LIVINGSTON WOODS
LONG TERM FOREST PLAN

Information and Draft Proposals for Management

August 2024

West Lothian Council

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The following sets of maps have been prepared, covering Livingston Woods owned and managed by West Lothian Council.

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INTRODUCTION

Background

The "new town" of Livingston was developed by the Livingston Development Corporation (LDC) during the period 1962-96, to create an extensive new settlement with residential, business, and industrial areas. The 2021 figures show that it covers an area of 27.48 km^2 with a population of over 57,000, making it the second largest settlement in the Lothians after Edinburgh. Areas continue to be developed for housing and industry, with a surge in housebuilding in recent years.

Livingston "new town" was developed the with a vision of creating a vibrant new urban settlement including both industry and housing with easy access between them and all within a healthy, green environment, including a significant infrastructure of paths, trees, and woodlands.

When the Livingston Development Corporation (LDC) was wound up in 1997, approximately half (130ha) of the woods were transferred to West Lothian Council (WLC) and the other half (156ha) to Woodland Trust Scotland (WTS).

At this time WLC and WTS agreed and signed a "Statement of Intent for the Good Management of Livingston's Woodlands" which outlined the basic principles under which the woods would be managed including:-

- Managing the woodlands through best management practice and stewardship.
- Managing to safeguard their public amenity and biodiversity.
- Consultation and communication with local communities.

West Lothian Council (WLC) owns and is responsible for approximately **427ha** of woodland in and around Livingston, with an additional 418ha of open-ground within or adjacent to these. It also owns and is responsible for **9,940 individual trees** and a further **1,280 trees in small groups**.

Long Term Forest Plans

The **Scottish Forestry Strategy** is the Scottish Government's national framework which sets out the core principles for the long-term development of forestry and woodlands in Scotland, based on sustainable development and social inclusion.

The Strategy is underpinned by the need for Sustainable Forest Management. This in turn encourages woodland owners to take a long-term view to ensure that their woodland estate is sensibly planned and managed in accordance with the UK Forestry Standard.

The management of trees and woodland is undertaken over generations and the Strategy is underpinned by the need for sustainable forest management in the long term, i.e. over decades or centuries rather than years. Woodland owners (public and private) are therefore encouraged to ensure that their woods and forests are sensibly planned and managed for the long-term, through regulation and incentives.

