

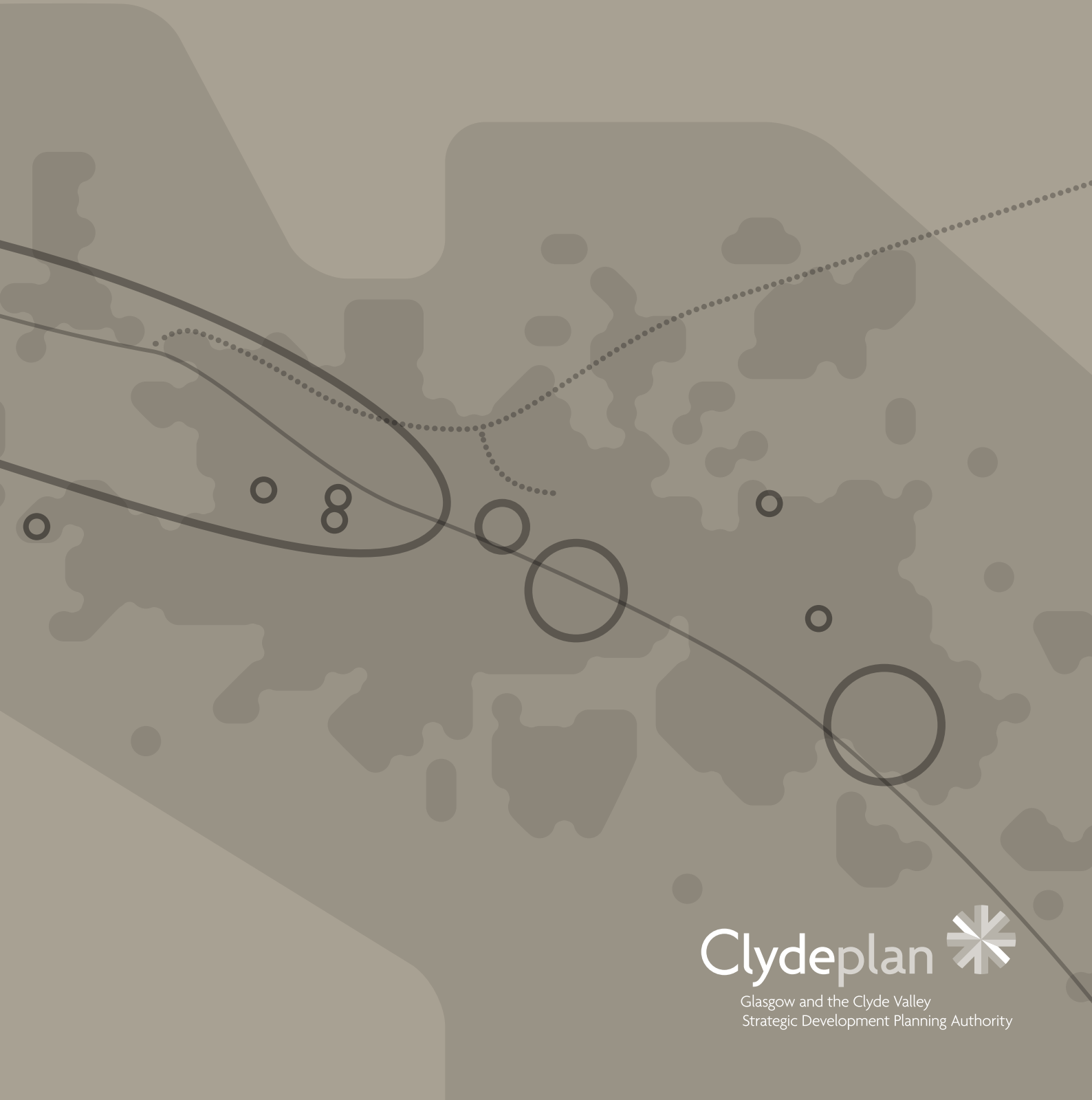
# Strategic Development Plan

Proposed Plan

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January 2016

Additional Information to Support Background Report 12  
Forestry and Woodland Strategy Strategic Environmental  
Assessment Environmental Report



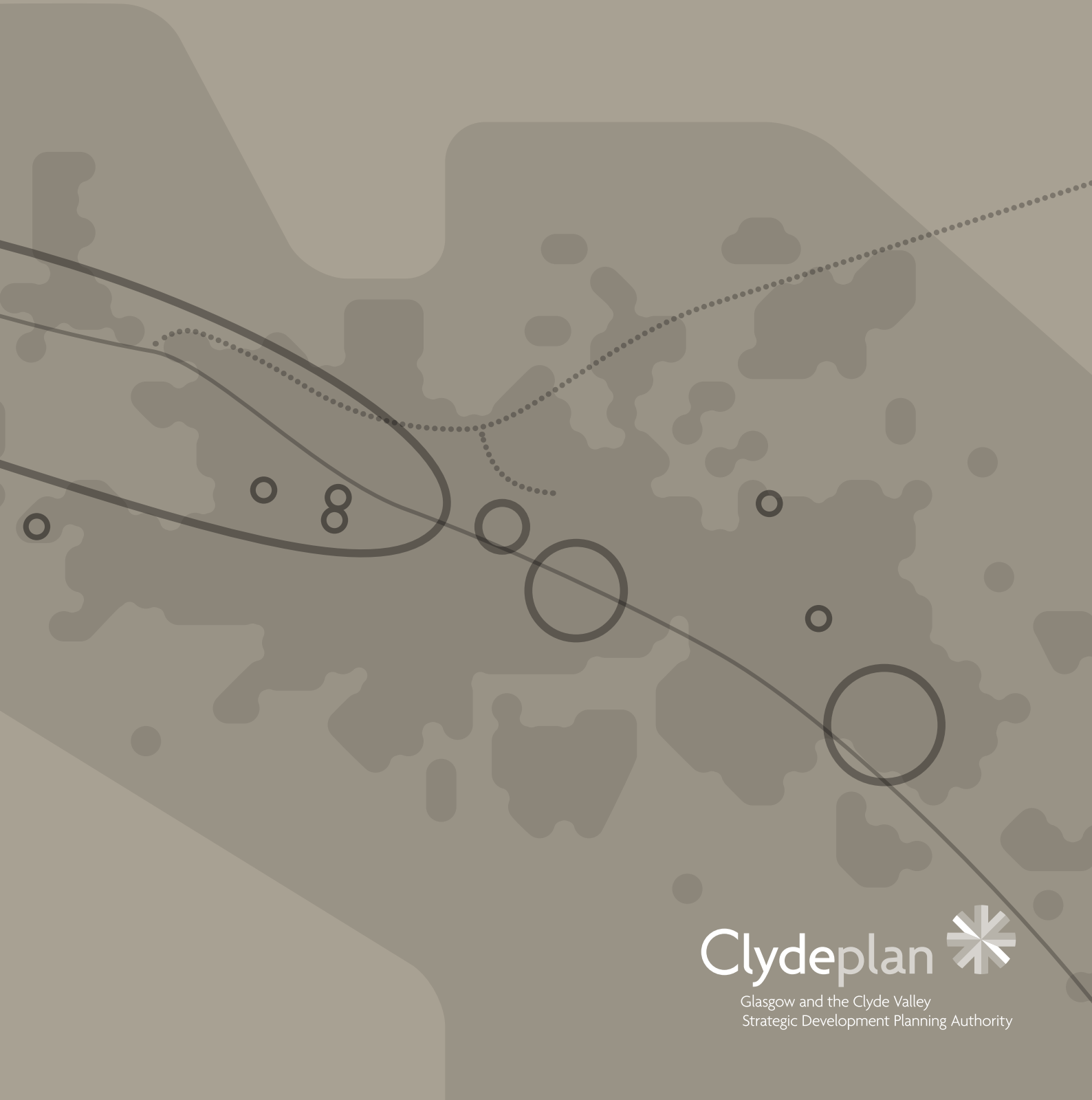
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January 2016

Additional Information to Support Background Report 12  
Forestry and Woodland Strategy Strategic Environmental  
Assessment Environmental Report







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# Clydeplan Forestry and Woodland Strategy

## SEA Environmental Report

Prepared by  
LUC  
August 2015



**Project Title:** Clydeplan Forestry and Woodland Strategy SEA Environmental Report

**Client:** Clydeplan (Glasgow and Clyde Valley Strategic Development Planning Authority)

Version	Date	Version Details	Prepared by	Checked by	Approved by Director
1	24/08/15	Final for issue	SU	SMO	NJ



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# Clydeplan Forestry and Woodland Strategy

## SEA Environmental Report

Prepared by LUC  
August 2015

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## SEA ENVIRONMENTAL REPORT – COVER NOTE

### PART 1

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### PART 2

An SEA Environmental Report is attached for the plan, programme or strategy (PPS) entitled:

Clydeplan Forestry and Woodland Strategy

The Responsible Authority is:

Clydeplan (Glasgow and Clyde Valley Strategic Development Planning Authority)

### PART 3

**Please tick the appropriate box**

☒

The PPS falls under the scope of Section 5(3) of the Act and requires an SEA under the Environmental Assessment (Scotland) Act 2005. ***or***

☐

The PPS falls under the scope of Section 5(4) of the Act and requires an SEA under the Environmental Assessment (Scotland) Act 2005. ***or***

☐

The PPS does not require an SEA under the Environmental Assessment (Scotland) Act 2005. However, we wish to carry out an SEA on a voluntary basis. We accept that, as this SEA is voluntary, the statutory 5 week timescale for views from the Consultation Authorities cannot be guaranteed.

#### PART 4

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#### PART 5

**Signature**

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is acceptable)

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**Date**

31/08/2015

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# Non-Technical Summary

## Background

Strategic Environmental Assessment (SEA) is required under the Environmental Assessment (Scotland) Act 2005 (hereafter known as 'the Act'). It is a systematic method of assessing the environmental effects of plans, programmes and strategies during their preparation, allowing for the mitigation of any adverse effects before implementation.

This is the non-technical summary of the Environmental Report (ER) which documents the SEA of the Clydeplan Forestry and Woodland Strategy (FFWS). It sets out a summary of the SEA process, followed by an outline of the likely regionally significant effects of the Strategy. An important element of SEA is making the information about possible impacts available to the public, and this non-technical summary sets out how to make comments on the SEA process and outcomes.

## Strategic themes, aims and objectives of the Clydeplan Forestry and Woodland Strategy

The Clydeplan Forestry and Woodland Strategy is intended as a strategic management tool helping to inform the location, design and management of woodlands in Clydeplan, providing a policy and a spatial framework to maximise the contribution of woodland and forestry to the people, environment and economy of the region. The Strategy will also help to target grant support for forestry projects and guide the preparation of forest plans. Clydeplan will have regard to the Strategy when preparing their Strategic Development Plan, providing a consistent approach to woodland creation and management across the region.

The Strategy is divided into the following themes, with aims and objectives outlined under each. These are as follows:

### THEME: EXPAND AND MANAGE

**AIM:** Expanding Clydeplan's woodland resource and improving its management

#### OBJECTIVES:

Encourage the creation of well-designed woodland of an appropriate nature, scale and composition to deliver the Strategy's priorities.

Promote improved management of the Clydeplan area's woodland resource.

Promote high standards of woodland design in new and existing woodlands.

Make a sustainable contribution to the delivery of national woodland expansion targets.

### THEME: ECONOMY

**AIM:** Building and supporting the forest and woodland economy

#### OBJECTIVES:

Creating an environment for investment

Contributing to a healthy wood production and processing sector

## **THEME: COMMUNITY**

**AIM:** Empowering communities and enhancing quality of life

### **OBJECTIVES:**

Facilitating community involvement in woodland planning, management and ownership.

Supporting community enterprise and development.

Supporting opportunities for education and lifelong learning.

Contributing to physical and mental wellbeing.

Enhancing local sense of place and promoting connections to the wider environment.

## **THEME: ENVIRONMENT**

**AIM:** Promoting and enhancing the quality of the environment

### **OBJECTIVES:**

Improve the condition and resilience of biodiversity.

Support the Central Scotland Green Network.

Improve woodland' contribution to the conservation and management of ecosystem services and functions.

Contribute to the conservation, enhancement and understanding of Clydeplan's valued natural heritage and historic environment.

## **THEME: CLIMATE CHANGE**

**AIM:** Securing resilience to climate change and adapting to its impacts

### **OBJECTIVES:**

Reducing the forestry sector's emissions and contribute to mitigation measures

Adapting to the predicted effects of climate change

## Summary of the SEA process

The SEA process to date comprised a number of key stages.

**Scoping:** At the outset, a scoping exercise was undertaken to identify the method for and overall content of the SEA. A Scoping Report was submitted on 22 May 2015 to the Consultation Authorities - Scottish Natural Heritage (SNH), Historic Scotland (HS) and the Scottish Environment Protection Agency (SEPA) – for their comments



**Environmental Assessment and Environmental Report:** The comments received from the Consultation Authorities in respect of the Scoping Report have been considered and, where appropriate, included in the Environmental Report. The following are the main purposes of the ER:

- to provide information on the Strategy;
- to identify, describe and evaluate the likely significant effects of the Strategy and its reasonable alternatives; and
- to provide an early and effective opportunity for the Consultation Authorities and the public to offer views on any aspect of this report.

The SEA process for the draft Strategy followed established methods and systematic testing of the Strategy as it developed. This involved testing the draft Strategy objectives against the SEA objectives, predicting the environmental effects of implementing the draft Strategy, considering mitigation measures and preparing a monitoring programme.



**Main Consultation:** The consultation draft of the Strategy and draft ER will be publicised and made available on the Clydeplan website. In accordance with Section 16 of the 2005 Act, a notice will be published in a newspaper circulating across the Strategy area to facilitate public engagement. A six week consultation period from early September 2015 is proposed for the draft Environmental Report and the draft Strategy.



**Post-adoption SEA Statement:** A Post-adoption SEA Statement will be produced after the Strategy has been adopted, outlining how the assessment and consultation responses have been taken into account, within the finalised Strategy.



**Monitoring:** Section 19 of the Environmental Assessment (Scotland) Act 2005 requires the Responsible Authority to monitor significant environmental effects of the implementation of the Strategy.



## Scope of the Environmental Report

The Environmental Report includes the following:

- Key facts about the Clydeplan Forestry and Woodland Strategy and an outline of its Vision, aims & objectives;
- Relationships with other plans, programmes and strategies;
- Environmental baseline – the current state of the environment and likely evolution of the environment without the Strategy;
- Identification of SEA objectives for the assessment;
- Application of the objectives to the Strategy;
- Assessment of the spatial content of the Strategy;
- Assessment of alternatives; and
- Proposed mitigation and monitoring measures.

## Relevant existing environmental protection objectives

**Air** quality objectives focus on reducing emissions which are potentially harmful to health and the environment. Legislation and policies relating to **biodiversity, flora and fauna** aim to protect habitats and species from damage and disturbance, by identifying areas of particular value. These policies define a hierarchy of protection, from the international to local level. **Climate change** has been accelerating at an unprecedented rate over the last 50 years. Strategy and policy seek to reduce the rate of climate change and facilitate adaptation to its impacts. **Cultural heritage** objectives focus on protecting sites, townscapes (places, buildings and open spaces), buildings and landscapes which have been recognised and internationally, nationally or locally designated for protection. **Landscape** objectives, including the overarching European Landscape Convention, recognise and protect special landscapes but also aim to improve degraded landscapes and recognise the importance of all landscapes. Policies relating to material assets are wide-ranging, but aim to contribute to core planning objectives of sustainable development. **Population and health** objectives centre on environmental quality associated with provision of greenspace, access to the outdoors, pollution control and sustainable transport. **Soil** objectives include European level recognition of the importance of soil resources, and national commitments to sustainable soil management seek to protect valued soils including prime quality agricultural land and those with a high carbon content, such as peat. **Water** policies include the Clyde River Basin Management Plan which aims to improve the overall condition of water bodies inland and on the coast, and marine policies including the emerging framework provided by the National Marine Plan. Policies managing flood risk are also relevant.

