fire and Rescue, West Lothian Litter Pickers and The Conservation Volunteers (TCV) providing activities for all the family and discuss plans for the future of the site.

This site has a history of deliberate fire-raising. This is particularly prominent in compartment 23a, where fires are regularly set at the base of large trees, including veteran beech trees. The local Fire and Rescue service are based within close-proximity to this area but have noted that in 2024 the reports are not representative of the level fires being set in this woodland.

Flytipping is common on this site, particularly along housing boundaries and tarmac track in compartment 25a. Garden waste is also frequently dumped, especially along the eastern boundary of compartment 23a and the southern boundary of compartment 24a.

Misuse by motorised scramble-bikes occurs in compartment 25 which impacts on visitor safety and significantly contributes to the degradation of the paths, especially wetter sections. Signage was installed at site entrances in 2023 to discourage inappropriate vehicle use on site. Some signs were vandalised and now require replacement.

As of 2022, Woodland Trust has been meeting regularly with West Lothian Partnership Against Rural Crime (WLPARC) to discuss incidents and issues affecting woodland use and management with other local services and landowners. This has enabled open discussion to recognise trends and ability to streamline messaging and pool resources for the area.

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. East Woods are accessible to a large demographic of people and easily reached with or without transport. It forms an essential part of the local access network, providing varied and alternative routes as well as linking to longer distance routes.

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

barrier to noise.

The woodlands provide an important resource for local schools and community groups for outdoor education and informal recreation.

Opportunities & Constraints

Opportunities -

Close proximity to approximately 10 schools and early years centres within a 1 mile radius suggests there are significant opportunities to promote and utilize the site as a key educational resource for the local community.

Grow relationships through regeneration group to build stronger community input into the public use of the wood. Opportunity to work with the West Lothian Youth Action Project and the Growing Together to improve services for young people and establish connections with nature in their local area.

Opportunity to use community feedback from recent (2024) 'Love your Craigswood' event to inform our approach in tackling issue of fire raising & anti-social behaviour

To further develop access facilities within the site, responding reactively to user demand. Including repairs of the existing surface path network.

Small scale events with community/local schools and community group involvement. Lots of opportunities for collaborative working due to proximity and connection with local facilities and community groups, maximising existing resources across organisations.

Opportunity to improve infrastructure within woodland by installing benches and possibly extend the interpretation on site, including the current sculpture in compartment 24.

Opportunity to develop the Woodland Working Group to become more self-led and provide more corporate volunteering days.

Proximity to other Woodland Trust sites close by allows for potential for works (such as footpath upgrades) to be grouped together to be more efficient and cost effective.

Constraints -

Linear nature of site constrains potential for circular routes within the site. Size and layout of the compartments may restrict suitability for hosting events or group activities.

No formal car parking, which can cause issues for neighbours and visitors parking on the local roads.

Poorly drained soils have contributed to path routes being more susceptible to damage from flooding or the need for

additional drainage. Areas of the path are muddy throughout the year due to high use which can make them inaccessible for those with mobility issues.

Potential of vandalism currently prevents investment into site infrastructure that could benefit the wider community. Any new features such as signs and benches could be damaged-requiring repairs, replacement or complete removal.

Factors Causing Change

New developments (such as those adjacent to compartment 25 completed in 2012) cause a noted increased of litter on site.

Vandalism, fires and anti-social behaviour including unauthorised motorised access can damage infrastructure and makes the site unwelcoming for visitors as well as a potential safety risk.

Path edges growing in, reducing visibility and potentially resulting in personal safety concerns by users

Increase of public use in line with growing local population.

Long term Objective (50 years+)

East Woods will have a well-maintained network of paths suitable to user demand including pushchairs and those with restricted mobility. The wood will see visitors using the site daily and regularly. There will be a continued involvement and support from the local community.

Due to the wood's location within the central belt and proximity to large populations, the intention is to use the woods to improve and raise awareness of the biodiversity, recreation and health benefits woodlands provide. The site will continue to be promoted as a resource for local schools and community groups. The site will be well-used, appreciated and respected by the local community. It will be known for its wildlife interest, varied landscape, history and habitats.