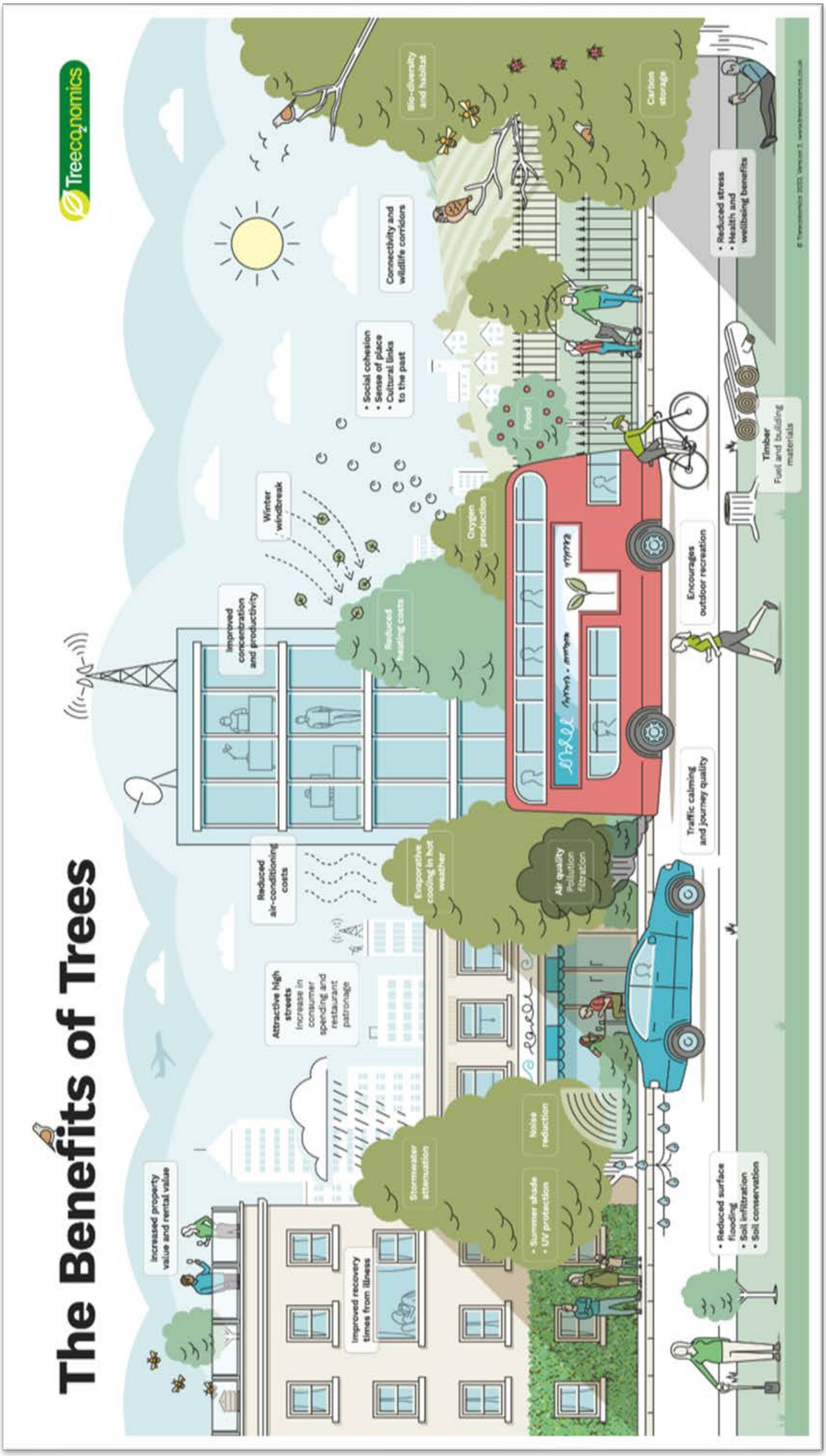
For areas over 100 hectares Scottish Forestry (SF - the regulatory organisation in Scotland) normally requires that this be administered through a **Long-term Forest Plan (LTFP)**. Long-Term Forest Plans are strategic management documents which aim to deliver long-term environmental benefits through sustainable forest management.

To guide the management of the WLC's Livingston Urban Forest over the next 20 years the council is in the process of preparing such a LTFP for all the council-owned trees and woods in and around Livingston. This plan requires approval by Scottish Forestry and includes felling / thinning approvals in detail for the next 10 years and outline plans for the following 10 years. In the case of the extensive tree-scape or Urban Forest in and around Livingston this includes its larger woods, numerous smaller trees belts and individual trees.

The extent and location of the WLC woods being considered under this plan are shown on **Map 2 - WLC Woods and Context.**

The aim of this document is to provide some background and contextual information, to highlight the management issues identified, and to outline how it is intended to address these in the proposed plan.

The aim is to generate feedback from those consultees with a recognised interest in the future management of the woodlands. The feedback received will enable constraints and issues to be identified and addressed in the Long-Term Forest Plan proposals.