## Environmental baseline

Schedule 3 of the Environmental Assessment (Scotland) Act 2005 requires that the Environmental Report includes a description of *“the relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan or programme”* and *“the environmental characteristics of the area likely to be significantly affected”*. The following paragraphs summarise the environmental context of the Strategy.

### Air

Key issues for the Clydeplan area include high levels of nitrogen dioxide and particulates within the main city centre and along the main transport routes. Air Quality Management Areas are designated with the aim of reducing emissions concentrations which have adverse effects on public health and the environment. Glasgow has a city wide designation for particulates, and

three other designations for nitrogen dioxide. North Lanarkshire has five AQMA designated for particulates, and they are also designated in South Lanarkshire and Renfrewshire.

### **Biodiversity**

The Clydeplan area has a number of internationally and nationally designated sites for their ecological or landscape value. This includes a number of active and degraded raised bog SAC, the Muirkirk and North Lowther uplands and Inner Clyde SPA. The Clydeplan area also includes a significant resource of ancient or semi natural woodland which has high biodiversity value. There has been an overall increase in woodland on agricultural land since 2001, however agricultural intensification has also increased which results in a loss of biodiversity.

### **Climate change**

Greenhouse gas emissions contribute to climate change, and the main sources of human derived greenhouse gases include energy generation, transportation, domestic, industrial, business and agricultural processes. Ambitious targets have been set to reduce greenhouse gas emissions, however predictions of climate change include more common extremes of weather, wetter winters with heavier and more prolonged rainfall, drier summers, snow loss and an increase in the duration of the growing season.

### **Population and human health**

There are key issues with inequality within the Clydeplan area. This includes lower life expectancy and mortality, issues with substance abuse and low levels of active travel. The area also performs worse than the national average in relation to health, the economy, crime and environmental quality.

### **Soil**

The distribution of vacant and derelict land within Clydeplan shows high concentrations within the main urban areas, with a number of larger sites within North Lanarkshire and Renfrewshire. The agricultural land classification for the Clydeplan area shows the majority of the land is rough grazing with more productive land located along the valley bottoms and fringes of the urban area. Carbon rich soils are located predominantly to the south, the south western fringe and the northern hills of the Clydeplan area.

### **Water**

There are 13 sizeable PVAs within the Clydeplan area. These areas coincide with main settlements and heavily affect the urban areas. Water quality is an issue within the Clydeplan area, particularly in the main urban area. Coastal flooding poses a threat to areas adjacent to the coast and the River Clyde through to the city centre. Fluvial flooding poses a threat particularly within the built up areas, but also along most of the main river corridors

### **Climate change**

The UK Climate Projections (UKCP) 2009 for the West of Scotland provides an overview of potential climate changes. This includes warmer and wetter winters and warmer and drier summer. Sea level rises are also anticipated with impacts on coastal flooding along the Clyde and exposed coastal areas.

### **Material assets**

Material assets of Clydeplan are wide ranging and relate to infrastructure, resources and production. These areas of business are important in supporting the economy and affect environmental quality. Agriculture is a significant asset, along with productive forestry. The transport network is also extensive within the area, and plays a significant role in the economy, although particularly vulnerable to effects of climate change.

## Cultural heritage

The most notable historic assets within the Clydeplan area are the World Heritage Sites of the Antonine Wall which traverses the area and is the largest relic of the Roman occupation in Scotland, and New Lanark. The area is also rich in battlefields, conservation areas, scheduled monuments and gardens and designed landscapes.

## Landscape

The Clydeplan area adjoins the Loch Lomond and Trossachs National Park, and includes several extensive areas of local landscape designations, including larger areas of South Lanarkshire, and the northern hills in West Dumbartonshire and North Lanarkshire. There are several Geological Review Sites within the GCV boundary

## SEA objectives

The SEA was carried out by assessing the key priorities of the Strategy against a set of agreed SEA objectives. The framework for assessing the core policy content is outlined in **Table 0.1**.

**Table 0.1 SEA Objectives**

Schedule 3 Component	SEA Objectives	Sub-criteria for Assessment
Biodiversity	Avoid adverse effects on protected habitats and species	Expand habitat networks
	Enhance biodiversity	
Population and Health	Avoid adverse effects on health, health inequalities and quality of life/well-being	Target woodland expansion in areas where benefits can be optimised
	Improve the health and living environment of people and communities	Contribute to community and health benefits by promoting access, recreation and active travel using the green network
Soil	Avoid adverse impacts on soil	Safeguard prime agricultural land
	Avoid adverse impacts on valuable soil resources e.g. prime agricultural land, carbon rich soils	Steer woodland expansion away from sensitive soil resources (i.e. peat) to minimise the potential for pollution and loss of soil carbon
	Reduce vacant and derelict land	Where appropriate, seek to re-use VDL for a range of woodland / green network purposes
Water, Coastal, Marine	Avoid adverse impacts on the ecological status of water bodies	Contribute to the delivery of River Basin Management Plans, Area Action Plans and flood management
	Avoid adverse impacts on sensitive coastal areas and marine environment	
	Improve the water environment	Continue to support sustainable water management
Climatic factors	Avoid increasing greenhouse gas emissions	Seek to minimise GHG emissions from the sector  Seek to prevent new planting on peat soils to maintain carbon stores  Support appropriate renewable energy development  Safeguard the standing timber carbon resource

Schedule 3 Component	SEA Objectives	Sub-criteria for Assessment
	Support adaptation to climate change	Contribute to sustainable water management and erosion prevention
		Contribute to resilience planning objectives
Air	Avoid adverse effects on air quality where air quality is a known issue through AQMA	Contribute to reducing emissions of air pollutants within AQMA
	Improve air quality	Contribute to measures which improve air quality
Material Assets	Avoid adversely impacting on material assets (infrastructure etc.)	Protect key mineral resources from sterilisation through inappropriate afforestation
	Enhance material assets	Contribute to the appropriate re-use of VDL
		Promote the efficient operation of the sector and the safe treatment and disposal of non-reusable/recyclable arisings
Cultural Heritage	Avoid adverse impacts on the protected historic environment and its setting	Seek to ensure that woodland expansion safeguards the fabric and setting of heritage assets
	Enhance, where appropriate, the historic environment	Contribute to the character and significance of important historic landscapes
	Improve the quality of the wider built environment	Seek to promote responsible access to and appreciation of cultural heritage via the green network
Landscape	Avoid adverse impacts on protected landscapes	Steer woodland expansion proposals to appropriate locations
	Enhance landscape quality	Support measures to promote good woodland design and appropriate diversity
		Encourage the use of woodland to root new development and existing settlements in the landscape
		Woodland expansion should reflect current and future capacity to accommodate change

## Likely effects of the Clydeplan Forestry and Woodland Strategy

The aims and objectives of the Strategy are likely to have broadly positive effects on the environment. The implementation of woodland expansion and management is within the framework of the IFS map which directs woodland to the most appropriate locations.

No significant environmental effects were identified in relation to the biodiversity objectives from the strategy aims and objectives or spatial expansion and management priorities. The Environment objectives had particularly positive effects on biodiversity enhancement with particular benefits in the lowland valley and urban and urban greenspaces zones.

In relation to population and human health the strategy aims and objectives have an overall positive effect, with particular benefits from the community objectives which support woodland recreation and improvements to post-industrial landscapes. The spatial priorities for the farmland and urban and urban greenspaces zones have particularly strong positive effects.

Positive effects are identified in relation to soil, both in relation to the strategy aims and objectives and spatial priorities.

In relation to water objectives there are minor positive effects from the strategy with strong positive effects in relation to the spatial priorities for the farmland zone.

The strategy makes a positive contribution in relation to climate change objectives, with particularly positive impacts resulting from new woodland planting in urban and urban greenspaces to support climate change adaptation.

There is a positive effect on air quality from the strategy aims and objectives, and particularly in relation to the spatial priorities for urban and urban greenspaces.

Minor positive effects are identified in relation to material assets from the aims and objectives and spatially.

In relation to the historic environment minor positive effects are identified in from the strategy aims and objectives with strong positive effects from the environment objectives which support improving townscapes and landscapes and protecting the historic environment. Strong positive effects are identified in the farmland and lowland valley zones where the strategy recognises the sensitivities of this area.

Landscape quality strong positive effects are identified in relation to the economy and environment objectives which support environmental enhancement of proposed development sites, vacant and derelict land, and enhancing landscape quality. Strong positive effects are identified in relation to urban and urban greenspaces and lowland valleys landscape zones.

### Alternatives

The performance of the Strategy was assessed against four alternate approaches that could be adopted for the planning and management of woodlands and forestry. These were four alternative scenarios for woodland expansion levels - minor, moderate and high level expansion and a notional environmental capacity based approach.

None of the alternatives outperformed the Strategy in terms of positive benefits, illustrating the value of its balanced approach to addressing key issues for each landscape zone.

## Monitoring

The Environmental Assessment (Scotland) Act 2005 requires significant environmental effects to be monitored. This needs to be done in such a way as to enable the Responsible Authority to identify any unforeseen adverse effects at an early stage and to enable them to take appropriate remedial action. Although no significant adverse environmental effects were identified, monitoring is required to identify any unforeseen adverse environmental effects.

## Contact point

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# 1 Introduction

## Introduction

- 1.1 Woodlands and forests make a significant contribution to the character and environmental quality of Glasgow and the Clyde Valley, 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.
- 1.2 Given the region's inherent qualities, it is essential to ensure that any future proposals for developing and expanding the area's woodland and forest resource are focused on maintaining an appropriate balance between, and wherever possible enhancing, other land uses.
- 1.3 The **Clydeplan Forestry and Woodland Strategy** ('the CFWS') will be developed through consultation with a wide range of stakeholders and provides a strategic framework for forestry and woodland management and expansion in the area. The CFWS is based around a 20 year vision to 2035.

## Purpose of the Environmental Report

- 1.4 As part of the preparation of Clydeplan Forestry and Woodland Strategy, Clydeplan (the Responsible Authority) is carrying out a Strategic Environmental Assessment (SEA) of the Strategy. SEA is a systematic method for considering the likely environmental effects of certain Plans, Programme or Strategies (PPS). SEA aims to:
  - integrate environmental factors into PPS preparation and decision-making;
  - improve PPS and enhance environmental protection;
  - increase public participation in decision making; and
  - facilitate openness and transparency of decision-making.
- 1.5 The purpose of the Clydeplan Forestry and Woodland Strategy **Strategic Environmental Assessment (SEA) Environmental Report** is to:
  - provide information on the Clydeplan Forestry and Woodland Strategy;
  - identify, describe and evaluate the likely significant effects of the PPS and its reasonable alternatives, where these can be identified; and,
  - provide an early and effective opportunity for the Consultation Authorities (SEPA, SNH, and The Scottish Ministers [Historic Scotland]) and the public to offer views on any aspect of this Environmental Report.
- 1.6 The SEA Environmental Report has been prepared in accordance with The Environmental Assessment (Scotland) Act 2005<sup>1</sup> which implements the SEA Directive<sup>2</sup>. **Table 1.1** outlines the key SEA stages.

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<sup>1</sup> The Environmental Assessment (Scotland) Act 2005.

<sup>2</sup> EC Directive 2001/42/EC.

**Table 1.1 Key stages of the SEA process**

<b>Screening</b>	Determining whether the PPS is likely to have significant environmental effects and whether an SEA is required.
<b>Scoping</b>	Deciding on the scope and level of detail of the Environmental Report, and the consultation period for the report - this is done in consultation with Scottish Natural Heritage, The Scottish Ministers (Historic Scotland) and the Scottish Environment Protection Agency.
<b>Environmental Report</b>	Publishing an Environmental Report on the PPS and its environmental effects, and consulting on that report.
<b>Adoption</b>	Providing information on: the adopted PPS; how consultation comments have been taken into account; and methods for monitoring the significant environmental effects of the implementation of the PPS.
<b>Monitoring</b>	Monitoring significant environmental effects in such a manner so as to also enable the Responsible Authority to identify any unforeseen adverse effects at an early stage and undertake appropriate remedial action.

## SEA activities to date

- 1.7 **Table 1.2** summarises the SEA activities to date, in relation to the Clydeplan Forestry and Woodland Strategy.

**Table 1.2 SEA activities to date**

SEA Action	Date Carried Out
Screening	<i>Straight to scoping</i>
Scoping	A Scoping Report was submitted on 22 <sup>th</sup> May 2015 to the Consultation Authorities for their comments.  Comments in respect of the Scoping Report were received from the Consultation Authorities in June 2015 and, where appropriate, included in the Environmental Report.
Outline and objectives of PPS	May 2015
Relationship with other PPS and environmental objectives	May 2015
Establish environmental baseline	June 2015
Identify environmental problems	June 2015
Assessment of future of area without PPS	July 2015
Alternatives considered	July 2015
Environmental assessment methods established	July 2015
Selection of PPS alternatives to be included in the environmental assessment	July 2015
Identification of environmental problems that may persist after implementation and measures envisaged to prevent, reduce and offset any significant adverse effects	July 2015
Monitoring methods proposed	August 2015
Consultation timescales	
Strategy and ER revision	
Notification/publicity action	

SEA Action	Date Carried Out
Adoption by local authority	TBC
Post-adoption statement	TBC

## Introducing the Clydeplan Forestry and Woodland Strategy

### Clydeplan Strategic Development Plan 2 (SDP2)

- 1.8 Clydeplan Strategic Development Planning Authority (SDPA) is currently preparing the Clydeplan SDP2 and its technical background reports. An SEA of all documents is required as they fall under Section 5(3) of The Environmental Assessment (Scotland) Act 2005. This report sets out the findings from the SEA of the Clydeplan Forestry and Woodland Strategy prepared to support SDP2.

### Strategy background and information

- 1.9 The Clydeplan Forestry and Woodland Strategy is intended to set out a long-term spatial and policy framework that will broadly define the scope, nature and extent of woodland expansion across the Glasgow and Clyde Valley city-region, and it will establish priorities for management of new and existing woodland assets. The time horizon and lifespan of the CFWS covers the period from 2015 to 2035 – and incorporates 5 yearly reviews (aligned with the review process for the Strategic Development Plan).
- 1.10 The CFWS will comprise a vision statement, and a spatial framework defining areas with potential to accommodate woodland expansion, and areas with significant sensitivities. It will also define key spatial and strategic priorities in relation to management and enhancement of woodland assets, and the potential for high quality green networks to improve health outcomes, to contribute to place-making, and to support sustainable economic development – in line with the principles and policies of the emerging SDP2.
- 1.11 The CFWS updates the existing Glasgow and Clyde Valley Forestry and Woodland Strategy<sup>3</sup> which was prepared in 2011 to support the Glasgow and the Clyde Valley Strategic Development Plan<sup>4</sup> (SDP1 approved in 2012).
- 1.12 The CFWS is intended to support SDP2, and will ideally be adopted as a stand-alone document by the eight Clydeplan planning authorities<sup>5</sup>. It is anticipated that the local authorities will make use of the CFWS in responding to consultations on woodland creation proposals, in assessing development proposals that could affect woodland, and in developing locally-focussed action plans for woodland expansion and management. It is also intended to assist Forestry Commission Scotland in assessing applications for grant support for woodland creation and management.

