Knightsridge Woods

(Plan period – 2024 to 2029)

Management Plan Content Page

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 wooded 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 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 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 Scottish 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

1. SITE DETAILS

Knightsridge Woods

Location:	Livingston Grid reference: NT043692 OS 1:50,000 Sheet No. 65
Area:	13.07 hectares (32.30 acres)
External Designations:	Ancient Woodland Site, Long Established Woodland of Plantation Origin
Internal Designations:	N/A

2. SITE DESCRIPTION

Knightsridge Woods are part of the Woodland Trust's holdings around Livingston, West Lothian; they are located in the north east of Livingston just west of the Houston Interchange. This was one of 13 sites acquired from the Livingston Development Corporation (LDC) in 1996. The southern woodland belts surround residential areas and a small industrial estate, whilst the two northerly areas are more substantial woodland blocks adjacent to road and rail links and public open space. The site is divided into eight sub-compartments (10a, 10b, 10c, 11a, 12a, 12b, 13a and 13b). The map illustrating the locations of these compartments can be found on page 20 of this document. The specific compartment descriptions can be found on page 25 of this document.

The woods lie on a very shallow south-facing slope between 140 m and 150m above sea level. The underlying geology of the area consists of sedimentary sandstones, shale and limestone's laid down in the Carboniferous period. However, the soils are influenced by glacial tills of the Rowanhill association which consist mainly of brown forest soils with gleying and some non-calcareous gleys and humic gleys. Soils within much of the Knightsridge Woods are very poorly drained gleys and peaty-gleys. The site drainage issues have been further exacerbated where past development has severed drains that would otherwise have taken water off-site. Most parts of the woods therefore lie wet for all or much of the year.

Much of the current woodland cover consists of mixed conifer plantations of the late 1960s to 1970 including non-native species such as Sitka spruce, European larch and lodgepole pine. Exceptions to this are compartment 10b which was felled and restocked with mixed shrubs in 2001. Compartment 11 is a much older mixed policy shelterbelt of beech, Scots pine and oak, planted at the end of the nineteenth century. Compartment 12b which is naturally developed wet woodland consisting of downy birch and willow scrub. The majority of compartment 13b was felled and restocked in 2002. Where conifers have been less successful in the southern part of compartment 13, the wood is gradually reverting to wet birch-dominated woodland. The eastern strip between Robertson Way and Cameron Way, in compartment 13, is classified in the ancient woodland inventory as Long Established Woodland of Plantation Origin (LEPO) as it is present on maps of 1860. Compartments 12 and much of 10b are classified as Ancient Semi-Natural Woodland (ASNW). However, the existing woodland stands are the product of more recent replanting and need further management to restore a more semi-natural broadleaf component to them. The mixed conifer woodlands tend to be relatively even-aged.

These woodlands are important for local biodiversity as they are reserves of more natural vegetation within the built environment. Areas with dense conifer stands lack both a shrub layer and under storey. The majority of vegetation on site is dominated by brambles with rosebay willow herb, bracken and rhododendron ponticum also present in isolated patches.

Unfortunately, anti-social issues such as fires, flytipping and litter are on-going problems which detract from the amenity of the woods as well as creating a hazard to wildlife and visitors.

The woodland blocks and belts are an important part of the infrastructure of Livingston, providing screening between the various residential and industrial 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. They are accessed from entrance points which link to the formal tarmac footpath and cycleway

networks that also connect into the wider complex of Livingston paths and Greenways. There is access to most areas of the woods, with the exception of the permanently wet southern part of compartment 12b which is fenced off because it is permanently wet. There are no onsite car parks but parking is available within adjacent streets.

3. LONG TERM POLICY

Knightsridge woods will be managed as a sustainable natural resource to safeguard their public amenity and biodiversity value. This is 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 as a diverse mix of species, gradually removing non-native conifers and replacing them with native species, predominantly broadleaves. This will be achieved through natural regeneration of species but also planting in gaps if needed to retain a suitable under storey.

Along housing and roadside boundaries the intention is to slowly convert woodland edges through small scale felling and thinning and replace edge trees with smaller stature species that reduce the conflict with neighbouring land uses. An increase in native tree species will help and support healthy ground flora communities. The retention of more standing and fallen deadwood, where is possible and appropriate to do so, will further improve the habitat for biodiversity and its potential for wildlife observation and educational use.

Large scale felling intervention will be utilised where windblow or the potential for windblow makes this unavoidable. Elsewhere small-scale thinning and group felling will be undertaken to diversify the canopy's age structure. This will also help to promote natural regeneration and improve light levels for ground flora. Where natural regeneration is not establishing or the species diversity is poor, additional planting of native species will be undertaken.

Improving and enhancing biodiversity within this site will also be achieved by control and removal of invasive non-native species, where it is realistic and practical to do so. For this site the focus will be on eradicating Rhododendron ponticum and bamboo, reviewing the effectiveness of control measures and impact on the recovery of native flora.

The path network and access facilities will be maintained and upgraded to suit local demand (WT Grade A - high usage) with consideration to the development of the wider path network in Livingston.

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.

4. KEY FEATURES

4.1 F1 CONNECTING PEOPLE TO WOODS AND TREES

Description

Knightsridge Woods are a well-used complex of woodlands to the north of Livingston. In the 2018 census, Livingston was noted as having a population of over 57,000. This figure has continued to grow in-line with increased development in the local area. As of 2024, the population of Livingston North alone is estimated to be over 21,000 people with a further 45,000 across Livingston South and East and East Calder. Considering the increasing local population, these woodland compartments are significant assets for Livingston, providing a valuable outdoor resource for the thriving local population in a highly urbanised area. Knightsridge provides highly for tree equity with scores between 88-100 (out of 100) across the area, due to the good access to trees and woodlands within the community for health, climatic and economic benefits.

The level of public use for Knightsridge Woods is defined as WT Access Category A (High usage) and most users live locally and travel through the site to access amenities such as workplaces or, school. The site is also regularly used by dogwalkers and cyclists for informal recreation. The four woodland blocks are generally accessible directly from the surrounding suburban roads and pavement network, centred around Ogilvie Way and Knightsridge East Road. The site is close to public transport routes with the nearest bus stop is at Knightsridge East Road, immediately adjacent to compartments 10 and 12 along pavements. Livingston North train station is also approximately 1km away along tarmac pavements & Greenways. There is no designated on-site parking, although parking is available in nearby streets.