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

During this plan period, the short-term objective is to continue to provide safe, enjoyable public access at East Woods. Access provision for this site will be in keeping with WT access category A (high usage). This will be achieved by:

- 1) The site will be kept in a safe and welcoming condition through site maintenance:
- a) Path cuts and entrance maintenance (twice annually)
- b) Drainage clearances to keep water off the paths (as required)
- c) Vegetation cut backs from path to allow lines of sight where possible and appropriate (as required)
- d) Street light pruning along internal paths, pavements and roadside boundaries (every two years)
 - i) compartment 23a- 340m (southern and eastern boundary pavement only)
 - ii) compartment 24a- 135.5m (eastern boundary pavement only)
 - iii) compartment 25a- 455m (internal, pavement and eastern roadside)
 - ix) compartment 25b-125m (eastern roadside boundary only)

- x) compartment 25c- 160m (eastern roadside only)
- e) Litter and fly tip uplift (as required)
- f) Regular site safety inspections (tree safety, internal structures, culverts) (as per site risk assessment)
- 2. Infrastructure upgrades to be completed by the end of this plan period:
- a) Signage installations
 - i) Replacement welcome board for entrance into compartment 25a opposite Letham Park
 - ii) New welcome board for northern entrance into compartment 25d
 - iii) New welcome signage on the eastern boundary of 23a
 - iv) Install no motorbike signs in affected areas (as required)
- b) Path upgrades in compartment 25 (by the end of the plan period):
 - i) Surfacing existing paths in woodland north of Quigley House (approximately 345m)
- ii) Re-routing a section of path north of Lime Grove (approximately 225m) including, surfacing, culvert installation and vegetation removal
 - iii) Surfacing existing path in woodland area to the north-west of Holly Grove (approximately 195m)
- iv) Scraping existing surfaced path sections in compartments 25b, 25c and 25d to standard width and redress to a level surface (total of approximately 600m)
 - v) Culvert replacement on path east of Laurel Grove
- c) Installation of stone bench feature (by the end of the plan period)
- 3) Providing and developing more opportunities for community engagement:
- a) Review forest school activities agreement (annually)
- b) Liaise with the West Lothian Partnership Against Rural Crime (WLPARC) group and the Council to discuss updates and antisocial issues on site and opportunities for collaborations with other local organisations where possible and appropriate (ongoing)
- c) Recruit a volunteer Woodland Working Group leader to enable the Livingston group to run more efficiently and frequently (2024)
- d) Engage with local community groups such as Cadets and Pathways Support Services regarding possible volunteering activities on site and across West Lothian (ongoing)

4.2 f2 Long Established Woodland of Plantation Origin

Description

East Woods is managed as Long Established woodland of Plantation Origin (LEPO) as large areas of the site (the majority of compartment 23a as well as much of the northern strip of compartment 25a) have been identified with this status in the Ancient Woodland Inventory due to their existence on the 1860 OS map. However, the diversity of the woods has been greatly compromised due to past management history, very few features of continuous woodland cover remain. Nevertheless, 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.

There is a Tree Preservation Order (known as TPO No. 2 (1965) Midlothian – Livingston New Town) covers all compartments of East Woods. Therefore, any works on trees that were extant in 1965 in these areas must be approved by West Lothian Council prior to commencement.

Overall all compartments at East Woods there is a significant diversity of tree species, due in part to more recent replanting. Compartments typically have pockets where species dominate rather than species dominating over a whole compartment. In compartment 23a most of the planting is from 1960s with a small number of planting (1500 trees) occurring in this compartment in 2018. Tree species present in the compartment include Larch, Sitka spruce, sycamore, Douglas fir birch, rowan, oak, Norway maple, beech and oak present. Trees of note include two large veteran beech towards the northern boundary and mature oak throughout the compartment.

Compartment 24a has larch to the north, Scots pine dominant within the centre of the compartment and ash, poplar and cherry present to the south.

In compartment 25a there is a diverse mix of species within the compartment including mature Scots pine, mature oak, ash, birch, eared willow, sycamore, larch, rowan, holly, apple, elder, bird cherry, hawthorn, hazel, blackthorn. Mature beech are a common feature, particularly on the boundaries and subsequently beech is the dominant species regenerating in this area.