### Strategy facts

- 1.13 The key facts relating to the Clydeplan Forestry and Woodland Strategy are outlined in **Table 1.3**:

**Table 1.3 Key facts**

<b>Responsible Authority</b>	Clydeplan – the Glasgow and Clyde Valley Strategic Development Planning Authority
<b>Title of PPS</b>	Clydeplan Forestry and Woodland Strategy
<b>What prompted the PPS (e.g. regulatory or administrative)</b>	National Planning Framework 3 (re-designation of CSGN as a National Development, and aspiration to increase woodland cover by 10,000ha)

<sup>3</sup> Land Use Consultants, 2011. *Glasgow and the Clyde Valley Forestry and Woodland Strategy* [pdf]. Available at: [http://www.clydeplan-sdpa.gov.uk/files/Glasgow\\_and\\_Clyde\\_Valley\\_Forestry\\_and\\_Woodland\\_Strategy.pdf](http://www.clydeplan-sdpa.gov.uk/files/Glasgow_and_Clyde_Valley_Forestry_and_Woodland_Strategy.pdf) [Accessed 14 November 2014]

<sup>4</sup> Glasgow and the Clyde Valley Strategic Development Planning Authority, 2012. *Glasgow and the Clyde Valley Strategic Development Plan* [pdf]. Available at: <http://www.clydeplan-sdpa.gov.uk/sdp/approved-strategic-development-plan-may-2012> [Accessed 14 November 2014]

<sup>5</sup> The Clydeplan Local Authorities include East Dunbartonshire, East Renfrewshire, Glasgow City, Inverclyde, North Lanarkshire, Renfrewshire, South Lanarkshire, and West Dunbartonshire.

provision)	a year) Scottish Government guidance “The Right Tree in the Right Place: Planning for Forestry and Woodlands”. Scottish Forestry Strategy (2006)
<b>Subject</b>	Forestry and woodland planning and delivery
<b>Period covered by PPS</b>	2015-2035 (20 year period)
<b>Frequency of updates</b>	5 yearly reviews
<b>Area covered by PPS</b>	The Clydeplan Strategic Development Plan area comprises the territories of the following local authorities: <ul style="list-style-type: none"> <li>• East Dunbartonshire</li> <li>• East Renfrewshire</li> <li>• Glasgow City</li> <li>• Inverclyde</li> <li>• North Lanarkshire</li> <li>• Renfrewshire</li> <li>• South Lanarkshire</li> <li>• West Dunbartonshire (that part of the local authority area outside the Loch Lomond and Trossachs National Park)</li> </ul>
<b>Purpose and/or objectives</b>	The purpose of the CFWS is to: <ul style="list-style-type: none"> <li>• Provide a strategic framework for the development of forestry in the Glasgow and Clyde Valley city-region;</li> <li>• Set out a regional interpretation of the Scottish Forestry Strategy and national targets for woodland expansion;</li> <li>• Ensure a balance of forestry with other land uses by identifying appropriate locations for a variety of woodland expansion and management practice;</li> <li>• Ensure that the public benefits of managing and expanding the region's forest estate are optimised;</li> <li>• Setting the framework for local action planning and delivery.</li> </ul>
<b>Contact point</b>	Michelle McGuckin Strategic Planner Clydeplan 125 West Regent Street Glasgow G2 2SA <a href="mailto:michelle.mcguccin@clydeplan-sdpa.gov.uk">michelle.mcguccin@clydeplan-sdpa.gov.uk</a>

### Strategy aims

- 1.14 The Clydeplan Forestry and Woodland Strategy links with other Scottish Government initiatives i.e. the **Scottish Forestry Strategy (SFS)**<sup>6</sup> (2006) and **The Right Tree in the Right Place – Planning for Forestry and Woodlands**<sup>7</sup> (2010), which aim to enhance the opportunities for woodland and forests to deliver a wide range of benefits.
- 1.15 At a supra-regional level, the CFWS seeks to contribute to the delivery of the key themes of the **Central Scotland Green Network (CSGN)** which encompasses 19 local authorities across Central Scotland.
- 1.16 The Clydeplan Forestry and Woodland Strategy has the following specific aims which are to:

<sup>6</sup> Scottish Executive, 2006. *The Scottish Forestry Strategy*. Edinburgh: Scottish Executive.

<sup>7</sup> Forestry Commission Scotland, 2010. *The Right Tree in the Right Place – Planning for Forestry and Woodlands*. [pdf] Edinburgh: Forestry Commission Scotland. Available at: [http://www.forestry.gov.uk/pdf/fcfc129.pdf/\\$FILE/fcfc129.pdf](http://www.forestry.gov.uk/pdf/fcfc129.pdf/$FILE/fcfc129.pdf) [Accessed 01 April 2014]

- promote the creation of high quality, multi-objective woodland;
- inform the design and management of woodland in the Clydeplan area;
- assist in protecting and enhancing valuable woodland;
- inform development of future Local Development Plan (LDP) Supplementary Planning Guidance (SPG) for the local authorities within the Clydeplan area;
- identify priority locations for woodland management and expansion in the Clydeplan area which will inform the Spatial Development Strategy of SDP2;
- inform local authority development management, investment and asset management decisions on proposals that include woodland removal or woodland creation;
- guide local authority responses to consultation on planting proposals and applications for grant support for woodland creation and management;
- assist with the development and approval of Felling Licences, Forest District Strategic Plans and long term Forest Plans and Land Management Plans; and,
- guide development and delivery of grant support for forestry through the Scottish Rural Development Programme 2014-20 (SRDP).

### Strategy themes and objectives

- 1.17 As noted above, it is not currently possible to provide detailed information on the content of the CFWS – however, the broad themes and objectives that will be covered have been agreed with key stakeholders. Reflecting current national planning and forestry policy, and taking into account key requirements of other legislative regimes, these are outlined in **Table 1.4**.

**Table 1.4 Strategy themes/aims and objectives**

Aim / theme	Objectives
Expand and manage...	Encourage the creation of well-designed woodlands of an appropriate nature, scale and composition to deliver the CFWS's priorities
	Promote improved management of Clydeplan's woodland resource
	Promote high standards of woodland design
	Make a sustainable contribution to national woodland expansion targets
Creating an environment for investment	Enhancing economic investment locations
	Temporary planting on stalled sites
	Greening vacant and derelict land
	Enhancing transport corridors
	Promoting rural development and diversification
	Supporting tourism and recreation
	Shaping new communities
	Contributing to a healthy wood production and processing sector
Community	Facilitating community involvement in woodland planning, management and ownership
	Supporting community enterprise and development
	Supporting opportunities for education and lifelong learning
	Contributing to physical and mental health and wellbeing
	Enhancing local sense of place and promoting connections to the wider environment
Environment	Improve the condition and resilience of biodiversity
	Improve woodlands' contribution to the conservation and management of ecosystem services and functions
	Contribute to the conservation, enhancement and understanding of Clydeplan's



Aim / theme	Objectives
	valued natural heritage and historic environment
Climate change	Reduce the forestry sector's emissions and contribute to mitigation measures
	Adapt to the predicted effects of climate change

### Structure

- 1.18 Based on the recommendations in **The Right Tree in the Right Place – Planning for Forestry and Woodlands**<sup>8</sup> (2010), the CFWS will split areas with potential woodland expansion into three categories, i.e. Preferred, Potential, and Sensitive. In addition, areas physically unsuitable for woodland, urban areas and existing woodland will be used in the analysis.

**Table 1.5 Land categories**

Land Category	Description
Preferred	Land which 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.  Within preferred areas sensitivities are, in general, likely to be limited, and it should be possible to address any particular site specific issues within well designed proposals that meet the UK Forestry Standard and associated guidelines.  Future woodland expansion is therefore likely to be focused on preferred areas.
Potential	Land which offers considerable potential to accommodate future expansion of a range of woodland types, but where, at least, one significant sensitivity exists.  The extent to which specific proposals in potential areas will be permissible will depend on how well sensitivities can be addressed within the proposals. The design of schemes in such areas will require careful consideration.
Sensitive	Land on which, due to a combination of sensitivities, there is limited scope to accommodate further woodland expansion.  Limited woodland expansion is only likely to be possible within sensitive areas where it is of a scale and character which can be accommodated without significant negative impacts and/or where it would positively enhance the features of interest locally.
Existing woodland	Land currently under woodland of all types.
Unsuitable	Land physically unsuitable for the growth or management of trees.
Urban	Larger settlements, within which the opportunities for woodland creation are often too small to map effectively at a strategic scale.

### Potential for woodland expansion

- 1.19 **Chapter 5 Assessment of Environmental Effects** of the Strategy provides the core policy content by defining the broad potential for woodland expansion across the region. As the spatial expression of the vision, and a high level attempt to qualify the region's ability to support new woodland, interpretation of this policy and associated mapping will have an important influence on the environmental effects of planting and management proposals.
- 1.20 Several iterations were produced and are assessed as alternatives in **Chapter 5 Assessment of Environmental Effects**. The finalised option is illustrated in **Figure 1.2**.
- 1.21 Woodland creation and management priorities are set out in a broad spatial framework identifying areas that are 'preferred', 'potential', 'sensitive', 'existing', 'built-up', or 'unsuitable'. By adapting the revised landscape types developed for the regional Landscape Character Assessment the spatial framework adopts a landscape-led approach to interpreting the potential for expansion in each 'zone'. It aims to add contextual detail in relation to the opportunities and likely sensitivities affecting woodland expansion and management, and highlights areas where additional assessment or regulatory processes are likely to be required.

<sup>8</sup> Forestry Commission Scotland, 2010. *The Right Tree in the Right Place – Planning for Forestry and Woodlands*. [pdf] Edinburgh: Forestry Commission Scotland. Available at: [http://www.forestry.gov.uk/pdf/fcfc129.pdf/\\$FILE/fcfc129.pdf](http://www.forestry.gov.uk/pdf/fcfc129.pdf/$FILE/fcfc129.pdf) [Accessed 01 April 2014]

1.22 The spatial framework, comprising eleven separate landscape ‘zones’, are:

**Table 1.6 Spatial framework**

Zone name	Description	Woodland cover – key facts
<b>Farmlands</b>	Extensive plateau and rolling farmland encircling the main metropolitan area	8,785ha of woodland 13% of zone wooded 16% of the region’s woodland
<b>Foothills</b>	Rising ground and foothills of the Kilpatrick Hills, Campsie Fells and the Southern Uplands	4,205ha of woodland 17% of zone wooded 7% of the region’s woodland
<b>Incised River Valleys</b>	Steeply-incised valleys and gorges of the middle Clyde and Avon Valleys and their tributaries	2,573ha of woodland 31% of zone wooded 5% of the region’s woodland
<b>Lowland Valley</b>	Broad valley lowlands of the Kelvin Valley and the Lochwinnoch Gap	846ha of woodland 10% of zone wooded 1% of the region’s woodland
<b>Moorland Hills</b>	Clyde Muirshiel Hills, Kilpatrick Hills, Campsie Fells and Kilsyth Hills and the south western part of the Pentland Hills	5,965ha of woodland 17% of zone wooded 11% of the region’s woodland
<b>Plateau Moorland</b>	Elevated and exposed moorlands of the Muirkirk and Lowther Hills, and the western extremity of the Slamannan Plateau	18,190ha of woodland 32% of zone wooded 32% of the region’s woodland
<b>Southern Uplands</b>	High, open and exposed hills of the Southern Uplands	5,714ha of woodland 18% of zone wooded 10% of the region’s woodland
<b>Upland Farmland</b>	Rolling, convoluted agricultural landscapes of Renfrewshire and Inverclyde	2,581ha of woodland 16% of zone wooded 5% of the region’s woodland
<b>Upland Valley</b>	Upper valleys of the region’s main rivers	2,528ha of woodland 11% of zone wooded 4% of the region’s woodland
<b>Urban</b>	The region’s larger settlements	4,506ha of woodland 8% of zone wooded 8% of the region’s woodland
<b>Urban Greenspaces</b>	Large parks and greenspaces on the fringes of Glasgow	536ha of woodland 26% of zone wooded 1% of the region’s woodland

1.23 The spatial framework as set out above is illustrated in **Figure 1.1**.

Figure 1.1 Spatial Framework

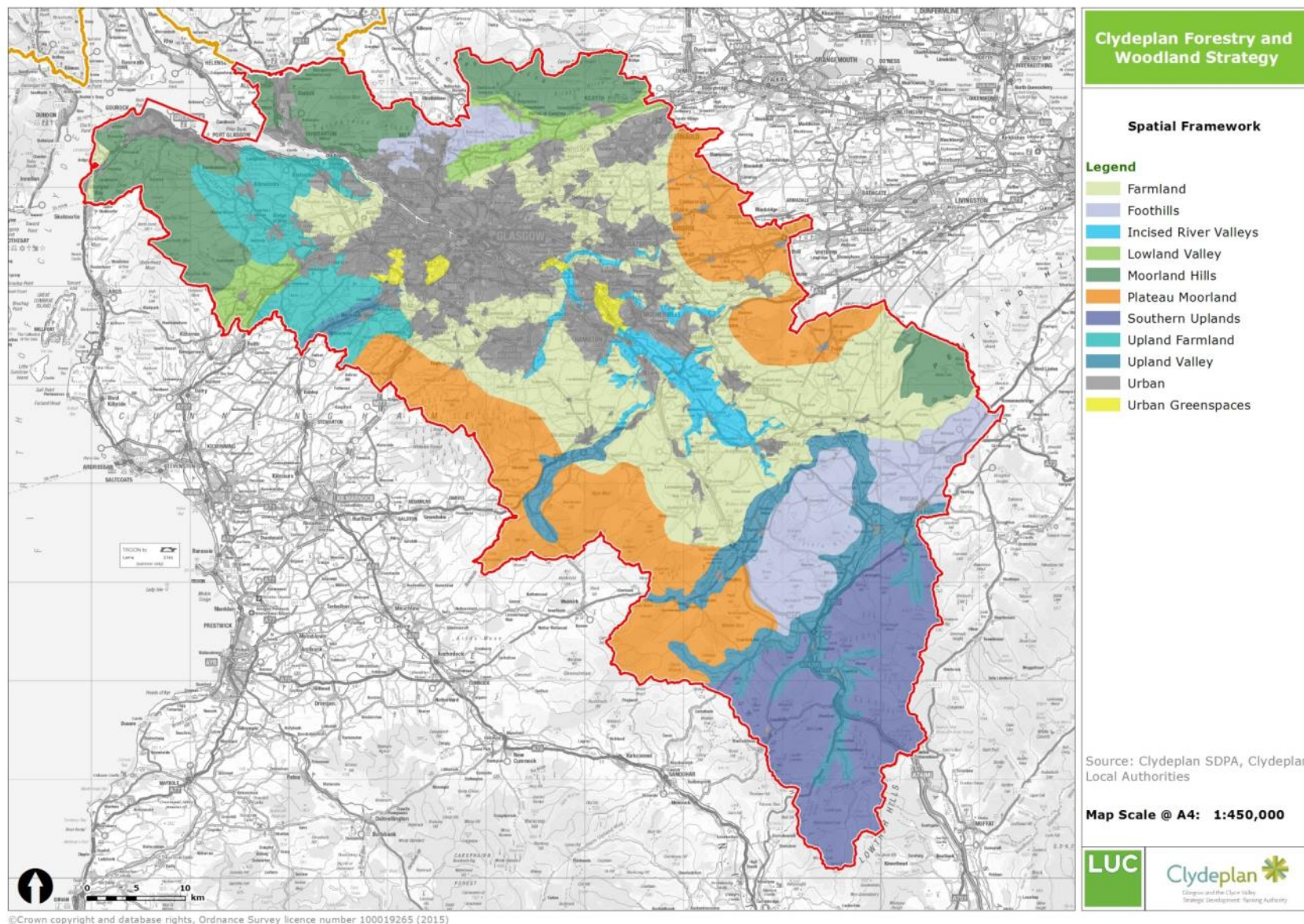
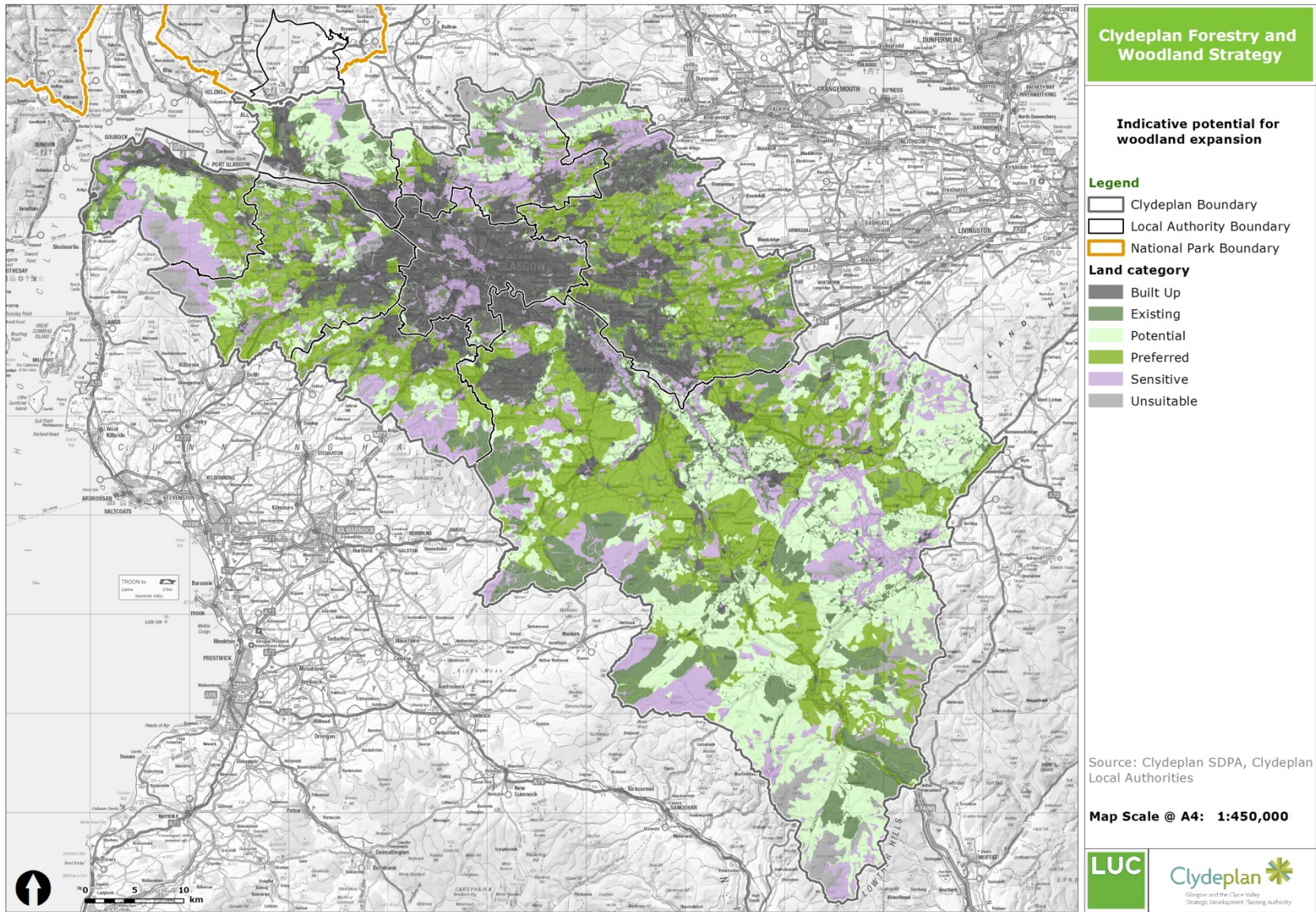




