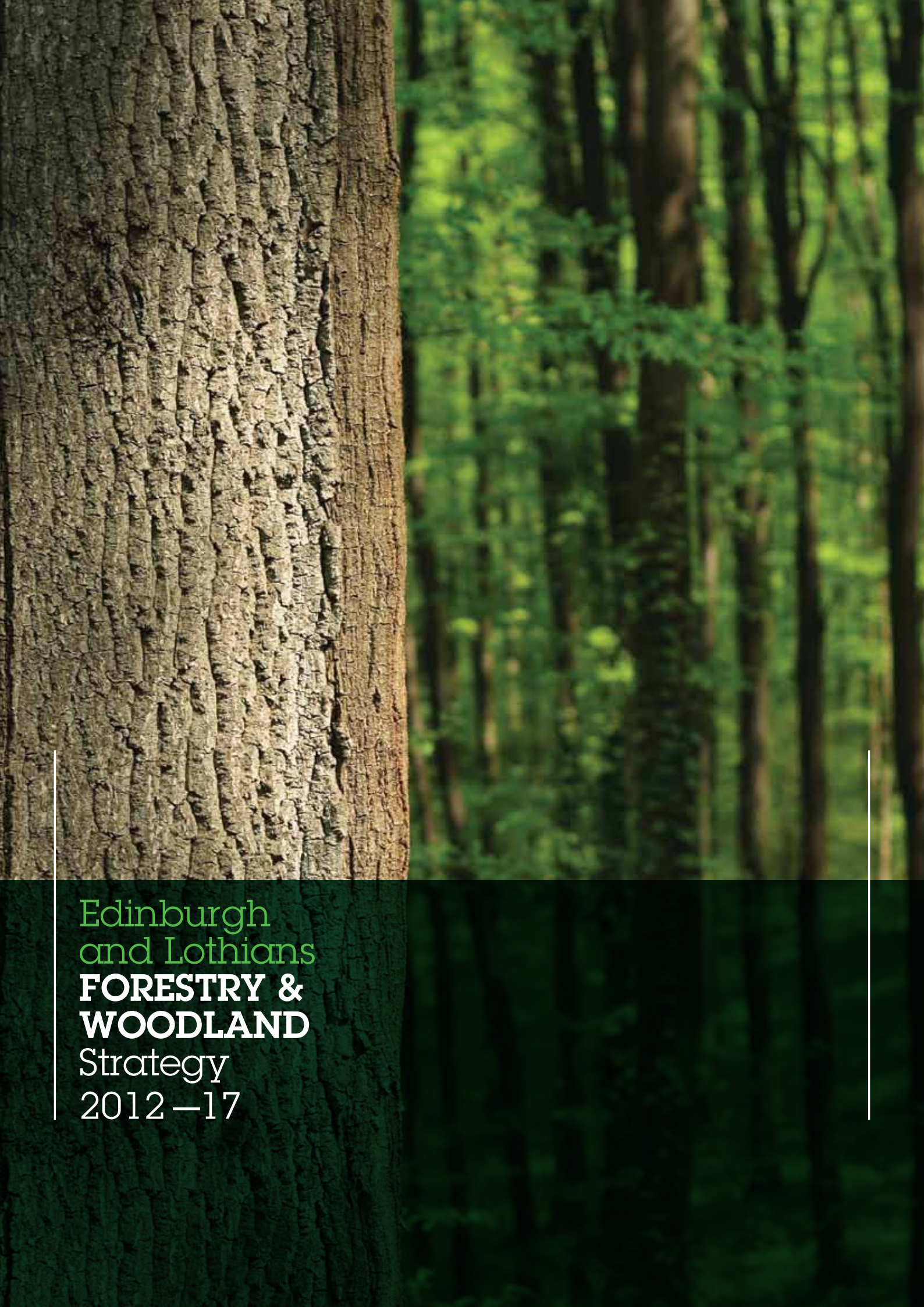

Edinburgh and Lothians **FORESTRY & WOODLAND** Strategy 2012—17

The Edinburgh and Lothians Forestry and Woodland Strategy is designed to help deliver the vision of the Scottish Forestry Strategy at regional level and allow the Lothian local authorities to produce locally-focused action plans.

Acknowledgements

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Everyone that contributed to the consultation process

CONTENTS

1 Introduction

POLICY CONTEXT

The publication of the Scottish Forestry Strategy in 2006 marked an important shift in the emphasis of forestry policy. Focusing on delivering sustainable development and conveying a range of social, economic and environmental benefits, the Strategy sets an ambitious target of expanding national woodland cover from 17% to 25% by the second half of the century. The Edinburgh and Lothians Forestry and Woodland Strategy is designed to help deliver the vision of the Scottish Forestry Strategy at regional level and allow the Lothian local authorities to produce locally-focused action plans.

The Scottish Forestry Strategy sets the context for a number of policy documents and initiatives which expand upon the role of woodland and forestry in meeting a broad range of objectives. Scottish Government advice 'The Right Tree in the Right Place – Planning for Forestry and Woodlands' provided the key framework for the development of this document.

Woodland and forestry have significant interactions with the planning system. Scottish Planning Policy includes a presumption in favour of protecting existing trees and woodland resources, and acknowledges the suite of benefits that they convey to people and the environment alike. The National Planning Framework (NPF2) sets the spatial strategy for Scotland's development to 2030, and designates national developments of strategic importance to Scotland. As a national development, the Central Scotland Green Network (CSGN) represents a major opportunity to build high quality, multi-objective woodland management and expansion into the region's planning policy framework, as NPF must be taken into account in the relevant Strategic and Local Development Plans.

The Edinburgh and Lothians Forestry and Woodland Strategy (ELFWS) will help ensure that woodland expansion and management contribute to the CSGN by making the links between its high-level objectives, the Scotland Rural Development Programme (SRDP) and other funding opportunities and appropriate activities 'on the ground.' The Strategic Development Plan for Edinburgh and Southeast Scotland (SESplan) clearly promotes 'increasing woodland planting to increase competitiveness, enhance biodiversity and create more attractive, healthy places to live'. The Plan includes a policy supporting the Central Scotland Green Network and highlights the role of Forestry and Woodland Strategies in contributing to delivery.

The Forestry Commission Scotland (FCS) 'Woods In and Around Towns' (WIAT) programme provides the focus for FCS work on improving quality of life in towns and cities. It creates major opportunities to bring neglected woodlands in urban areas into positive management, improving local environments, contributing to sustainable development and supporting people in using and enjoying their woods.

The Scottish Forestry Strategy sets an ambitious target of expanding national woodland cover from

17% to 25%

by the second half of the century.

contributing to sustainable development

and supporting people in using and enjoying their woods

Purpose and scope

The ELFWS is intended to guide woodland expansion and management, providing a policy and spatial framework to optimise the special contribution of woodland and forestry to the people, economy and environment of the region. It will be used to assist in assessing applications for grant support for woodland creation and management in support of the existing regulatory and environmental protection processes.

Timescale

In common with SESplan, the ELFWS provides a long term vision which looks around 20 years ahead. Woodland and forestry creation and management are intrinsically long term activities, which require long term planning to make an effective contribution. Securing green networks and the multiple benefits that woodland and forestry can provide needs a vision that works in parallel with aspirations for economic and social development. It is anticipated that the core policy content of the ELFWS will be updated alongside SESplan, on a five-yearly cycle.

Image courtesy of Edinburgh & Lothians Greenspace Trust

Using the Edinburgh and Lothians **FORESTRY & WOODLAND** Strategy

The ELFWS is intended to be accessible and useful for everyone with an interest in woodland and forestry issues. It also demonstrates how the region will make a sustainable contribution to national aspirations for woodland expansion.

Local authorities

It is anticipated that local authorities will make use of the ELFWS, and associated spatial data, in responding to consultations on woodland creation proposals, in assessing development proposals that could affect woodland and in developing locally-focused action plans for woodland expansion and management. It also provides a regional framework to guide the expansion and management of woodland, in parallel with wider sustainable development goals.

The four Lothians local authorities will have regard to the ELFWS when preparing their Local Development Plans, providing a consistent approach to woodland creation and management across the region. It will be a material consideration in planning decisions.

The ELFWS will be interpreted and applied by local authorities in line with their existing and emerging policy frameworks, and the priorities identified in the Single Outcome Agreements between the relevant Community Planning Partnership and the Scottish Government.

Forestry Commission Scotland

Forestry Commission Scotland (FCS) will require land managers seeking grants for woodland expansion or management to develop their proposals in line with this Strategy, ensuring that opportunities are maximised while taking account of environmental and other constraints.

Proposals will be assessed in line with relevant forestry legislation and policy, and will be expected to comply with the UK Forestry Standard (UKFS) and relevant FCS technical guidance.

Woodland managers and developers

The private sector will be central to delivering a significant component of the target for woodland cover in the region, and across Scotland as a whole.

The ELFWS provides a clear vision for how the woodland resource and forest-based economy in the region should develop over the next 40 year period. The priorities established in the following chapters provide guidance on what type of woodland management and creation schemes will be supported, and where, giving agents and landowners a degree of certainty when applying for support.

Communities

The ELFWS provides communities with a useful insight into the key issues, and the likely patterns of woodland management they are likely to see in their area and highlights the benefits that can be derived from woodland by local people. It also sets out the range of social, environmental and economic benefits that the partners expect woodland and forestry to deliver to communities.

Delivering and monitoring

To facilitate implementation, the strategic aims of the ELFWS are translated into objectives and priorities to be pursued by partners in the region's development.

Local authorities will take the lead in developing locally-focused and thematic action plans to deliver the aims of the Strategy in their areas.

Performance against the aims, objectives and priorities of this Strategy will be monitored by partners and fed into action planning and future revisions.

Environmental protection

The ELFWS is intended to provide broad strategic, locational and delivery-focused advice to those seeking to manage and expand woodlands in the region. It cannot provide detailed guidance on site-specific sensitivities or the suitability of individual proposals. The importance of site-specific assessment and high quality design that responds to local environmental conditions and sensitivities remains paramount.

The ELFWS complements, but does not seek to duplicate, the existing regulatory processes administered by Forestry Commission Scotland under the Scotland Rural Development Programme (SRDP) and the Environmental Impact Assessment (Forestry) (Scotland) Regulations 1999.

All applications for woodland creation, management and removal will be required to comply with the relevant legislative, regulatory and policy requirements, in addition to adhering to the UK Forestry Standard and the suite of Forestry Commission best practice guidance.

To facilitate implementation, the strategic aims of the ELFWS are translated into objectives and priorities to be pursued by partners in the region's development.

TABLE 1.1 Policy Context Summary

Forestry	Planning	Natural Heritage	Historic Environment	Water and Soil
Climate Change (Scotland) Act 2009 Environmental Impact Assessment (Forestry) (Scotland) Regulations 1999	Town and Country Planning (Scotland) Act 1997, as amended Environmental Impact Assessment (Scotland) Regulations 1999, as amended	Nature Conservation (Scotland) Act 2004 The Conservation (Natural Habitats &c.) Regulations 1994, as amended Wildlife and Countryside Act 1981	Historic Environment (Amendment) Act 2011	Water Environment and Water Services (Scotland) Act 2003 Flood Risk Management (Scotland) Act 2009
UK Forestry Standard Scottish Forestry Strategy 2006 (SFS)	Scottish Planning Policy (SPP) National Planning Framework 2		Scottish Historic Environment Policy (SHEP)	Scottish Soil Framework Land Use Strategy Scotland River Basin Management Plan
Scottish Government Rationale for Woodland Expansion Policy on the Control of Woodland Removal			Scotland's Woodlands and the Historic Environment	
	SESplan Local Authority development plans			Forth Area Action Plan
FC Guidelines		Forests and Landscape Forests and Biodiversity	Forests and the Historic Environment	Forests and Water Forests and Soil Guidelines Forests and Peatlands

The ELFWS provides communities with a useful insight into the key issues, and the likely patterns of woodland management they are likely to see in their area and highlights the benefits that can be derived from woodland by local people.

Currently, woodland of all types comprises

13%

of the land cover of Edinburgh and the Lothians

2 Woodlands in Edinburgh & The Lothians

INTRODUCTION

Currently, woodland of all types comprises 13% of the land cover of Edinburgh and the Lothians – some way below the national average of 17%. These trees and woodlands already make an important contribution to the character and environmental quality of Edinburgh and the Lothians, from the fringes of the uplands to centres of the region's settlements. They are a key resource for biodiversity, form an integral part of historic landscapes and provide a range of environmental benefits (or 'ecosystem services') that support land-based industries and make a substantial contribution to quality of life.

There are significant opportunities for the range of benefits delivered to the region's environment, people and economy by woodland to be expanded and optimised through a combination of woodland creation and management of existing assets. This section of the Strategy explores the key types of woodland in the region, sets out the main issues affecting the resource and highlights where action is required to secure additional benefits.

Image © Gareth Browing Forestry Commission

4 KEY TYPES OF WOODLAND IN THE REGION

Softwood Forests

Larger scale softwood forests are concentrated along the southern boundary of the region, clustering on the more elevated land in the south and west of West Lothian. Forestry has been an important use for former mineral working sites, particularly in West Lothian, with significant areas of restored or derelict land planted from the 1970s onwards. The majority of this resource is privately owned and managed, with National Forest Estate land accounting for around 15% of the resource. Smaller-scale softwood forests are more widely distributed in the region and form an important part of the overall timber production potential.

The majority of these forests comprise species such as Sitka and Norway spruce, larch and Scots pine and can contain relatively large areas of uniform age and structure. Many of these forests are already in the process of restructuring under forest design plans that should improve their contribution to landscape quality, biodiversity and recreational opportunities. In addition, renewable energy developments, such as Black Law on the West Lothian/North Lanarkshire boundary, have often resulted in the removal of large areas of softwood forest to accommodate wind turbines. However, in the future the implementation of the Scottish Government Policy on the Control of Woodland Removal will help to reduce the overall loss of woodland cover resulting from similar developments.

The predicted effects of climate change – most notably significantly drier, hotter summers – will affect the region's ability to produce the current range of timber crops, particularly in free-draining and more exposed locations.

The region supports three significant sawmills, all in East Lothian, and a number of smaller sites and wood-using businesses that depend at least in part on locally sourced material. At present, much of the material from softwood forests is processed outside the region. Increasing fuel and transport costs are likely to increase the significance of locally sourced timber in securing the long terms sustainability of such enterprises.

Native Woodlands

The region's native woodland tends to be associated with riparian locations that have remained inaccessible to intensive agriculture and development pressures. In particular the river corridors of the Avon, Almond, Water of Leith, North Esk, South Esk and Tyne Water contain significant remnants of ancient woodland. These river corridors are a critical aspect of the region's woodland habitat networks, providing a strong underlying green structure in urban and rural areas alike. However, historical woodland removal as a consequence of development and agricultural intensification has resulted in significant fragmentation of lowland woodland networks.

There are significant numbers of 'Plantations on Ancient Woodland Sites' (PAWS) throughout the region, concentrated in and around major designed landscapes and river corridors. Although the composition and character of these woods has changed there remains, in many cases, the opportunity to restore dormant ground flora and the original character and species composition of the woodland through careful management and stewardship.

Currently, a significant proportion of the native resource is undermanaged. This can lead to degradation of habitat values and character as a result of a range of factors including over-maturity of tree stock, uncontrolled grazing of the understorey preventing establishment of new seedlings and the presence of invasive non-native species.

Image courtesy of Jo McLure Midlothian Council

THESE WOODLANDS CONTRIBUTE MUCH TO THE CHARACTER OF THE REGION'S LANDSCAPES, PROVIDING IMPORTANT STRUCTURE AND DIVERSITY.

Mixed Woodlands

These woodlands contribute much to the character of the region's landscapes, providing important structure and diversity. They are also important components of habitat networks, providing refuge and connectivity for a range of species.

Small woodlands of this type are mostly concentrated in mixed farming areas of the Lothians with areas around the Bathgate Hills, West Calder, Midlothian, the Gifford area and around the East Lammermuir Deans close to Dunbar. In arable areas, many of these woodlands take the form of mixed shelterbelts and copses which help to maintain landscape character but which also offer considerable potential to provide components of the habitat networks that allow opportunities for dispersal and migration of species.

The Lothians are renowned for the high quality designed landscapes that surround and form the setting of many of the region's country houses – including Hopetoun, Dalmeny, Gosford and Penicuik. They are an important aspect of the area's historic character and their woodlands are an intrinsic part of the cultural and historical significance of the estates with which they are associated. Despite the frequent use of non-native tree species (most notably beech) in formal layouts, designed landscapes are an important biodiversity resource.

The region's designed landscapes and estate woodlands are also key assets for recreation, providing easy access to quality greenspace, opportunities for outdoor exercise and appreciation of natural and cultural heritage. Policy woodlands are often more effectively managed, with both broadleaved and coniferous trees put to productive use, frequently supporting small sawmills, such as at Hopetoun, Rosebery and Tyninghame. Recent moves towards expanding the biomass sector have also provided additional impetus for management.

Urban Woodlands

Trees and woodlands within the region's urban areas, including amenity and structure planting associated with new development, street trees, parks and green corridors, make a very important contribution to their character and environmental quality.

Urban woodlands often contain large numbers of non-native trees which, whilst often of less value for biodiversity, do much to enhance the urban landscape, create a sense of place and mitigate the impacts of noise, pollution and adverse weather. In parks and gardens, most notably in Edinburgh, this is often a result of choice of ornamental species, while in less intensively managed green corridors invasive sycamore frequently dominates the canopy.

The region's towns and the City of Edinburgh also retain remnants of ancient and semi-natural woodland within river corridors, former and existing railway lines and along the Union Canal. As part of the green network, these resources contribute to biodiversity, help to mitigate the effects of climate change, connect inner urban areas with their surrounding rural environments, and raise the standard of local environments, contributing to improved quality of life.

However, beyond street trees, formal parks and gardens the resource is frequently under-managed, potentially reducing the benefits and services delivered to communities by trees and woodland. Local authorities are significant owners and managers of trees and woodland in urban areas, and public safety is a key focus of management activity. In recent years, Forestry Commission Scotland's Woods In and Around Towns (WIAT) programme has helped to raise the profile of the benefits of urban and urban fringe woodlands and contribute to the management of a significant number of sites.