Compartment 25b provides age diversity with planting from 2001 with species including oak, ash, gean, birch and Scots pine.

Larch, Sitka spruce, lodge pole pine and Scots pine that were present in compartments 25c and 25d suffered from windblow removed in 2018. However, vandalism of tree shelters significantly impacted restocking in compartment 25. Whilst elder was successfully regenerating in the area, restocking of other species (gean, hawthorn, oak, rowan, grey willow, crab apple, bird cherry, hazel, elder and blackthorn and birch) was required in 2020. This restocking was conducted using high density planting without any shelters. Whilst rabbits and deer are occasionally seen on site, they are regularly disturbed by visitors and which minimises browsing pressure. This area is regularly monitored and appears to have been successful with the trees now becoming well-established.

Ash regeneration is also present, particularly in compartment 25c. However, Ash Die Back (also known as Chalara), is evident throughout the site. However, a gradual approach has been undertaken to manage affected trees- removing

only individual trees that pose a safety risk in response to the impact of the disease over multiple years.

The shrub understorey includes species such as elder, holly (dominant), laurel and broom. Shrub regeneration is limited in compartments in 23a, 24a and 25a. However, elder is dominant in 25d and hawthorn is dominant in 25c. Rhododendron ponticum has also been identified in small, localised areas in compartment 23a and 25a. This is a non-native, invasive species that can rapidly spread, casting shade which compromises natural regeneration and the ability for ground flora to grow. Work to remove rhododendron from site has been undertaken annually since 2021.

Ground flora includes patches of bracken, rosebay willow herb, pink purslane, ferns, ground elder, non-native bluebells. These areas include which have experience previous felling or windblow have opened-up and are dominated by dense bramble and rank grasses. There are no dedicated areas of open ground maintained at East Woods. However, there is temporary open space where the replanting is still becoming established in compartment 25. In terms of ground flora, due to the continued garden waste dumping there are numerous garden escapees present across the compartments, including cotoneaster, laurel, snowberry and dense pockets of few-flowered leek (particularly in compartment 25d). There is also a dense layer of ivy towards the northeastern boundary of compartment 23a.

Deadwood on site is limited due to timber theft and history of deliberate fire raising is high on this site which limits ability to retain fallen deadwood. The extensive path-network through the site also restricts the opportunities to retain hung-up and declining trees. Nevertheless, felled timber from tree safety operations that has been left in large diameter where possible and appropriate to do so. Also, there are stumps and thick mulch mat left in areas of compartment 25c following felling operations.

Large areas of bare ground are present throughout East Woods. This is particularly evident in compartments 23a and 25a where dense conifers, beech and sycamore restrict light-levels and limit vegetation growth in these areas. These areas have experienced repeated fire-raising. Unfortunately, in compartment 23a the base of large trees, including veteran beech are regularly targeted and have significantly suffered from fire damage.

Roe deer, grey squirrels, red fox, bank vole, field vole and spiked shieldbug have been recorded on site in compartment 25. However, in 2024 no records were available for compartments 23 or 24. During the 'Love your Craigswood event', the public helped to record wildlife present in compartment 23a noting species including, but not limited to; Great spotted Woodpecker, nuthatch, treecreeper, chiff chaff and black cap.

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 valuable amenity and contribution to well-being for local people. They form an integral component of the local landscape, providing a refuge for both people and wildlife from the built-up urban area and surrounding infrastructure, enhancing and protecting local biodiversity.

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. Some halo thinning of beech (and sycamore) in compartment 23a would help to protect future veterans, particularly oak.

Opening up the canopy in areas of dense conifers, beech and sycamore, will increase light levels, reducing the levels of bare ground. As these areas become vegetated, they are less likely to be used for fire-raising as well as improving the site biodiversity.

Close proximity to other sites in Livingston allows for possible grouping of work activities to be more cost-effective.

Consider installations (i.e. fences) to protect the bases of veteran beech from reoccurring fire damage.