There are 19 entrances across the site which has welcome posts installed in 2020. The entrance to the south of Greenwood Park into compartment 13 and the entrance to the north of Knightsridge East Road leading to compartments 10c and 10b have timber gates with timber welcome boards displayed. As these are also maintenance access points for vehicles the gates are secured with padlocks have open pedestrian gaps next to them to maintain public access.

Internally there approximately 3.4km of surfaced and un-surfaced. The paths running through block 12 are mostly floodlit tarmac. Otherwise, the paths are generally of a beaten earth nature which are currently (2024) in poor condition due to muddy, uneven surface. The site is predominantly flat, without any steps, bridges required or present across the path network. However, due to drainage problems some of the paths can be very wet in places. The only area where public access is restricted in compartment 12 where a fence has been erected along the southern boundary for safety reasons as this area is a permanently waterlogged.

Although generally straight through routes, the paths across the compartments can be walked as a short circular route. They also link directly onto the Greenway and pavement network within Livingston giving access to long distance routes as well as providing shorter circular routes using soft and surfaced paths. The site is bordered by two core paths- The Railway Path South that is located to the north of compartment 10 and the Loan Path which follows the eastern boundary of compartment 13. These core paths links to other Woodland Trust sites in Livingston including Railway Wood, Nell Path- Deans and Eliburn and the Loan path than leads to North wood and south to Bellsquarry Wood. Although Ladywell Wood is not on these core path networks it is located very close to Knightsridge Wood-

approximately 10-minute walk.

There are two schools located in close proximity to the site- Ogilvie School to the west of compartment 13 and south of compartment 12a and Knightsridge Primary School and Early Years Centre to the east of compartment 13. North of compartment 12b there is also the Knightsridge Adventure Play Project and Youth Club (The Vennie). The woodland is a significant asset for Livingston, providing a valuable outdoor resource for the thriving local population in a highly urbanised area.

Local Scout groups have previously taken part in activities on site including tree planting in for compartments 10 and 13 and creation of a 'dead-hedge' structure in compartment 13.

There are Volunteer Woodland Wardens that cover sites in Livingston, conducting regular patrols, litter picking and providing reports of any issues in the area. Although there is not one currently focusing on the Knightsridge area. A Woodland Working Group (WWG) was also set up for the Woodland Trust sites in West Lothian during late 2019. The aim of this group is to conduct practical conservation tasks across the 16 Woodland Trust sites in the county, including Knightsridge 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 Knightsridge Wood, and wider 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.

Fire raising is regular occurrence in compartments 10, 12 and 13. Compartment 11 suffers from flytipping and the dumping of garden waste. During 2023 motorcycle activity was noted as an issue occurring on site.

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. Woodland Trust is also a part of the Livingston North Regeneration Group meetings which includes the Knightsridge area. This provides an opportunity to interact with other organisations and plans for the local area and enable collaboration for events and wider services.

Significance

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

Knightsridge Woods are accessible to a large demographic of people and easily reached with or without transport. They form an essential part of the local access network as well as linking to longer distance routes.

The woodland belts 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 -
To further develop access facilities within the site, such as benches, responding to user demand.

To further promote and use the woodland as an educational resource through the Vennie, local schools and scout group.

Potential for high levels of engagement for events due to proximity to schools and easy access due to flat terrain and location next to housing and infrastructure.

Multiple areas of the path are suffering from poor drainage and other areas have become narrow over time. Opportunity to upgrade the paths to provide a consistent surface and width across the whole site to improve access for buggy/wheelchair-friendly use.

Restructuring of the coniferous woodlands would reduce the areas of bare ground which are prone to fire-rising. This would provide opportunities for the local community to see and learn about forestry operations as well as being a part of replanting these areas.

There will be numerous tree planting opportunities with local community and partners following felling operations. Due to the site being flat and well connected to public transport links, the tree planting opportunities here would be more accessible for a wider demographic of people of all abilities.

As there are currently minimal species records for Knightsridge Wood anything recorded would essential be a new record for the site. This would be a good opportunity to involve the local community in a potential Bioblitz event to raise awareness and understanding of biodiversity in our woodlands.

Location within an urban setting may enable access to funding such as landfill funds, windfarm funds or Active travel funds. Also, close proximity to other Woodland Trust sites within Livingston allows for potential to group works (such as path upgrades) together to be more efficient and cost effective.

Constraints –
The linear nature of site restricts potential for circular routes within the site and restricts opportunities for events within the woodland.

The southern end of compartment 12a is wet throughout the year restricting access to this part of the site.

Some areas of the paths which are unsurfaced can remain muddy throughout the year. This is due to the high levels of use and can make the area inaccessible especially for those with mobility issues.

Anti-sociable behaviour such as fires, fly tipping and litter are regular occurrences on site. These actions present health and safety issues that damages the environment as well aesthetics of the woodland and discourages use by other members of the community.

Potential of vandalism to signs, posts, benches currently prevents investment into site infrastructure that could benefit the wider community.

Unauthorised motorised vehicle access through the woods is a risk to visitor safety and could damage any footpath upgrades.

Factors Causing Change

Continuous litter and fly tipping detract from the natural beauty of this site and fires could cause long-term environmental damage.

Significant tree felling works will temporarily restrict access in work areas- diversions will be put in place for the duration of the works. The entrance south of Greenwood Park will need to be surfaced and fencing amended to facilitate the felling works. There is then the opportunity to keep the upgraded surface in this area and improve the currently unsurfaced paths throughout compartment 13a once the works have been completed.

Long term Objective (50 years+)

There will be a well-maintained network of paths and rides with a variety of aspects allowing safe access across the site. The site should be accessible, safe and welcoming with management of infrastructure and signage.

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

The site should be well used, appreciated and respected by the local community and it should be known for its wildlife interest, varied landscape 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 public access at Knightsridge Woods which is safe and enjoyable. 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) Vegetation cutbacks from path and streetlights to allow lines of sight where possible and appropriate (as

required)

c) Vegetation cut back along residential boundary of compartment 13 to enable access for tree inspections (annually)

d)Litter and fly tip uplift (as required)

e) Regular site safety inspections (tree safety, fencing) (as per site risk assessment)

f) Install no motorbike signs in areas (as required)

g) Maintaining suitable access during significant site works including temporary path closures during infrastructure and felling works on site at the entrances from Greenwood Park and from Knightsridge East Road for the safety of the public and operators and use of diversions following existing surfaced paths outside of Knightsridge Woods.