The Benefits of Trees
Treeconomics
Increased property value and rental value
Improved recovery times from illness
Attractive high streets
Increase in consumer spending and restaurant patronage
Stormwater attenuation
• Summer shade
• UV protection
Noise reduction
Reduced air-conditioning costs
Evaporative cooling in hot weather
Air quality
Pollution filtration
Improved concentration and productivity
Reduced heating costs
Winter windbreak
Oxygen production
Food
• Social cohesion
• Sense of place
• Cultural links to the past
Connectivity and wildlife corridors
Bio-diversity and habitat
Carbon storage
• Reduced surface flooding
• Soil infiltration
• Soil conservation
Traffic calming and journey quality
Encourages outdoor recreation
Timber
Fuel and building materials
• Reduced stress
• Health and wellbeing benefits

West Lothian Council - Livingston Woods

To prepare the Forest Plan, information on the type of woodland, age and condition, together with initial management proposals has been captured as a database on the council's tree management system.

The database for Livingston includes **391 compartments** and **1298 sub-compartments**, i.e. areas of similar species and age composition or type of associated open ground. The total land area covered is **854.62 ha**, of which **427.33 ha** is represented by woodland cover and the rest is associated open-ground.

The details gathered will enable maps and schedules to be created in a suitable format to submit to Scottish Forestry (SF) for relevant operational and grants approvals.

The following sets of maps have been produced to assist in the scoping process: -

Map 1 – Livingston Location Map Scale 1:150,000,
Map 2 - WLC Livingston Woods & Context Scale 1:25,000
Map 3 – Woodland Types Scale 1:25,000
Map 4 - Constraints & Opportunities Scale 1:25,000
Map 5 – Management Proposals Scale 1:25,000

Sub-compartments Summary

A summary of the information collected and recorded in the woodland sub-compartment database is provided in **Appendix 3,** including the composition of the woods by species and age.

Woodland Composition (omitting Open Ground)

Woodland type	Area Ha	%
Single species broadleaved woodland	2.48	0.6%
Single species conifer woodland	11.42	2.7%
Mixed broadleaves	171.79	40.2%
Mixed conifers	23.35	5.5%
Mixed broadleaved and conifer woodland	212.31	49.7%
Native broadleaved woodland	5.98	1.3%
Total	**427.33**	**100.0%**

Composition by Age Class

Growth stage	Area Ha	%
Mature	109.74	25.7%
Early mature	65.23	15.3%
Semi mature	188.83	44.2%
Pole stage	29.01	6.8%
Thicket stage	5.71	1.3%
Young	27.04	6.3%
Establishment	1.77	0.4%
Total	**427.33**	**100.0%**

Points to note regarding the overall composition include:-

- Most of the woods are mixed conifer and broadleaved, often with many different species.
- Over a quarter of the woods are mature and many of these are gradually senescing old beech woods.
- It is estimated (based largely on roadside surveys) that around 10% of the woodland is ash, usually mixed with other species, and much of this is suffering from Ash Dieback Disease.
- Just under half the woods are semi-mature and result from extensive planting by LDC over a relatively short period.
- Only 15% of the woodland is young.
- There is some natural regeneration under the canopy of the mature woods, but much of this is currently unlikely to grow to maturity due to a variety of issues (e.g. lack of available light, herbivore damage).

Ideally, to avoid dramatic changes in canopy cover and ensure sustainable woodland management, the age classes of trees making up the woods should be evenly distributed. This means that as mature trees start to decline, semi-mature trees will be growing to take their place.
This generally requires many more trees in younger age categories are needed to maintain the same proportions of mature trees in the longer term.

Individual and Groups of Trees

The “urban forest” comprises not only the woodland areas but also all the individual trees and smaller groups of trees which together make up the total canopy cover across an urban area.

The individual trees also play an important part of providing the various “eco-system services”, particularly in the more built up parts of the town including within hard landscapes.

Management Objectives

The long term vision and management objectives are to:

- Manage Livingston Woods on a sustainable basis in accordance with the UK Forestry Standard and in line with the Adoption Agreement (see **Appendix 2**).
- Sequester CO_2, helping to abate and mitigate against the effects of climate change.
- Maintain and enhance the landscape and other benefits (screening, shelter and flooding, pollution and noise reduction) provided by the woods and trees across all neighbourhoods.
- Maintain the woods and trees and path network to safeguard and enhance public access and informal recreation, including management and monitoring of tree safety.
- Provide for conservation and biodiversity, with particular focus on those areas identified as having particular importance i.e. Local Nature Sites and Ancient semi-natural woodland (ASNW) or Long-established woodland of plantation origin (LEPO).
- Safeguard archaeological and historical features.
- Make the best use of timber and other materials produced as result of management operations.
- Encourage the use of the woods as an educational resource and for their health benefits.