FIGURE 2.1 Distribution of woodland cover, by landscape zone

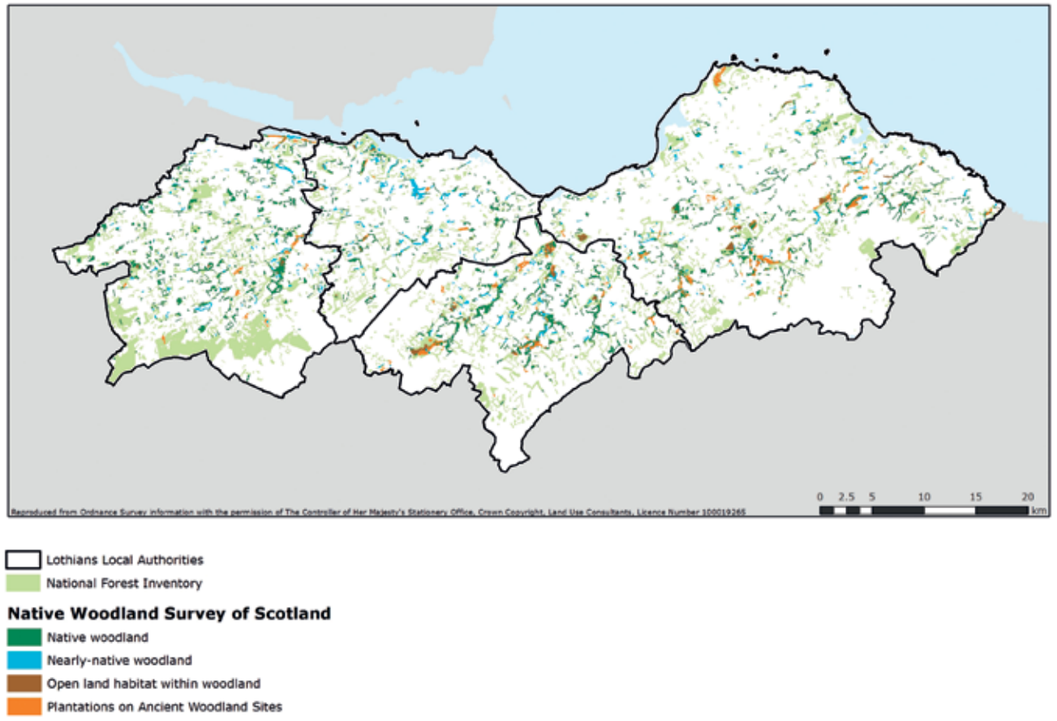
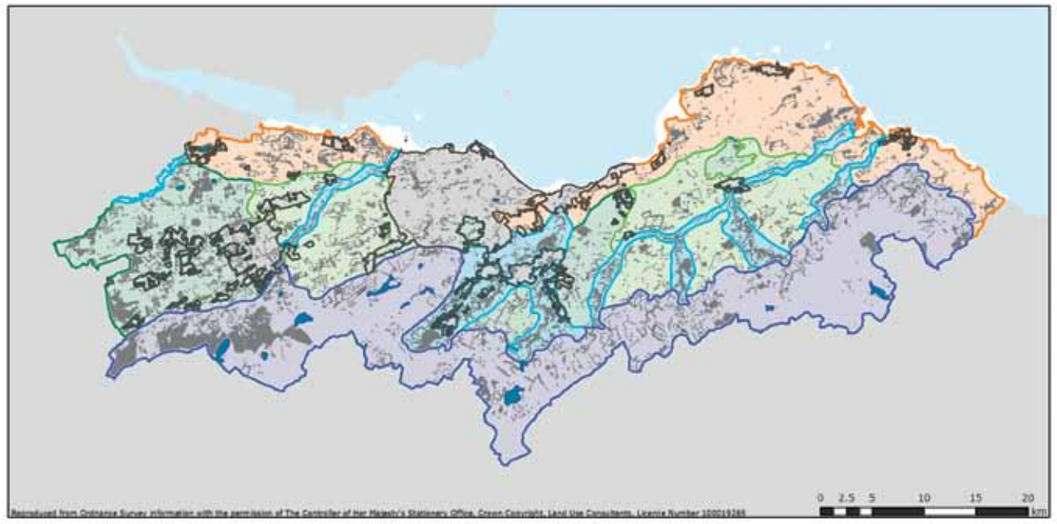


FIGURE 2.2 Current woodland cover



the Strategy has divided the region into a series of SPATIAL ZONES based on broad landscape character

Pattern of woodland cover

Coastal Margins

The pattern of existing woodland cover varies considerably across Edinburgh and the Lothians. For that reason, the Strategy has divided the region into a series of spatial zones based on broad landscape character[1]. These are shown in Figure 2.2 and Figure 2.1. This section provides a summary overview of the pattern of woodland cover in each of these zones. Section 5 sets out guidance on the priorities for woodland management and expansion for each zone.

This zone extends from the border with Falkirk in the west to the Scottish Borders in the east, bisected by the City of Edinburgh. In the west, it extends inland to the south of Linlithgow and takes in a broad sweep of gently rolling agricultural land that terminates at Cramond. To the east of Edinburgh, the zone begins as a narrow corridor sandwiched between coastal settlements and the Haddington Plain, becoming more extensive to the east of Longniddry and expanding to encompass the northern portion of East Lothian and skirting the foothills of the Lammermuirs south of Dunbar.

Major designed landscapes at Hopetoun, Dundas Castle, Dalmeny, Gosford, Archerfield and Tyninghame form the core of the woodland resource, with shelterbelts and riparian woodland providing the remainder.

Lowland Hills, Ridges and Plateaux

This zone comprises the fringes of the Slammannan Plateau, moorland and rough grazing areas of central West Lothian, Garleton Hills and the ridges between the North and South Esk valleys. It includes the areas of plateau farmland and moorland to the west of Livingston, the Bathgate Hills, the higher ground between the Rivers North Esk and upper Tyne, and the Garleton Hills just to the north of Haddington.

This zone ranges in landscape and environmental character from the open moorland and raised bog around Blawhorn Moss NNR near Blackridge and the large-scale softwood forests on Polkemmet Moor between Whitburn and Fauldhouse in the west, through the intricate topography of the Bathgate Hills to the Braid Hills on the edge of Edinburgh and the gently rolling landscapes between the Esk and Tyne valleys.

[1] The spatial framework is based on an edited version of the character types set out in the Lothians Landscape Character Assessment (ASH Consulting/SNH 1995)

Coastal Margins

Proportion of region	**16%**
Proportion of zone wooded	**10%**
of which Softwood	**33%**
Mixed	**48%**
Native	**19%**

Lowland Hills, Ridges and Plateaux

Proportion of region	**14%**
Proportion of zone wooded	**16%**
of which Softwood	**53%**
Mixed	**23%**
Native	**24%**

Lowland Plains

Proportion of region	**16%**
Proportion of zone wooded	**8%**
of which Softwood	**39%**
Mixed	**29%**
Native	**32%**

Lowland River Valleys

Proportion of region	**10%**
Proportion of zone wooded	**22%**
of which Softwood	**31%**
Mixed	**38%**
Native	**31%**

Upland and Upland Fringe

Proportion of region	**32%**
Proportion of zone wooded	**13%**
of which Softwood	**75%**
Mixed	**15%**
Native	**10%**

Urban

Proportion of region	**12%**
Proportion of zone wooded	**7%**
of which Softwood	**7%**
Mixed	**68%**
Native	**25%**

Lowland Plains

This zone is made up of the relatively flat areas of land between the coastal fringe to the north and the uplands to the south. Arable agriculture is the principal land use across this zone, with woodland generally confined to small farm woods, shelterbelts, designed landscapes and areas of riparian woodland.

The western portion of this zone lies between Livingston on the western edge and Edinburgh on the east and is bounded by the fringes of the Pentland Hills in the south. Its northern edge is formed by rolling hills running between Ecclesmachan, Kirkliston and Craigiehall in west Edinburgh.

The eastern portion of the zone is bisected west to east by the Tyne valley and is split into three discrete portions to the south of the Tyne by the Humbie Water and the Gifford Water. In the north, it is bounded by the lower-lying coastal strip, running from Tranent, via the Garleton Hills, to East Linton and the mouth of the Tyne; and in the south by the foothills of the Lammermuirs and the Whittinghame Water respectively.

Lowland River Valleys

This zone comprises the incised valleys of the main rivers rising in the region's uplands including the Rivers Almond, Avon, North and South Esk and Tyne, and is the most heavily wooded of the landscape zones.

The middle sections of these valleys tend to be deeply incised and in places gorge-like, with valley sides clothed in woodland, much of which is ancient or semi-natural in origin.

Downstream, the rivers flow across the lowland plain through shallower and less wooded valleys. Trees and woodland lining the banks of these lowland rivers are important features in the lowland arable landscape, with a series of nationally significant designed landscapes including Hopetoun, Dalmeny, Mavisbank and Melville Castle (and Country Parks at Almondell, Calderwood and Dalkeith House) found along their banks.

Upland and Upland Fringe

This zone comprises the Pentland, Lammermuir and Moorfoot Hills, and their foothills. These areas account for around a third of the total area of Edinburgh and the Lothians.

Softwood forests are concentrated at the western end of the zone in West Lothian on former moorland and mineral working sites, with smaller blocks in the foothills of the north Pentlands and in the Lammermuirs. The remainder of the woodland resource comprises farm and estate shelterbelts, with some important native riparian woodlands – most notably in the East Lammermuir Deans SSSI.

Urban

This zone comprises the City of Edinburgh and the region's larger settlements. National woodland data only include woodlands greater than 0.5 hectares, with a minimum width of 20m and at least 20% tree canopy cover (or the potential to achieve this). These statistics therefore exclude the trees along streets, within parks and greenspaces and in private gardens that do not meet these criteria, all of which make an important contribution to the character and quality of the built environment. Within Edinburgh important trees and woodlands include:

City centre greenspaces including Princes Street Gardens, Calton Hill and the Meadows

Formal parks and gardens in the later parts of the New Town and West End including Queen Street Gardens, the Royal Botanic Garden and the many smaller crescents and squares which form part of the townscape

The incised valley of the Water of Leith forming a broken ribbon from Currie on the edge of the city to Leith itself

A number of the hills that surround the city, notably, Arthur's Seat, Corstorphine Hill and the Braid Hills

Historic gardens and designed landscapes that have become incorporated into the city, including Duddington, Craigmillar and Craiglockart

The many golf courses and other open spaces such as Bruntsfield Links, Prestonfield and the playing fields at Inverleith

The routes of disused railways – now forming components of a highly-valued access network

The extensive legacy of street and avenue trees that are a key aspect of Edinburgh's historic townscape character

Other parts of Edinburgh are much less wooded, with lower proportions of tree cover in some of the residential areas with the highest concentrations of multiple deprivation (e.g. Sighthill and Granton) and in former industrial areas such as Leith.

In Midlothian, towns such as Dalkeith, Lasswade and Penicuik are found along the wooded valleys of the rivers Esk and Tyne, though many of these settlements have expanded onto higher areas of farmland between the valleys. Many of these wooded valleys are of ecological, historic and recreational importance, contrasting with some of the less well wooded parts of these towns.

In West Lothian, Livingston has a distinctive 'new town' layout with extensive networks of greenspaces and landscaped transport corridors. The many thousands of trees that were planted as the town developed, and utilising the earlier 18th and 19th century farmland shelter belts within the new town, create a strong landscape framework within which residential, commercial and employment areas sit.

3 Vision, aims and objectives

THE VISION

By 2050, expanded networks of woodland in Edinburgh and the Lothians contribute to a strong, sustainable economy, are a key part of a healthy, resilient environment and play an important role in the quality of life of the region's communities.

The ELFWS will be a key means of delivering this vision, providing advice on how it can be achieved, priorities for woodland management and expansion and information on the opportunities for woodland to add value to the economy, the environment and social outcomes.

Expanded networks of woodland in Edinburgh and the Lothian's

by 2050

contribute to a strong economy across the region

Aims and objectives

The following aims, established in the Vision, have been identified for the ELFWS:

Expanding the region's woodland resource

Building a strong, sustainable economy

Promoting a high quality environment

Securing resilience to climate change

Enhancing quality of life for the region's communities

These aims are developed in the following section of the ELFWS, each supported by more detailed objectives. Under each objective, a number of priorities that have been defined for the next five years to guide woodland management and expansion activity. These are designed to maximise the contribution that trees and woodlands can make to a broad range of policy goals. The priorities are brought together in a reference table at the end of the Strategy . This provides a framework to guide implementation and monitoring of progress during the Strategy's lifetime.

The relationship between the aims, objectives and priorities is summarised in the table opposite.

TABLE 3.1 Aims, Objectives and Priorities

Aim	Objectives	Priorities
Expanding the region's woodland resource	Softwood forests	EX1-5
	Energy forests	
	Mixed woodland	
	Native woodland	
Building a strong, sustainable economy	Supporting a sustainable timber sector	EC1-6
	Supporting the developing biomass sector	EC7-12
	Enhancing development and supporting regeneration	EC13-17
	Contributing to sustainable rural development	EC18-20
	Supporting tourism	EC21-24
Promoting a high quality environment	Enhancing biodiversity and delivering green networks	ENV1-4
	Protecting and enhancing the water environment	ENV5-9
	Enhancing air quality	ENV10
	Protecting and enhancing the soil resource	ENV11-12
	Protecting and enhancing character	ENV13-17
	Protecting and enhancing the historic environment	ENV18-19
Securing resilience to climate change	Mitigating impacts on the climate	CC1-3
	Adapting to the effects of climate change	CC4-7
Enhancing quality of life	Improving woodlands' contribution to wellbeing	QL1-5
	Improving community involvement and participation	QL6-8
	Contributing to education and lifelong learning	QL9-11

The priorities are brought together in a reference table at the end of the Strategy. This provides a framework to guide implementation and monitoring of progress during the Strategy's lifetime.

4 Delivering the Vision

INTRODUCTION

Each of the aims identified for the Strategy will be accomplished through a number of objectives, reflecting the priorities for woodland and forestry in the region over the next five years. Each of these is supported by priorities which together will provide the basis for local action and delivery.

The Scottish Government aims to increase woodland coverage

to 25%

by the second half of this century

Expanding the woodland resource

The Scottish Government's aspiration is to increase national woodland cover to 25% by the second half of this century, and has set a target of delivering between 10,000 and 15,000ha of new woodland every year. This forms a key part of the national response to climate change and meeting the ambitious targets set by the Climate Change (Scotland) Act 2009.

However, these expansion targets are not currently being met. This Strategy sets out an appropriate contribution for Edinburgh and the Lothians to make to delivering these aspirations, where effort should be focused and how this could be achieved.

Expanding the woodland resource is an overarching objective of the ELFWS, supporting and setting the context for other environmental, social and economic priorities mapped out in subsequent sections of the document.

Barriers

Recent rates of woodland creation across the region have been very low as a result of a number of factors, including:

Very high land values in agricultural areas and record commodity prices

Deferred income from woodland for landowners (a particularly significant barrier for tenant farmers) and a reduction in Single Farm Payment for land under new woodland

Perceived complexity – and cost – of the SRDP application process for delivering farm woodlands

Historical attitudes to woodland and forestry in the farming community

Historical issues of perception around woodland as a land use, particularly non-native conifers

'Hope value' for development of vacant, derelict and under-used sites in and around settlement, inhibiting landowners from exploring woodland as a land management option

The chief barrier to woodland creation has been, and is likely to remain, economics. Land owners and managers need to be able to guarantee a sustainable return from assets, and trees and woodland have not traditionally been able to complete with other potential land uses in the region.

Image courtesy of Edinburgh & Lothians Greenspace Trust

a strategic, GIS-based process of land categorisation has been conducted to better understand the level and distribution of potential for new woodland

Potential for expansion

Edinburgh and the Lothians currently has around 13% woodland cover[2], comprising around 49% softwood species, 21% native woodland and 30% mixed woodland and scrub.

Following the guidance set out in 'The Right Tree in the Right Place,' a strategic, GIS-based process of land categorisation has been conducted to better understand the level and distribution of potential for new woodland across the region – resulting in the maps at Figures 4.1 – 4.4 and Figure 5.1 – 5.7. Detailed calculations and assessment against a range of environmental objectives, set out in the Environmental Report accompanying the Strategy, determined that the region could readily support woodland cover increasing to between 17 and 19% of land area.

A flexible, creative approach will be required to make this happen and to overcome the barriers that have, to date, hampered significant woodland expansion. Achieving the aspirations for woodland and forests set out in the following sections will also require a balanced approach to the types of woodland created in the region. The diversity of Edinburgh and the Lothians' landscapes is such that there is potential for a wide range of new woodland types, from softwood forests and biomass planting to new native woodland networks and mixed farm woodlands.

Priorities for the next five years

Clearly, achieving this increase in woodland cover across the region will require significant and coordinated action. The following priorities help to provide a broad framework that is supported by the more specific thematic priorities identified under the other aims and objectives of the Strategy.