2) Providing and developing more opportunities for community engagement:

a) Continue to meet with the West Lothian Partnership Against Rural Crime (WLPARC) group and the Livingston North Services Group to discuss updates and antisocial issues on site and collaborate with other local organisations where possible and appropriate (ongoing)

b) Engagement with local schools regarding Environmental Careers considering different roles involved in the works being undertaken in Knightsridge Woods and raise awareness regarding the risks of anti-social behaviour in the woods (2024/2025)

i) Where possible and appropriate, involve fire and rescue services in events to raise awareness of fire-raising in the area (annually)

ii) organise school/community litter picks in partnership with West Lothian Litter pickers (annually)

c) Tree planting with local schools, local community groups and the wider public (following felling operations)

d) Knightsridge Bioblitz event to record species on site (before end of the management plan cycle)

e) Develop and recruit new volunteering roles to support ongoing management, encourage wider use and deeper knowledge of the site and its visitors:

i) Recruit a Volunteer Woodland Warden specifically covering this site- reporting signs of fires and flytipping

ii) Recruit Woodland Working Group Leader volunteer to enable the West Lothian group to run more efficiently and frequently

3) Improving visitor access by upgrading infrastructure (following the completion of felling works):

a) Path upgrades along existing currently unsurfaced paths in compartment 13 (600m) and 12 (150m).

b) Consult with local community regarding interest in the possible installation natural play features and/or benches and potential suitable locations on site

c) Review entrance signage following any path upgrades considering user demand (before end of the plan period)

4.2 F2 LONG ESTABLISHED WOODLAND OF PLANTATION ORIGIN

Description

Covering a total of 13.05 ha across all compartments, Knightsridge Woods are 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 housing developments in the area. Protected to some degree and buffered by additional planting throughout the 20th century these woods form part of the wider habitat mosaic. The majority of the canopy cover was planted in the 1970s as part of the Livingston Development Corporation (LDC)'s land management for sheltering neighbouring residential areas.

Nevertheless, there are some areas of Knightsridge Woods which do have significantly older origins. The largest section of Knightsridge Woods is compartment 10 which is located northwest of Knightsridge East Road. This is split into three sub-compartments and includes sections of Ancient Woodland of Semi-Natural Origin, according to the Ancient Woodland Inventory. This designation also covers compartment 12. Compartment 10 is often referred to as 'Moss Wood' which was noted on the first edition maps. This implies that the area has historically been composed of trees growing on a bog. This suggests the area may be of semi-natural origin. However, none of these areas are visible as woodland on the Roy mapping of 1750. These records present a lot of the surrounding areas as 'muir' and without any indication of trees.

Regardless, it is visibly evident that the diversity of the woods has been greatly compromised due to their management within their more recent history. The current conditions of these compartments are poor due to high density of non-naive conifers and are therefore considered to be Plantation on Ancient Woodland Sites (PAWS). The eastern side of compartment 13 is considered to be Long Established woodland of Plantation Origin (LEPO) and this status is confirmed by their existence on the 1860 OS map. Due to the lack of clarity regarding the accuracy of the designations across the site all areas of Knightsridge Woods are managed as if they were also LEPO areas.

The southern areas of compartment 12a and western part of 12b are wet woodlands. There are high levels of dead wood in these areas from windblown trees. As access is minimal in these areas these will be left as an important woodland habitat. Sections to the west of compartment 10b also include wet woodland characteristics and have ditches present. The ground conditions are much drier in the northern half of compartment 12a and b and there is a higher density of conifers (dominated by lodgepole pine with Scots pine and Sitka spruce) present in these areas. Areas with dense conifers such as those in compartment 10 and 12 have created high levels of shading. The restriction of light levels has suppressed vegetation growth in these areas resulting in large areas with minimal vegetation present. These areas regularly experience repeated fire-raising and other antisocial behaviour such as littering and flytipping which may contribute to limited biodiversity.

Since the Woodland Trust's acquisition of Knightsridge Woods, thinning was carried out in 12a in 2002. In 2008, compartments 13a and 10a had sections clear-felled. Replanting was conducted in compartment 13b in 2000 and compartment 10b in 2003. Restocking in compartment 13b was conducted in 2000 including rowan, birch, alder, guelder rose, hazel, hawthorn, bird cherry and goat willow.

There are no dedicated areas of open ground maintained at Knightsridge Woods. However, there will be temporary open space following the planned felling works for the site until the replanting is established. There is also open space

neighbouring the site with the Adventure Park next to The Vennie and playing fields situated to the east of compartment 12.

All compartments are relatively diverse, due mainly to the presence of edge species common to wasteland, heath and grassland (plantains, tormentil, self-heal, heath bedstraw, blaeberry); and shady or wet areas (pink purslane, raspberry, marsh woundwort). Within the denser woodlands, occasional broad buckler, male and lady fern are found with rushes and small patches of both polytrichum and sphagnum mosses, but large areas of compartment 13 are dominated by bramble, ferns and grasses (cocksfoot, Yorkshire fog and creeping soft grass). Heather and honeysuckle are also present to the south of the compartment

Rhododendron ponticum has been found in compartment 12 (2022), compartment 11 (2023) and compartment 10 (2023). These sections were isolated bushes that were dug out by hand to avoid the invasive species spreading. Follow-up monitoring will be required for at least the subsequent 7 years and any regrowth removed as required to ensure eradication. Variegated yellow archangel has also been noted in compartment 12 and snowberry in compartment 13a. A small amount of bamboo has also been found along the housing boundary of compartment 13.

Species records for this site are currently (2024) very minimal for Knightsridge Woods. Nevertheless, grey squirrels, red foxes, roe deer and small bird species including bullfinches have been spotted on this site.

Significance

The woodland is on the Ancient Woodland Inventory as LEPO 2b/ ASNW 2a and is on 1860 maps, which indicates a relatively high biodiversity potential. The wood is a significant feature of the local landscape and provides screening and shelter between housing developments. It forms an integral component of the local landscape. Knightsridge woods is also an important refuge for wildlife within a highly developed urban area.