Constraints

Any installations to prevent fire damage to trees may be set on fire themselves- loss of investment, additional cost for repairs

The conservation value of most of the woodland blocks is limited by their relatively small size and high edge effect.

Fires are a regular occurrence on site and could impact on the composition of the woodland, causing damage to trees and flora and restricting the amount of deadwood that can be left on site in some areas. History of fires also restricts suitability for leaving brash during felling operations.

There are low internal boundary walls in compartments 23a (northern boundary) and 25a (running along the south and west boundaries) in the form of an old collapsed drystone dyke. Wide drainage ditches are also present in these compartments. These features provide a different habitat for wildlife which cannot be planted upon, and contractors must consider and navigate around these features for any operations within these areas.

The presence of multiple footpaths as well as proximity to roads and pavements restricts scope for retaining windblow and standing deadwood in some areas.

Grey squirrel damage and deer browsing are threats to young regeneration and planting on site. Whilst the urban location causes disturbance for these species and helps to limit impact in some areas, the urban locale also restricts the suitability and efficiency of possible control methods. With this in mind, any management of these species will be is significantly challenging within Livingston and further investment will likely be required to replace browsed or damaged trees.

Close proximity to housing, roads and services increases the demands on the site including safety works. Furthermore, navigating these features and a lack of existing infrastructure on site, such as suitable stacking areas and machinery access points, restricts activity, complicates operations and increases the expense of these operations.

Due to the urban location of East Woods within close proximity to multiple small woodland areas in Livingston, invasive

species and diseases present elsewhere in Livingston are likely to be aided by people, spreading seeds or spores in soil on their footwear.

Protected species must be considered for operations including nesting birds, badgers and bat roosts. Work areas should be assessed, and suitable mitigations must be put in place prior to works commencing.

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 are also subject to some windblow. Most of the spruce and larch planted as part of Livingston Development Corporation (LDC) landscaping during the 1960s and 1970s is reaching its terminal height at which it is vulnerable to windblow.

Ash Dieback (ADB), also referred to as Chalara, is present on site and throughout Livingston and will result in the loss of a large proportion of ash trees. Therefore, its density on the site overall is likely to decline in the long term. The area that may be most visibly impacted by loss of ash at East Woods is compartment 24a which may be more noticeable due to the small compartment size and presence of mature ash along the southeastern side of the compartment. Whilst this disease may not have a significant impact on the overall composition of the woodland, the clusters of ash by roads or paths may require intervention if they become unsafe. Beyond these areas, declining individuals will be retained as standing/fallen deadwood for the site. Due to the prevalence of ADB, Ash will also not be included within restocking. Therefore, its density on the site overall is likely to decline in the long term.

Statutory Plant Health Notices (SPHNs) were already issued elsewhere in Livingstong (including Eliburn Woods) previously (2018) for Phytophthora ramorum and the disease is likely to spread. This would have a significant impact on compartment 23 and 24 which still consist of a high density of larch.

Phytophthora cambivora has been recorded on another Woodland Trust Livingston site (Dedridge Wood, compartment 42a). This disease could also spread to East Woods and would be a particular concern for the mature beech and oak.

Large mature beech trees are a feature in the West Lothian landscape, however, they tend to be of a similar age and their senescence can result in becoming increasingly vulnerable to storm damage and disease. This is a challenge to manage in terms of tree safety and also maintenance of the treed landscape and is expected to become even worse in coming years. This issue is compounded at East Woods as the mature beech tend to be particularly vulnerable to repeated fire damage in compartment 23a which accelerates their decline and increases the tree safety risk in these areas.

Increased development - various schemes have / are being built and large new developments are currently being planned for north, Southwest and Southeast Livingston.

Squirrels, rabbits and roe deer are all present and likely to prevent trees developing into healthy, mature trees. The whole Livingston area has been included within the Scottish's Governments' priority area of concern covering central Scotland currently (2024) informing deer policy work. This awareness may lend itself to discussions with other local landowners, particularly West Lothian Council, regarding options for appropriate control of roe deer, and potentially

also grey squirrels, to enable tree establishment.