EX1 Support the delivery of at least 180–250ha of new woodland across the region each year in line with the guidance provided in this Strategy

EX2 Develop a communication strategy, specifically targeted at landowners, their agents and major developers, to raise the profile of woodland as an economically attractive and environmentally responsible land use

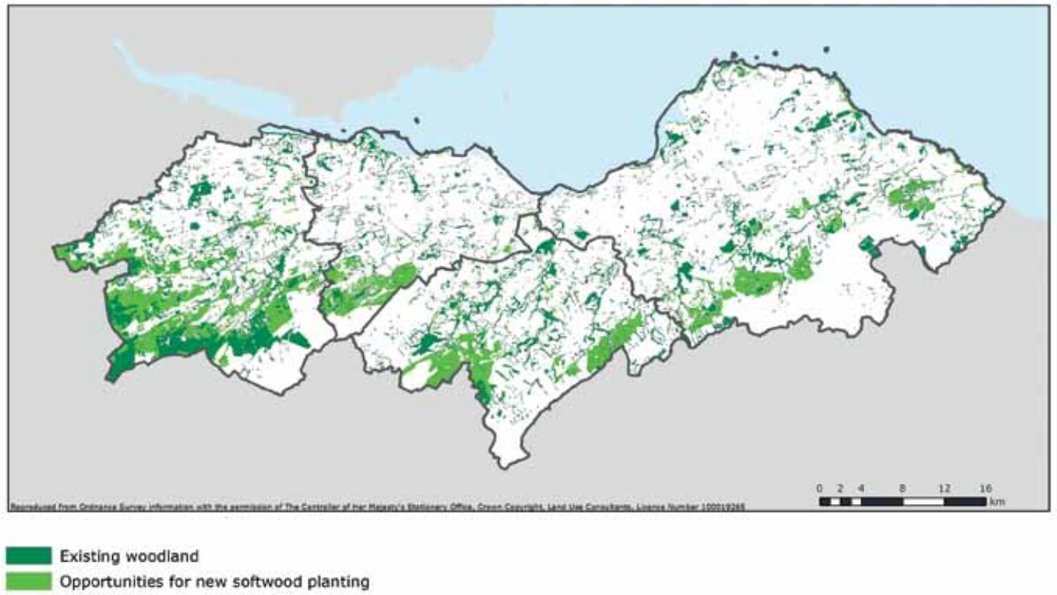
EX3 Target the revision of SRDP Rural Priorities to streamline funding arrangements and address current deficiencies in provision

EX4 Closely monitor woodland creation in the region to provide an evidence base to inform action planning and policy development

EX5 Identify and develop new and innovative delivery mechanisms for incentivising woodland creation across the region

[2] Data from FC National Forest Inventory, Native Woodland Survey of Scotland and National Inventory of Woodland and Trees

FIGURE 4.1 Opportunities for softwood forests



Key woodland types

The Scottish Government's aspirations for woodland expansion cannot be achieved by concentrating on a single woodland type or strategic objective. Similarly, achieving the right mix of woodland in Edinburgh and the Lothians requires guidance on where each type is most appropriate and can add most value.

The maps at Figures 4.1 – 4.4 provide indicative guidance on both the management of the existing resource and the potential for expansion of key woodland types.

These maps are indicative and intended to provide a starting point to inform the development and evaluation of more detailed woodland management and creation proposals. It is likely that there will be opportunities for each type of woodland outside the areas identified on these maps. Some areas are likely to be suitable for more than one woodland type, and some woodland may fall within more than one category.

Softwood Forests

Managing the existing resource

The majority of the region's softwood resource is concentrated on the moorlands of West Lothian, with significant pockets in former designed landscapes and along the fringes of the uplands across the rest of the region.

The ongoing process of restructuring and restocking existing woodlands creates a major opportunity, through the Forest Design Planning process, to deliver benefits ranging from improved second rotation timber quality and enhanced public access to habitat networks and improved landscape values.

Much of the softwood crop is currently processed outside the region. However, as fuel prices and transport costs continue to increase, optimising the potential for local processing of material will become increasingly important in securing long-term economic viability of the standing crop.

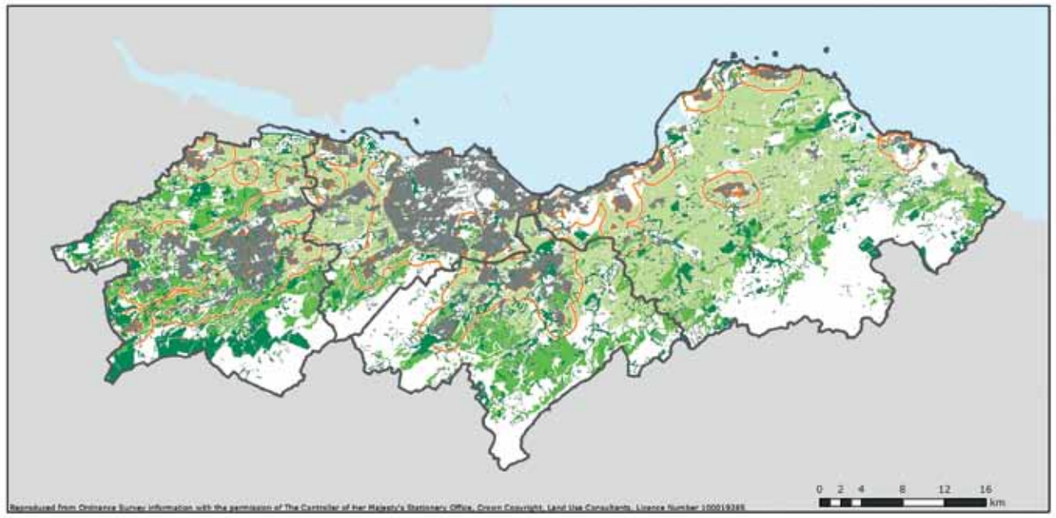
Potential for expansion

The principal potential for new softwood forests is distributed along the region's upland edge, and in the plateau farmland of West Lothian. Along with lower landscape sensitivity, these areas avoid fragile peat soils and bring the resource closer to transport routes. This also creates the potential for providing enhanced public access and recreation facilities within softwood forests in relatively close proximity to settlement.

Refer to Figure 4.1 which depicts the key opportunities.

restructuring and restocking existing woodlands creates a major opportunity, through the Forest Design Planning process

FIGURE 4.2 Potential for energy forests



Managing existing woodlands
Managing farm and estate woodlands
Wider range of opportunities for planting and management
Managing urban fringe woodland
Larger settlements - potential markets

Energy Forests

Managing the existing resource

Much of the region's woodland has some potential to contribute to growing the biomass sector. A significant proportion of the woodland resource is under-managed and would benefit from more active stewardship. In addition to providing a fuel resource, this could make a substantial contribution to the health of native woodland ecosystems, improve the appearance and value of neglected woods close to towns and villages and provide an income from a currently underperforming resource.

Developing robust supply chains is the key to ensuring long-term sustainability of the local biomass sector. Existing biomass producers and users – such as Pentland Plants / Pentland Biomass at Loanhead – already source significant quantities of material from local forests. Building on smaller-scale, often estate-based, enterprises a range of woodland could be brought into positive management using biomass to secure a return from currently uneconomic woodland.

Potential for expansion

It is unlikely that large-scale planting solely for biomass production will become a significant element of the Lothians' woodland resource. In lowland areas, where land is suitable for short rotation coppice, land and agricultural values are likely to remain sufficiently high to limit uptake. Therefore in areas of better quality land, the management and creation of multipurpose farm woodlands is likely to provide the bulk of new material in the longer term.

Close to towns and villages, the expansion and enhancement of amenity woodlands will provide additional material through thinning and maintenance. Biomass could make an important contribution to the management of community woodlands – providing an income to fund access and recreation enhancements and, potentially, a source of fuel for community ventures.

In more marginal areas, short rotation forestry could become a component of new planting schemes. In urban areas, vacant and derelict land – and even stalled development sites or long-term safeguarded sites – could provide an attractive location for new woodland with a biomass component.

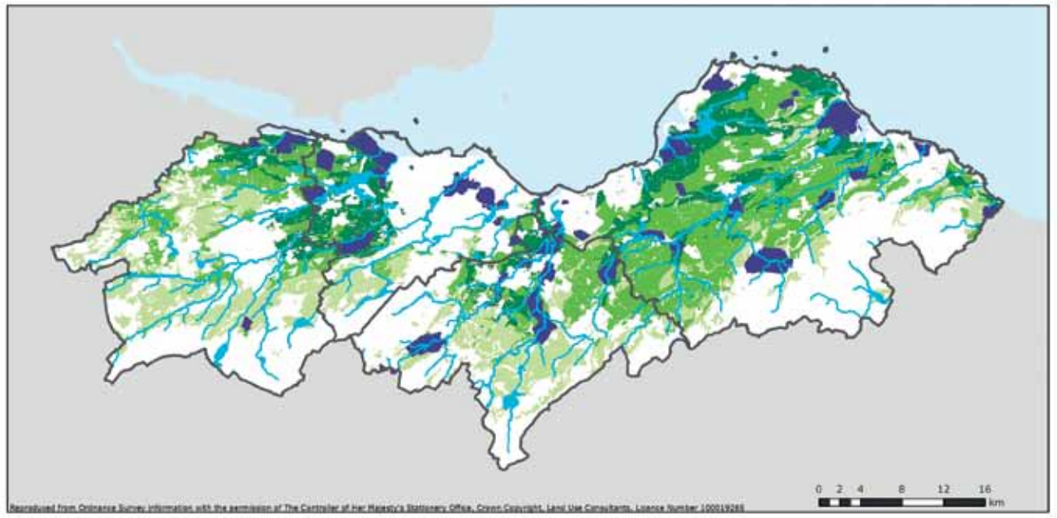
Definitions

'Short rotation forestry' is the practice of cultivating fast-growing trees that reach their economically optimum size between eight and 20 years old (around half the minimum conventional forestry rotation in the UK).

'Short-rotation coppice' uses even faster-growing trees species, such as willow and poplar, which sprout multiple new stems from the cut surface after harvesting – and therefore do not need replanting. The new stems grow on to form the next crop in as little as three years. It is a very long-established technique, evidence of which can be seen in many of the region's ancient woodlands.

Refer to Figure 4.2 which depicts the key opportunities

FIGURE 4.3 Opportunities for new mixed woodland



Supporting agriculture on highest quality land
Supporting resilience and diversification
Wider range of opportunities
Search area for new riparian woodland
Enhancing historic gardens and designed landscapes

Mixed Woodland

Managing the existing resource

The mixed woodland resource is focused largely in and around the region's numerous designed landscapes and in the parks and gardens of Edinburgh. Networks of policy woodland extend from estate centres out into farmland and river corridors, making an important contribution to landscape character and habitat networks.

There is significant potential to bring these woodlands into more active management in a manner that is compatible with protecting and enhancing their historic and cultural significance and natural heritage value. However, it is necessary to actively plan for the future of these sites. 'Succession planning' for specimen trees – particularly those in key landscape features such as avenues – is vital to ensure that character and significance are maintained. The effects of climate change should also be taken into account in the selection of species and provenance, helping to design in resilience.

In the short to medium term, management effort should focus on improving the management of this important resource and planning for the replacement of field and feature trees in good time. For larger woods, biomass potentially offers a useful route towards positive management – providing an income and funding for future interventions.

Bridging the gap between the Strategy's aspirations for woodland management and low levels of activity on the ground is a key challenge that implementation of the Strategy will need to address.

Potential for expansion

Agricultural areas are likely to provide the focus of the majority of activity for new mixed woodlands. However, rates of woodland creation have historically been low, even in relatively marginal areas as a result of very high land values, and particularly in the context of resurgent commodity prices. However, farming practices and rural support will evolve significantly over the coming decades – and farm forestry needs to be positioned to support this change.

Land capability and values are likely to increase as a result of climate change, potentially further reducing the economic case for farm forestry. Highlighting the role of trees and woodland in meeting the challenge of adapting to climate change could help to boost uptake. Increasing planting in river corridors could help to mitigate the effects of floodwaters. Again, understanding how woodland and forests relate to the decisions of different land managers will be critical in developing incentives, information and support to help achieve this kind of expansion. In areas of high quality land under arable agriculture, protecting the integrity of the soil resource by preventing wind and water erosion should be the priority.

Intensive arable agriculture has resulted in degradation of landscape structure and quality. New planting of farm woodlands and shelterbelts could help to restore lost or degraded boundaries and help to maintain character, particularly around designed landscapes.

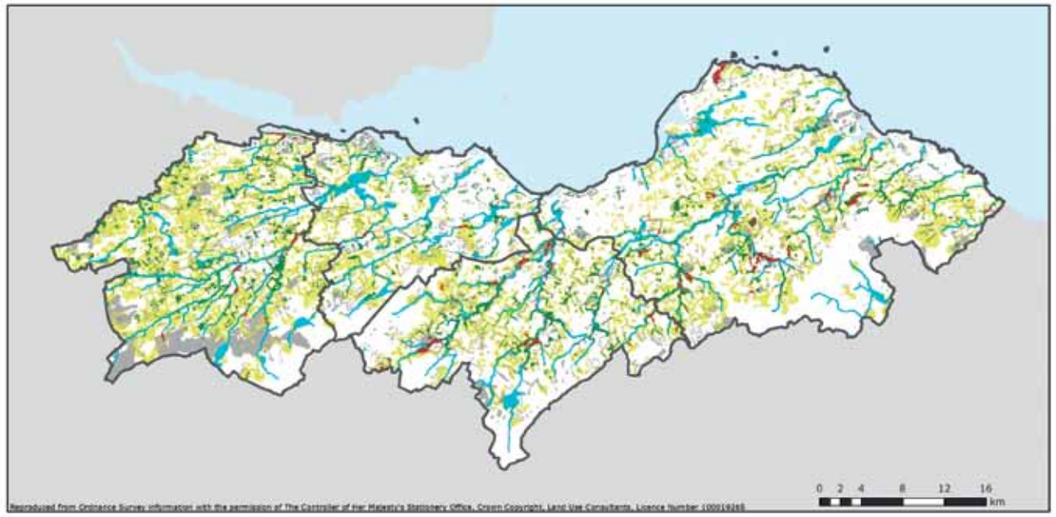
Definition

For the purposes of this Strategy 'mixed' woodland is defined as "woodlands of mixed species composition, often including native broadleaves, traditional non-native broadleaves (such as beech, sycamore/ornamental Acers and horse chestnut) and conifers. They may be designed to provide year-round shelter, landscape enhancement, screening or enclosure, as well as the potential to provide products for local use[3].

Refer to Figure 4.3 which depicts the key opportunities

[3] Adapted from the Scottish Government Rationale for Woodland Expansion

FIGURE 4.4 Opportunities for new native woodland



Native Woodland

Managing the existing resource

The Lothians' native woodland resource is highly fragmented as a result of centuries of development and intensive agriculture. The majority of these woodlands are now concentrated in steep-sided river valleys – such as the Almond, Avon, Esk, Tyne and the Water of Leith – and remnants within designed landscapes. The protection afforded by these locations means that most of the region's native woodlands have strong semi-natural characteristics, with consequent value for biodiversity.

While the major riparian corridors provide relatively large blocks of habitat with the potential to support populations of key species, the average size of native woodlands in the region is just 3ha – creating real issues in terms of resilience to climate change. Similarly, the loss of field trees and shelterbelts in agricultural areas has further reduced habitat connectivity.

This makes the surviving native woodlands all the more important, and management efforts must focus on securing the protection and enhancement of these assets. Although efforts to improve connectivity are undoubtedly important in securing a wider range of benefits, the 'core' woodland sites must not be neglected as a result.

The region also contains over 1100ha of 'Plantations on Ancient Woodland Sites' (or PAWS) – areas that were once native woodland, but have subsequently been felled and replanted, often with non-native species. Where the intactness of remnant features and/or the ancient woodland seed bank can be established, these sites could be progressively restored to native woodland, making a substantial contribution to the overall resource.

Potential for expansion

Given the general level of fragmentation, there is a significant need for native woodland expansion to address a range of issues.

Creating and enhancing robust networks of woodland habitat will be critical, not only in assisting species' adaptation to the effects of climate change, but in adding to the resilience of our own homes and communities. River corridors could therefore provide the initial focus of effort, bolstering existing riparian networks and contributing to wider sustainable water management efforts and River Basin Management Planning.

The Integrated Habitat Network datasets prepared by Forest Research (and used in the development of Figure 4.4) may offer a valuable tool to help guide woodland planning and target grant delivery at a site-specific level. The areas indicated here represent potential 'easy wins' in the first 5–10 years of the Strategy where new native woodland would contribute to resilience of core sites and could make a meaningful contribution to connectivity.

Refer to Figure 4.4 which depicts the key opportunities

building a strong, sustainable economy

Introduction

Edinburgh and the Lothians have a diverse economy with finance, technology, business services, tourism, retail and public administration dominant within the capital itself, and farming, manufacturing, distribution more prevalent in surrounding areas. While Edinburgh has many of the most affluent wards in Scotland, there are also significant areas of multiple deprivation within the city and in surrounding settlements.

Trees, woodlands and forests can make an important contribution to the regional economy. Timber growing, management, harvesting, transport and processing can provide important sources of employment and income. Trees also contribute to the quality of urban and rural environments, helping to create the conditions to attract investors, highly skilled staff and visitors to the area. Woodland and trees can also provide an alternative source of income for rural businesses, helping to create a diverse and resilient economy.

This part of the Strategy focuses on ways of increasing the economic contribution made by woodland and forests, describing the key priorities in terms of:

- Supporting a sustainable timber sector
- Supporting the developing biomass sector
- Enhancing development and supporting regeneration
- Contributing to sustainable rural development
- Supporting tourism

Image © Forestry Commission

Supporting a sustainable timber sector

Currently, the region has a relatively dispersed and diverse assemblage of softwood forests. With the exception of the larger moorland plateau plantations in West Lothian, most softwood forests are relatively small, reducing the economies of scale available to managers. Of the c.11,000ha of this type of woodland, the majority are first rotation forests planted between the 1970s and the 1990s. The forest planning process will be critical in ensuring that the region's timber production potential is maintained.

It is likely that smaller scale conifer woodlands will make up the majority of new productive proposals coming forward – along with restocking of existing higher quality sites. There may also be opportunities to improve timber quality in subsequent rotations through wider adoption of continuous cover forestry, in addition to improving the appearance of woodlands and improving their resilience to the effects of climate change.

The region's mixed and native woodlands have potential to provide an increased quantity of material for specialist hardwood processors.

Priorities for the next five years

EC1 Ensure that ELFWS spatial guidance is applied to proposals for new softwood forests (see Figure 4.1).

EC2 Promote management of existing woodlands as a potential source of high quality material for specialist processors.

EC3 Encourage planning authorities to consider the need for appropriate timber and biomass processing capacity in Local Development Plans.

EC4 Promote wider adoption of continuous cover forestry, including through maintenance of SRDP priority funding.

EC5 Encourage and enable smaller producers to work together in joint marketing, promotion and equipment sourcing.

EC6 Facilitate the development of joint initiatives to foster links between timber growers and processors to enhance local supply chains.