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 felling and light thinning.

Restructuring the woodlands by removing conifers and replanting with native broadleaves will also help to reduce the levels of bare ground under conifers which will in-turn discourage fire raising.

Removing large conifers on the residential boundary will also enable lower-level species to be planted in these areas which would be suitable for these areas and reduce conflict with neighbouring properties.

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

Close proximity to West Lothian Council (WLC) areas requiring similar works- possible to collaborate on operations to be more cost-effective and minimise disturbance by reducing number of different operations across the local area.

Lack of current species records identifies a need for ecological assessment across the site. A baseline survey could be created for before works were undertaken and reviewed on the next management cycle to note any differences.

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

The soil structure and large areas of poor drainage limits suitable species that may be able to establish on site for natural regeneration and replanting.

The damp ground conditions restricts access for felling and safety operations within the southern area of compartment 12 and within compartment 13 along the back of housing on Robertson Way.

Regular incidences of litter, vandalism and fires threatens the success of restoration efforts. Other Livingston sites, with a history of regular fires, have experienced vandalism to tree shelters which undermined tree establishment and should also be considered in regard to protection of restocking. Fire risk also restricts the allowance for significant deadwood levels on site and must be taken into consideration for brash treatment during felling operations.

Close proximity to housing, roads and services increases the demands on the site including safety works and makes operations, particularly harvesting works, more complex and expensive to run.

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

Lack of existing infrastructure on site, such as suitable stacking areas, restricts activity/makes operations more expensive and complex to manage.

Urban context of the site leaves site vulnerable to the spread of pests and disease from other areas that visitors may be moving through and neighbouring gardens containing invasive species as potential seed sources.

Browsing from deer, rabbits and hares as well as squirrel damage 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, no management of these species will be undertaken for the foreseeable future and further investment will be required to replace browsed or damaged trees.

High density of brambles and other coarse vegetative species already present on site, particularly in compartment 13, may help to protect regeneration and planted trees from browsing but will also compete with the trees for resources.

Factors Causing Change

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.

Ash die back (ADB) is present and throughout Livingston, including Knightsridge Woods. Due to the prevalence of ADB, ash trees will also not be included within restocking. Therefore, its density on the site overall is likely to decline in the long term.

Poor drainage, particularly present in compartment 12 and 13, could cause additional stress to trees in the area which would also be at higher risk of contracting Phytophthora in these conditions.

There have been multiple Statutory Plant Health Notices (SPHN) in Livingston Phytophthora ramorum affecting larch and this is likely to continue to spread. This would be very significant for Knightsridge Woods as there is a high density of larch on site, particularly in compartment 13.

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

Rhododendron ponticum has been noted on site since 2022. Bamboo was also found entering the site in 2023. If these invasive species are not removed, they 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 re-infestation of this invasive species in the long-term.

Significant harvesting works would open up areas of the canopy in a short timeframe which could result in an increase of coarse vegetation such as brambles and bracken. This could compromise flora diversity in these areas. However, this ground cover may also help to deter deliberate vandalism in these areas.

West Lothian Council is also planning felling works on conifers on neighbouring land which will also impact the wider woodland cover and composition present in the local area.

Long term Objective (50 years+)

To create and maintain a diverse, mixed age and mixed species woodland habitat in perpetuity. Species composition will be varied, being mostly native though a proportion of conifers beech and sycamore will be accepted. A move towards a native canopy will lead to the development of a diverse ground flora community. Biodiversity will be safeguarded by controlling the spread of invasive non-native invasive species where practical.

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

The focus of the STOs for Knightsridge Woods will be to improve biodiversity and resilience on the site through the following objectives:

1) Improve awareness and recording of species presence on site:
   a) Commission ecological surveys across the site (prior to harvesting works commencing in 2024)
      i) Protected species survey to identify sensitive areas/species requiring additional mitigation for site works
      ii) NVC survey of compartment 10a and 10b to confirm ASNW designation and most appropriate access routes for access/extraction
   b) Record species present at the end of the management plan period for a comparison after the works (2029)
   c) Initiate discussions with West Lothian Council regarding deer and squirrel management within Livingston and

explore possibilities for a collaborative approach concerning monitoring of these species and their impact locally (2024)

2) Infrastructure upgrades to facilitate significant felling works:

a) Greenwood Park Entrance- dropped kerb to be widened, current fencing to be adjusted to recess further back into the woodland, double gates to be installed and approximately 85m of forestry track to be installed to allow for timber lorries to get off the main road as quickly as possible.

b) Existing track and lay additional type 1 for maximum grip and existing fencing to be altered to allow ease of access for vehicles reversing into the site in close proximity to the roundabout (2024)

3) Significant tree felling works, subject to obtaining approved felling licenses:

a) Management risk of windblow and Phytophthora ramorum through clear felling larch and Sitka spruce in compartment 13 (up to 79% of woodland cover in the 3.5ha of this compartment). Native species to be retained, where possible and appropriate to do so.

b) Work towards restoring Ancient woodland areas, improving light conditions to enable recovery of regeneration and ground flora currently under dense conifer canopy:

i) Clear fell Sitka spruce along northern boundary of 10c (up to 33% of woodland cover in this compartment) and 10b including along the eastern side of the access track to this compartment (up to 23% of woodland cover in this compartment). Native species to be retained, where possible and appropriate to do so.

ii) Cut a temporary track through the regenerated birch and willow to provide access from the Sitka Spruce block in 10b northwards to the Sitka spruce in compartment 10a to facilitate felling and extraction- route to be informed by NVC survey report prior to felling

iii) Clear fell Sitka spruce in Compartment 10a (100% of woodland cover in 1.3ha) existing native species present in the work area will be retain as is possible and appropriate to do so.

c) brash to be removed from site due to high fire risk (2024/2025)

i) Use of mulching in compartment 13 due to finer debris from larch and thick bramble coverage which will need to be cleared to allow for restocking

ii) Use Sitka spruce branches from compartment 10b as a brash matt for access to 10a to reduce ground disturbance during extraction

iii) Consider the use of bailing brash in compartment 10a to avoid thick mulch matting from high volumes of Sitka spruce branches

d) Restock with native broadleaves as per felling license through community tree planting sessions (as soon as reasonably practical following harvesting).