Rhododendron ponticum is present in small, contained areas in compartment 23 and 25. If this is not removed this invasive species could continue to spread at the detriment to natural regeneration, woodland specialist flora and overall biodiversity across the site. Leaving any amount of the species within proximity to the site could result in reinfestation of this invasive species in the long-term. Removal will be conducted through digging out due to the small size of the stems and minimal coverage. These areas will continue to be monitored for at least seven years and any regrowth will be treated to ensure eradication of the invasive species from site.

Compaction is present where regular activity occurs off-path such as school visits and/or anti-social behaviour. It is difficult to control high use of areas for anti-social behaviour in urban woodlands. Areas of use by organised groups may need to be focused on different sections across the site to minimise impact on mature trees- this should be discussed during annual reviews of Access Agreements.

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 and understorey species.

As large mature species on boundaries decline, they will be replaced with native broadleaves that will grow to a lower statue to reduce conflicts with neighbours and surrounding infrastructure.

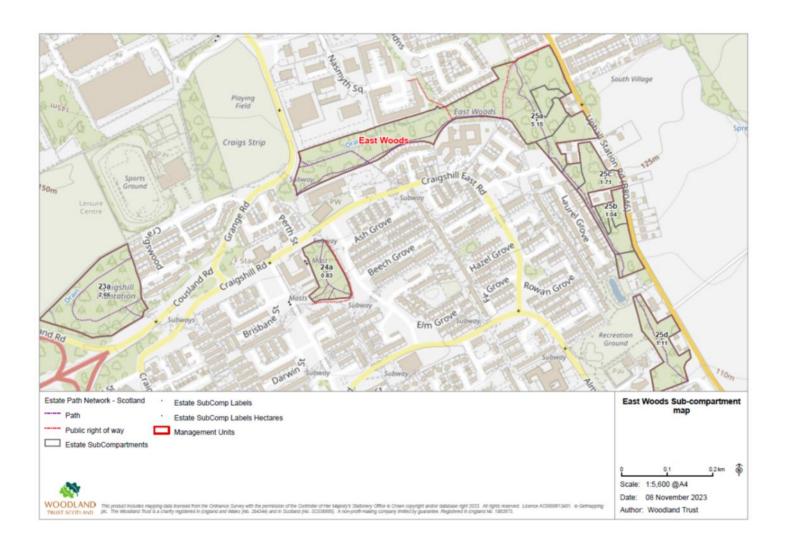
Short term management Objectives for the plan period (5 years)

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

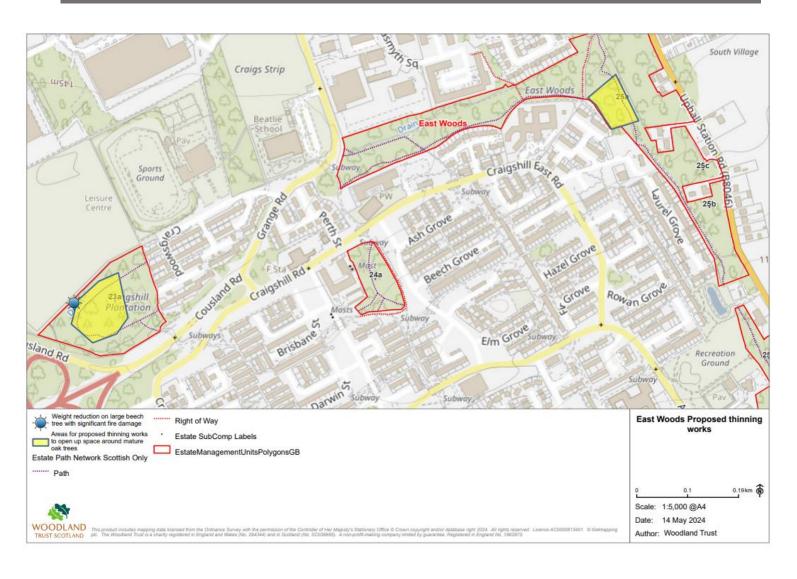
- 1) Improve awareness and recording of species presence on site:
- a) Commission Forest mensuration survey to inform plans for felling on site for thinning works and any other tree works necessitated through windblow or tree disease (2024/2025)
- b) Pre-felling protected species survey to identify any necessary and suitable mitigations (prior to works commencing)
 - c) Record species present at the end of the management plan period for a comparison after the works (2029)
- d) Initiate discussions with West Lothian Council and other surrounding landowners regarding deer and squirrel populations within Livingston. Explore possibilities for a collaborative approach in monitoring and management, where considered appropriate (2024)
- 2) Ensure establishment of restocked areas from previously felling operations by the end of the plan period:
- a) Assess compartments for evidence of browsing levels, vandalism or poor health (annually)
 - i) Compartment 25b- restocked areas totalling approximately 0.14 hectare
 - ii) Compartment 25c- restocked areas totally approximately 0.18 hectare
 - iii) Compartment 25d- restocked areas totalling approximately 0.4 hectare