Figure 1.2 Indicative potential for woodland expansion



## 2 Relationship with Other Plans, Programmes or Strategies (PPS)

### Introduction

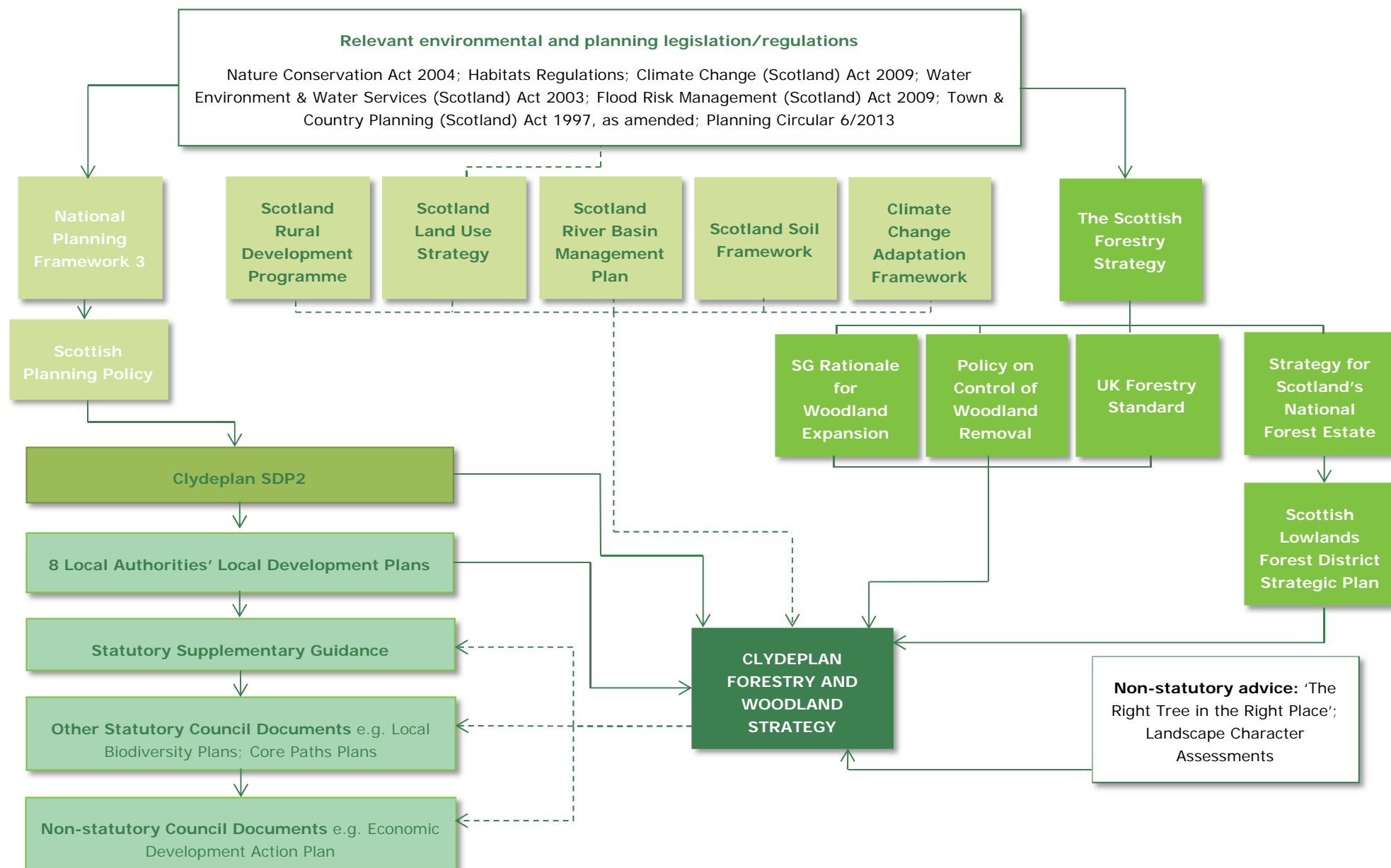
- 2.1 The review of plans, programmes and strategies (PPS) as part of the SEA process is a useful way of ensuring that the relationship between these documents and the CFWS is fully explored, and also that the relevant environmental protection and sustainability objectives are taken into account through the SEA. The review of PPS can also provide appropriate information on the baseline for the plan area and the key environmental and/or sustainability issues.
- 2.2 The Clydeplan Forestry and Woodland Strategy is at the intersection of Scottish Government planning and forestry legislation and guidance, and is therefore subject to a range of policy interactions. The CFWS is also required to take account of legislation and policies that aim to address the following key issues:
- Mitigation of, and adaptation to, climate change; and,
  - Protection of ecosystem services.

### Policy relationships of the Clydeplan Forestry and Woodland Strategy

- 2.3 **Figure 2.1** overleaf illustrates the policy relationships of the Forestry and Woodland Strategy.



**Figure 2.1 Policy relationships of CFWS**





## National policy context

### Forestry

#### *The Scottish Forestry Strategy*

- 2.4 The national policy context for the Clydeplan Forestry and Woodland Strategy is set by **The Scottish Forestry Strategy**<sup>9</sup> (SFS) (2006) which sets out Scottish Ministers' aspirations for Scotland's woodland resource, highlighting key themes, issues and policies for expansion and management. The SFS has set a target of increasing Scotland's woodland cover from 17% to 25% by the second half of the century.
- 2.5 It sets out a vision which looks ahead to the second half of this century, but focuses on the key priorities over the next 10 years. Its vision is that:
- "By the second half of this century, people are benefiting widely from Scotland's trees, woodlands and forests, actively engaging with and looking after them for the use and enjoyment of generations to come. The forestry resource has become a central part of our culture, economy and environment".*
- 2.6 The SFS has seven key themes which will help to achieve its vision for Scotland's woodlands. Recognising the crosscutting nature of forestry, **The Scottish Forestry Strategy: Implementation Plan 2013-2016**<sup>10</sup> is also organised around these themes, which are as follows:
- **Climate Change** - Helping Scotland mitigate and adapt to climate change;
  - **Timber** - Getting the most from Scotland's timber resource;
  - **Business Development** - Supporting sustainable economic growth through business development of the Scottish woodland sector;
  - **Community Development** - Supporting community development to improve quality of life and well-being;
  - **Access and Health** - Improving access to woodlands, to help improve the health of Scotland;
  - **Environmental Quality** - Protecting the environmental quality of our natural resources; and,
  - **Biodiversity** - Helping to conserve and enhance Scotland's biodiversity.
- 2.7 The policies of the SFS are supported by the current suite of Forestry Commission guidance in particular the mandatory **UK Forestry Standard** (UKFS), supported by the voluntary **UK Woodland Assurance Standard** (UKWAS). These policies should ensure best practice in woodland design and management. Meeting these policies is a requirement of grant assistance.
- 2.8 The Scottish Forestry Strategy set 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. **The Woods In and Around Towns** (WIAT) policy aims to improve and regenerate woodland close to where people live and work. This policy is now fully incorporated within the Scottish Rural Development Programme, specifically within the Woodland Improvement Grant (WIG). **The Role of Scotland's National Forest Estate and Strategic Directions 2013-2016** is a strategic plan which defines how Forestry Commission Scotland, through its operating arm, Forest Enterprise Scotland, will implement the Scottish Forestry Strategy in the National Forest Estates. The CFWS is complemented by a set of strategic plans – one for each of the ten forest districts. **The**

<sup>9</sup> Scottish Executive, 2006. *The Scottish Forestry Strategy*. Edinburgh: Scottish Executive.

<sup>10</sup> Forestry Commission Scotland, 2013. *The Scottish Forestry Strategy: Implementation Plan 2013-2016*. [pdf] Edinburgh: Forestry Commission Scotland. Available at: [http://www.forestry.gov.uk/pdf/SFSImplementationPlan2013-2014final.pdf/\\$FILE/SFSImplementationPlan2013-2014final.pdf](http://www.forestry.gov.uk/pdf/SFSImplementationPlan2013-2014final.pdf/$FILE/SFSImplementationPlan2013-2014final.pdf) [Accessed 31 March 2014]

**Scottish Lowlands Forest District Strategic Plan** covers the part of the national forest estate in the region.

#### *Rationale for Woodland Expansion*

- 2.9 The Scottish Government's **Rationale for Woodland Expansion**<sup>11</sup> sets out the Scottish Government's views on how woodland expansion can best increase the delivery of public benefits from Scotland's land in line with the contents of the Scottish Forestry Strategy. It notes the role of forestry expansion in tackling greenhouse gas emissions, habitat restoration, adaptation to climate change, ecosystem services management, sustainable industry, rural development and diversification, and community benefits. Of specific relevance to planning, it notes the role of forestry expansion in enhancing urban areas and improving landscapes.

#### *Policy on Control of Woodland Removal*

- 2.10 The Scottish Government's **Policy on Control of Woodland Removal**<sup>12</sup> seeks to facilitate the desired increase in woodland area by preventing avoidable woodland loss. It establishes the need for compensatory planting where development proposals or forestry work necessitates the loss of woodland.

#### *Central Scotland Green Network*

- 2.11 Within the pan-regional policy context, the **Central Scotland Green Network (CSGN)** is a national development within the National Planning Framework 3 (NPF3), encompassing 19 local authorities across Central Scotland, which aims to change the face of Central Scotland by restoring and improving the rural and urban landscape of the area.
- 2.12 NPF3 defines three key themes for CSGN to address over the lifespan of the framework, namely: the remediation of derelict land, prioritised action in disadvantaged communities, and promotion of active travel (walking and cycling).
- 2.13 The CSGN's vision has been defined as follows:
- "By 2050, Central Scotland has been transformed into a place where the environment adds value to the economy and where people's lives are enriched by its quality".*
- 2.14 The Vision is backed by the following five themes:
- **A Place for Growth** – creating an environment for sustainable economic growth;
  - **A Place in Balance** – creating an environment more in balance, one that will support Central Scotland to thrive in a changing climate;
  - **A Place to Feel Good** – creating an environment which supports healthy lifestyles and good physical and mental well-being;
  - **A Place to Belong** – creating an environment that people can enjoy and where they choose to live and bring up their families; and,
  - **A Place for Nature** – creating an environment where nature can flourish.

#### **Planning** *Legislation*

- 2.15 Section 159 of **The Town and Country Planning (Scotland) Act 1997**<sup>13</sup>, as amended, places a duty on planning authorities to ensure that, whenever appropriate, planning permissions make adequate provision for the preservation or planting of trees.
- 2.16 **The Planning etc. (Scotland) Act 2006**<sup>14</sup> established a system of spatial planning based on Strategic Development Plans (SDPs) for Scotland's four largest city regions – including

<sup>11</sup> Forestry Commission Scotland, 2009. *The Scottish Government's Rationale for Woodland Expansion*. [pdf]. Available at: <http://scotland.forestry.gov.uk/images/corporate/pdf/ForestExpansion.pdf> [Accessed 01 April 2014]

<sup>12</sup> Forestry Commission Scotland, 2009. *The Scottish Government's Policy on Control of Woodland Removal*. [pdf]. Available at: <http://scotland.forestry.gov.uk/images/corporate/pdf/fcfc125.pdf> [Accessed 01 April 2014]

<sup>13</sup> The Town and Country Planning (Scotland) Act 1997.

Clydeplan, covering Glasgow and the Clyde Valley – underpinned by local authority-level Local Development Plans.

- 2.17 **Planning Circular 6/2013 Development Planning**<sup>15</sup> (replaces Planning Circular 1/2009) identifies forestry and woodland strategies as a suitable topic for supplementary guidance to a new generation of development plans.

#### *National Planning Framework*

- 2.18 The **National Planning Framework 3 (NPF3)** aims to increase the rate of woodland creation to deliver 100,000 hectares of new woodland over the next 10 years. In addition, NPF3 reaffirms the Scottish Government's pledge to plant 100 million trees by 2015, and to take action towards the proposal Low Carbon Scotland (RPP2) to increase the rate of peatland restoration to 22,000 hectares per year.

#### *Scottish Planning Policy*

- 2.19 The Scottish Planning Policy (SPP) sets out the Scottish Government's national level policy on the purpose, practice and core principles of spatial planning.
- 2.20 Paragraph 194 of the **Scottish Planning Policy**<sup>16</sup> requires the protection and enhancement of ancient and semi-natural woodland as an important and irreplaceable resource, together with other native or long established woods, hedgerows and individual trees with high nature conservation or landscape value. Paragraph 201 states that "*plans should identify woodlands of high nature conservation value and include policies for protecting them and enhancing their condition and resilience to climate change*". In addition, paragraph 201 also states that planning authorities should prepare forestry and woodland strategies as supplementary guidance to inform the development of forestry and woodland in their area, including the expansion of woodland of a range of types to provide multiple benefits.
- 2.21 The SPP acknowledges the role of woodlands can play in climate change mitigation and adaptation. Paragraph 220 states that green infrastructure should be protected and enhanced to provide multiple benefits.

#### **Forestry and Planning**

##### *The Right Tree in the Right Place – Planning for Forestry and Woodlands*

- 2.22 **The Right Tree in the Right Place – Planning for Forestry and Woodlands**<sup>17</sup> sets the current context for the production of indicative forestry strategies.