Supporting the developing biomass sector

There is increasing interest in developing woody biomass as a low carbon source of heat and power across Edinburgh and the Lothians. In the short to medium term, the majority of material for woodfuel will come from management of existing woodlands and as co-products from felling operations. This offers a potentially important source of income to land managers that can help bring otherwise neglected woodlands into positive management.

Already some of the larger estates, including Dalmeny, Arniston and Penicuik Estates are recognising the economic benefits of managing their woodland to provide woodfuel for their own use or for sale, but there are many more that are currently unmanaged. There may be opportunities for a number of land owners to share the costs of equipment, or for local contractors using more easily portable equipment to undertake the work.

New planting for biomass production – in the form of short rotation forestry or coppice – could also play a role in delivering woodland expansion. Vacant and derelict land, and stalled development sites, may have potential to support planting for biomass, providing an income from otherwise unproductive land and contributing to temporary greening.

However, as a bulk material, transport costs for woodfuel can be comparatively high – therefore establishing sufficient regional processing capacity to support growing markets will be necessary. A number of processors are already in place, such as Pentland Biomass based in Midlothian, supplying a range of clients from householders to large businesses. The public sector can help support the development of the woodfuel market by specifying biomass boilers for public buildings, and encouraging developers and householders to adopt the technology wherever practical.

Image courtesy of City of Edinburgh Council

Image courtesy of Dervilla Gowan East Lothian Council

Priorities for the next five years

EC7 Establish and monitor regional demand for wood fibre from the biomass sector to understand effects on local markets.

EC8 Encourage management of existing woodland for woodfuel by highlighting the financial benefits (energy savings or sales of woodfuel) and sharing best practice among land owners and managers.

EC9 Work with stakeholders and planning authorities to identify vacant, derelict, stalled and safeguarded sites with potential for biomass planting as part of temporary greening solutions.

EC10 Support appropriate planting for biomass, in line with ELFWS spatial guidance.

EC11 Facilitate engagement between the biomass sector and local planning authorities to ensure that future processing capacity can be delivered in the right locations.

EC12 Encourage the wider use of woodfuel in appropriate domestic and smaller-scale commercial settings to support the development of the region's biomass supply chain.

Enhancing development and supporting regeneration

Trees and woodland can contribute to placemaking and make an important contribution to the quality of development by creating attractive and functional places for people to live and work. Well planned and designed planting also ensures that new development make a positive contribution to the wider environment, reinforcing habitat networks and integrating development within the wider landscape.

SESplan sets the vision for development in the region to 2032. Within this framework, significant new housing, commercial and infrastructure developments are planned, creating a potential focus for new woodland planting in Strategic Development Areas, regeneration areas and through the implementation of area masterplans.

New and existing woodlands in degraded urban fringe areas can play an important role in improving perceptions and contributing to regeneration.

Priorities for the next five years

EC13 Engage with local authorities, key agencies and developers to ensure that the potential of SESplan Strategic Development Areas to deliver new woodland is optimised.

EC14 In parallel with Priority EC17, identify vacant, derelict, stalled and safeguarded sites with potential for delivery of temporary greening.

EC15 Promote opportunities for challenge funding to contribute to enhancement of urban fringe areas, particularly in deprived areas.

EC16 Ensure that the management and expansion of woodland and forestry, linked to the development of green networks, is embedded within the planning and design process and reflected in the masterplanning of new development and regeneration initiatives.

EC17 Encourage the use of developer contributions in supporting the creation and consolidation of green networks, including delivering the Central Scotland Green Network.

Contributing to sustainable rural development

Edinburgh and the Lothians have a strong agricultural sector that could accrue significant benefits through the development of farm woodlands.

The development of new woodland in agricultural areas must be well integrated with wider land use, supporting – not supplanting – established uses to deliver optimal benefits. In arable areas, particularly in East Lothian, wind erosion of the soil resource is a significant issue that is set to worsen as a result of climate change – but one which new shelterbelts and small farm woodland could help to address. Recent research indicates that improving shelter with woodland can increase arable crop yields by up to 26%[4] by reducing erosion, wind damage to crops and improving microclimates.

[4] www.forestry.gov.uk/pdf/SACfarmforestrymodelsreport.pdf/$FILE/SACfarmforestrymodelsreport.pdf

Recent research indicates that improving shelter with woodland can **increase arable crop yields by up to 26%**

Currently, delivering farm woodland through SRDP is challenging as there are a range of packages that could be used – but making the links between Rural Priorities and the direct benefits for farmers is often difficult.

Switching to biomass for heat-intensive farm processes such as grain-drying or heating polytunnels may be an attractive option for reducing costs – particularly where this can be matched with local or even on-farm supply of fuel. Cooperation between farms in developing machinery rings to reduce the cost of purchasing and operating specialist plant may further increase attractiveness.

Trees and woodland along river and stream corridors can be used to create 'buffer strips' to address issues of diffuse pollution arising from agricultural activities – in addition to delivering benefits of shelter, shade and contributions to habitat connectivity. Promotion of trees and woodland as a means of securing cross-compliance with regulatory requirements may be a further means of encouraging farm woodland creation.

Priorities for the next five years

EC18 Seek to influence revisions to SRDP 'Rural Priorities' to secure a coherent 'farm woodland' package that clearly articulates the economic and environmental benefits to farmers.

EC19 Establish a communications strategy to facilitate engagement with the agricultural community, landowners and agents to assist in the delivery of new farm woodlands.

EC20 Work with stakeholders to develop a 'Lothians Farm Woodlands Action Group' to help articulate the benefits of farm forestry to the agricultural sector, facilitate cooperation and work towards the delivery of pilot projects.

Supporting tourism

Trees and woodland make a significant contribution to the appeal of Edinburgh and the Lothians as a destination for visitors from home and abroad. Trees often provide an important setting for the region's many cultural attractions, such as Rosslyn Chapel, Dirleton Castle, Hopetoun House and Edinburgh's historic parks and gardens – although explicitly woodland-based tourism and recreation is less significant than in other parts of the country.

There is considerable scope to further develop the contribution of woodlands to tourism. This includes potential for joint marketing of woodland locations in partnership with established visitor attractions. The Central Scotland Forest currently promotes a range of visitor destinations throughout their area including Beecraigs Country Park, which offers a range of woodland-based recreation, including the recently-established 'Go Ape' tree-top adventure centre.

A key challenge will be diversifying the existing tourist market into new areas. This could be achieved by creating stronger marketing links between established attractions of a similar type, such as between Edinburgh's Royal Botanic Garden and other important historic gardens and designed landscapes across the Lothians.

Furthermore, the number of visitors coming to Scotland, and travelling within Scotland, for active outdoor recreation has never been higher and significant numbers pass through the Lothians en route to other destinations. Raising the profile of opportunities for 'local adventures', particularly in relation to walking and mountain-biking, may help tap into some of this passing trade.

Priorities for the next five years

EC21 Work with stakeholders to understand the visitor profile of woodland-based attractions and develop a coordinated approach to increasing footfall, visit duration and total spend.

EC22 Promote woodland based tourism and recreation, including joint marketing campaigns with other visitor attractions, tourism operators and accommodation providers.

EC23 Encourage the development of small scale ecotourism enterprises linked to woodlands and forests.

EC24 Develop and publicise opportunities for active outdoor recreation in woodlands and forests, including mountain-biking, walking and activities such as orienteering.

promoting a high quality environment

Introduction

The quality and diversity of Edinburgh and the Lothians' environment is one of its key assets, underpinning the area's attractiveness as a place to live, work, visit and invest. Trees and woodlands already make a substantial contribution to urban and rural landscapes, providing a range of natural and semi-natural habitats and forming an integral part of the area's historic environment. It is also increasingly recognised that trees can play an important role in creating a resilient and healthy environment contributing to sustainable flood management, and to the quality of rivers, soils and air.

This part of the Strategy focuses on ways of increasing the contribution of trees and woodlands to the region's environment, particularly for those areas where quality has declined in the past. It describes the key priorities in terms of:

- Enhancing biodiversity and delivering green networks
- Protecting and enhancing the water environment
- Enhancing air quality
- Protecting and enhancing the soil resource
- Protecting and enhancing landscape and townscape character
- Protecting and enhancing the historic environment

Enhancing biodiversity and delivering green networks

Woodland expansion can help reconnect the fragmented pattern of ancient and semi-natural woodland across the region, including river valley woodlands, farm woods, shelterbelts and field boundary trees, historic designed landscapes and restructured productive forests. Habitat networks help species to adapt to the effects of climate change, reducing isolation and facilitating migration as local conditions change.

Riparian woodland expansion increases the value of rivers as wildlife corridors for maintenance and dispersal of species through the landscape. Action will be required to minimise the spread of invasive, non-native species including rhododendron, Himalayan balsam, Japanese knotweed and giant hogweed. Advice on treatment and disposal can be obtained from the SEPA website, the Business Gateway and the Invasive Non-native Species Framework for Great Britain.

There are also likely to be opportunities to restore native woodlands in areas where plantations have been established on the sites of ancient woodlands (PAWS) – of which there are 960ha in the region. Restoration work should prioritise those areas where relict features, flora or a viable seedbank survives, or where the woods could make a significant contribution to wider habitat networks. The region contains 54 SSSI, 4 SPAs, 5 SACs and 3 Ramsar sites, all of which are classified as being 'sensitive' to woodland expansion in this Strategy. The potential effects of woodland expansion on qualifying interests will be assessed at the site-specific level through the EIA process and, where necessary, Habitats Regulations Assessment (HRA).

There is also a need to improve the management of existing woodlands across Edinburgh and the Lothians to conserve and enhance their biodiversity value. The area's woodlands, both designated and undesignated, make an important contribution to the biodiversity of the region - and the ability of local people to access, appreciate and understand the natural heritage.

Priorities for the next five years

ENV1 Promote the establishment of new native woodlands as part of integrated habitat networks.

ENV2 Where there are suitable opportunities, enhance ancient and semi-natural woodland.

ENV3 Work with land and estate managers to highlight the value of PAWS sites and highlight the benefits of incremental restoration to native woodland.

ENV4 Increase the proportion of existing woodland brought into positive management.

Protecting and enhancing the water environment

The Water Framework Directive requires all member states to produce River Basin Management Plans (RBMPs) which detail how waterbodies will achieve good ecological status by 2015. Production of RBMPs is overseen by the Scottish Environment Protection Agency (SEPA) and implemented at a regional scale through 'Area Advisory Groups' (AAGs). The Forth Area Advisory Group co-ordinates and inputs to river basin planning across Edinburgh and the Lothians, producing a detailed Area Management Plan and actions for the forestry sector to address identified pressures.

Information on recent climate trends and future climate projects indicate that rainfall patterns are changing. Winters are becoming wetter and intense rainfall events are becoming more frequent. Together, these are likely to result in an increasing risk of flooding, soil erosion and slope instability, affecting buildings, infrastructure and productive farmland.

Woodland and forests can play a key part in sustainable approaches to flood management. Trees intercept rainfall and slow runoff into burns and rivers, helping to reduce the severity of flooding downstream and helping to stabilise slopes where saturation could result in landslides. Work by Forest Research for DEFRA has highlighted the potential of new floodplain and riparian woodland in contributing to wider flood attenuation strategies and improving water quality.

Woodland and forests can play a key part in **sustainable approaches to flood management**

No catchments in the Lothians have been identified as priorities for rural diffuse pollution in the current (2010–2015) River Basin Management Planning cycle, however several (East Lothian Coastal, Edinburgh Coastal, River Almond, River Forth, River Tyne, River Avon, River Esk and Water of Leith) will be prioritised in subsequent plans. This presents a significant opportunity to target appropriate planting and restructuring in these catchments to help achieve the necessary improvements in water quality.

Recent work by SEPA, Forestry Commission Scotland, SNH and the Central Scotland Green Network Support Unit, focusing on the Forth catchment, explored opportunities to improve water bodies' ecological status and contribute to habitat connectivity whilst delivering wider benefits including access, biodiversity, natural flood management, climate change mitigation and adaptation, protection of designated sites and providing green and blue networks in urban areas. Tree planting, including street trees, also provides a tool to assist in urban stormwater storage and management, potentially helping to reduce the pressure on drainage infrastructure.

Priorities for the next five years

ENV5 Work with SEPA and stakeholders to identify where woodland could add most value to water management and highlight potential funding opportunities.

ENV6 Promote woodland management and creation as a key component of sustainable flood management initiatives.

ENV7 Identify locations where new planting or woodland management can help increase slope stability.

ENV8 Control invasive non-native species along riparian corridors.

ENV9 Ensure that opportunities to improve water quality through woodland planting and restructuring are reflected in the next cycle of River Basin Management Planning, covering the period from 2015 to 2020, wherever possible, securing multiple environmental and social benefits.

Enhancing air quality

Trees and woodlands can have a positive influence on air quality where they filter and absorb pollutants from the air. The region has two Smoke Control Area and five Air Quality Management Areas where there is a particular emphasis on improving air quality.

Planting is already used extensively in transport corridors to buffer the effects of emissions and can convey significant benefits in mitigating the effects of roads on nearby communities. Trees and woodland can also help to intercept dust particles from industrial facilities and mineral workings, as well as providing visual screening and a barrier to noise.

Priorities for the next five years

ENV10 Where appropriate, prioritise planting of street trees in urban AQMAs, and woodland expansion along strategic road corridors and adjacent to industrial sites.

Protecting and enhancing the soil resource

The soils of the region are a critical resource, providing the growing medium for agricultural and forestry production, acting as a vital carbon store and retaining and filtering rainfall. Soil erosion through water and wind action is already a significant issue, particularly on the sand and gravel-derived soils of East Lothian, and one that may be exacerbated by climate change. Trees and woodlands can play an important role in reducing the severity of these effects by providing shelter from winds, reducing the intensity of rainfall on crops in their 'shadow' and reducing flow rates of floodwater.

Carbon-rich peat soils are a particularly sensitive resource. Occurring largely in the upland areas as blanket bog and a few remnant lowland raised mires, these soils store significant amounts of carbon in partially decomposed plant material. Tree planting on these soils can result in this carbon being released and will therefore be avoided. Forestry Commission Scotland does not support new planting on deep peat (greater than 50cm in depth). Harvesting and restructuring of existing softwood forests on deep peat soils may create opportunities for restoration of bog habitats, particularly in parts of West Lothian. Key areas could include: the fringes of the Slamannan plateau; forest adjacent to Blawhorn Moss SAC; Polkemmet Moor and on blanket peat on the upland fringes of the Pentland Hills.

HISTORIC GARDENS AND DESIGNED LANDSCAPES ARE AN IMPORTANT CHARACTERISTIC OF EDINBURGH AND THE LOTHIANS

Priorities for the next five years

ENV11 Promote the expansion of farm woodlands where this contributes to sustainable soil management, particularly in lowland parts of East Lothian where lighter, sandy loams are at risk of erosion by water or wind.

ENV12 Evaluate and consider the potential opportunities for the restoration of peatland habitats during the planning of restructuring through long term forest design plans.

Protecting and enhancing character

Trees and woodlands make an important contribution to the quality and character of landscapes and townscapes across Edinburgh and the Lothians. Woodland management and planting should aim to conserve this character, and, where it has been lost or degraded, contribute to landscape enhancement, restoration or the creation of new high quality landscapes.

Areas where woodland creation and management can make a particularly important contribution to rural and urban fringe landscapes include:

Areas affected by open cast mineral working, including open cast coal mines in Midlothian and East Lothian and hard rock and former oil shale workings in West Lothian

Degraded landscapes around the urban fringe, or where the urban edge is a prominent and discordant feature in the wider landscape

Agricultural areas where changes in farming practices have resulted in the gradual loss of farm woodlands, shelter belts and field boundary trees. This is evident across much of the region, particularly in the more intensive agricultural areas of East Lothian

Existing and new woodlands can also help fit new development into the landscape. Woodland, green corridors and other features such as hedgerows, field and parkland trees create opportunities to root new development within the landscape. They can be used to provide the basis of a green structure that can help to create a strong sense of place, connected and contributing to the wider environment.

Trees help shape the established character of settlements across the region. Examples include Princes Street Gardens and the Water of Leith in Edinburgh; the Union Canal corridor running through a number of towns and villages in West Lothian; the wooded valley of the River Esk through Dalkeith and Musselburgh; and estate woodlands that frame Longniddry, Dirleton and Gifford. Trees along streets and in parks and gardens are also a key part of the character of towns and villages across the region – from private domestic gardens facing onto public roads to large municipal parks and greenspaces that provide the 'green lungs' of urban areas.

Maintaining and increasing the contribution that trees make to the quality and character of the urban environment is of key importance, contributing to the area's attractiveness as somewhere to live, work or visit. This will involve new tree planting, the management of existing stock and, where necessary, the felling and replacement of over-mature trees. This may become a growing issue as climate change affects the health of existing trees.

Priorities for the next five years

ENV13 Woodland expansion proposals should be a key mechanism of enhancing landscape character.

ENV14 Woodland expansion should be focused in areas where existing landscapes have become damaged or degraded through industrial activity or urban fringe pressures.

ENV15 Promote the protection and replacement of farm woodlands, shelterbelts and field boundary trees and hedges in agricultural areas where there have been significant losses in the past. Investigate the potential for grant assistance for the maintenance and replacement of field boundary trees and hedges where they make an important contribution to landscape character.

ENV16 Use the planning system, including supplementary planning guidance, development briefs and masterplans, to ensure that trees and woodlands are considered as an integral part of development proposals.

ENV17 Promote the importance of managing and increasing trees and woodlands in urban areas to conserve and enhance townscape character.

Protecting and enhancing the historic environment

Trees and woodland make an important contribution to the cultural heritage of Edinburgh and the Lothians. Examples include surviving areas of ancient woodland, historic gardens and designed landscapes, and the trees that characterise the squares and gardens of Edinburgh's New Town (within the World Heritage Site) and line the streets of the region's historic burghs. Trees and woodland can have important cultural and historical associations in their own right, reflecting the complex history of the region's landscapes. Key examples include the ancient wood pasture oaks at Dalkeith and pollarded oaks in Roslin Glen.

This ELFWS aims to raise awareness of the historic importance of trees and woodland, whilst ensuring that woodland expansion and management reflects the sensitivity of other historic sites and areas.