The woodlands are diverse both in terms of age and species, and management will be primarily focused towards continuous cover management, wherever this is practical.

The Long-Term Forest Plan will aim to maintain the benefits provided by the woodlands in terms of landscape, amenity, and biodiversity and will aim to manage the woods in as sustainable a manner as possible.

Where appropriate, it will make best use of any timber and other produce arising from management operations.

The LTFP will comply with best practice in terms of landscape, habitat, and cultural protection and enhancement in accordance with the UK Forestry Standard (v5).

Key Opportunities

Making a plan to pro-actively manage the trees and woodlands provides many opportunities to undertake work and ongoing maintenance in a more cost effective manner and improve the woodland and tree stock . These include:-

- Opportunities for working with Woodland Trust Scotland and other owners on joint management of the woodlands.
- Timely woodland management intervention will offset future problems and costs.
- Enrichment planting within existing woods and replanting felled areas will establish a more suitable and manageable woodland composition as a succession to mature woodland areas.
- There are opportunities to extend woodland areas in line with the council's response to Climate Change.
- Selective thinning will allow the best trees more room to grow and increase long-term sustainability.
- Thinning will also increase light levels, providing more open views into the woodland areas and encouraging the development of shrubs, ground flora and overall biodiversity.
- Management of Ancient Woodland areas to increase nativeness in these areas.
- There are a number of opportunities for access creation and improvement.
- Having a plan and the relevant felling permissions in place over a 10 year period, allows bids for internal and external funding to be made and significantly reduces the amount of administration.

Other Opportunities/Constraints

Designations

There are a limited number of designated areas relevant to and affecting the woodlands.

- **ASNW** - Many of the woodland areas are recorded on the register of Ancient and Semi-natural Woodlands (ASNW)
- Most of the other woods shown on the register are Long Established Woods of Plantation Origin (**LEPO**)
- A limited number of woodlands are classified as Plantations on Ancient Woodland (**PAWS**) sites.
- **SSSI** - There are no SSSI's within the LTFP area, but a number of SSSI sites are located adjacent or close to areas covered by the plan.
  One of the council owned woodland areas on the southern edge of Livingston is associated with the Linhouse Glen **Site of Special Scientific Interest (SSSI)**. This site is leased to Scottish Wildlife Trust and is not included in the LTFP.

- **TPO –** The main **Tree Preservation Order** affecting trees and woodland owned by the council is the South Livingston Area TPO covering most of the southern part of the town. This covers all the trees over 56 years old within this area, i.e. they were present before 1968, when Midlothian Council transferred the land to LDC. This protection restricts works on trees and requires consent to be applied for prior to undertaking certain operations.
- **SLA –** The Almond and Linhouse Valleys Special Landscape Area lies immediately adjacent to the south eastern edge of the LTFP area.

There are no other designations identified within the woodlands.

All protected sites and designated areas present within the woodlands will be managed and protected in accordance with the guidleines set out by the responsible authorities.

Ecological Interests

The woodlands provide a range of habitats and are important contributors to the ecological and biodiversity values of the area.