##### *Getting the best from our land: A Land Use Strategy for Scotland*

- 2.23 **Getting the best from our land: A Land Use Strategy for Scotland**<sup>18</sup> sets the strategic framework for bringing together proposals for optimising the potential of Scotland's land resources.
- 2.24 It establishes the vision and objectives for land-based economic activity in Scotland and sets out ten 'principles for sustainable land use', which should be taken into account in the development of the Clydeplan Forestry and Woodland Strategy. These are:
- a) Opportunities for land use to deliver multiple benefits should be encouraged.
  - b) Regulation should continue to protect essential public interests whilst placing as light a burden on businesses as is consistent with achieving its purpose. Incentives should be efficient and cost-effective.

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<sup>14</sup> Planning etc. (Scotland) Act 2006.

<sup>15</sup> Scottish Government, 2013. *Planning Circular 6/2013 Development Planning*. Edinburgh: Scottish Government.

<sup>16</sup> Scottish Government, 2014. *Scottish Planning Policy*. Edinburgh: Scottish Government.

<sup>17</sup> Forestry Commission Scotland, 2010. *The Right Tree in the Right Place – Planning for Forestry and Woodlands*. [pdf] Edinburgh: Forestry Commission Scotland. Available at: [http://www.forestry.gov.uk/pdf/fcfc129.pdf/\\$FILE/fcfc129.pdf](http://www.forestry.gov.uk/pdf/fcfc129.pdf/$FILE/fcfc129.pdf) [Accessed 01 April 2014]

<sup>18</sup> Scottish Government, 2011. *Getting the Best from our Land: A Land Use Strategy for Scotland*. Edinburgh: Scottish Government.

- c) Where land is highly suitable for a primary use (for example food production, flood management, water catchment management and carbon storage) this value should be recognised in decision-making.
- d) Land use decisions should be informed by an understanding of the functioning of the ecosystems which they affect in order to maintain the benefits the ecosystem services they provide.
- e) Landscape change should be managed positively and sympathetically, considering the implications of change at a scale appropriate to the landscape in question, given that all Scotland's landscapes are important to our sense of identity and to our individual and social well-being.
- f) Land-use decisions should be informed by an understanding of the opportunities and threats brought about by the changing climate. Greenhouse gas emissions associated with land use should be reduced and land should continue to contribute to delivering climate change adaptation and mitigation objectives.
- g) Where land has ceased to fulfil a useful function because it is derelict or vacant, this represents a significant loss of economic potential and amenity for the community concerned. It should be a priority to examine options for restoring all such land to economic, social or environmentally productive uses.
- h) Outdoor recreation opportunities and public access to land should be encouraged, along with the provision of accessible green space close to where people live, given their importance to health and well-being.
- i) People should have opportunities to contribute to debates and decisions about land use and management decisions which affect their lives and their future.
- j) Opportunities to broaden our understanding of the links between land use and daily living should be encouraged.

## Climate Change

### *The Climate Change (Scotland) Act 2009*

- 2.25 **The Climate Change (Scotland) Act 2009**<sup>19</sup> establishes the legal framework for emissions reductions by 2050. The Act sets targets for the reduction in carbon emissions of 42% by 2020 and 80% by 2050 (1990 baseline). From 2020, Scotland will need to reduce its emissions by at least 3% per year.
- 2.26 While the CFWS can play only a very limited role in achieving these targets, it is important to acknowledge the reliance of the forestry sector – in common with all land-based industries – on the use of fossil fuels. Of particular importance are issues of improving the sustainability of timber transport and forest operations reliant on the use of heavy machinery.

### *Scottish Climate Change Adaptation Framework*

- 2.27 The aim of the Scottish Government's **Climate Change Adaptation Framework**<sup>20</sup> is to lead planned adaptation across all sectors to increase the resilience of Scotland's communities and the natural and economic systems upon which they depend, to the impacts of climate change. There are three key pillars of the Framework:
  - Improve understanding of the consequences of climate change and challenges and opportunities presented;
  - Equip stakeholders with skills and tools for adaptation; and,
  - Integrate adaptation into wider regeneration and public policy to help address climate change.

<sup>19</sup> Climate Change (Scotland) Act 2009.

<sup>20</sup> Scottish Government, 2009. *Scotland's Climate Change Adaptation Framework*. Edinburgh: Scottish Government.

- 2.28 The Adaptation Framework will be relevant to the way that woodland and forests adapt to the changing climate. This could include, for example, measures to encourage sustainable flood management, provision for outdoor access and recreation, or ways in which agricultural and forestry practices may need to change in response to rising temperatures or drier summers.

#### *Scottish Climate Change Adaptation Programme*

- 2.29 **Climate Ready Scotland: Scottish Climate Change Adaptation Programme**<sup>21</sup> sets out Scottish Ministers' objectives, policies and proposals to tackle the climate change impacts identified for Scotland in the UK Climate Risk Assessment as required by section 53 of the Climate Change (Scotland) Act 2009.
- 2.30 The overarching aim of the Programme is "*to increase the resilience of Scotland's people, environment, and economy to the impacts of a changing climate*". The Programme is structured around three themes:
- Climate Ready Natural Environment Theme (forestry and woodlands are discussed in detail under this theme);
  - Climate Ready Buildings and Infrastructure Networks Theme; and,
  - Climate Ready Society Theme.
- 2.31 The Programme advocates a move towards planned adaptation in woodland creation and management, as well-structured and diverse forests can better withstand change and extreme weather events. It also highlights the benefits of agroforestry to create diverse, productive, profitable and sustainable land-use systems.
- 2.32 The Programme lists several objectives relating to climate change adaptation within the forestry sector including:
- Embedding climate change adaptation considerations and potential responses such as habitat networks and green networks, into wider land use planning decisions through the use of Forestry and Woodland Strategies (N2-11).
  - Improving the condition and connectivity of native woodlands, promoting natural regeneration as a means of increasing resilience to change, and taking other steps to increase adaptive capacity in woodlands (N2-12).
  - Encouraging the consideration of climate change impacts (and how they will be addressed) in Forest Plans, and supporting this with grants and regulations so as to ensure that forest plans support ecosystems and habitat resilience and allow resilience-building measures to be trialled by forest managers (N2-23).
  - Promoting the UK Forestry Standard and Climate Change guidelines (N2-10).
  - Improving understanding of how more resilient forests can be developed and identifying adaptation strategies for all types of woodlands (N1-4).

#### **Ecosystem Services**

##### *The Flood Risk Management (Scotland) Act 2009*

- 2.33 **The Flood Risk Management (Scotland) Act 2009**<sup>22</sup> places a duty on responsible authorities (including local authorities and Scottish Water) to manage flooding in a sustainable manner and ensure the adoption of consistent principles and practices.
- 2.34 The Flood Risk Management Act guides the way that land use interacts with flood risk. This may, for example, influence the provision of woodland within river catchments in order to intercept rainfall and slow run-off into rivers, or lead to the restoration of functional floodplains where these have been lost in the past.

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<sup>21</sup> Scottish Government, 2014. *Climate Ready Scotland: Scottish Climate Change Adaptation Programme*. Edinburgh: Scottish Government.

<sup>22</sup> Flood Risk Management (Scotland) Act 2009.



### *River Basin Management Planning*

- 2.35 **The River Basin Management Plan for the Scotland River Basin District 2009-2015**<sup>23</sup> provides detailed information on the environmental quality of rivers, lochs and seas and sets out what needs to be achieved for all water bodies in the area to reach 'good ecological status'.
- 2.36 Eight **Area Management Plans** (AMPs) have been prepared as supplementary documents to the River Basin Management Plan for the Scotland River Basin District 2009-2011, of which the Clyde Area Management Plan<sup>24</sup> is relevant to the region. The Clyde AMP describes how the water environment will be managed over the next six years, with the current plan covering the period from 2010 to 2015.

### *Metropolitan Glasgow Strategic Drainage Partnership*

- 2.37 Designated as a National Development in NPF3, this initiative is an exemplar of catchment-scale water and drainage infrastructure planning. The project is required to better service existing communities at significant risk of flooding, to unlock potential development sites, and to build greater resilience in Scotland's largest city to the effects of climate change.

### *The Scottish Soil Framework*

- 2.38 **The Scottish Soil Framework 2009**<sup>25</sup> aims to raise awareness of the services soils provide to society and the pressures they encounter. Scotland's soil resource is in generally good health, but is under pressure from soil carbon loss and the effects of climate change. Ensuring forestry planning and practice protects key soil carbon resources and maximises woodlands potential to lock up carbon in soils is a key aspect of the CFWS.
- 2.39 **Scotland's National Peatland Plan: Working for our future**<sup>26</sup> sets out a strategic framework to protect, manage, and where required, restore peatlands. The plan states that peatlands are ecosystems, with a peat deposit exceeding 50cm, which may currently support vegetation that is peat-forming, may not, or may lack vegetation entirely. The plan recognises that carbon stock can be boosted by increasing Scotland's woodland cover outwith peatland areas. Bog woodland is recognised as one of the rarest peatland habitats in Scotland.

## Regional policy context

### **Clydeplan Strategic Development Plan**

- 2.40 As the Clydeplan Forestry and Woodland Strategy will form part of the evidence base for the **Clydeplan Strategic Development Plan** (SDP2), the Strategy will directly influence the content of SDP2. The Clydeplan Strategic Development Planning Authority published the Main Issues Report<sup>27</sup> in January 2015, which strongly supports the delivery of green infrastructure including expanding networks of woodland, across the city region and, specifically in 16 Strategic Delivery Areas.

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<sup>23</sup> Scottish Government, 2009. *The River Basin Management Plan for the Scotland River Basin District 2009-2015*. Edinburgh: Scottish Government.

<sup>24</sup> SEPA, 2009. *Clyde area management plan 2010-2015* [pdf]. Available at: [http://www.sepa.org.uk/media/37206/clyde\\_area-management-plan.pdf](http://www.sepa.org.uk/media/37206/clyde_area-management-plan.pdf) [Accessed 18 May 2015]

<sup>25</sup> Scottish Government, 2009. *The Scottish Soil Framework*. Edinburgh: Scottish Government.

<sup>26</sup> Scottish Natural Heritage, 2014. *Scotland's National Peatland Plan: Working for our future: A consultation paper* [pdf]. Available at: <http://www.snh.gov.uk/docs/A1306595.pdf> [Accessed 15 October 2014]

<sup>27</sup> Clydeplan SDPA, 2015. *Clydeplan Main Issues Report*. Glasgow: Clydeplan SDPA.

## 3 Environmental Baseline

### Introduction

- 3.1 Section 3 of the Environmental Assessment (Scotland) Act 2005 requires a summary of the environmental characteristics and environmental problems/issues of geographical areas that are likely to be significantly affected by a Plan, Policy or Strategy (PPS).

### Relevant aspects of the current state of the environment

- 3.2 The implementation of the Clydeplan Forestry and Woodland Strategy has the potential to have significant environmental effects on several aspects of the environment. The purpose of this section is to explain how existing environmental problems/issues will affect or be affected by the CFWS and whether it is likely to aggravate, reduce or otherwise affect existing environmental problems in the Clydeplan area.
- 3.3 **Table 3.1** provides an outline of baseline data sources.

**Table 3.1 Outline of baseline data sources**

SEA Topic	SEA sub-topic	Data Sources
<b>Biodiversity</b>	Designated sites	Local Nature Reserves (LNR) Local wildlife sites National Nature Reserves (NNR) Ramsar sites Scottish Wildlife Trust Reserve sites Phase 1 Habitat Survey Sites of Interest for Nature Conservation (SINC) Sites of Special Scientific Interest (SSSI) Special Areas of Conservation (SAC) Special Protection Area (SPA)
	Habitats and species	Ancient Woodland Inventory CSGN Integrated Habitat Network Semi-Natural Ancient Woodland Inventory UK Biodiversity Action Plan & Local Biodiversity Action Plan priority habitats and species
<b>Population and Human Health</b>	Demographics health and well-being	Access to open space Core paths LP and LDP land allocations Scottish Index of Multiple Deprivation 2013 Scottish Public Health Observatory (ScotPHO) Health and Well-being

SEA Topic	SEA sub-topic	Data Sources
		Profiles 2014 Vacant and derelict land Waste management sites
<b>Soil</b>	Soil quality, capacity, contamination	Land Capability for Agriculture Land Capability for Forestry National Soils Inventory for Scotland Soil carbon richness based on component soils Soil Map Vacant, derelict and contaminated land
<b>Water</b>	Flooding, surface and groundwater, catchments	Drinking water catchments SEPA Indicative River and Coastal Flood Map Clyde Area Management Plan Water quality monitoring data
<b>Air</b>	Air quality	Air Quality Management Areas Air Quality Action Plans
<b>Climate Change</b>	Climate projections	UK Climate Projections 2009
<b>Material Assets</b>	Resources, commercial activity	Airport Safeguarding Zones Energy developments and areas of potential for energy development Mineral resources Strategic waste management facilities Scottish Waste Data Interrogator Tourism figures for the region
<b>Cultural Heritage</b>	Built heritage, designated and non-designated sites	World Heritage Sites Battlefields Inventory Conservation Areas WoSAS Sites and Monuments Record Historic Land-use Assessment Inventory of Gardens and Designed Landscapes Listed Buildings Scheduled Ancient Monuments
<b>Landscape</b>	Designated sites	Local landscape designations (Country Parks) Green Belt Regional Parks

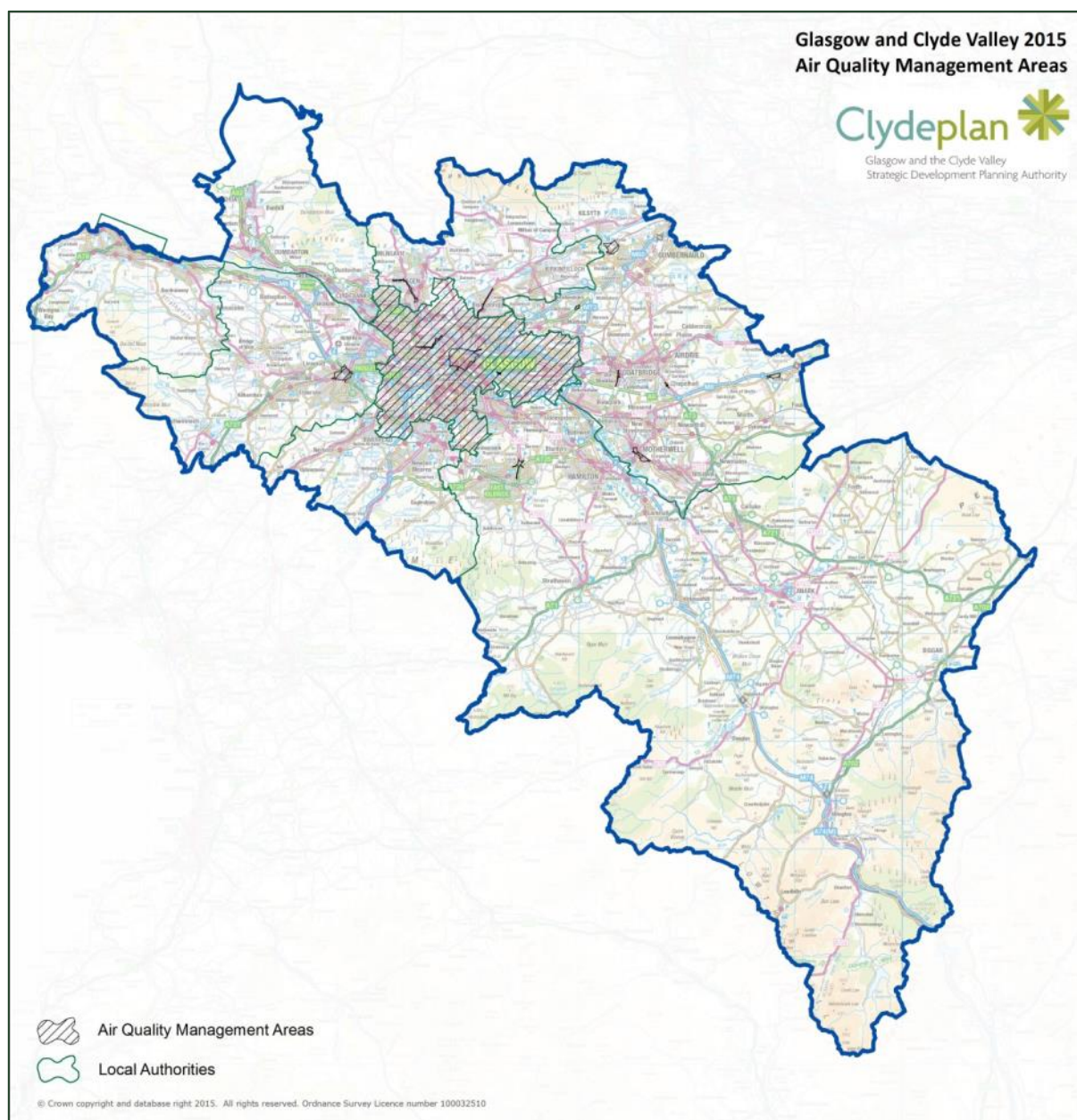
## Summary of environmental issues

### Air

#### Overview

- 3.4 Air quality objectives seek to improve air quality of five of the local authorities within the Clydeplan city region. Within these five local authorities and as shown in Figure 3.1, Air Quality Management Areas (AQMA) exist with the aim, of reducing emissions concentrations that have adverse effects on public health and the environment.