Historic gardens and designed landscapes are an important characteristic of Edinburgh and the Lothians, making an significant contribution to the region's landscape as well as representing a significant historic resource. Some historic designed landscapes survive intact, some have lost their historic houses and others have been absorbed into the urban fabric as public parks and open space. Trees and woodlands are a critical component of these historic designed landscapes, often taking the form of exotic policy woodlands, avenues and individual trees.

Managing these trees is often challenging given their age, ownership, location and the impacts of a changing climate. Selective replanting may be necessary to ensure the character of these historic landscapes is maintained. New woodlands within historic landscapes should be designed to respect the character of their setting.

Trees and woodland also provide an important component of the setting of many significant heritage assets across the region, ranging from later prehistoric forts, medieval castles and Roman military sites to the Union Canal and other monuments of industry. However, in other cases, trees may prevent easy access to or understanding and appreciation of historic assets. While trees and woodlands are often of historic importance, there are many historic sites which are sensitive to woodland planting or natural regeneration.

Careful survey and scheme design will help ensure that new woodlands do not cause physical damage to historic features or affect their setting, for example by interrupting important views.

The harvesting and restructuring of existing woodland can provide an opportunity to improve the setting of historic features including archaeological sites, buildings and field boundaries. Proposals for new woodland planting and forest restructuring will reflect the Scottish Historic Environment Policy (SHEP) and Forestry Commission Scotland guidance in order to protect and enhance the historic environment.

The region also contains five sites on the Inventory of Historic Battlefields – Linlithgow Bridge (1526), Pinkie (1547), Dunbar (1650), Rullion Green (1666) and Prestonpans (1745)[5]. Inclusion in the inventory does not introduce any legal restrictions within the designated area, but Inventory battlefields are areas of significance that should be taken into account when change – including woodland expansion or removal – is proposed. Appropriate woodland management and expansion can play a positive role in conserving and enhancing key landscape features that aid appreciation and interpretation of battlefield sites – and help to mitigate the impacts of existing or planned development on the character and significance of such sites.

Priorities for the next five years

ENV18 Promote positive management of historic gardens and designed landscapes and heritage trees to maintain their historic and cultural significance and increase resilience to climate change.

ENV19 Encourage forest restructuring to improve the setting of historic sites and landscapes.

[5] Additional battlefields at Athelstaneford (832), Dunbar (1296), Roslin (1303) and Carberry Hill (1567) are under consideration

securing resilience to climate change

Introduction

Global climate change is widely recognised as one of the greatest environmental, social and political challenges facing the world today. One of the main causes of climate change is a rise in the concentration of atmospheric carbon dioxide (CO_2), resulting from the use of fossil-fuels and reductions in the amount of carbon sequestered by vegetation and soils.

There is evidence that the climate of Edinburgh and the Lothians has already started to change. Analysis of climate data for the period between 1961 and 2004 shows with rising temperatures, an increase in the length of the growing season (up to a month longer across most of the region) and wetter autumns and winters. The latest UK Climate Projections suggest that these trends will continue in the future, with rising temperatures, an increase in winter rainfall and more frequent summer droughts, together with rising sea levels.

The changing climate requires two kinds of response. Firstly, the need to reduce carbon emissions, either by substituting the use of fossil fuels or by increasing the capacity of the environment to absorb and store carbon. These kinds of responses are known as climate change mitigation.

Secondly, the need to start adapting to the climate changes that are already in the pipeline as a result of past emissions. Public bodies and land managers need to anticipate and plan for increases in the risk of flooding, the effects of drought, the impact of heat-waves on urban environments and the need to help plants and animals adapt as their habitats change. These kinds of responses are known as climate change adaptation.

This part of the Strategy focuses on:

Ways that trees and woodlands can help us mitigate our impact on the climate

The ways in which trees and woodland can help us adapt to the changing climate

Mitigating impacts on the climate

The Climate Change (Scotland) Act 2009 creates the statutory framework for reducing greenhouse gas emissions in Scotland. Trees absorb (or sequester) atmospheric carbon as they grow, releasing it as timber decays or is burned. Expanding tree cover within Edinburgh and the Lothians will therefore increase the amount of carbon sequestered helping to offset carbon emissions from fossil fuel use. It is, however, important that new woodlands avoid peat soils where planting can result in significant amounts of carbon being released into the atmosphere.

Land suitable for woodland expansion may also be viable for renewable energy generation, particularly through the development of wind farms. While the development of some wind farms has resulted in a loss of productive forest, the Scottish Government Policy on the Control of Woodland Removal has now established a requirement for compensatory planting equivalent to the area lost to development. Compensatory planting should be located within the region and should reflect the objectives of this Strategy, as well as the Policy on the Control of Woodland Removal.

There is considerable potential to encourage greater use of timber as a building material in Edinburgh and the Lothians. This can help reduce carbon emissions associated with the manufacture and transportation of more energy intensive materials such as steel and concrete. It can also provide a way of locking up carbon in the longer term. There is a growing body of best practice from across Scotland demonstrating how timber can be used in a range of building types. The planning system can help raise awareness of timber as a low carbon building material.

Existing and new woodlands can provide sources of woody biomass including logs, wood chips and pellets.

The forestry sector is a major user of fossil fuels from planting, through harvesting and transport to processing and use. Reducing the sector's reliance on such fuels is critical to optimise the contribution to climate change mitigation in line with the Scottish Government Land Use Strategy. This will require the use and proper maintenance of the most efficient machinery, together with careful monitoring and auditing.

Priorities for the next five years

CC1 Expand woodland cover within Edinburgh and the Lothians as a means of increasing carbon sequestration and reducing net carbon emissions, following the guidance provided in Sections 3 and 5 of the ELFWS.

CC2 Ensure that any woodland losses to development are compensated by new planting within Edinburgh and the Lothians so that the net contribution of trees and woodland to carbon sequestration is maintained and increased.

CC3 Encourage and monitor measures to reduce the use of fossil fuels within the forestry sector.

Image © Forestry Commission

Adapting to the effects of climate change

Trees and woodlands can play a key role in helping us to adapt to the changing climate. Other sections of the Strategy have already described how trees and woodlands contribute to sustainable flood management, slope stabilisation and the creation of integrated habitat networks. Trees and woodlands can also play an important role in helping people and communities adapt to a changing climate by providing shade and temperature regulation, helping to combat the 'urban heat island' effect and making streets more pleasant during the hotter, drier summers the region is expected to experience in the future.

It is equally important to consider how the changing climate will affect the way we manage trees and woodland. Existing trees and woodlands are likely to be affected by climate change as winter waterlogging alternates with summer drought, storms become more frequent and severe and pests and diseases become more common. The long timescales associated with trees and woodlands means we need to start planning for these impacts now.

For productive forestry, climate change could affect the choice of tree species and provenance and may mean that more exposed sites are increasingly vulnerable to storm damage potentially limiting their capacity to produce a viable crop. However, the longer growing season and higher temperatures may increase productivity and allow expansion into currently less suitable areas.

On suitable sites there is likely to be a move towards 'continuous cover' forestry, since this will help avoid increasing flood risk and soil erosion and reduce vulnerability to windthrow. The design of forest infrastructure such as roads and culverts will need to reflect increases in winter rainfall, more frequent severe weather events and increased potential for erosion.

Increased prevalence of summer wildfires may require a more strategic approach to the issue, potentially including collaborative training between fire services and woodland managers.

Priorities for the next five years

CC4 Raise awareness among private and public sector organisations about the benefits of trees and woodland in helping urban environments adapt to the effects of climate change.

Local authorities will fully implement the Scottish Government Policy on the Control of Woodland Removal when considering applications for planning permission that involve the loss of trees and woodland.

CC5 Promote continuous cover on suitable sites as a viable and more resilient alternative to clear-fell systems.

CC6 Promote positive and proactive management of key tree species and woodlands improve their resilience to climate change.

CC7 Identify important individual historic trees and species that are vulnerable and begin succession planning to maintain contribution to character and significance.

enhancing quality of life

Introduction

Trees, woodland and forests can make a substantial contribution to improving people's quality of life – through enhancing the quality of the immediate environment, providing opportunities for outdoor recreation, education and employment. Promoting a greater sense of involvement and ownership of woodlands close to communities can help people to engage with the environment and foster a sense of responsibility and greater appreciation of the value and opportunities provided by these communal assets.

The ELFWS will provide a means of delivering the woodland required to contribute to the delivery of the Central Scotland Green Network (CSGN), and is therefore strongly linked to its agenda.

This part of the Strategy focuses on:

Woods for wellbeing

Community involvement and participation

Education and lifelong learning

Image © Forestry Commission

Image © Forestry Commission

Improving woodlands contribution to wellbeing

There is growing awareness of the value of woodlands, forests and other open greenspaces in providing opportunities for walking, cycling and horse riding, together with activities like orienteering and geocaching.

The Woodland Trust's VisitWoods project has mapped a number of accessible woodlands across Edinburgh and Lothians, ranging from coniferous on the northern slopes of the Pentland Hills, the native and mixed woods in and around Livingston, a number of iconic urban woodlands in Edinburgh, the ancient woodlands of Midlothian's river valleys to the policy woodlands associated with designed landscape such as Dalmeny, Hopetoun, Arniston and Tyninghame. Many of these woodlands include Core Paths, local paths and longer distance routes such as the John Muir Way. However, there is a need to grow public awareness and appreciation of the value of woodlands in their area – and also to understand what communities themselves value about their local environment.

Forestry Commission Scotland's Woods In and Around Towns (WIAT) programme is helping local organisations improve access to woodlands. At Craigmillar Castle Park, owned by City of Edinburgh Council, funding from WIAT and the Mary Emily Scott Legacy has been used to improve woodland management, upgrade the path network and build an adventure playground for young people from surrounding communities.

There is a need to raise wider awareness of opportunities for woodland based recreation, and to provide people with confidence to get involved. This includes ensuring that individuals from all sections of society are able to enjoy and benefit from woodlands and forests across Edinburgh and the Lothians. Information and interpretation may use a combination of way-marked routes, leaflets, signboards and ranger led walks, together with digital and social media, web based learning and location-aware mobile technology more suited to younger audiences.

A number of open spaces in the region, including Muir Wood Park in Currie and Hailes Quarry Park in Wester Hailes, have gained Green Flag Award accreditation, along with the Pentland Hills Regional Park, helping to raise awareness and providing potential users with confidence to visit and use them. As Green Flag accreditation is a nationally-recognised benchmark for quality in greenspace, it could help to attract visitors – and also affords access to a ready-made promotional network.

Woodlands close to where people live and work can make an important contribution to health and well-being. At Wester Hailes on the southern side of Edinburgh a number of community organisations have come together with the Edinburgh and Lothians Greenspace Trust, using WIAT funding, to carry out a range of physical and promotional work, including a development of a cycling and health programme to encourage outdoor activity, healthy living and positive use of open spaces. Throughout the region's woodlands, particularly those in close to settlement, there are a range of opportunities to improve access provision. Building on the framework provided by Core Paths Plans, opportunities to create links to – or through – woodlands can be identified, contributing to active travel, health and recreation objectives.

There are also a number of projects reflecting woodlands' contribution to mental as well as physical well-being. Edinburgh and Lothians Greenspace Trust have been delivering a mental health referral project in Edinburgh in partnership with FCS, funded through FCS Challenge Funds. 'Branching Out' is an innovative 12-week programme for adults using mental health services. Activities can include physical activity, conservation activities, bush-craft or environmental art. Similar projects have been run by other organisations including the Thistle Foundation and New Caledonian Woodlands.

Projects designed to bring physical and mental health benefits to communities experiencing multiple deprivation will continue to be a priority over the lifetime of the ELFWS.

Image © Forestry Commission

Priorities for the next five years

QL1 Ensure that existing and new forests and woodlands are managed to create new opportunities for active travel, including walking, cycling and horse riding connecting settlements and the countryside.

QL2 Raise awareness of forests and woodlands in the region through innovative new methods for engaging with all sections of society.

QL3 Promote the role of woodlands in providing a resource for physical activity, accessible to all parts of society close to where people live and work.

QL4 Prioritise woodland based projects designed to deliver physical and mental health benefits, particularly in areas with higher levels of deprivation and poorer health.

QL5 Work to increase the appreciation and use of woodlands and forests by people from a wide range of socio-economic and ethnic backgrounds, and ensure that facilities and promotion are fully inclusive.

Improving community involvement and participation

Trees and woodland make an important contribution to the cultural heritage of Edinburgh and the Lothians. Examples include surviving areas of ancient woodland, historic gardens and designed landscapes, and the trees that characterise the squares and gardens of Edinburgh's New Town (within the World Heritage Site) and line the streets of the region's historic burghs. Trees and woodland can have important cultural and historical associations in their own right, reflecting the complex history of the region's landscapes. Key examples include the ancient wood pasture oaks at Dalkeith and pollarded oaks in Roslin Glen.

There is significant scope for communities to become more actively engaged in planning, developing, managing and maintaining woodlands across Edinburgh and the Lothians. There are particular opportunities to support such involvement close to urban areas, especially in WIAT priority areas in the region where high levels of deprivation are combined with low levels of woodland and greenspace provision. Recent projects at Craigmillar and Wester Hailes demonstrate how communities can become actively involved in a wide range of woodland, environmental and recreation projects. This helps to build the confidence and capacity of local organisations and encourages more people to use woods and greenspaces across the area.

Organisations including the British Trust for Conservation Volunteering (BTCV), Forestry Commission Scotland, Central Scotland Forest Trust (CSFT), Edinburgh and Lothians Greenspace Trust and Local Authority rangers have gained substantial experience of assisting community groups and acting as catalysts for action on the ground. They have a key role to play in supporting encouraging communities to become involved in woodland projects.

Woodland can also be used to support volunteering and training initiatives designed to create new pathways to employment. FCS has been working with Newbattle Abbey College in Dalkeith to provide rural skills training while Forest Enterprise Scotland's Scottish Lowlands Forest District has been running a number of employability projects designed to improve skills and prepare people for employment. These types of initiative will continue to be a priority over the next five years.

Community Woodlands groups can add considerable value to local environments and social cohesion. The Lothians already has excellent examples – including the Ferry Glen group in South Queensferry, and the Dedridge Environment Ecology Project, winners of the 2011 Tim Stead Trophy Special Community Woodland Award. There could be an important role for established groups in mentoring new initiatives, offering inspiration, advice and experience to guide them through the process.

Many such groups have benefited through the FCS Challenge Fund, Breathing Spaces, SNH and National Lottery funding, all of which has enabled positive action to take place on the ground. Tree wardens have also been an effective mechanism for individuals to get involved locally and to help promote and protect the local tree resource.

contributing to sustainable development

Priorities for the next five years

QL6 Support community involvement in woodland projects, especially through mentoring and co-ordinating delivery of activity on the ground. There should be a particular focus within WIAT Priority Areas.

QL7 Continue to develop volunteering and training initiatives based around woodlands and forests particularly where this is designed to improve employability.

QL8 Support community woodland groups particularly in areas with high levels of multiple deprivation.

Contributing to education and lifelong learning

Scotland's national educational programme, the Curriculum for Excellence, recognises that learning is embedded in experience and that by taking learning out of the classroom, the barriers between young people and first-hand real life experience can be broken down. The potential of the outdoor classroom to develop benefits and transferrable skills from across the curriculum is now more widely appreciated.

The Forest Education Initiative[6] (FEI) aims "to increase the understanding and appreciation, particularly among young people, of the environmental, social, and economic potential of trees, woodlands and forests and of the link between the tree and everyday wood products". A key aspect of the FEI is 'Forest School' – an inspirational process that offers children, young people and adults regular opportunities to develop confidence and self-esteem through hands-on learning in a local woodland environment. A number of successful Forest School events have now been held across the Lothians, and a 'cluster group' has been established in Edinburgh and Lothians to provide leadership, training and share best practice.

The Branching Out West Lothian project is one of a number of projects designed to realise the educational potential of woodlands. The project worked with local schools to develop a woodland learning programme to inspire and educate children about woodland. The project, which was run by the Woodland Trust Scotland with funding from a range of agencies and the Heritage Lottery Fund, provided training and support for primary school teachers alongside the development of promotional and interpretative information, access and biodiversity improvements and partnership working with local communities. Elsewhere, peer mentoring has been used to support community based outdoor learning.

The next five years will see a continued emphasis on raising awareness of the role of woodlands as an outdoor learning resource. This will be achieved by continuation of training for teachers and by focusing on new areas such as colleges, linking into lifelong learning opportunities and woodland based training initiatives. The Central Scotland Green Network Learning Outdoors Fund is potential source of funding for such initiatives.

Priorities for the next five years

QL9 Increase awareness of the role of woodlands as an outdoor learning resource and a resource for education, training and lifelong learning.

QL10 Provide training to teachers and other education professionals to facilitate greater use of woodlands as a resource for learning.

QL11 Promote the development of outdoor learning opportunities including in woodlands and forests.

[6] In Scotland, FEI is a partnership including FCS, Scottish Enterprise, ConFor, SNH, Central Scotland Forest Trust, Eco Schools and a number of other partners – for more details see www.foresteducation.org/news/scotland/partners/

Image courtesy of Edinburgh & Lothians Greenspace Trust

5 Spatial guidance

INTRODUCTION

This section of the Strategy sets out the regional priorities for woodland expansion and management by broad landscape 'zone.' It presents a breakdown of the potential for expansion in each zone and describes the principal opportunities and constraints that should be taken into account in new planting proposals.