- b) Consider weeding requirements to ensure establishment- this should be achieved without the use of chemicals, where possible (annually)
- c) Monitor success and organize for replacement of any planted trees which do not survive (as required)
- d) Remove all redundant tree shelters (approximately 30) from previous planting in compartment 25d-reusing for replanting or protecting vulnerable regeneration on site if possible/appropriate (by the end of the plan period)
- 3) Facilitate and protect species diversity within the woodland:
- a) Thinning by the end of the plan period:
- i) compartment 23a-, approximately 25% thin in dense conifers and sycamore stands within ~1hectare area, focusing on creating space for veteran and future veteran trees (predominantly mature oaks), increasing light levels to allow for floral diversity and natural regeneration
- ii) compartment 25a- (within a total area of up to 0.5 hectare) halo thinning around approximately 10 oaks and removal of conifers on the boundary edge (up to 25% thin)
- iii) compartment 25d- areas of replanting that are beginning to encroach into the path- particularly birch and elder (in an area of 0.1 hectare as required)
- b) Compartment 23a- essential health and safety works on large mature beech repeatedly damage by fires
 - i) weight reduction by removing limbs. Large timber to be left on large sections on site for habitat (2024)
- ii) place large timber sections under other large veteran beech tree in the immediate area to discourage continued fire-raising on the base of the tree (2024)
- c) During felling, consider opportunities for leaving standing deadwood as an important wildlife habitat where possible and appropriate
- d) Following felling, monitor tree and flora regeneration levels annually once trees have been removed and consider enrichment planting of native species to encourage diversity (as required)
- 3) Work towards the eradication of Rhododendron ponticum during this plan period:
- a) Assess known areas of Rhododendron ponticum and record any additional patches found on site (annually)
- b) Removal of existing patches in compartments 23a and 25a- using manual digging out method and avoiding the use of chemicals due to only small localised coverage- remove any regrowth (annually)
- c) Assess vitality at the end of the planning period. If eradication has not been achieved by 2029, ensure that further follow-up treatments are scheduled in the following planning period