**Figure 3.1 Air Quality Management Areas**



#### Background

- 3.5 Poor air quality affects human health, flora and fauna, water and material infrastructure. Sulphur Dioxide (SO<sub>2</sub>), Nitrogen Dioxide (NO<sub>2</sub>), ground level ozone and particulates have the most significant impact on human health and the environment and CO<sub>2</sub> on Climate.

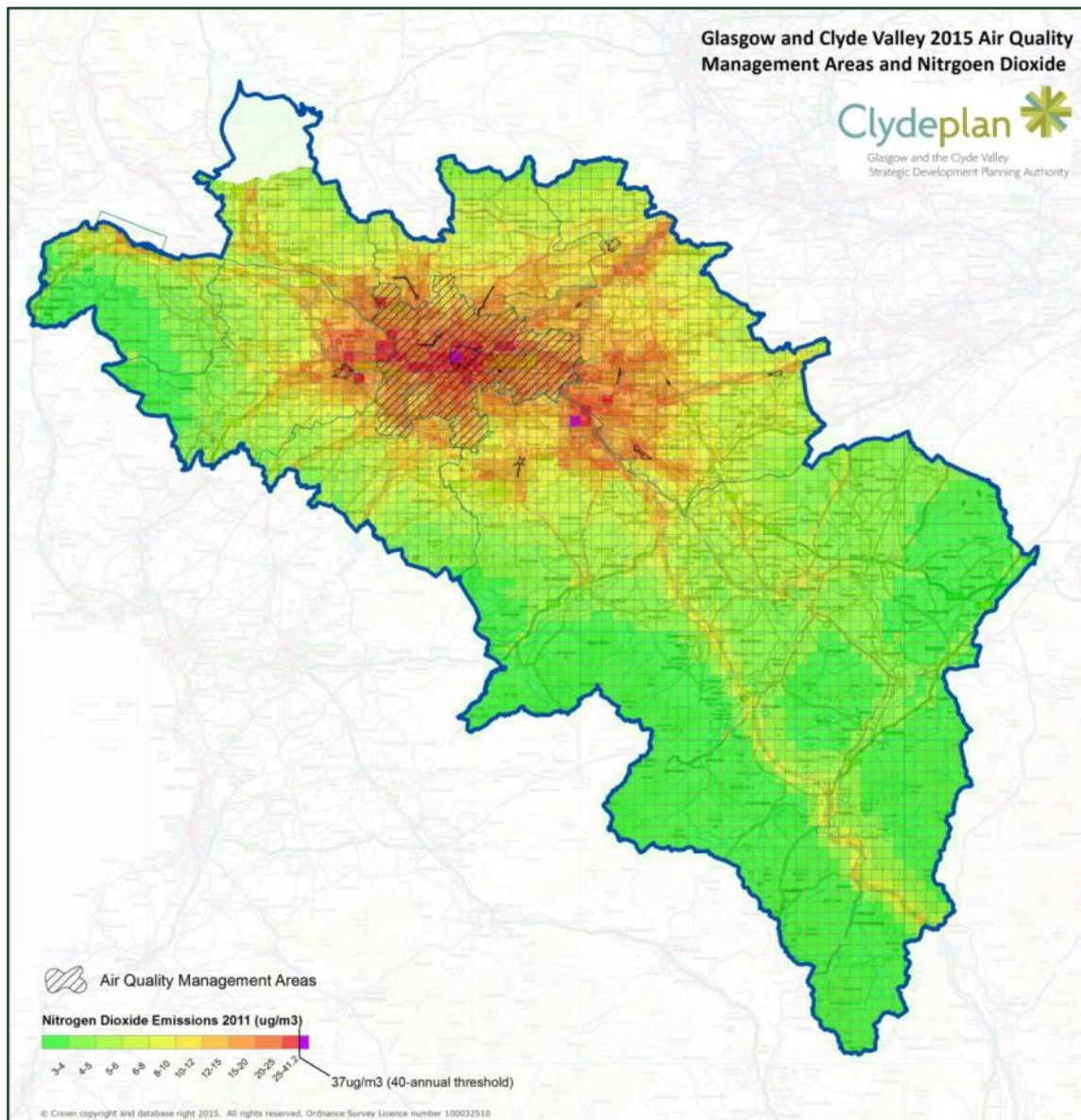
- 3.6 Oil and coal-fired power stations, domestic solid fuel burning and an increase in diesel car usage are responsible for the majority of SO<sub>2</sub> and NO<sub>2</sub> acidic emissions in Scotland. As well as causing acidification of water and soils and damage to vegetation both locally and internationally, these emissions cause damage to the respiratory system and the eyes. Accelerated erosion of buildings is of concern.<sup>28</sup>
- 3.7 Emissions associated with heavy fuel and biomass burning release particulates into the atmosphere causing respiratory problems, toxification of soils and vegetation. Chemical reactions in the atmosphere reduce visibility, and encourage condensation: fog and cloud formation.
- 3.8 High ozone concentrations in the lower atmosphere are created through the combination of Volatile Organic Compounds (VOCs) and NO<sub>2</sub> found in fuel burning reacting with sunlight in an oxidation process. Ozone affects those with existing breathing difficulties, is toxic to plants and has an adverse effect on crop yields.
- 3.9 Figure 3.2 highlights Air Quality Management Areas and NO<sub>2</sub> concentration and distribution over the Clydeplan city region whilst Figure 3.3 reveals the pattern for particulates. The data for these maps was acquired from the DEFRA Local Air Quality Mapping (LAQM) download site. Concentration of pollutants is at its highest within urban regions and along the transport network. As discussed in the Climate SEA baseline report, point source emissions from power stations are difficult to display cartographically, but their contribution is substantial and requires quantification by other methods.

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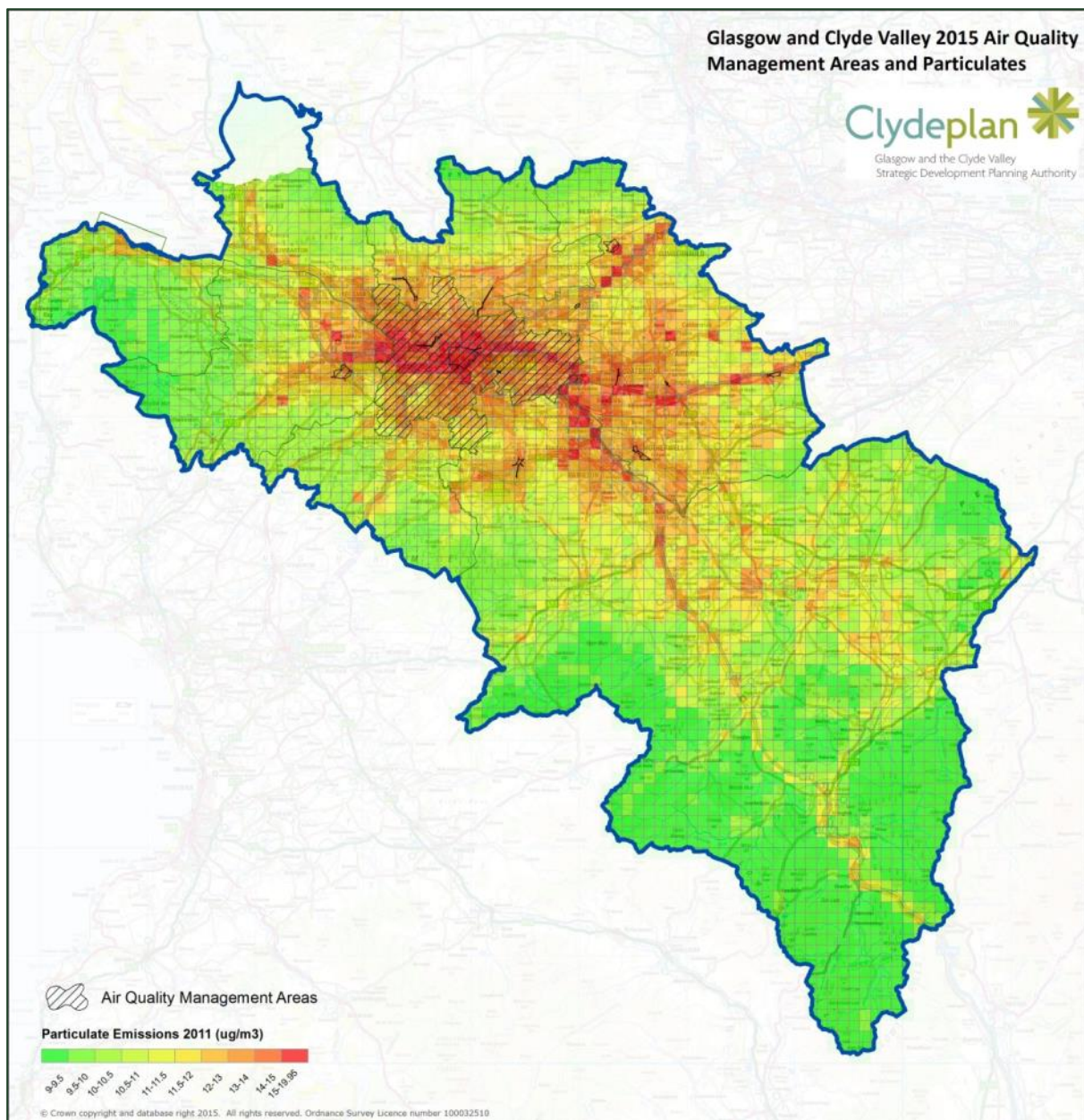
<sup>28</sup> Scotland's Environment (undated). Available at:  
[http://www.environment.scotland.gov.uk/our\\_environment/air\\_and\\_climate/air\\_quality.aspx](http://www.environment.scotland.gov.uk/our_environment/air_and_climate/air_quality.aspx)



Figure 3.2 Air Quality Management Areas and Nitrogen Dioxide



**Figure 3.3 Air Quality Management Areas and Particulates**



### *Trends*

- 3.10 Scotland has not enjoyed better air quality since before the industrial revolution<sup>29</sup>. Transport emissions pose the most serious threat to continued improvements in air quality with the increase in volume of diesel cars, diesel trains and road haulage being responsible.
- 3.11 Five local authorities in Clydeplan city region have introduced AQMAs to maintain the improvements in air quality recorded between 1990 and 2010<sup>30</sup>. Figures published by UK National Atmospheric Emissions inventory show that since 1990 NO<sub>2</sub> emissions have

<sup>29</sup> Scotland's Environment (undated). Air and climate [online]. Available at:  
[http://www.environment.scotland.gov.uk/our\\_environment/air\\_and\\_climate.aspx](http://www.environment.scotland.gov.uk/our_environment/air_and_climate.aspx)

<sup>30</sup> Air Quality in Scotland (undated). Local air quality management [online]. Available at:  
[http://www.scottishairquality.co.uk/lqgm.php?a=l&la\\_id=i](http://www.scottishairquality.co.uk/lqgm.php?a=l&la_id=i)

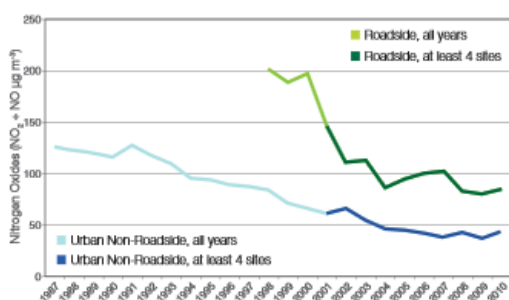


decreased by 61%, particulates by 57% and SO<sub>2</sub> by 73%.<sup>31</sup> If the trend continues, a further reduction in the level of these gasses, 45%, 19% and 64% respectively, is expected from the period 2002 – 2020.

- 3.12 Continued improvement in air quality remains uncertain. Whilst it has been identified that the fuel type used in transport remains a problem, a potential issue in the energy generation sector is the growing use of biomass with the associated increase in particulates emissions. Overall emissions figures should remain in decline as carbon-free renewable power generation is consolidated.

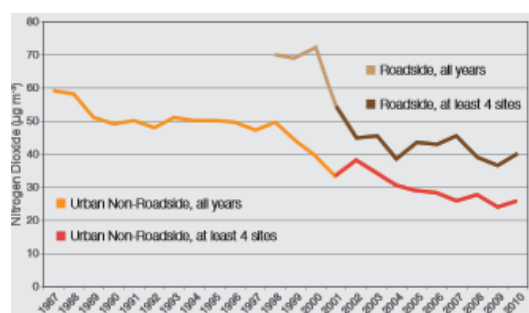
**Figure 3.4 Trend Graphs (Concentrations of roadside and urban background emissions from 1987-2010)**

## Nitrogen Dioxide (mean)



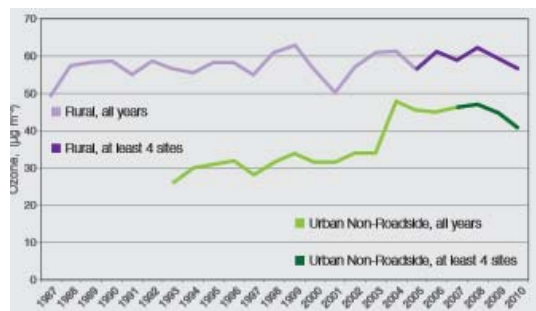
Trends in annual mean NO<sub>x</sub> concentration at urban background and roadside sites in Scotland 1987 - 2010

## Nitrogen Dioxide



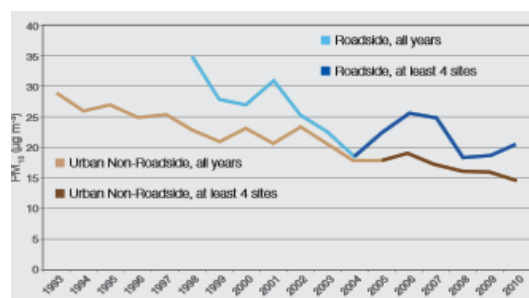
Trends in annual mean NO<sub>2</sub> concentration means at urban background and roadside sites in Scotland 1987 - 2010

## Ozone



Trends in annual mean ground level ozone concentration at sites in Scotland 1987 - 2010

## Particulates



Trends in annual mean concentration of PM<sub>10</sub> particulate matter at urban background and roadside sites in Scotland 1993-2010

### Key Issues

- 3.13 It is anticipated that the trend in the improvement of air quality will continue until 2020. Policy that assists sustainable transport and the green network will benefit urban areas

<sup>31</sup> Scottish Environment Statistics Online. Air Quality, Air Pollutant Emissions. Available at:

<http://www.scotland.gov.uk/Topics/Statistics/Browse/Environment/trendairpollutants>

where higher emissions give greatest cause for concern for health and the environment. Continuing migration to carbon-free renewable energy will assist with meeting targets at a national level.