i) Compartments 10c, 10b and the western and eastern areas of compartment 13 will be restocked through higher density planting, considering to retain access along maintained paths as the high use are likely to discourage significant browsing in these areas (2025)

ii) Use of stock fencing in the southern compartment of 13a (approximately 700m) and compartment 10a (approximately 600m) to clearly identify planted areas for maintenance and to discourage browsing (2025)

e) Weed all planted areas annually (for up to three years following the planting depending on establishment)

f) Monitor success and organize for replacement of any planted trees which do not survive (as required)

g) Consider the management of conifers in compartment 12 (0.7ha) including lodgepole pine, Sitka spruce and larch within the next future management plan review (2029)

4) Work towards the eradication of Rhododendron ponticum and Bamboo during this plan period:

a) Map all invasive species on site (2024)

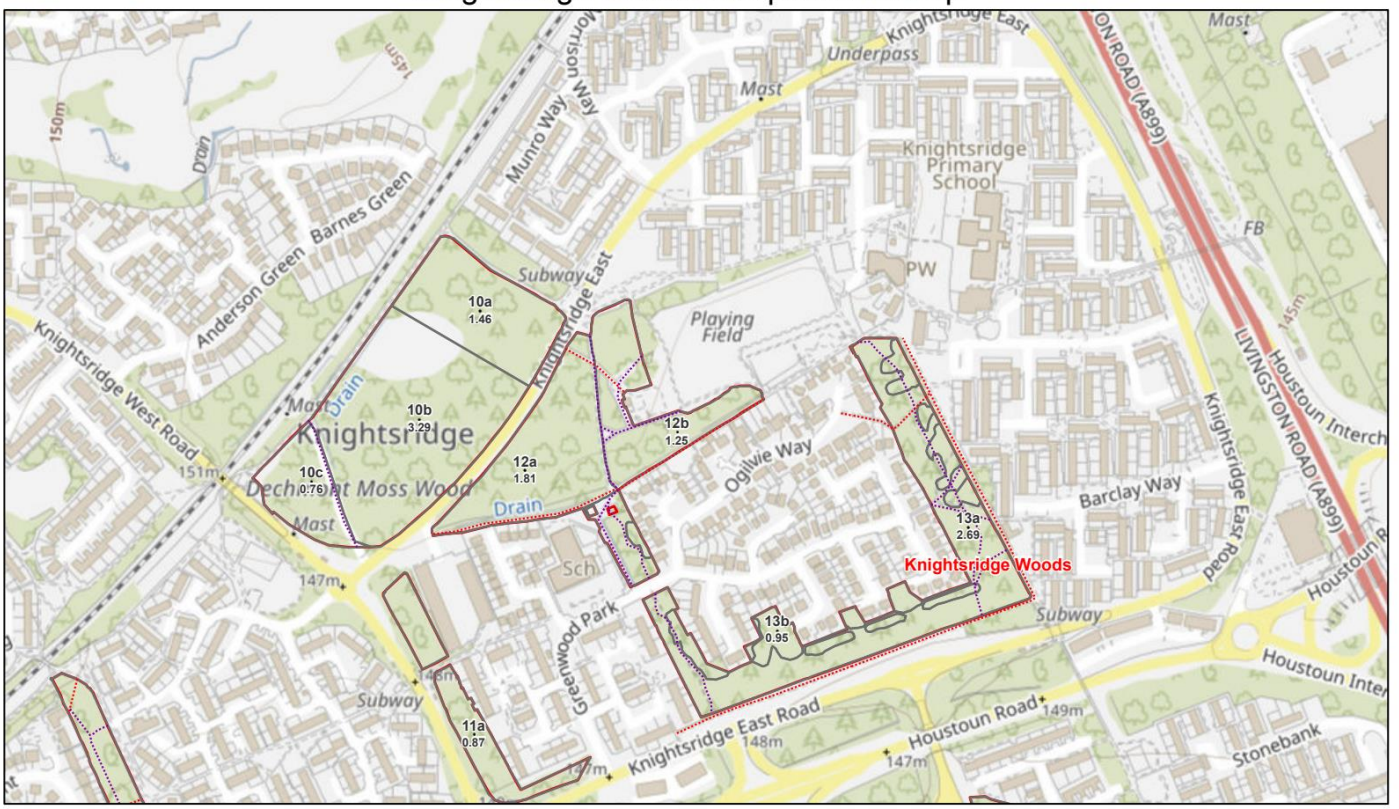
b) Remove any Rhododendron ponticum regrowth present in compartments 10 and 12 by non-chemical methods- digging out the root system (as required)

c) Trial the use of non-chemical treatments to remove Bamboo (2025)

i) Annually assess treatment areas and organise follow-up treatment for regrowth (as required)