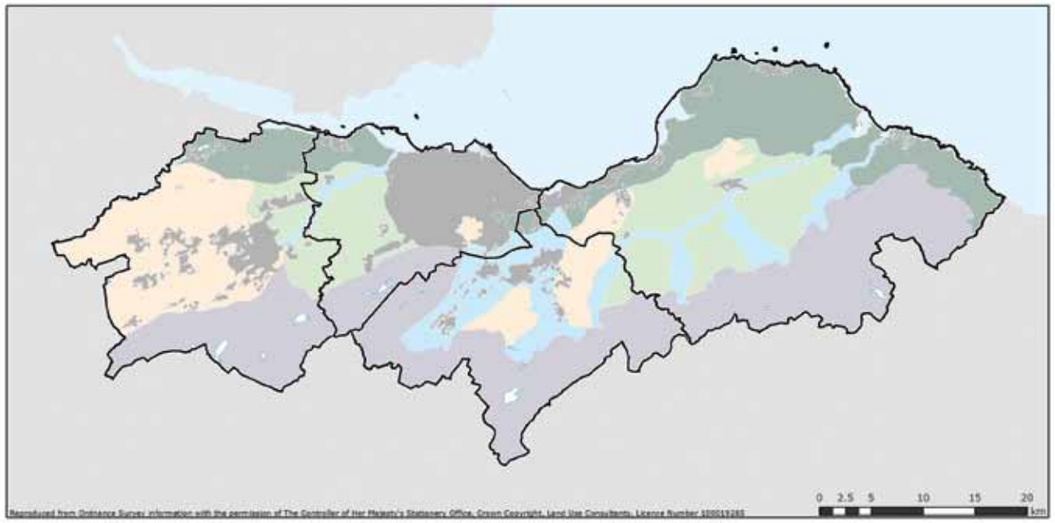
The spatial framework consists of

6 zones

based largely on landscape character types

Image courtesy of Edinburgh & Lothians Greenspace Trust

FIGURE 5.1 Spatial framework zones



Lothians Local Authorities Landscape zones

- Coastal Margins
- Lowland Hills, Ridges and Plateaux
- Lowland Plains
- Lowland River Valleys
- Upland and Upland Fringe
- Urban
- Water Body

Zone name	Description	Woodland cover – key facts
Coastal margins	Littoral zone, running from the West Lothian / Falkirk boundary to the Scottish Borders	2,856ha[7] 10% of zone wooded 13% of regional resource
Lowland hills, ridges and plateaux	Moorland and rough grazing areas of central West Lothian, Garleton Hills and the ridges between the North and South Esk valleys	3,965ha 16% of zone wooded 19% of regional resource
Lowland plains	Broad agricultural 'heartland' of the Lothians	2,290ha 8% of zone wooded 11% of regional resource
Lowland river valleys	Incised valleys of the main rivers rising in the Bathgate Hills and the uplands	3,637ha 22% of zone wooded 17% of regional resource
Upland and upland fringe	Pentlands, Lammermuirs and Moorfoot Hills, and their foothills	7,272ha 13% of zone wooded 34% of regional resource
Urban	City of Edinburgh and the region's larger settlements	1,322ha 7% of zone wooded 6% of regional resource

[7] Figures from Forestry Commission 'National Inventory of Woodland and Trees'. 0.05% margin of error due to differences in digitising scales between landscape framework and NFI data (water bodies and coastline scales)

Spatial Framework The spatial framework of 6 separate 'zones' is based largely on broad landscape character types, adjusted to reflect key issues and opportunities for woodland creation and management.

Classifying the potential for woodland expansion

The land area of Edinburgh and the Lothians has been classified by sensitivity to woodland expansion, based on the guidance provided by 'The Right Tree in the Right Place' – FCS and the Scottish Government's recent publication on forestry and woodland strategies.

Categorisation is necessarily a strategic process, giving a general impression of an area's suitability or otherwise for woodland expansion – on detailed examination there will inevitably be small areas that could readily fall into a different category.

The importance of site-specific assessment of individual proposals for woodland expansion, or woodland removal, is therefore paramount.

The following categories have been adopted:

Preferred: land that offers the greatest scope to accommodate future expansion of a range of woodland types, and hence, to deliver on a very wide range of objectives. Sensitivities are limited and it should be possible to address any site-specific issues within well-designed proposals that meet the UK Forestry Standard and associated guidelines

Potential: land that offers considerable potential to accommodate a range of woodland types, but where at least one significant sensitivity exists. Design of proposals in this area will require careful, site-specific consideration to ensure they are of an appropriate type and scale to be successfully accommodated.

Sensitive: areas where the nature or combination of sensitivities restricts the scope to accommodate woodland expansion or removal. Limited expansion is only likely to be possible where proposals are of a scale and character which can be accommodated without significant negative impacts, and/or where it would positively enhance features of interest

Existing Woodland: land that is currently under woodland

Unsuitable: land that is physically unsuitable for the growth or management of trees

Urban: larger settlements, within which opportunities for woodland creation are often too small to map effectively at a strategic scale

The process of developing the mapping contained in the Strategy is set out in more detail in Appendix 1.

The maps illustrate the general level of constraint / opportunity for woodland expansion – not land which the ELFWS proposes should be planted. How and where proposals for woodland management or expansion come forward will be driven by landowners' decisions, and these will be subject to a process of rigorous assessment by Forestry Commission Scotland.

Woodland is one of many possible uses for much of the region's land. Inclusion within the 'preferred' or 'potential' land classes should not be interpreted as precluding other viable and environmentally acceptable land uses.

FIGURE 5.2a Potential for expansion in the coastal margins (East)

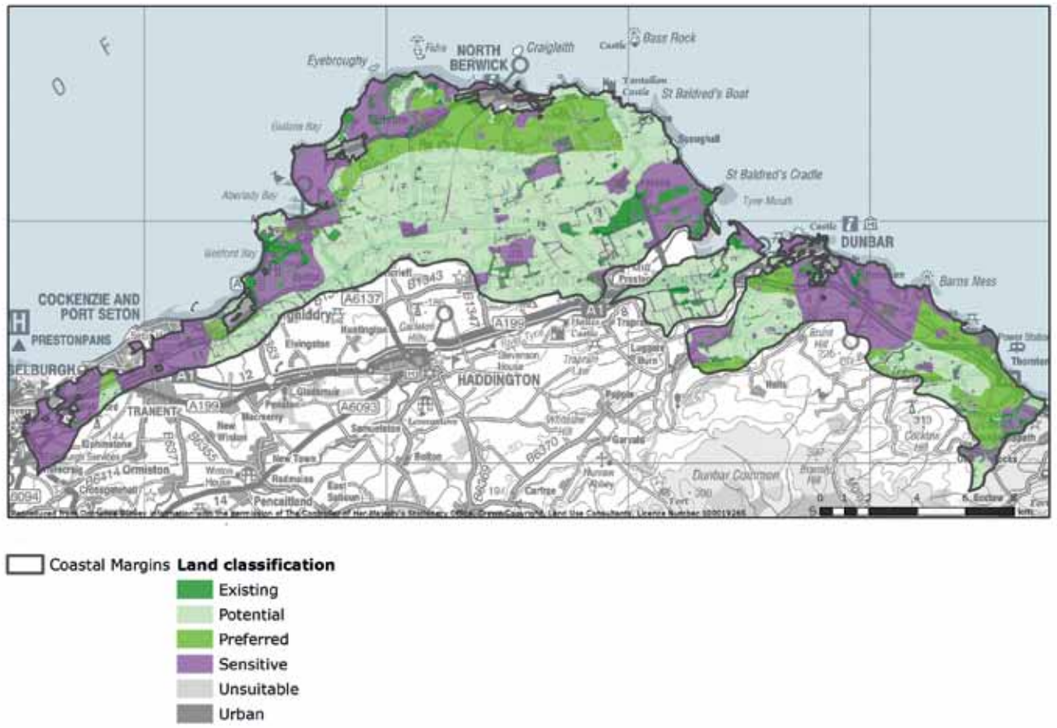


FIGURE 5.2b Potential for expansion in the coastal margins (West)

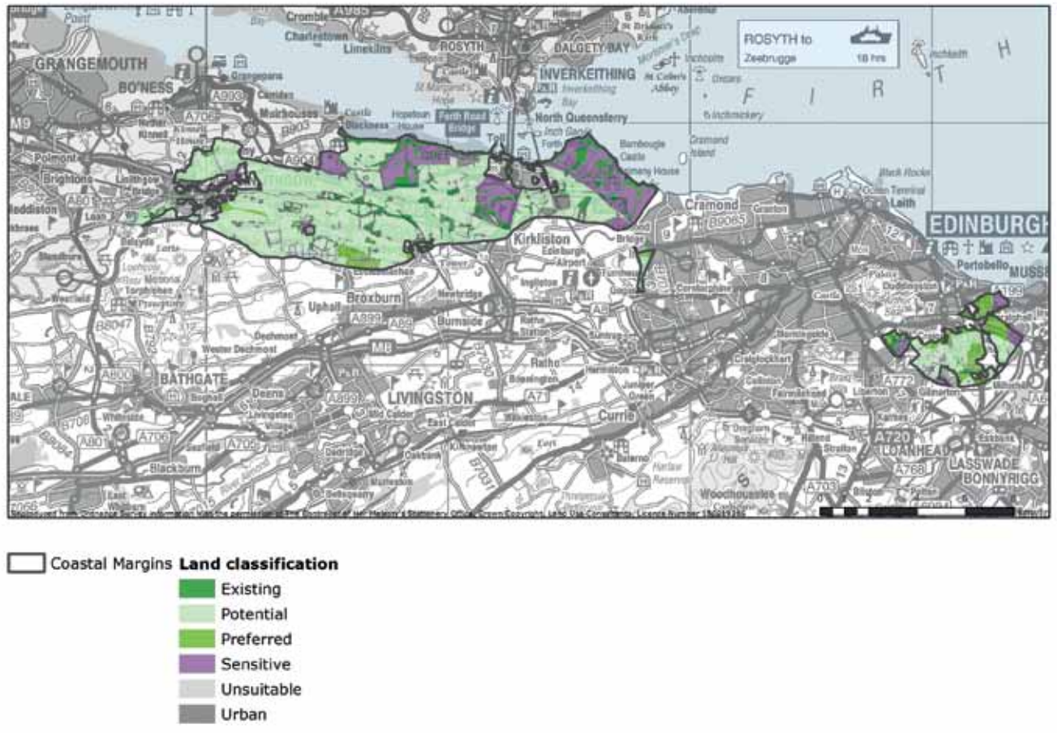
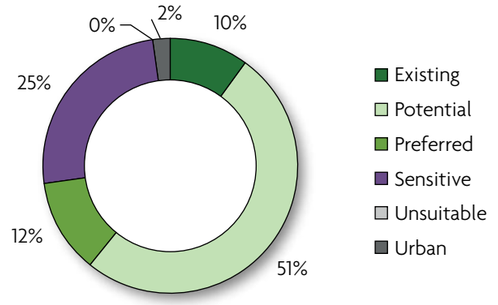


FIGURE 5.2 Potential for expansion in the Coastal Margins (%)



coastal margins

the Coastal Margins zone makes up around 16% of the total area of Edinburgh and the Lothians.

Existing woodland

As illustrated in Figure 5.1, 10% of the zone lies within woodland. Improved management would help enhance these woodlands' biodiversity, provide additional income from timber and fuel, and help ensure they are best able to adapt to the changing climate.

Sensitivities

25% of land within this zone is classified as being 'sensitive' to woodland expansion. This is as a result of the presence of a number of nationally significant Inventory designed landscapes and three recently-designated battlefields . The designed landscapes themselves have a strong woodland elements that frequently combine native, ornamental and timber trees. Opportunities for woodland expansion are therefore highly site-specific and must be developed in a manner that protects and enhances the site's natural and cultural heritage values.

Appropriate expansion could include:

Replanting formerly wooded parts of the landscape

Identification and regeneration / restocking of PAWS sites

Restoration of lost or degraded landscape features, such as avenues and roundels

Opportunities

Preferred areas

Although 'preferred' land makes up a relatively small proportion of this zone, opportunities for appropriate woodland expansion still exist, taking into account local and site-specific constraints. A significant proportion of the zone is classed as being 'prime quality agricultural land,' therefore the principal opportunities will lie around supporting agricultural activities – providing shelter for crops and helping to limit soil erosion – and contributing to resilience to climate change. There are also opportunities for farm woodlands and re-establishing field trees and hedgerows to improve habitat connectivity and to restore degraded landscape structure.

Larger scale woodland planting may not be considered appropriate due to the relatively open landscape character – particularly where views of the Forth and local landmarks, such as North Berwick Law are important features.

Potential areas

The majority of the zone falls within the 'potential' category, largely due to the intersection of landscape sensitivities and high quality agricultural land. On better quality ground, as above, the priority should be supporting existing agriculture and contributing to landscape quality. The Coastal Margins include a number of towns and villages. Woodland planting and management around these settlements can help integrate new development into the landscape and provide new habitats and recreation resources. South of Musselburgh and Cockenzie, woodland creation could play a key role in enhancing a landscape affected by transport infrastructure and industry.

[8] Designed Landscapes: House of the Binns; Hopetoun; Dundas Castle; part of Cammo; Dalmeny; Gosford; Archerfield and Tyninghame); Battlefields: Pinkie; Prestonpans; second battle of Dunbar.

[9] Geese in particular can range considerable distances from roosting sites in the SPA while foraging – up to 20km for the key species in the Forth (pink-footed and greylag geese). www.snh.gov.uk/docs/A675474.pdf

FIGURE 5.3a Potential for expansion in the lowland hills, ridges and plateaux (East)

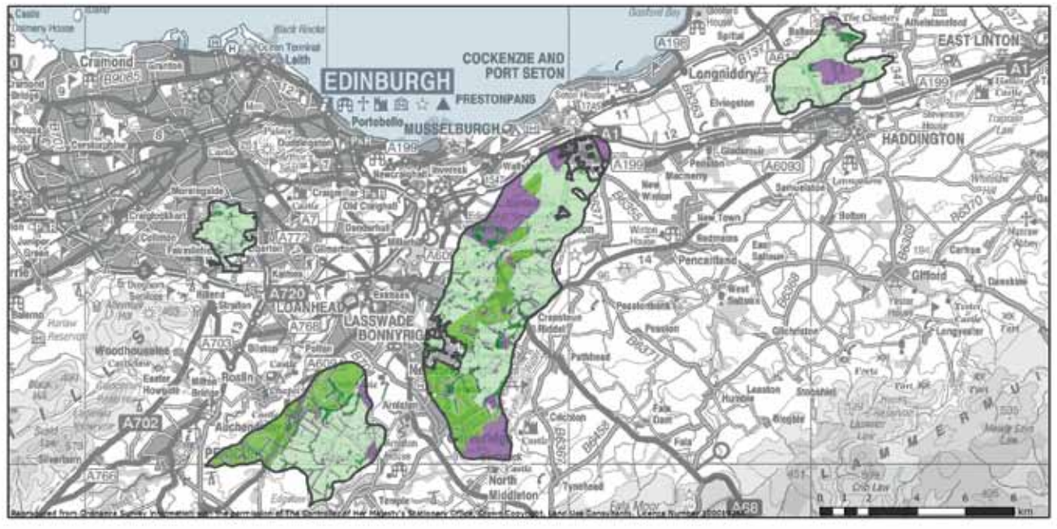


FIGURE 5.3b Potential for expansion in the lowland hills, ridges and plateaux (West)

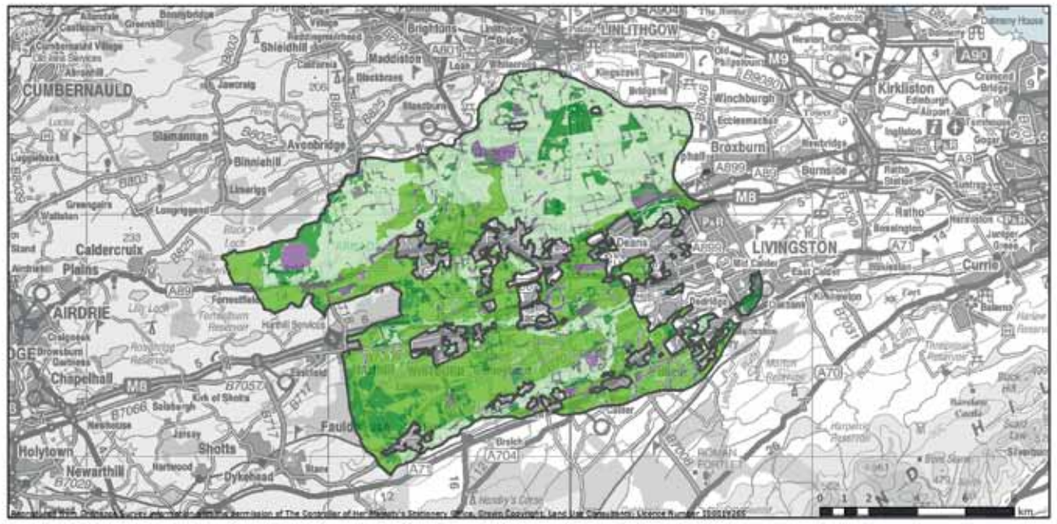
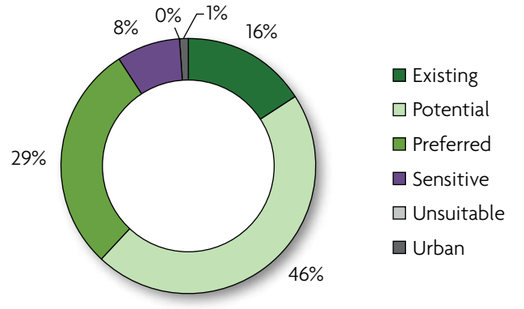


FIGURE 5.3 Potential for expansion in the lowland hills, ridges and plateaux (%)



lowland hills,ridges & plateaux

the Lowland Hills, Ridges and Plateaux zone accounts for a round 14% of the total area of Edinburgh and the Lothians.

Existing woodland

This is a comparatively well-wooded part of the region, with a mix of woodland types. This includes softwood forests, on the plateau moorland and in the Bathgate Hills, where management for timber production is likely to remain a priority, along with improving public access and contributions to landscape quality. Farm and estate woodlands form the remainder of the resource.

Sensitivities

A comparatively small proportion of this zone falls within the 'sensitive' category, largely relating to portions of the Inventory of Historic Battlefields sites of Pinkie and Prestonpans; Conservation Areas at Torphichen, Bangour Village and Borthwick & Crichton; and the Blawhorn Moss Special Area of Conservation [10] (SAC).

Activity in these areas is therefore likely to focus on management to preserve the special characteristics of these places, with potential for sensitive reinstatement of landscape structure on the battlefield sites. Blawhorn Moss is currently ringed by softwood forest, creating the potential for enhancement of open ground habitat networks in future forest plans.