#### *Implications for the Forestry and Woodland Strategy*

- 3.14 The Strategy should aim to protect and enhance air quality. Planting should be directed to transport corridors to buffer the effect of emissions which can convey significant benefits in mitigating the effects of roads on nearby communities. Trees and woodland can also help intercept dust particles from industrial facilities and mineral workings, as well as providing visual screening and a barrier to noise. Furthermore, the Strategy should seek to reduce the potential for unnecessary 'timber miles' and associated emissions by emphasising local processing and manufacture of timber products. Efficient technologies should also be promoted to reduce pollution and energy wastage.
- 3.15 While the increase in woodfuel has the potential to negatively impact on air quality, it is at least in theory carbon neutral, and has the potential to displace fossil fuels.

### **Biodiversity**

#### *Existing environmental characteristics*

- 3.16 Policies exist that define a hierarchy of protection for biodiversity, flora and fauna from a European to a local level. The Natura2000 network protects natural wealth associated with the Habitats and Birds Directive. European Protected Species and the Scottish Biodiversity Strategy also delineate conservation priorities. It is recognised that beyond European and national designations there is a requirement for preservation of biodiversity at a local scale. Ecological networks need to be maintained and as well as addressing issues of mechanical and climatic threat to biodiversity, broader impacts require to be understood and safeguarded against.

#### *Background*

- 3.17 Biodiversity is crucial to the sound functioning of ecosystems and their supporting role of sustaining life. Services such as nutrient and chemical cycling, pollination, carbon cycling and environmental cleansing can only be sustained through bio-diverse environments<sup>32,33</sup>. Mechanical attrition and climate change are greatly affecting global biodiversity<sup>34</sup>.
- 3.18 Fully functioning ecosystems sustain life. If an ecosystem is undermined, health and economy are undermined. Poor health exacerbated by a damaged ecosystem affects individual and community well-being, stresses the nation's health service and burdens the tax payer. In their current condition, ecosystem services provide revenue to the nation of around £22billion p/a<sup>35</sup>.
- 3.19 In Figure 3.5, it becomes apparent that there is richness of biodiversity in Scotland and to a lesser extent Glasgow and the Clyde valley: a comparison highlighted in Table 3.2. Scotland is home to 50,000 terrestrial and fresh water species and 39,000 species in the surrounding environments. Of the 89,000 species, 50% are thought to be single-celled organisms, 25% plant and fungi and the remaining 25%: arthropods and invertebrates. Scotland has 31 endemic species including 4 insects and 1 bird: The Scottish Crossbill.<sup>7</sup> Scotland also hosts majority populations or high concentrations of other global species.

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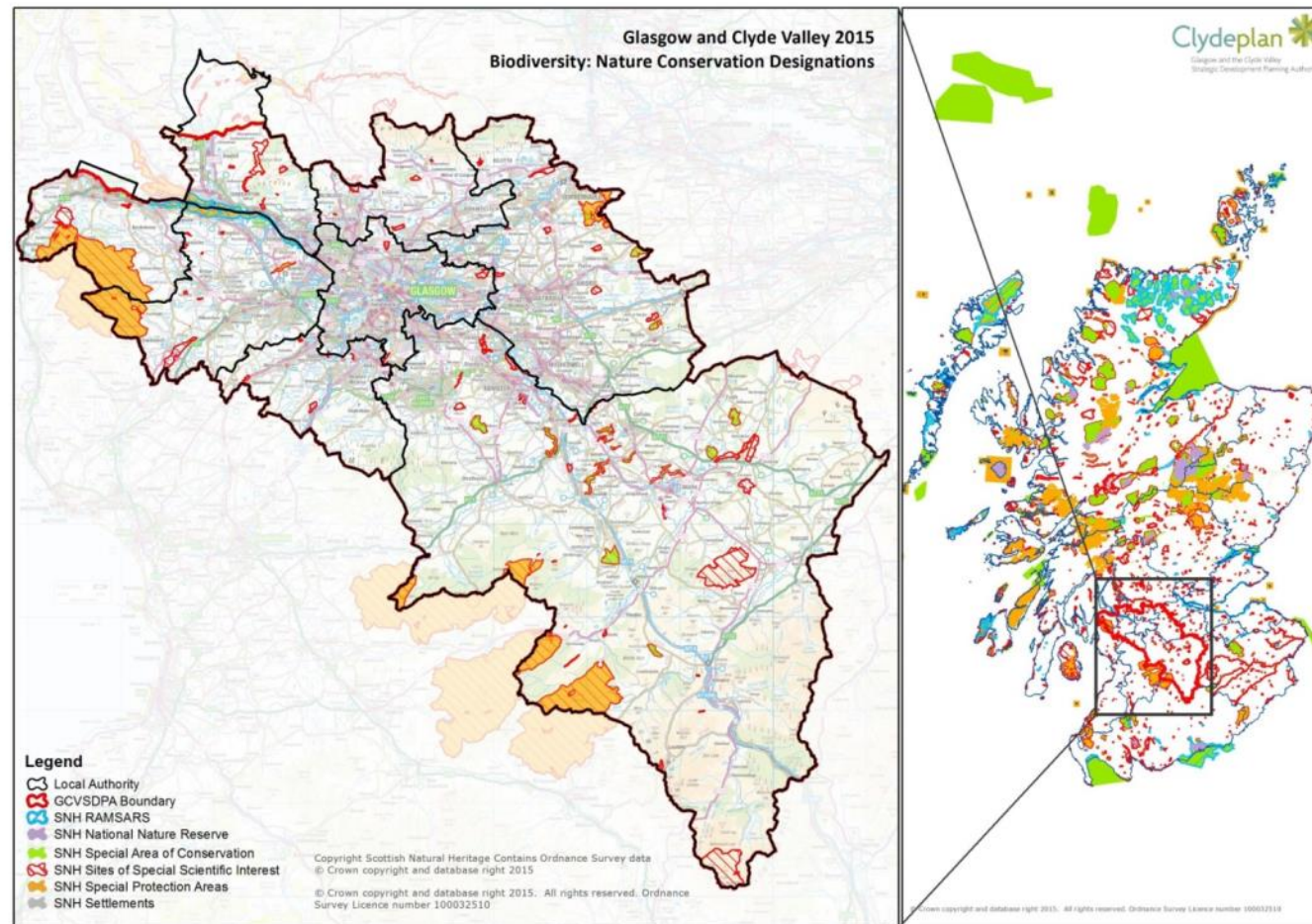
<sup>32</sup> SNH (2012) Safeguarding Biodiversity [online] Available at: <http://www.snh.gov.uk/protecting-scotlandsnature/safeguarding-biodiversity/>

<sup>33</sup> Mackey E.C. and Mudge G.P. (2010) Scotland's Wildlife: An assessment of biodiversity in 2010, Scottish Natural Heritage, Inverness [online] Available at: <http://www.snh.gov.uk/docs/B811968.pdf>

<sup>34</sup> Convention on Biological Diversity (undated) Climate Change and Biodiversity – Introduction [online] Available at: <http://www.cbd.int/climate/intro.shtml>

<sup>35</sup> Scotland's Environment (2012) Benefits from Nature [online] Available at: [http://www.environment.scotland.gov.uk/our\\_environment/society/benefits\\_from\\_nature.aspx](http://www.environment.scotland.gov.uk/our_environment/society/benefits_from_nature.aspx)

Figure 3.5 Designated Biodiversity Sites of Clydeplan and Scotland





- 3.20 From the Scottish Natural Heritage (SNH) International Designation Report of 2011<sup>36</sup>, land with protected designation has been extracted for the Clydeplan city region in table 1 below. Marine Protection Areas (MPAs) are currently being collated in order to protect marine habitats, species and landscapes. The qualifying protected habitats of the Clydeplan designated sites and responsible authorities are listed in Tables 3.2, 3.3, 3.4 and 3.5.

**Table 3.2 Designated Sites of Biodiversity: Scotland / Clydeplan (Extracted from 2011 report<sup>10</sup>)**

Designation	Scotland	Clydeplan City Region
<b>SAC</b>	239	10
<b>SPA</b>	153	5
<b>RAMSAR</b>	51	1
<b>NNR</b>	47	1
<b>SSSI</b>	1442 (12% of Scottish Land)	93

**Table 3.3 SAC sites in Clydeplan**

SAC Site Name	Qualifying Habitat	Responsible Local Authority
<b>Black Loch Moss</b>	Active and degraded raised bog	NL plus within 5K
<b>Braehead Moss</b>	Active and degraded raised bog	SL
<b>Cranley Moss</b>	Active and degraded raised bog	SL
<b>Clyde Valley Woods</b>	Mixed woodland on base-rich soils associated with rocky slopes	SL
<b>Coalburn Moss</b>	Active and degraded raised bog	SL
<b>North Shotts Moss</b>	Active and degraded raised bog	NL
<b>Red Moss</b>	Active raised bog	SL
<b>West Fannyside Moss</b>	Blanket raised bog	NL
<b>Waukenwae Moss</b>	Active and degraded raised bog	SL
<b>Loch Lomond Woods</b>	Western acid oak woodland and otter	WD, A&B, Stirling

<sup>36</sup> SNH (2011) International Designations [online] Available at: <http://www.snh.gov.uk/protecting-scotlandsnature/protected-areas/international-designations/>

<b>Airds Moss</b>	Blanket raised bog	EA, within 5K
<b>Bankhead Moss, Beith</b>	Active raised bog	NA, within 5K
<b>Blawhorn Moss</b>	Active and degraded raised bog	WL, within 5K
<b>Craigengar</b>	Dry heath; species-rich grassland with mat-grass in upland areas; marsh saxifrage, saxifrage hirculus	WL, within 5K
<b>Endrick Water</b>	Atlantic salmon, brook lamprey, river lamprey	Stirling, within 5K
<b>River Tweed</b>	River lamprey, brook lamprey and sea lamprey, Atlantic salmon, otter, rivers with floating vegetation often dominated by water-crowfoot	SB, within 5K

**Table 3.4 SPA sites in Clydeplan**

SPA Site Name	Qualifying Habitat	Responsible Local Authority
<b>Muirkirk and North Lowther Uplands</b>	Golden plover, <i>Pluvialis apricaria</i> ; breeding; hen harrier, <i>Circus cyaneus</i> ; breeding; merlin, <i>Falco columbarius</i> ; breeding; peregrine, <i>Falco peregrines</i> ; breeding; short-eared owl, <i>sio flammeus</i> ; breeding; ; hen harrier, <i>Circus cyaneus</i> ; non-breeding	SL plus within 5K
<b>Inner Clyde</b>	Redshank, <i>Tringa tetanus</i> ; non-breeding	WD, RF, IC plus Within 5K
<b>Slamannan Plateau</b>	Taiga bean goose, <i>Anser fabalis fabalis</i> ; non-breeding	NL plus within 5K
<b>Renfrewshire Heights</b>	Hen harrier, <i>Circus cyaneus</i> ; breeding	RF, IC plus Within 5K
<b>Black Cart</b>	Whooper swan, <i>Cygnus cygnus</i> ; non-breeding	RF
<b>Loch Lomond</b>	Capercaillie, <i>Tetrao urogallus</i> and Greenland white-fronted goose, <i>Anser albifrons flavirostris</i>	Within 5K
<b>Westwater</b>	Pink-footed goose, <i>Anser</i>	Within 5K

	<i>brachyrhynchus</i> ; non-breeding and a waterfowl assemblage; non –breeding	
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**Table 3.5 Ramsar sites in Clydeplan**

Ramsar Site Name	Qualifying Habitat	Responsible Local Authority
<b>Inner Clyde</b>	Redshank, <i>Tringa tetanus</i> ; non-breeding	WD, RF, IC plus within 5K
<b>Loch Lomond</b>	Greenland white-fronted goose , <i>Anser albifrons flavirostris</i> ; non-breeding	Within 5K
<b>Westwater</b>	Pink-footed goose, <i>Anser brachyrhynchus</i> ; non-breeding and a waterfowl assemblage; non-breeding	Within 5K

- 3.21 SNH is responsible for monitoring Scotland's priority habitats and species under the former UK Biodiversity Action Plan. From October 2010 to March 2011, SNH reported a 1% increase in vulnerable sites, reducing favourable conditions from 78% to 77%. 43% of habitats and 38% of species were stable or improving, 33% of habitats and 22% of species were in decline with the remainder showing no clear trend.<sup>37</sup>

#### *Trends and issues*

- 3.22 Biodiversity loss owing to land use pressure, nutrient deposition and land/air/water pollution, invading species and climate change is well documented.<sup>38</sup> European indicator based assessments like Natura 2000 network reveal that decline in biodiversity has been halted under the implementation of new policies.
- 3.23 Through climate change and the proliferation of invasive species, habitat and species loss or change in breeding or migration and increase in disease is possible. Across Scotland, 14% of the 867 non-native species have shown increase giving rise to concern over food availability and habitat loss especially for seabirds and the marine environment.<sup>4,39</sup> Additionally, whilst some species may need dispersal time in order to survive under climate change, there is suggestion that warming may improve opportunities for harvesting of some species in an "improved" niche environment.<sup>40,41</sup>

#### *Marine and River*

- 3.24 Scotland has a large coastal and marine territory and seabed ecosystems are as complex as terrestrial soils. Areas have been designated for preserving seaweeds, plants, reef and mudflats protecting, fish, shellfish and seabirds. Acidification, diffuse pollution and material deposition in areas such as the Clyde, especially from climate change storm

37 Scottish Government (2011) Scotland Performs – National Indicator – Protected nature sites, available at:

<http://www.scotland.gov.uk/About/scotPerforms/indicators/natureSites>

38 Scotland's Environment (2012) Wildlife [online] Available at:

[http://www.environment.scotland.gov.uk/our\\_environment/wildlife.aspx](http://www.environment.scotland.gov.uk/our_environment/wildlife.aspx)

39 Baxter J.M., Boyd I.L., Cox M., Donald A.E., Malcolm S.J., Miles H., Miller B., Moffat C.F. (Editors) (2011) Scotland's Marine Atlas: Information for the National Marine Plan, Marine Scotland, Edinburgh, pg. 189 [online] Available at:

<http://www.scotland.gov.uk/Publications/2011/03/16182005/0>

40 Ibid

41 SNH and The Marine Biological Association(undated) Impacts of climate change on seabed wildlife in Scotland[online] Available at: [www.marlin.ac.uk/PDF/Climate\\_change\\_brochure.pdf](http://www.marlin.ac.uk/PDF/Climate_change_brochure.pdf)



events (coastal and river) puts significant pressure on transitional areas such as coastline, estuary and mudflat.

- 3.25 In addition to climate change, the mechanical impact of for example, energy generation, flood prevention, infrastructure projects, forestry and agricultural expansion can have a negative impact on aquatic habitats, species and biodiversity. The Inner Clyde Ramsar site on Figure 3.4 falls within the city region but there are no Marine Protection Areas within the boundary, the closest being Upper Loch Fyne and Loch Goil MPA approximately 15 miles from the boundary.

#### *Upland*

- 3.26 Scotland's blanket bogs are globally renowned accounting for 1.1 million hectares (17%) of Scotland's upland area. A further 21%-31% of upland area is peaty heathland. Bog and heathland losses result from a complex range of issues including climate factors, pollution and changes in land management particularly afforestation and windfarm installation the latter of which are all relevant to the city region.<sup>42</sup> The SEA soils baseline section covers distribution of high peat soils in Glasgow and the Clyde valley.