Key Features

Key habitats and issues are identified below:-

- **Riparian Habitats** - A good proportion of the woodlands are associated with the River Almond and its tributaries.
- **Ancient Semi-Natural Woodland** (**ASNW**) – These woods are recognised as being of a high ecological and biodiversity value.
- **Veteran and Mature trees** – A number of these are present within the woods or as individual trees have a high biodiversity value but require monitoring and management in terms of tree safety.
- **Woodland Types and Structure** – The types of woodland represented are diverse. They range from single species conifer areas to semi-natural woods of mainly native species. The majority of the woods are mixed conifer/ broadleaf woods of one age class (even-aged).
  Woods with limited species and structural diversity, which are nearing maturity, and/or have stability or health issues, may benefit from restructuring to more appropriate and diverse woodland types.
- **Invasive Non-Native Species** (**INNS**) – Species such as *Rhododendron ponticum* and snowberry, which tend to shade out natural ground flora, are present within some of the woodland areas. Other invasive species such as Giant hogweed, Himalayan balsam and Japanese knotweed exist in the area particularly along watercourses.
- **Herbivores** – Rabbits, voles, roe deer and other mammals are an important part of the biodiversity of the woods but in high numbers can prevent the regeneration, both of trees and ground flora.
- **Deadwood** – Both fallen deadwood on the ground and standing dead trees are present in most of the woods and are an important part of a healthy woodland providing habitats for numerous invertebrates, fungi and plants.
  In some circumstances it will not be possible to leave timber to recycle naturally due to public safety factors or fire risk.
- **Open Ground** – Management of the woods will also take into account associated open ground areas.
- **Local Biodiversity Sites (LBS) –** Eight sites are located within Livingston (as listed in the WLC's "Planning for Nature" Guidance 2020).
- **Local Geological Sites (LGS) –** There is one LGS in the LTFP area (Murieston Water).

- **Green Networks** – Many of the woods, including narrow treebelts, form a green network connecting parks and other areas of openspace throughout the town. These are often associated with watercourses and, along with individual trees and hedges, form important corridors along which wildlife can move.
- **Country Parks** – There are no country parks within the LTFP Area. However the Livingston Path Network serving Livingston and its woodland areas links into Almondell & Calderwood Country Parks located to the east.
- **Protected Species -** There are a range of species subject to legal protection. A number of these are known to reside in or frequent the woodlands in Livingston, including badgers, bats, otters, a number of amphibians and birds.
- **Public enjoyment of wildlife** – The public of all ages often comment that seeing wildlife within the woods and being in contact with nature is very much valued.
  There are potential opportunities to further highlight the importance of the natural world within a largely urban setting.

The Long-Term Forest Plan will aim to maintain and enhance the long-term, high biodiversity values of all of the the woodland areas through appropriate management of the woodlands and adjacent habitats while doing this in a cost effective manner.

Priority for habitat restoration will be given to areas of PAWS through management of these areas under a Low Impact Silvicultural Systems (LISS), and supporting measures including the control of INNS and herbivore management.

Under the LTFP all protected species will be safeguarded during woodland management operations and protected in line with current guidance and best practice for forest operations.

Historical and Cultural Interests

The woodlands are located in a setting rich in features of historical interest. There are a number of features of historical interest located within or close to WLC owned woodland areas.

Key Features

- **Conservation Areas –** Livingston Village and Mid Calder Conservation Areas are located within the LTFP area, and cover woodland areas owned and managed by WLC.
- **Historic features** - There are a number of local features of interest present within or close to the woodlands. These include dry stone walls, gate posts, ditch and dykes many with boundary trees remaining from the former agricultural landscape.
- **Information and Interpretation** – There are some information panels present. There is scope for more onsite or on-line information to enhance people's knowledge and enjoyment of the area.
- **Historical records** - There are a large number of records of historic features of cultural interest.
- **Scheduled ancient monuments (SAMs)** – None are present within the LTFP area.

Features of historical interest will be protected and safeguarded from disturbance resulting from woodland management operations in line with current guidance. There is potential for the development of Heritage Projects with links to the woodland areas.