Opportunities

Preferred areas

Much of the plateau moorland area in West Lothian falls within this land class. There is significant potential for woodland expansion in this area, including new softwood forests on former mineral working areas and marginal land. Smaller-scale softwoods, along with broadleaved farm woodlands could be accommodated in the varied topography of the edges of the Bathgate Hills. There is also potential for a range of new woodlands around settlements, particularly Livingston, West Calder, Blackburn, Whitburn (particularly associated with the Heartlands Initiative regeneration project) and Armadale, tying in to wider environmental improvement and social inclusion objectives.

On the ridge between the Esk and Tyne valleys, there is potential for new farm and native woodlands to contribute to habitat networks, building linkages between the ancient woodlands contained within the valleys and designed landscapes.

Potential areas

Within the complex topography of the Bathgate Hills, a range of opportunities exist for new woodland, including some smaller-scale softwoods, farm woodlands and native woodland expansion. However, proposals in these areas will need to respond to the scale and character of the landscape. The presence of Cairnpapple Hill prehistoric ritual and funerary complex may also create setting issues for proposals in the vicinity.

In areas with a more open character with simpler topography, farm woodlands and native woodland networks represent the principal opportunities.

[10] Lowland raised bog, also a SSSI and National Nature Reserve Battlefields: Pinkie; Prestonpans; second battle of Dunbar.

FIGURE 5.4a Potential for expansion in the lowland plains (East)

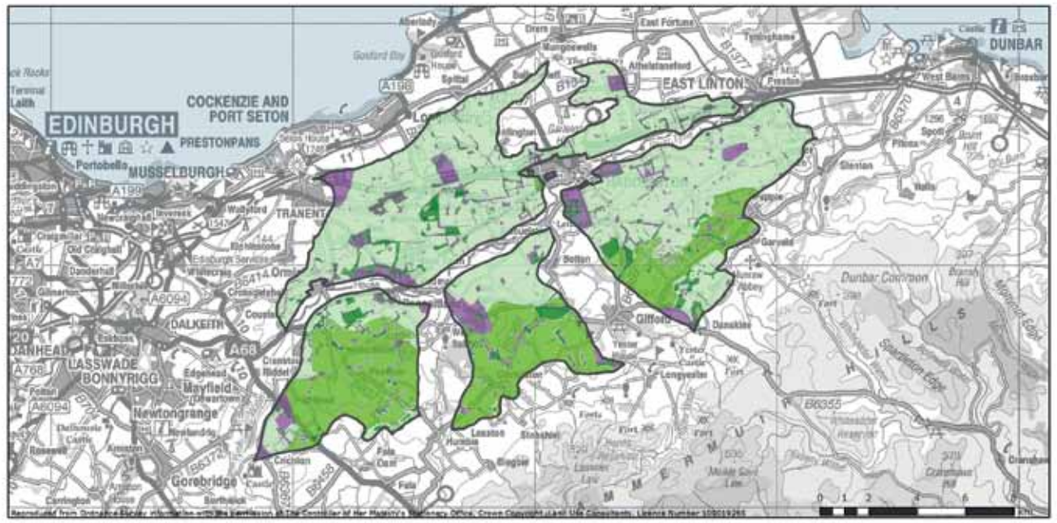


FIGURE 5.4b Potential for expansion in the lowland plains (West)

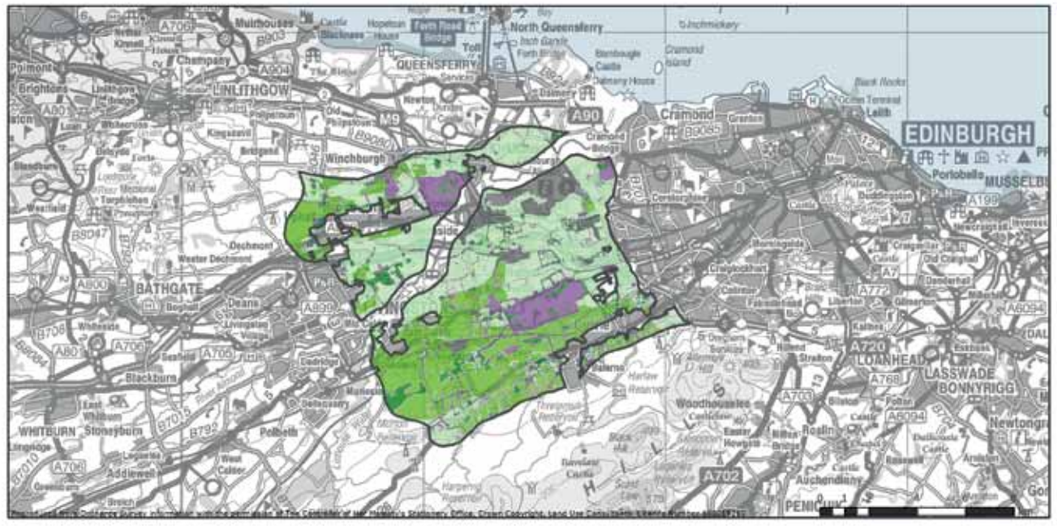
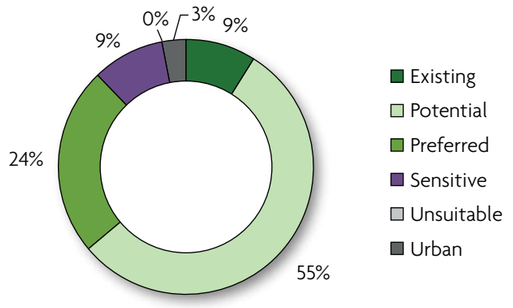


FIGURE 5.4 Potential for expansion in the lowland plains (%)



lowland plains

The Lowland Plains zone makes up around 16% of the total area of Edinburgh and the Lothians. It comprises two principal areas, the first made up of a series of blocks between Edinburgh and East Linton, the second extending west from Edinburgh towards Livingston.

Existing woodland

The existing resource is largely composed of estate and small farm woodlands associated with designed landscapes. Improved management would help enhance these woodlands' biodiversity, provide additional income from timber and fuel, and help ensure they are best able to adapt to the changing climate.

Sensitivities

The key areas highlighted as 'sensitive' in this zone are parts of major designed landscapes, several relatively large Scheduled Monuments, including the later prehistoric forts at Dalmahoy and Traprain Law and a range of ploughed out 'cropmark' sites within the arable landscapes of East Lothian.

More generally, species-rich grassland across the zone is frequently an important resource for biodiversity and may, at the site-specific level, influence the appropriate scale, nature and design of proposals.

Opportunities

Preferred areas

The main areas of 'preferred' land are concentrated between the Almond Valley and Balerno, on the foothills of the Pentlands, and on the rising ground between Pathhead and Garvald on the edges of the Lammermuirs. There this also scope for expansion to the north and west of the Uphall / Broxburn conurbation.

There is considerable potential for expansion in these areas, with opportunities for new softwood and mixed woodlands, particularly on more marginal farmland in the eastern portion of the zone. While there is also good potential for expansion in the western portion of the zone, the very strong landscape structure formed by the network of planned shelterbelts and field boundary trees represent an important aspect of character that should be retained in proposals.

Potential areas

In the western portion of the zone, a key consideration in the 'potential' area has to be the presence of Edinburgh Airport, which has the potential to restrict the type, composition and scale of woodland proposals in the vicinity. There will be a need to consult the Airport operators and the Civil Aviation Authority (CAA) on any large-scale woodland expansion proposals within the key approach flightpaths.

High quality agricultural land may restrict the type and scale of woodland creation proposals that come forward from landowners. Contributing to resilience to climate change, restoring landscape structure and mitigating the effects of major transport corridors provide the key opportunities.

[10] Lowland raised bog, also a SSSI and National Nature Reserve
Battlefields: Pinkie; Prestonpans; second battle of Dunbar.

FIGURE 5.5a Potential for expansion in the lowland river valleys (East)

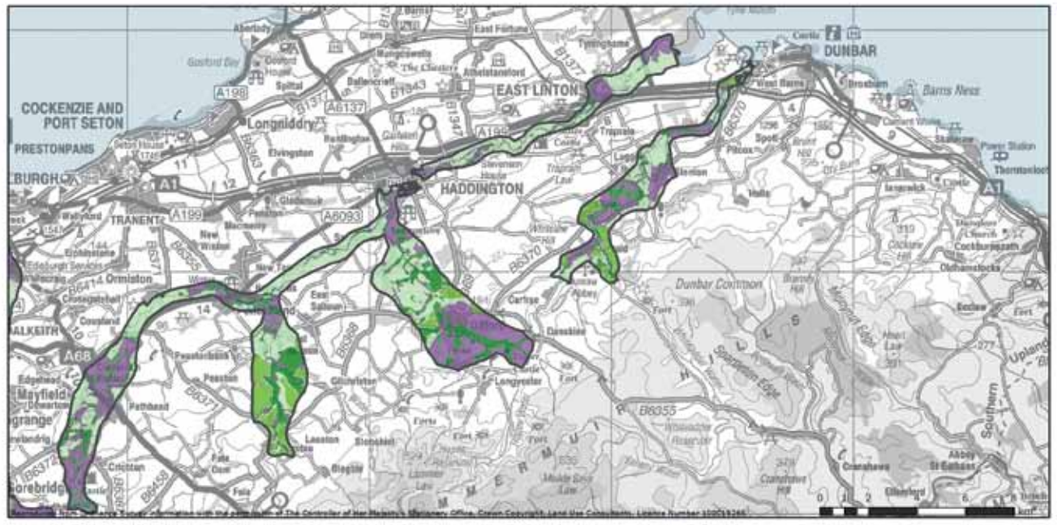


FIGURE 5.5b Potential for expansion in the lowland river valleys (West)

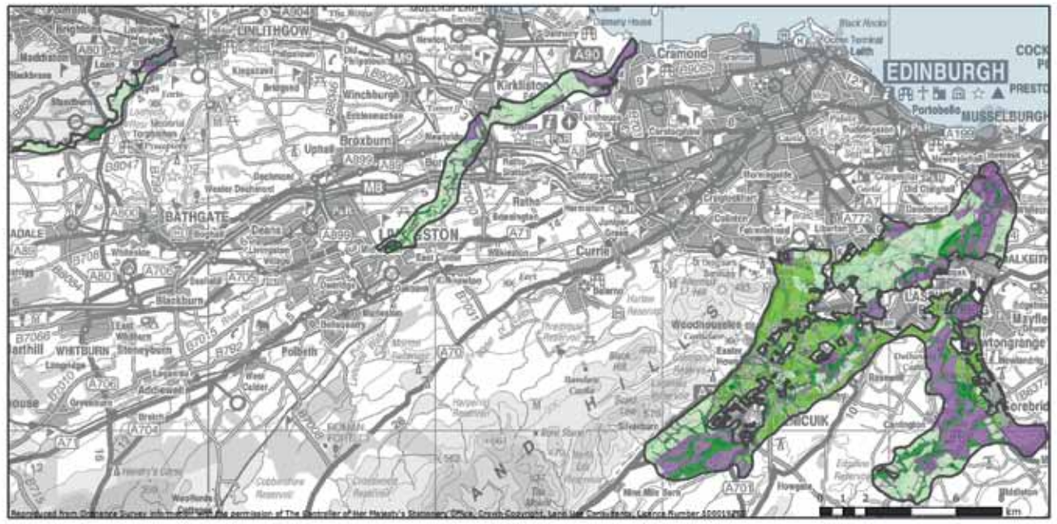
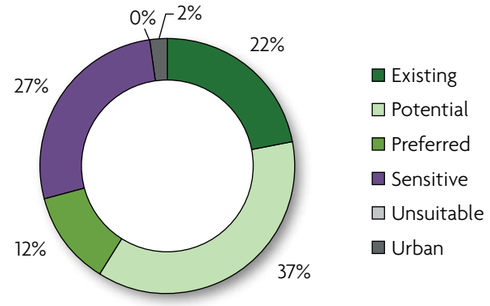


FIGURE 5.5 Potential for expansion in the lowland river valleys (%)



lowland river valleys

The middle and lower section of the valleys of the Rivers Almond, North and South Esk, Tyne and Avon, together with their tributaries, form a this zone, reflecting their distinctive topography and patterns of woodland and settlement. Taken together, these valleys make up 10% of the total area of Edinburgh and the Lothians – but contain 17% of the region's woodland resource.

Existing woodland

The lowland river valleys are the most wooded parts of Edinburgh and Lothians, with forest or woodland making up 22% of the land area in the zone.

31% of woodlands in the zone are classified as native, and many form part of nationally significant designed landscapes, such as Hopetoun, Dalmeny, Mavisbank and Melville Castle (and Country Parks at Almondell & Calderwood and Dalkeith House). This represents more than a quarter of the region's native woodland resource.

Managing these woodlands to maintain and enhance their natural and cultural heritage is a key priority alongside measures to extend woodland links into surrounding areas. A further 475ha are classed as 'Plantations on Ancient Woodland Sites' (PAWS) and may represent important opportunities for restoration and enhancement.

Sensitivities

As noted above, this zone contains portions of a number of major historic designed landscapes. While there is potential for sensitive expansion of woodlands within these areas, the type and scale of this expansion should preserve the character and significance of these nationally-important assets and their potential as recreational opportunities.

Woodlands are central to the character of this zone and are major regional assets for biodiversity, their cultural value and for responsible public access. Creating and enhancing links between these areas and the wider green network is a major priority. The extensive network of ancient woodland along the river corridors is both a key sensitivity and a major opportunity for enhancement.

Opportunities

Preferred areas

The preferred area is concentrated between Penicuik and Loanhead in Midlothian. The opportunities in this area are likely to focus on smaller scale softwoods and farm woodlands that can be accommodated with the strong landscape structure created by the existing pattern of estate woodlands, shelterbelts and the river corridors.

Other pockets of preferred land are located around the Saltoun Forest in the Humbie Water valley, north of Gifford and between Garvald and Whittinghame.

Potential areas

Much of the riparian zone falls within the 'potential' category. However, the type and scale of woodlands that will be appropriate are likely to be limited to native woodland expansion to enhance habitat networks, planting to contribute to sustainable water management and reinforcing the character of designed landscapes. There may also be opportunities for farmers to establish new 'buffer' woodlands along the river corridors to help address issues of diffuse pollution arising from agricultural activity.

FIGURE 5.6a Potential for expansion in the upland and upland fringe (East)

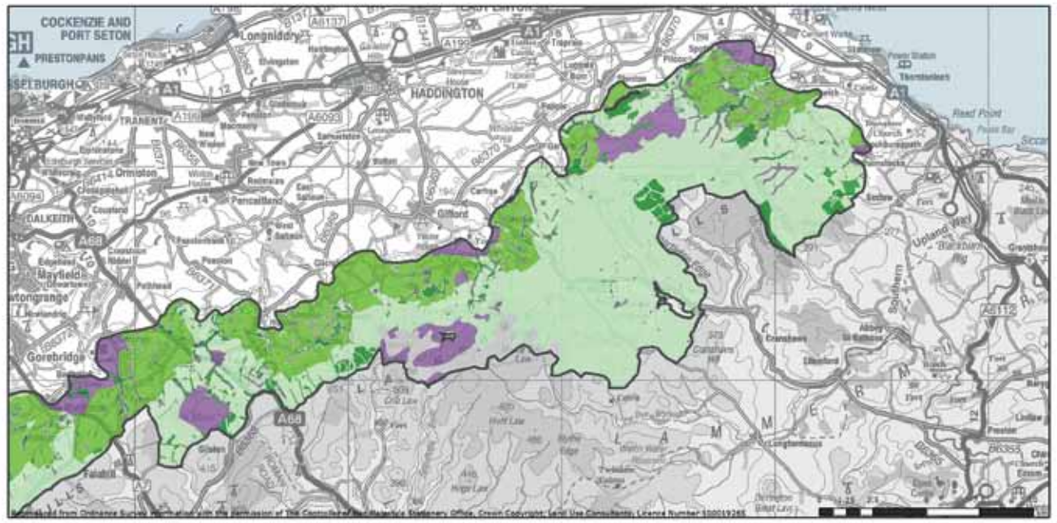


FIGURE 5.6b Potential for expansion in the upland and upland fringe (West)

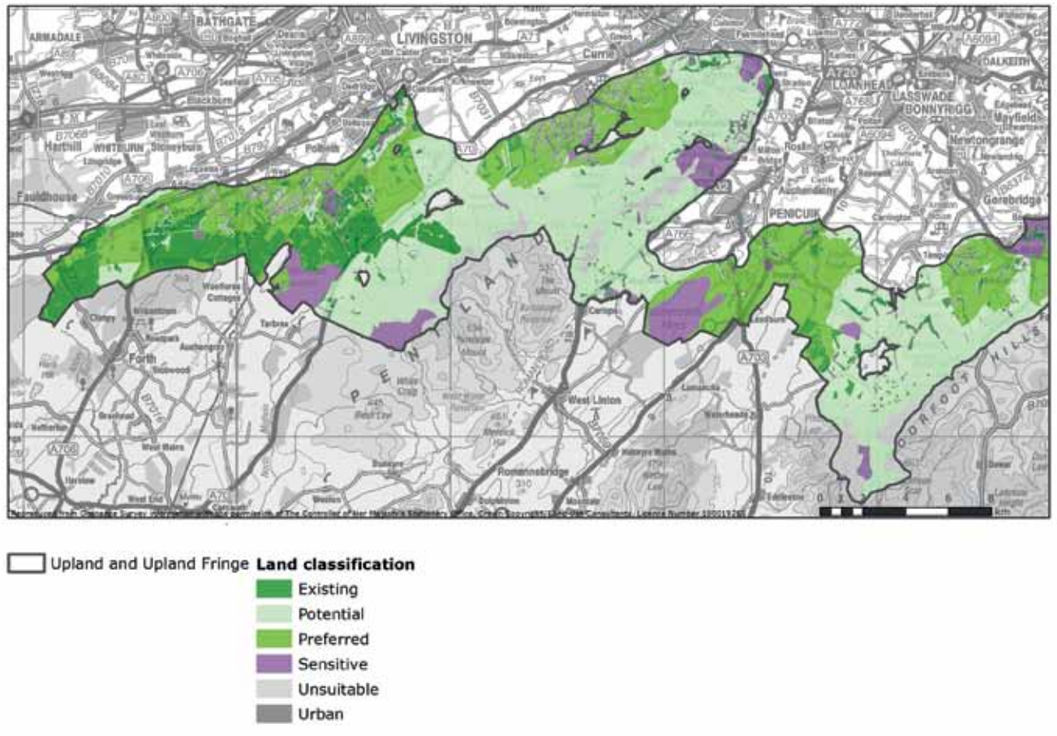
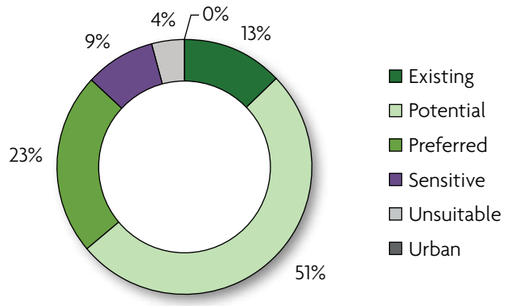


FIGURE 5.6 Potential for expansion in the upland and upland fringe (%)



upland and upland fringe

The Uplands and Upland Fringes ELFWS Zone forms a broad band running across the southern part of Edinburgh and the Lothians.