APPENDIX 1 : COMPARTMENT MAP

Knightsridge Woods compartment map



26/01/2023, 10:12:01

Estate Path Network

Legal-Footpath

Permissive-Footpath

Estate SubCompartments

Estate SubComp Labels

Estate SubComp Labels Hectares

Management Units

1:5,291

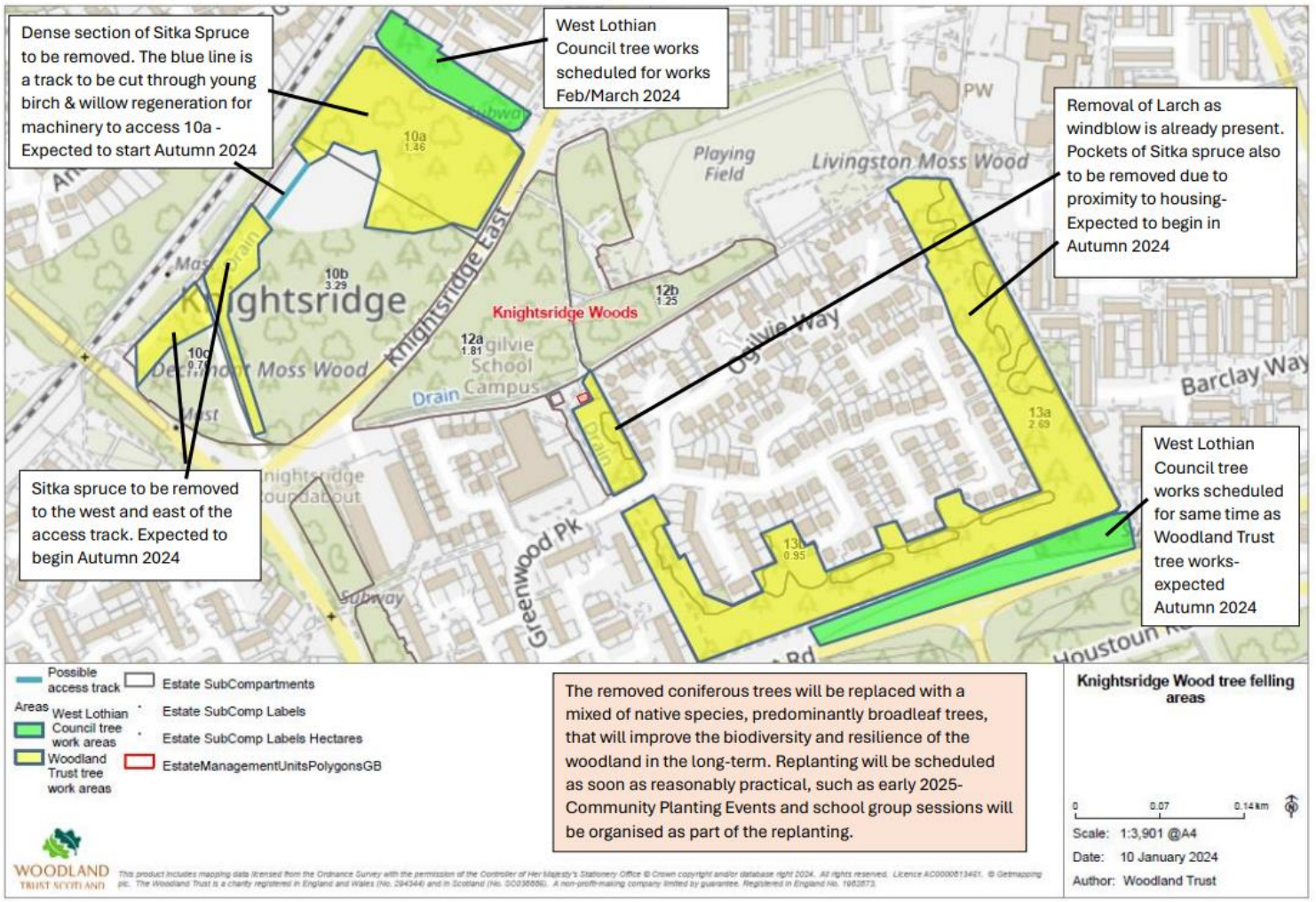
0 0.04 0.09 0.18 mi

0 0.05 0.1 0.2 km

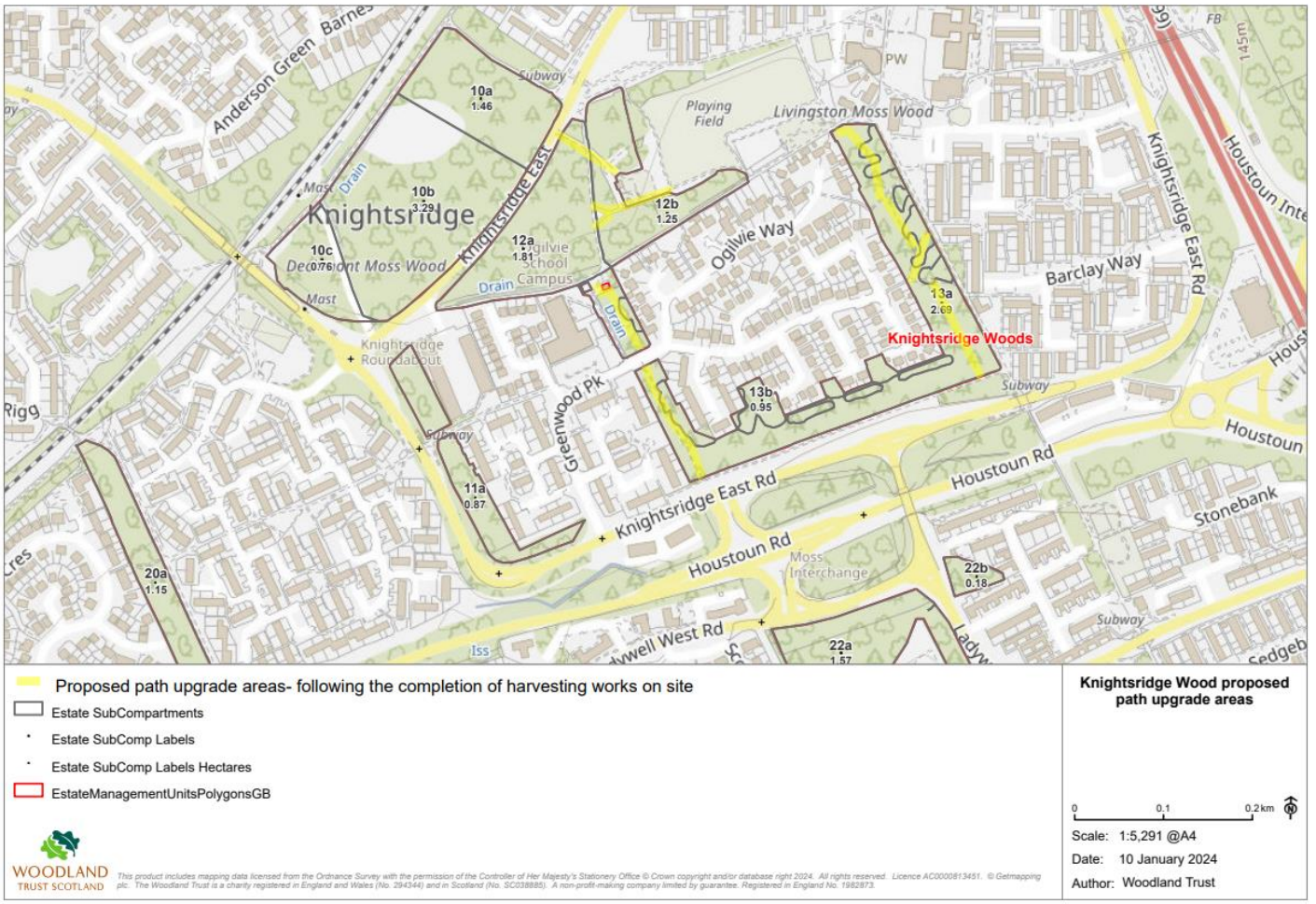
Woodland Trust

APPENDIX 2 : ANCIENT WOODLAND INVENTORY MAP

APPENDIX 3: PROPOSED TREE WORKS MAP



APPENDIX 4: PROPOSED PATH WORKS MAP



APPENDIX 5: HARVESTING TABLE (20 YEARS)