5. SUBCOMPARMENT MAP



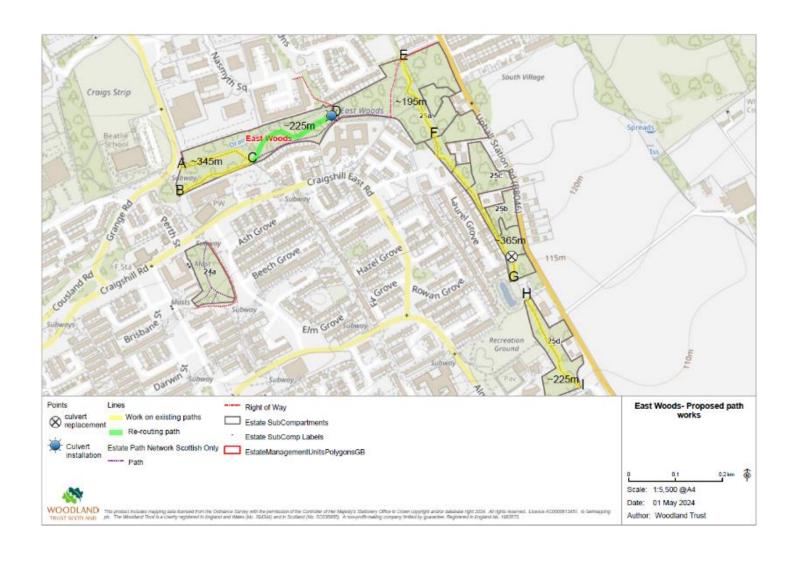
6. PROPOSED TREE WORK MAP



7. HARVESTING TABLE (20 YEARS)

Cpt	Operation Type	Work Area (ha)			Estimated total vol. (m3)
23a	Thin- Sitka spruce, sycamore, beech	2.66	2026	50	150
25a	Selective fell (Sitka spruce, larch, beech)		2026	20	40
25d	Thin- mixed broadleaves on path edges	0.5	2025	4	4

8. PROPOSED PATH WORK MAP



APPENDIX 1 : COMPARTMENT DESCRIPTIONS

Cpt No.	Area (ha)	Main Species	Year	Management Regime	Major Management Constraints	Designations
23a	2.66	Beech	1910	Min- intervention		Long Established Woodland of Plantation Origin Tree Preservation Order

Known locally as 'Craigswood', this is a stand of mixed woodland with mature oak and beech which remains from the original Craigshill plantation. There are 5 entrances to this compartment, which 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, sycamore and spruce canopies but some brambles in open areas and edges. Nettles prevail to the northeast, possibly the result of continued dumping of garden waste. There is deadwood in the form of standing monoliths and fallen trees but fires are a particular reoccurring issue in this wood. Rhododendron ponticum has been identified at the northeastern corner of this compartment.

24a	0.83	Sycamore	1960	Min-	Tree Preservation
				intervention	Order

Locally known as the 'Central Plantation', this compartment is a 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 deliberate fires are a problem in this wood.

25a	5.15	Beech	1960	Min-	Long Established
				intervention	Woodland of
					Plantation Origin,
					Tree Preservation
					Order

Referred to as 'Pumpherston Wood', this is a mature belt of mixed policy woodland. This is a stand of oak, beech, Scots pine, ash, poplar and sycamore which now acts as a screen between the industrial land (Houston Industrial estate) to the north and the residential land to the south. This area is a particularly prominent feature in the landscape when viewed from the south. Understorey of strong beech regeneration, with occasional rowan, willow,

Cpt No.	Area (ha)	Main Species	Year	Management Regime	Major Management Constraints	Designations			
birch, hawthorn and occasional planted oak. Ground flora is mixed and dependant upon canopy density but where it 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.									
25b	1.04	Mixed broadleaves	1900	Wood establishment		Tree Preservation Order			
Scots pin Restockir brambles	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. Mature larch was removed in 2018 due to windblow. Restocking has been completed with a mix of broadleaf species. Ground flora is dominated by grasses and brambles. Deadwood is limited but is comprised predominantly from old stumps and arisings following chipping/mulching.								
25c	1.71	Mixed broadleaves	1960	High forest	Housing/infrastructure, structures & water features on or adjacent to site	Tree Preservation Order			
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 were removed in 2013. Retained trees included pockets of sycamore, ash and beech. Replanted species included gean, hawthorn, oak, rowan, grey willow, crab apple, bird cherry, hazel, elder and blackthorn and birch. Ground flora is predominantly grasses, brambles and rosebay willowherb. Deadwood is occasional in the form of stumps or standing dead suppressed stems. 25d 1.11 Sycamore 1965 High forest Services & wayleaves Tree Preservation Order									
was restored comparts housing to beech we	ocked in 2018 ment. Older i o the south. ere removed	B and 2020 to th mixed broadleav Whilst blocks o in 2018, all thes	e north and res border th f Sitka spruc e species re	a small pocket of ne road to the east e, Scots pine and main in this compa	wing the restructure 2018, younger planting to the sout and industrial land to the valorch with broadleaves inclustrant in lower density. Uder conifers but, where ligh	th west of the west and north, with uding sycamore and Inderstorey of elder			

dominated by grasses and nettles. Some fallen deadwood but this is limited to stumps and occasional branches. There is a significant carpet of few-flowered leek in this compartment. Overhead telephone and electricity cables are

present within this compartment also.

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.

Windblow/Windthrow

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

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