Existing woodland

The area has just over a third of the total area of forests and woods in the region, with softwood forests making up the greater share. Restructuring these forests will provide opportunities to secure biodiversity and landscape enhancements, as well as some opportunities to create new access and recreation.

Around 20% of the woodlands in this area are classified as ancient or long established. Managing these and other native and mixed woodlands will bring biodiversity benefits, as well as creating potential sources of wood fuel.

Sensitivities

The principal sensitivities in this zone relate to the presence of designated natural heritage sites, including peatlands, grassland and riparian and upland woodlands. Key examples include: Auchencorth and Cobbinshaw Mosses, Fala Flow and Dundreich Plateau (blanket bog), and Rammer Cleugh (upland riparian woodlands).

While there may be limited potential for management and some enhancement of key woodland features, the designated open ground habitats are particularly sensitive to woodland expansion and are therefore unlikely to come forward as potential sites for woodland creation.

Opportunities

Preferred areas

There is a significant area of 'preferred' land in the southern part of West Lothian and the City of Edinburgh, adjacent to existing large-scale softwood forests. While the areas south of West Calder, Livingston and Balerno respectively have a distinctive landscape structure that should be respected, the remainder of the area could readily accommodate additional, well designed woodland – particularly where this could continue to assist in the remediation of former minerals sites.

There is also potential for smaller-scale softwood forests along the foothills of the Lammermuirs, where the lower elevation and more complex topography can accommodate planting with reduced visual impact.

There are also significant opportunities to reinforce habitat networks in the small valleys descending from the uplands, many of which hold ancient woodland.

Potential areas

The 'potential' area comprises much of the Pentland Hills Regional Park and the Lammermuirs. Therefore the range of woodland that could readily be accommodated in this area is constrained. The open, upland landscapes are an important asset in landscape and biodiversity terms and are unlikely to be suitable for large scale woodland expansion. In the river valleys and lower slopes however, there may be scope for planting to contribute to climate resilience and sustainable water management.

FIGURE 5.7a Potential for expansion in urban areas (East)

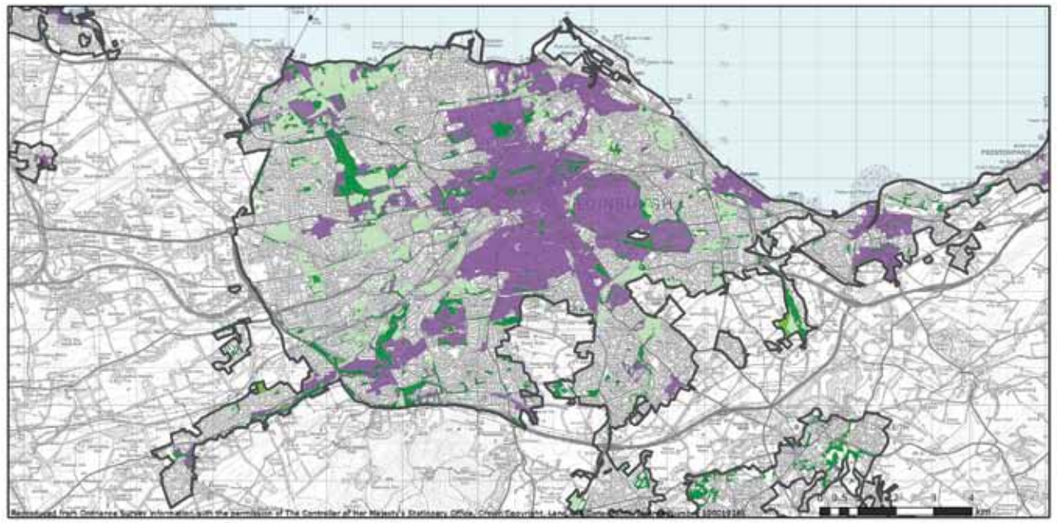
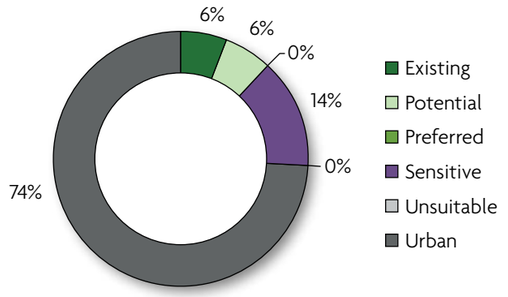


FIGURE 5.7b Potential for expansion in urban areas (West)

Mapping potential for woodland expansion within the urban area is inherently difficult. The standard datasets used in the wider modelling process generally do not cover built-up areas, while the range of potential uses of available land is significantly more complex than in rural areas. Data for existing woodland only covers sites over 0.5ha or 20% cover (or the potential to achieve this). Therefore many important urban woods may not register. Similarly, the scale of individual schemes is likely to be small – therefore some suitable sites may not register..

FIGURE 5.7 Potential for expansion in urban areas (%)



urban areas

This zone is made up of Edinburgh and the larger settlements of West Lothian, Midlothian and East Lothian. Together, these areas account for around 12% of the total area of Edinburgh and the Lothians.

Existing woodland

Livingston and the City of Edinburgh are fortunate in possessing significant networks of established woodlands – much of which is high quality and makes a substantial contribution to biodiversity and townscape character. 40% is described as being ancient or long established.

Designed landscapes, wooded hills and the Water of Leith corridor provide are important features of Edinburgh's woodlands, along with parks, gardens and street trees (that do not register on the GIS model). Livingston has a central spine of riparian woodland along the Almond Valley, augmented by the characteristic green structure of its New Town form and established around the earlier 18th and 19th century shelter belt planting on the wider valley slopes.

Managing these assets to secure public safety, safeguard character and contribute to the implementation of green network objectives will be the priority. Where assets are under-managed, sourcing material for biomass could provide a financial incentive to improve management regimes and deliver enhancement.

Sensitivities

A significant proportion of central Edinburgh falls within the 'sensitive' category due to the presence of multiple designations, including the Old and New Towns World Heritage Site, Conservation Areas and Inventory-listed gardens and designed landscapes. While there is little potential for significant expansion within these sensitive areas, there will be opportunities to reinforce key assets and succession planning for feature trees.

Ancient and long-established woodlands are also included in this category, such as those lining the Water of Leith and the Almond. These woods provide important habitat linkages through the heart of the urban area, and woodland creation and enhancement in the vicinity could add significant value to connectivity.

Opportunities

Preferred areas

There is a relatively small area of 'preferred' land within the urban area, largely composed of vacant and derelict land. Although many of these sites may find alternative uses, an innovative – and potentially short to medium term approach – could be to plant short-rotation coppice or short-rotation forestry as biomass crops. Where ground conditions allow, these have the potential to provide an income stream for the land owner, as well as supporting the development of the wood fuel sector in the region – and contributing to Green Network objectives. This is a significant opportunity for forestry to contribute to regeneration and environmental improvement which enjoys strong support from the third sector and is being actively explored by local authorities in other metropolitan areas[11].

Potential areas

The majority of 'potential' areas are urban greenspaces where there may be a range of opportunities for appropriate planting to reinforce existing woodland networks, enhance character and provide lower cost option than amenity grassland. Expanding urban woodland cover will also be an important component of delivering the Central Scotland Green Network, improving climate resilience and enhancing habitat networks. Local Authority open space / greenspace audits and strategies will be key in identifying potential for more woodland expansion in urban areas, albeit at a smaller scale.

Development proposals could also contribute to woodland expansion and creation of green networks where planting can be delivered in parallel with regeneration projects. Where development results in a loss of woodland, compensatory planting – as required by the Scottish Government Policy on the Control of Woodland Removal – should be directed towards preferred and potential areas.

[11] E.g. Greenspace Scotland (2010) Stalled spaces – delivering community and environmental benefits through temporary greenspace: Scoping Report; Glasgow City Council's approach to temporary landscaping advocated in City Plan 2 and online guidance for dealing with stalled spaces www.glasgow.gov.uk/en/Business/Environment/Clyde_KelvinGreenspace/Stalled+Spaces++++Temporary+Landscapes.htm

Appendix 1 Collated ELFWS priorities

Aim	Objectives	Code	Priorities
Expanding the region's woodland resource	Softwood forests Energy forests Mixed woodland Native woodland Priorities are cross-cutting and relate to the expansion of all woodland types.	EX1	Support the delivery of at least 180–250ha of new woodland across the region each year in line with the guidance provided in this Strategy
		EX2	Develop a communication strategy, specifically targeted at landowners, their agents and major developers, to raise the profile of woodland as an economically attractive and environmentally responsible land use
		EX3	Target the revision of SRDP Rural Priorities to streamline funding arrangements and address current deficiencies in provision
		EX4	Closely monitor woodland creation in the region to provide an evidence base to inform action planning and policy development
		EX5	Identify and develop new and innovative delivery mechanisms for incentivising woodland creation across the region
Building a strong, sustainable economy	Supporting a sustainable timber sector	EC1	Ensure that ELFWS spatial guidance is applied to proposals for new softwood forests
		EC2	Promote management of existing woodlands as a potential source of high quality material for specialist processors
		EC3	Ensure that Local Development Plans consider the requirement for timber processing facilities
		EC4	Promote wider adoption of continuous cover forestry, including through maintenance of SRDP priority funding
		EC5	Encourage and enable smaller producers to work together in joint marketing, promotion and equipment sourcing
		EC6	Encourage and enable smaller producers to work together in joint marketing, promotion and equipment sourcing
	Supporting the developing biomass sector	EC7	Establish and monitor regional demand for wood fibre from the biomass sector to understand effects on local markets
		EC8	Encourage management of existing woodland for woodfuel by highlighting the financial benefits (energy savings or sales of woodfuel) and sharing best practice among land owners and managers
		EC9	Work with stakeholders and planning authorities to identify vacant, derelict, stalled and safeguarded sites with potential for biomass planting as part of temporary greening solutions
		EC10	Support appropriate planting for biomass, in line with ELFWS spatial guidance
		EC11	Facilitate engagement between the biomass sector and local planning authorities to ensure that future processing capacity can be delivered in the right locations
		EC12	Encourage the wider use of biomass boilers as a means of supporting development of the woodfuel market in Edinburgh and the Lothians
	Enhancing development and supporting regeneration	EC13	Engage with local authorities, key agencies and developers to ensure that the potential of SESplan Strategic Development Areas to deliver new woodland is optimised
		EC14	In parallel with Priority EC17, identify vacant, derelict, stalled and safeguarded sites with potential for delivery of temporary greening
		EC15	Promote opportunities for challenge funding to contribute to enhancement of urban fringe areas, particularly in deprived areas
		EC16	Ensure that the management and expansion of woodland and forestry, linked to the development of green networks, is embedded within the planning and design process and reflected in the masterplanning of new development and regeneration initiatives
		EC17	Where appropriate use developer contributions to support creation and consolidation of green networks
	Contributing to sustainable rural development	EC18	Seek to influence revisions to SRDP 'Rural Priorities' to secure a coherent 'farm woodland' package that clearly articulates the economic and environmental benefits to farmers
		EC19	Establish a communications Strategy to facilitate engagement with the agricultural community, landowners and agents to assist in the delivery of new farm woodlands
		EC20	Work with stakeholders to develop a 'Lothians Farm Woodlands Action Group' to help articulate the benefits of farm forestry to the agricultural sector, facilitate cooperation and work towards the delivery of pilot projects
	Supporting tourism	EC21	Work with stakeholders to understand the visitor profile of woodland-based attractions and develop a coordinated approach to increasing footfall, visit duration and total spend

Aim	Objectives	Code	Priorities
Promoting a high quality environment	Enhancing biodiversity and delivering green networks	ENV1	Promote the establishment of new native woodlands as part of integrated habitat networks
		ENV2	Where there are suitable opportunities, enhance ancient and semi-natural woodland
		ENV3	Work with land and estate managers to highlight the value of PAWS sites and highlight the benefits of incremental restoration to native woodland
		ENV4	Increase the proportion of existing woodland brought into positive management
	Protecting and enhancing the water environment	ENV5	Work with SEPA and stakeholders to identify where woodland could add most value to water management and highlight potential funding opportunities
		ENV6	Promote woodland management and creation as a key component of sustainable flood management initiatives
		ENV7	Identify locations where new planting or woodland management can help increase slope stability
		ENV8	Control invasive non-native species along riparian corridors
		ENV9	Ensure that opportunities to improve water quality through woodland planting and restructuring are reflected in the next cycle of River Basin Management Planning, covering the period from 2 015 to 2020, wherever possible, securing multiple environmental and social benefits
	Enhancing air quality	ENV10	Where appropriate, prioritise planting of street trees in urban AQMAs, and woodland expansion along strategic road corridors and adjacent to industrial sites
	Protecting and enhancing the soil resource	ENV11	Promote the expansion of farm woodlands where this contributes to sustainable soil management, particularly in lowland parts of East Lothian where lighter, sandy loams are at risk of erosion by water or wind
		ENV12	Evaluate and consider the potential opportunities for the restoration of peatland habitats during the planning of restructuring through long term forest design plans
	Protecting and enhancing character	ENV13	Woodland expansion proposals should be a key mechanism of enhancing landscape character

Aim	Objectives	Code	Priorities
Promoting a high quality environment	Protecting and enhancing character	ENV14	Woodland expansion should be focused in areas where existing landscapes have become damaged or degraded through industrial activity or urban fringe pressures
		ENV15	Promote the protection and replacement of farm woodlands, shelterbelts and field boundary trees and hedges in agricultural areas where there have been significant losses in the past. Investigate the potential for grant assistance for the maintenance and replacement of field boundary trees and hedges where they make an important contribution to landscape character
		ENV16	Use the planning system, including supplementary planning guidance, development briefs and masterplans, to ensure that trees and woodlands are considered as an integral part of development proposals
		ENV17	Promote the importance of managing and increasing trees and woodlands in urban areas to conserve and enhance townscape character
	Protecting and enhancing the historic environment	ENV18	Promote positive management of historic gardens and designed landscapes and heritage trees to maintain their historic and cultural significance and increase resilience to climate change
		ENV19	Encourage forest restructuring to improve the setting of historic sites and landscapes
Securing resilience to climate change	Mitigating impacts on the climate	CC1	Expand woodland cover within Edinburgh and the Lothians as a means of increasing carbon sequestration and reducing net carbon emissions, following the guidance provided in Sections 3 and 5 of the ELFWS
		CC2	Ensure that any woodland losses to development are compensated by new planting within Edinburgh and the Lothians so that the net contribution of trees and woodland to carbon sequestration is maintained and increased
		CC3	Encourage and monitor measures to reduce the use of fossil fuels within the forestry sector
	Adapting to the effects of climate change	CC4	Raise awareness among private and public sector organisations about the benefits of trees and woodland in helping urban environments adapt to the effects of climate change Local authorities will fully implement the Scottish Government Policy on the Control of Woodland Removal when considering applications for planning permission that involve the loss of trees and woodland
		CC5	Promote continuous cover on suitable sites as a viable and more resilient alternative to clear-fell systems
		CC6	Promote positive and proactive management of key tree species and woodlands improve their resilience to climate change
		CC7	Identify important individual historic trees and species that are vulnerable and begin succession planning to maintain contribution to character and significance

Aim	Objectives	Code	Priorities
Enhancing quality of life	Improving woodlands' contribution to wellbeing	QL1	Ensure that existing and new forests and woodlands are managed to create new opportunities for active travel, including walking, cycling and horse riding connecting settlements and the countryside
		QL2	Raise awareness of forests and woodlands in the region through innovative new methods for engaging with all sections of society
		QL3	Promote the role of woodlands in providing a resource for physical activity, accessible to all parts of society close to where people live and work
		QL4	Prioritise woodland based projects designed to deliver physical and mental health benefits, particularly in areas with higher levels of deprivation and poorer health
		QL5	Work to increase the appreciation and use of woodlands and forests by people from a wide range of socio-economic and ethnic backgrounds, and ensure that facilities and promotion are fully inclusive
	Improving community involvement and participation	QL6	Support community involvement in woodland projects, especially through mentoring and co-ordinating delivery of activity on the ground. There should be a particular focus within WIAT Priority Areas
		QL7	Continue to develop volunteering and training initiatives based around woodlands and forests particularly where this is designed to improve employability
		QL8	Support community woodland groups particularly in areas with high levels of multiple deprivation
	Contributing to education and lifelong learning	QL9	Increase awareness of the role of woodlands as an outdoor learning resource and a resource for education, training and lifelong learning
		QL10	Provide training to teachers and other education professionals to facilitate greater use of woodlands as a resource for learning
		QL11	Promote the development of outdoor learning opportunities including in woodlands and forests

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Edinburgh and Lothians **FORESTRY & WOODLAND** Strategy 2012—17

Prepared for the Lothians and Fife Green Network Partnership by LUC in association with Bidwells

Each of the aims identified for the Strategy will be accomplished through a number of objectives, reflecting the priorities for woodland and forestry in the region over the next five years.

LUC

PLANNING & EIA / DESIGN
LANDSCAPE PLANNING
LANDSCAPE MANAGEMENT
ECOLOGY / MAPPING & VISUALISATION

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