Landscape

The woodlands form a framework within the landscape, and provide a setting for other land uses in the area. There are a range of woodland types which have been categorised for the purposes of the Long-term Forest Plan as follows:-

Woodland Type	Description	Management Proposals
Policy Woodland	Grounds of old houses and old estate and farm landscapes.	*Generally Low Levels of Intervention* • Selective thinning • Tree safety works • Regeneration managment • Enrichment planting
Amenity Tree Group	Group of individual trees planted usually in urban areas but can include rural avenues.	• Tree safety works • Selective thinning • Restructuring to fit with surroundings
Tree Belt	Belts of woodland planted for amenity, shelter and noise, visual and pollution screening. These are usually narrow roadside strips.	• Thinning • Tree safety works • Restructuring to fit with surroundings • Enrichment planting
Native woodland	Comprising mainly native species planted or naturally regenerated. Can include scrub.	*Generally Low Levels of Intervention* • Tree safety works • Selective thinning • Encourage natural regeneration • Regeneration management • Control of INNS
Conifer plantation	Usually planted as productive woods / to provide quick woodland cover.	• Thinning • Felling and restocking • Restructuring (where appropriate)
Broadleaved plantation	Usually planted as amenity woods with limited timber / firewood production envisaged.	• Selective thinning • Tree safety works • Regeneration managment • Enrichment planting
Mixed plantation	Usually planted as amenity woods with some timber / firewood production envisaged.	• Selective thinning • Tree safety works • Regeneration managment • Enrichment planting

Key Features

- The differing woodland types are closely associated with their function in the landscape.
- The woodlands and trees form the framework of the “new town” landscape, and provide a setting for the built environment, transport corridors, active travel and recreational areas
- Within Livingston the framework of Greenway routes are recognised as being of considerable importance for their wildlife and amenity value and were formerly designated as Areas of

Special Landscape Control or Local Landscape Value. These are no longer formally designated but their special qualities will be an important consideration in the LTFP.
- The Almond and Linhouse Valleys Special Landscape Area lies to the south east.

Under the Long-Term Forest Plan, it is proposed to retain the woodland areas as features within the landscape, and to maintain and rejuvenate them into the foreseeable future.

Public Access

Levels of public access within and adjacent to the woodlands for both active travel and recreation is high, particularly along the network of Greenway paths.

Key Features

- The majority of public use is by walkers, with cycling and running also common pursuits.
- An extensive path network made up of Active Travel routes, Core Paths, Rights of Way and more informal woodland paths
- Interlinking paths, both formal and informal connect with the key paths.
- Levels of provision in terms of surfacing and signage vary.
- Tree safety has historically been an issue given the high levels of public use, and has been the main focus of past management.
- New residential developments are putting additional pressures on the current access infra-structure in many woodland areas.

Under the Long-Term Forest Plan paths making up the path network within and leading through the woodland areas will be identified, safeguarded, and promoted. Where appropriate key routes may, where resources allow, be upgraded in response to demand.

Management Access

Currently management access into a number of the woodland blocks is limited, and restricts the nature and scale of management operations which can feasibly be carried out.

Key Features

- **Existing woodlands** - Requirements for suitable access for thinning, felling including timber extraction operations.
- **New woodlands** – These need to take into account future access requirements.
- **Access limitations** – These can be/have been created by topographic features (watercourses, slopes) and development of housing and other built infra-structure, with some woodlands practically inaccessible.
- **Public roads** - Extraction operations needs to take into account the adjacent built infrastucture and suitability of the road system
- **Tree safety issues** - These may be difficult to address in areas where management access is restricted
- **Temporary access for management –** This may be required, including using the public roads, with the appropriate permissions and protection in place.
- **Services** – These will need to be identified and safeguarded.

To facilitate management proposals, vehicular access improvements are likey to be required. These improvements will also facilitate access for non-vehicular public access.

Any such improvements will be carried out following consultation with relevant authorities and obtaining any permissions that may be required, and would be subject to the protection requirements of designated features present within the woodlands.

Timber Production

Production of timber is not the primary reason for undertaking restructuring (felling and replanting) and thinning in these urban woods but many of them comprise both softwood (conifer species) and hardwood (broadleaved species) timber which, if felled, processed and extracted in the correct manner, can provide a valuable source of income to help off-set costs.