Cpt	Operation Type	Work Area (ha)	Forecast Year	Estimated vol/ha	Estimated total vol.
10a	Clear fell (sitka Spruce)	1.3	2024	870	1130
10b	Selective fell (sitka spruce)	0.4	2024	437.5	175
10c	Selective fell (sitka spruce)	0.2	2024	250	50
13a	Selective fell (conifers- including sitka spruce and larch)	2.69	2024	223	600
13b	Selective fell (conifers- including sitka spruce and larch)	0.95	2024	21	20

APPENDIX 6: COMPARTMENT DESCRIPTIONS

Cpt No.	Area (ha)	Main Species	Year	Management Regime	Major Management Constraints	Designations
10a	1.46	Sitka spruce	1970	High forest	Services & Wayleaves, Housing/infrastructure, structures & water features on or adjacent to site, People issues (+tve & -tve)	Ancient Semi-Natural Woodland
This is the eastern block of the area known as 'Dechmont Moss West Wood'. It is bordered by the paved, street-lit Core Path to the north (Railway Line Path South). To the east, there is a strip of woodland between this area which is owned by West Lothian council and this borders the housing areas; Munro Way, Murray Way and Nicholson Way. Along the southern boundary of this compartment there is an underground telephone line, pavement and Knightsridge East Road. An area of semi-mature Sitka spruce, with occasional pockets of windblown trees, thinned in 2002. The south western corner is designated as Ancient Semi-Natural Woodland (ASNW) on the Ancient Woodland Inventory (AWI). Ground flora is sparse under spruce canopy but some ferns and brambles in better light and some birch and odd willow on the edges. Deadwood in the form of windblown trees and small standing dead and some in canopy. Fire and litter are common in this compartment						
10b	3.29	Mixed native broadleaves	2002	High forest	Services & Wayleaves, Housing/infrastructure, structures & water features on or adjacent to site, People issues (+tve & -tve)	Ancient Semi-Natural Woodland
Also part of the 'Dechmont Moss West Wood', this sub-compartment is west of 10a. Again the Railway line and Railway Core Path are located to the north and Knightsridge East road is present to the south. This compartment also has multiple drainage ditches present, particularly to the northwest of the compartment. There are underground sewage line along the western boundary (northern half only) and underground telephone line skirting along the southern boundary. The majority of this compartment holds the ASNW designation. An area of young mixed woodland with conifers and broadleaves that borders a paved paths to the north and west with a road to the south. The woodland comprises some lodgepole pine remaining from 1970s plantings but the majority was felled in 2002 and 2008 and replaced by birch regeneration supplemented with planting of mixed broadleaves and Scot's pine. Occasional older birch, left during the felling work is scattered across site. Along the roadside to the south a screening belt of juvenile mixed broadleaves was opened up and scalloped to create edge diversity. Ground flora in open areas comprises of						

Cpt No.	Area (ha)	Main Species	Year	Management Regime	Major Management Constraints	Designations
predominately bracken and brambles with willow herb and odd patches of honeysuckle and heather. Deadwood is generally small timber lengths from previous felling operations. Two isolated patches of Rhododendron ponticum were noted in the west of this compartment in early 2023.						
10c	0.76	Scots pine	1990	High forest	Services & Wayleaves, Housing/infrastructure, structures & water features on or adjacent to site	
First thinned in 2004 this is an area of younger mixed conifers and broadleaves that borders roads to the south and west and a paved footpath to the north. There is a small stand of Sitka spruce located along the northern boundary of this compartment. The rest of the compartment is more mixed with Scots pine as well as occasional cherry, oak, alder and hawthorn. Sparse understorey and ground flora due to dense canopy of young trees. Regeneration is also poor in this compartment. No significant deadwood as original thinnings were chipped due to fire risk. Knightsridge west road is located to the west of the compartment and Railway line and Railway Core path to the north. There is a underground gas pipeline on eastern boundary and north western corner of compartment. An underground electric cable is also present in north-western corner. There is a stone surfaced access track along the eastern boundary of this compartment which has a padlocked vehicle gate and a pedestrian gap for access. There are no designations covering this compartment.						
11a	0.87	Scots pine	1930	High forest	Services & Wayleaves, Housing/infrastructure, structures & water features on or adjacent to site, People issues (+tve & -tve)	
Known as 'Moss Strip', compartment 11a is an L-shaped belt of woodland, composed of predominantly mature Scots pine, with lodge pole pine, occasional mature beech, sycamore, oak and rowan. There is good regeneration of beech and Scots pine, with occasional oak and hawthorn, particularly toward the south. Towards the north the mature canopy opens and has been supplemented in 2000 with a small area of underplating of mixed broadleaves and occasional Scots pine. The southern 'east-west' arm of mixed broadleaves is of younger origin having been planted in the early 70s by the Livingston Development Corporation (LDC) for additional screening to Stewart Way. Ground flora is composed of soft grasses, with occasional brambles. The southern arm contains younger, mixed broadleaves, some coppiced. There is minor deadwood though the majority of arisings have been chipped in the past Knightsridge east road to the west but there is a buffer present of woodland owned by West Lothian Council along the roadside. There is an industrial estate and housing on the eastern boundary. An underground gas pipeline is present in the south western corner of the northern block of 11a and sewage in the south eastern corner of the						