Key Features

- **Use of timber to help reduce CO_2 emissions** - Timber is a renewable product for construction and many other uses and has a lower carbon footprint than other energy intensive materials such as concrete and steel.
- **Fire hazard** - In most urban woods any larger scale operations will require that much of the timber, and also brash and other residues, are removed to reduce fire risk.
- **Accessibility** - The extent to which wood products can be extracted and the manner in which this is done will depend on accessibilty of each individual area.
- **Deadwood -** Fallen deadwood is an important part of the woodland ecosystem and, where it is safe to do so, a proportion of the felled trees in any wood will be left on site as habitat.

Tree and Woodland Protection

The trees and woods of Livingston are subject to a number of threats from diseases, herbivores and human activity. Threats include: -

- **Plant Health Issues** – There are a number of plant diseases affecting the health of trees at a national level and which impact on Livingston Woods, these include *Phytopthera ramorum* (P.ram. or Larch Dieback Disease), Dutch Elm Disease (DED), and Ash Dieback Disease (ADD).
- **Biosecurity measures** - These need to be put in place and enforced during woodland operations where notifiable disease outbreaks are recorded.
- **Herbivores –** Voles, rabbits, roe deer and grey squirrel are all present and in high numbers can have damaging impacts on tree regeneration and new planting. As a result they can have a detrimental overall impact on existing woodlands in terms of condition and structure.
- **Anti-Social Issues** - Such as vandalism, littering and fire raising can also be problems facing woodlands in an urban setting.

Watercourses, soils, and surface water management

The River Almond flows from west to east through the heart of Livingston down towards the Forth Estuary. It has several tributaries as shown on **Map 3 – Constraints and Opportunities**.

Key Features

- **Riparian wood**- The valley of River Almond and its tributaries support areas of woodland which are generally semi-natural in character. These will be managed by low intervention methods. Occassionally individual tree management may be required, and care is to be taken to avoid erosion.

- **Soils** - The soils around Livingston generally range from moist brown earths to surface water gleys with some areas of more peaty soils. In areas next to built up areas and roads these have often been heavily modified and are "made up" ground.
- **Drainage** - In many instances adjacent development has directed water off the built site into the woodland areas. This in turn makes trees unstable and prone to wind-blow
- **Flood Risk** - The trees and woodland around Livingston provide a key element in absorbing water and slowing the flow into the main watercourses

Climate and Weather Events

Climate change as well as current and likely future weather events, particularly an increase in storms are likely to have impacts on the tree and woodland cover.

Likely impacts include:-

- **Species and provenance selection** - Expected rises in temperatures over the next 50 years will mean that some of the current tree species will not be as suitable for the future climate. Species from more southern climes are likely to be able to be grown and provenances of current species from further south may fare better.
- **Adaption** - The trees themselves and associated biodiversity need to be able to move and adapt to climate change. The larger the areas and more linked they are to other woods the more resilient they are likely to be.
- **Windblow** - Some of the woodland areas have now reached a height at which they are more vulnerable to windblow in the event of high winds. This is particularly of concern the case in exposed locations, where ground conditions are waterlogged, and/or where shallow-rooting fast-growing conifers have been planted.

Your Response

The above details provide a brief context for the proposed Long-Term Forest Plan.

This scoping process is intended to offer the opportunity for statutory authorities, local interest groups, local communities, and neighbours to provide feedback on aspects of the future woodland management.

We would be grateful if you could provide us with your comments and suggestions, and to highlight any issues or concerns you may have which relate to the woodlands in Livingston, using the attached form.

Any such feedback received will then be assessed (in the form of a Scoping Report) and, wherever practical, will be incorporated to form part of the Long-Term Forest Plan's future management proposals.

Once the Long-Term Forest Plan has been produced, you will be provided a further opportunity to make comment on the plan and the management proposals.