Cpt No.	Area (ha)	Main Species	Year	Management Regime	Major Management Constraints	Designations
southern block and the eastern boundary of the northern block. Small patches of rhododendron ponticum have been noted along the eastern boundary of this compartment next to gardens. These were dug out in 2023 and are checked annually for regrowth. There are no official entrances to this compartment but there is a well-used desire line present from the underpass to Knightsridge East Road. Flytipping and garden waste dumping common in this compartment. There are no designations covering this compartment.						
12a	1.81	Lodgepole pine	1968	High forest	Services & Wayleaves, Housing/infrastructure, structures & water features on or adjacent to site, Mostly wet ground/exposed site, People issues (+tve & -tve)	Ancient Semi-Natural Woodland
The ASNW designation covers all but a small area to the south of this compartment. 'Dechmont Moss East Wood, stand of dense semi-mature lodgepole pine with occasional Sitka spruce patches. Bordered by a Knightsridge East Road to the northwest, a street-lit tarmac tracks to the east and the south. A track leads from Knightsridge East road across the northern part of this compartment enabling vehicle access to The Vennie. Immediately north of the Woodland Trust boundary there is a bus stop. The site is heavily waterlogged on peaty soils and has cross drains at frequent intervals. Windblow is common in the south of the compartment due to the damp conditions. A post and wire fence lines the south and eastern boundary as these areas remain wet throughout the year. Fires and litter are regular occurrences in the dry part of the compartment towards the north. Along the roadside the predominantly birch-willow mix was opened up in 2002 to create a more open scalloped edge. Understorey of mainly birch and willow in northern areas even under dense conifers with some rarer elder and hawthorn further south and west. Ground flora very sparse under conifers but some brambles in the north. Deadwood present as odd fallen tree and a little in conifer canopy. A small patch of rhododendron was noted on the western boundary of this compartment in 2022. This was dug out and the area continues to be checked annually for regrowth. Underground gas and water pipeline on the southern boundary of the compartment.						

Cpt No.	Area (ha)	Main Species	Year	Management Regime	Major Management Constraints	Designations
12b	1.25	Goat willow	1970	Min-intervention	Mostly wet ground/exposed site, Services & Wayleaves, Housing/infrastructure, structures & water features on or adjacent to site	Ancient Semi-Natural Woodland
Located on the opposite side of the street-lit track to 12a, compartment 12b borders the Vennie and Adventure playground border this compartment. Most of this sub-compartment is designated as ASNW in the AWI, only small areas to the north and south of compartment are excluded from the designation coverage. This area has a highly varied woodland composition in both ages and species. The south of the compartment is dominated by young birch with alder, rowan and willow with occasional lodge pole pine, Sitka spruce and Scots pine present. Beech and mature oak are found along drier boundaries. Regeneration of beech and willow is extensive with some hawthorn on drier spots. Ground flora includes mosses and soft grasses. The woodland areas south of the Vennie has been fenced off for public safety. Land drainage levels and outfalls have been deliberately engineered to allow water from surrounding land to collect in and slowly drain from the compartment, creating permanent standing water throughout with highest water levels being maintained in the south of the area. For this reason LDC created 2 whin dust paths that cross the area which are raised above the standing water and out with the fence lines. There is an underground sewage line on the western boundary and underground telephone and electric lines present, cutting across the southern block.						
13a	2.69	European larch	1970	High forest	Services & Wayleaves, Housing/infrastructure, structures & water features on or adjacent to site, People issues (+tve & -tve)	Long Establish woodland of Plantation Origin
Sub-compartment 13a includes a block immediately east of Ogilvie School and the 'U' shaped woodland surrounding Roberston Way housing area. The southern block of this sub-compartment is also known as 'Livingston Moss Wood'. The western side of 13a is dissected by the Greenwood Park road. The section to the north of this road is approximately 0.2ha positioned between Ogilvie School Campus and Ogilvie Way housing. There is an un-surfaced path through the centre of this section which is muddy and uneven with welcome posts positioned at either end. There is a tarmac path on the western border of this section between the woodland and the school. On the opposite side of the road there is a thin grass verge buffering between the road and the Woodland Trust boundary. There are telephone, water and electric services positioned beneath this grass strip. The Woodland Trust boundary has a						

Cpt No.	Area (ha)	Main Species	Year	Management Regime	Major Management Constraints	Designations
timber fence, timber vehicle gate and a pedestrian gap. There is an unsurfaced path running north to south meeting the street-lit tarmac path that borders the south of the Woodland Trust boundary. There is a timber welcome post and an open entrance to the path. The paths in the eastern side of this compartment are a mix of tarmac street-lit paths and unsurfaced uneven tracks leading onto the 'Loan Path' that runs along the eastern border. Only the far eastern section of the 'U' shaped woodland is designated as LEPO on the AWI. The woodland is of mixed density mature hybrid larch, located in high densities to the west and the south. There are two relatively discrete stands of Sitka spruce at the southernmost and northernmost corners with scattered broadleaves occurring along the southern and eastern boundaries. The east is much more varied and includes mature oak, ash, sycamore and beech particularly along the boundaries. The south borders a footpath and road and the north borders woodland and open ground. There is sparse understorey throughout except a hedge boundary on the far east and some smaller regenerated broadleaves in more open larch areas which include hawthorn and rowan. The ground flora is soft grasses with brambles in the more open areas and dense particularly along the residential boundary. Areas that have less bramble cover include patches of heather and honeycukle. The southern end is poorly drained and so there is some standing water in ditches. Deadwood present as previously felled to waste softwood with associated stumps. Services present in this area include water, gas pipeline and underground telephone services are present under tarmac track near Ogilvie school and the latter is also present in eastern block. Fires, litter and flytipping are particularly common to the east of this compartment.						
13b	0.95	Mixed broadleaves	2000	Wood establishment	Services & Wayleaves, Housing/infrastructure, structures & water features on or adjacent to site	Long Establish woodland of Plantation Origin
Located in pockets along the northern and eastern boundaries of compartment 13a, these are areas of predominately young mixed native broadleaves planted in 2001 following windblow clearance back from housing edges. Species include willow, birch, ash and rowan. The pockets located to the east of Roberston Way housing area are covered by the LEPO designation and include some mature individual broadleaves such as oak and ash. Ground flora of tussocky grasses and bramble. Dead wood is made up of old conifer stumps and windblow from 2012 storms. The sections that share their northern boundary with Robertson Way suffer from poor drainage and coarse vegetation cover. The underground telephone services run from north to south along the eastern boundary next to the Loan Path.						

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.