#### *Wetlands*

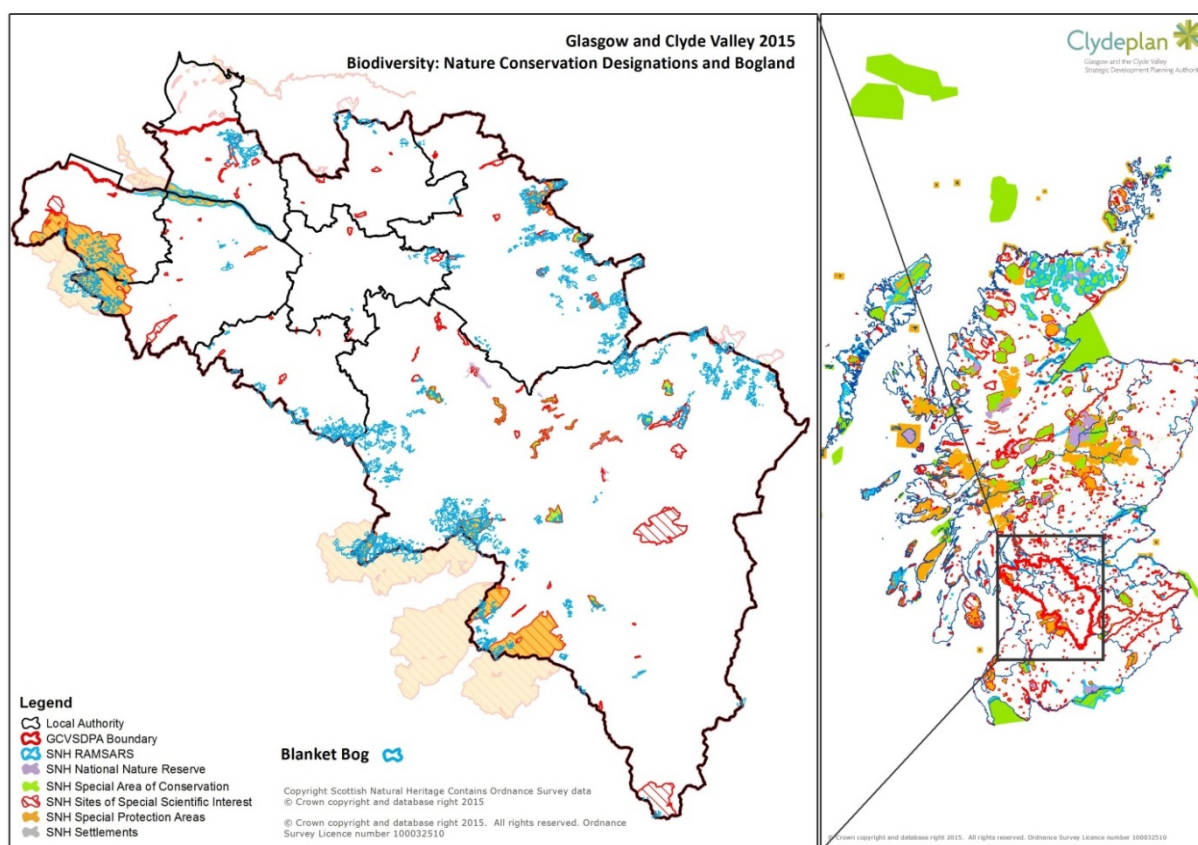
- 3.27 Most protected bog sites are in a favourable condition and they house a range of plants and animals including waterfowl and waders. Peatland contribute significantly to wetland habitat. Lowland raised bogs are not in favourable condition at a national scale and there is potential for restoration.<sup>43</sup> Glasgow and the Clyde Valley is home to several SAC raised bog sites that are shown on Figure 3.4 and listed in Table 3.3. Figure 3.6 shows the general distribution of bog over the city region.

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42 Scottish Government (undated) Scotland's environment, pressures affecting upland wildlife [online] Available at: [http://www.environment.scotland.gov.uk/our\\_environment/wildlife/mountains\\_uplands/pressures.aspx](http://www.environment.scotland.gov.uk/our_environment/wildlife/mountains_uplands/pressures.aspx)

43 Scottish Government (undated) Scotland's environment, wetlands [online] Available at: [http://www.environment.scotland.gov.uk/our\\_environment/wildlife/wetlands.aspx](http://www.environment.scotland.gov.uk/our_environment/wildlife/wetlands.aspx)

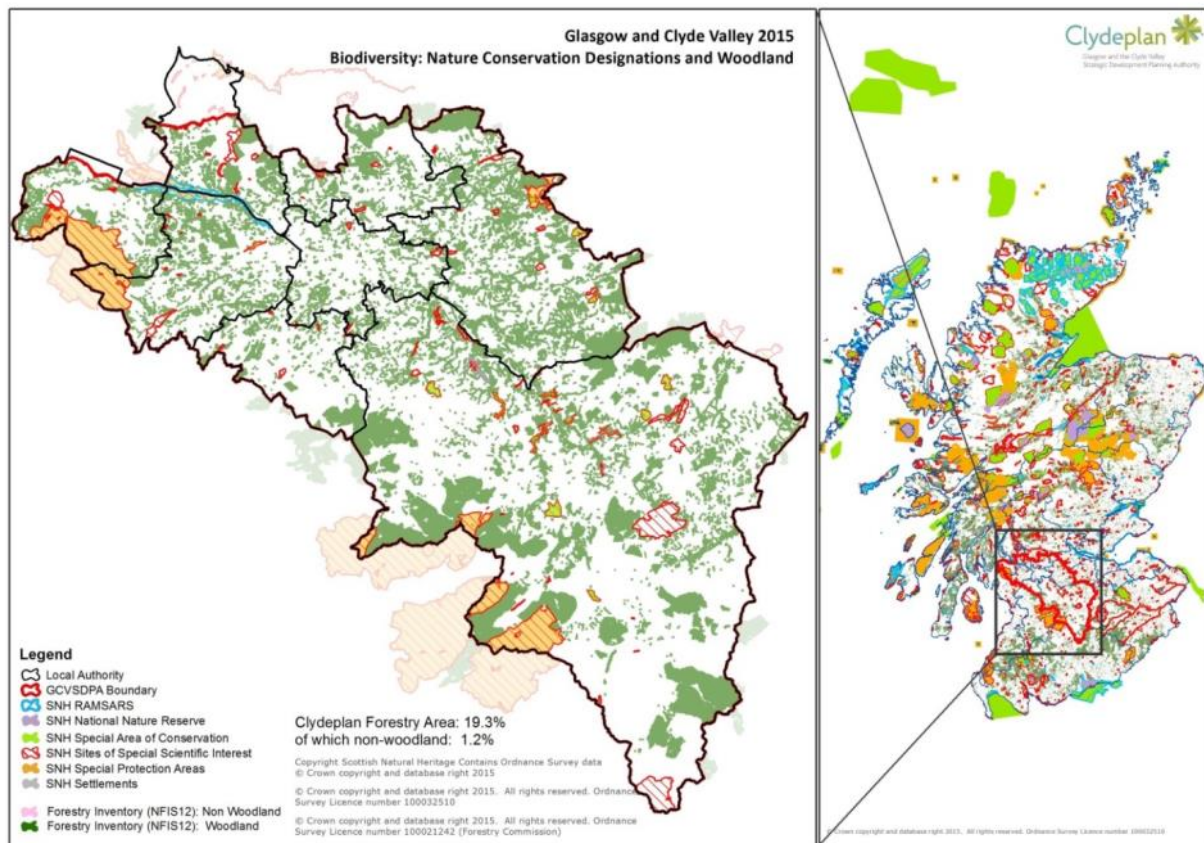
**Figure 3.6 Bog Sites with Biodiversity in Clydeplan**



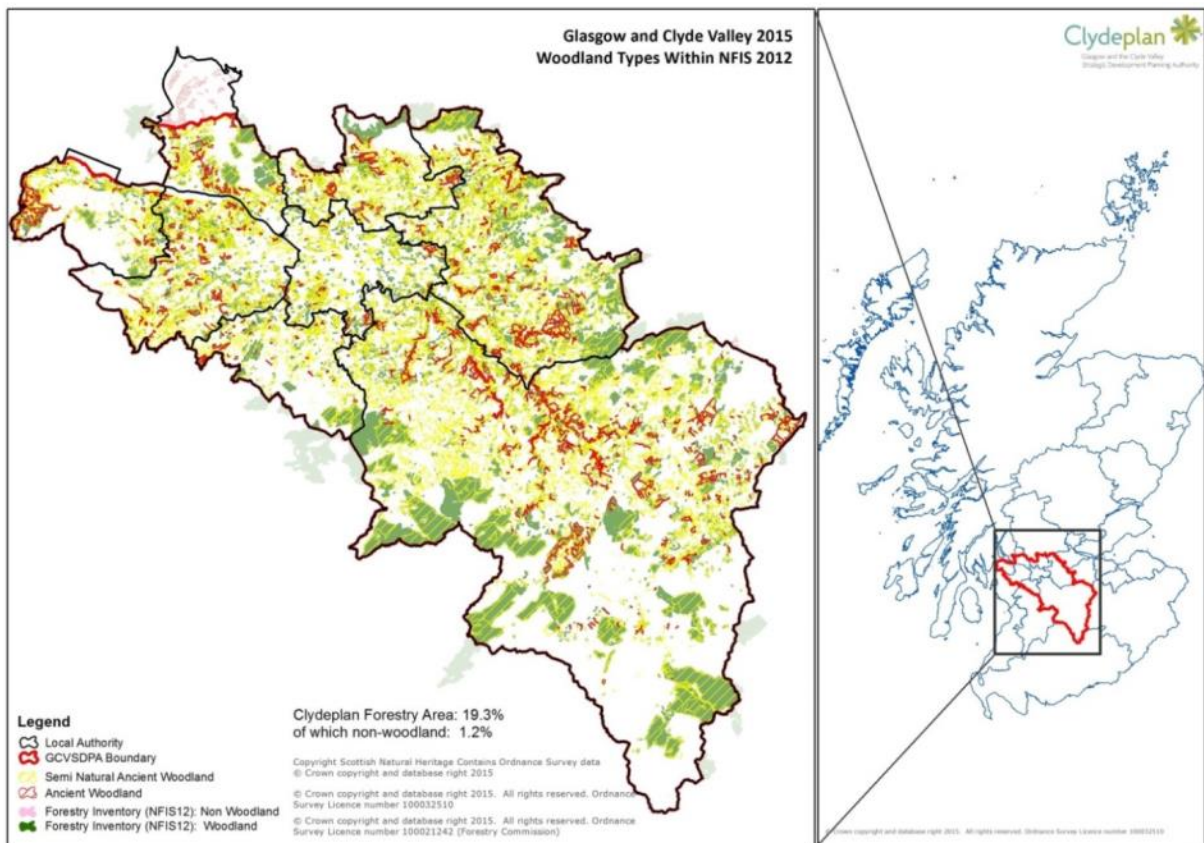
### Forestry/Woodland

- 3.28 Woodland cover in Clydeplan runs at around 18% - similar to the national average. Woodland supports a disproportionate amount of biodiversity where there has been a 30% increase in the number of birds found in woodland nationally over the decade 1994-2004. Native, ancient and semi natural woodlands have the highest levels of biodiversity with 8000Ha of new woodland being created in the UK between 2010-2011. Reforestation targets for Scotland were set at 1,000HA p/a and between 2001 and 2005 but the rate is closer to 100Ha/pa as reported in <http://www.heraldscotland.com/news/environment/targets-to-increase-woodlands-missed.24474511>.
- 3.29 Woodland categorised as favourable or improving has also increased 10% from 59% to 69% since 2005 due to improved management of the national and private forest estate. However there has been a decline in woodland cover within Clydeplan from the construction of new wind farms. The distribution of woodland comparing Scotland to the Clydeplan city region can be viewed in Figure 3.7. It is perhaps surprising that despite high biodiversity in woodland, there is little protection for them except for the minor SSSI sites found specifically in South Lanarkshire Clyde Valley where the sites are protected for their biological components.
- 3.30 Whilst Figure 3.7 shows the distribution of woodland from the 2012 National Forest Inventory Survey (NFIS12), upon closer inspection, Figure 3.8 reveals that much of this woodland is not necessarily commercial but falls into an Ancient or Semi Natural Ancient Woodland category (AWI and SNAWI). SNH can provide guidance to local authorities on how to protect this valuable resource.

**Figure 3.7: Woodland Distribution and Biodiversity in Clydeplan**



**Figure 3.8: Woodland breakdown (NIFS12) within Clydeplan**

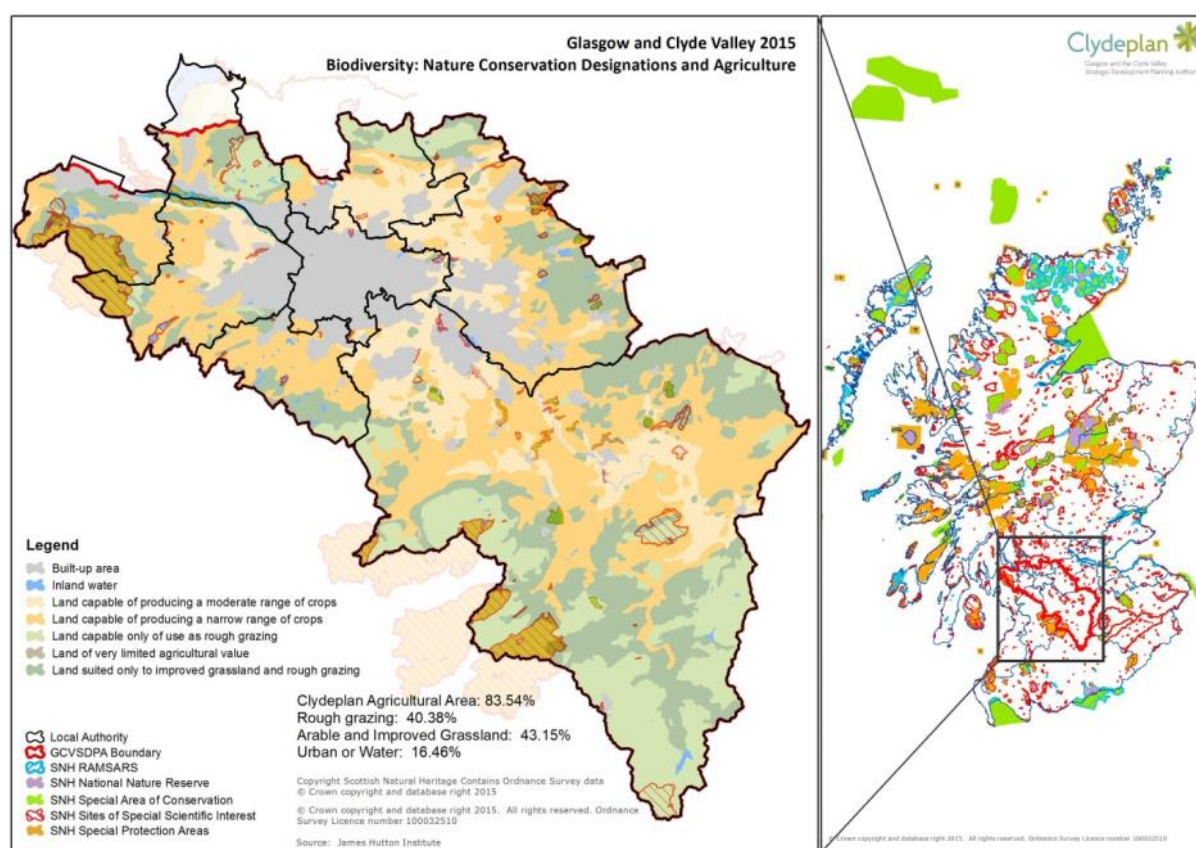




## Agriculture

- 3.31 75% of the land area of Scotland is given over to agriculture, equating to around 5.6million Ha. 55% is rough grazing, 24% grass, 10% for direct cultivation or fallow crops, 8% to woodland (woodland on agricultural land) and 2% supporting agricultural management. Woodland within agricultural boundaries has increased by 110% since 2001 with the concession being largely at the expense of rough grazing.<sup>44</sup> Bog and heathland are also subsumed within these figures.
- 3.32 In Glasgow and the Clyde Valley, around 85% of the land has agricultural value with around 40% of that being classified as rough grazing and 43% as arable or improved grassland (Figure 3.9). Most designated sites fall within a range of agricultural types but the Inner Clyde Ramsar is out-with agricultural land classification.
- 3.33 Agricultural intensification has increased in recent years as mixed farming has given way to intensive arable systems. The removal of field boundaries in support of arable farming has led to a 7% loss of managed hedgerows and trees which has a subsequent effect on biodiversity. Small mammals, birds and invertebrates have been lost along with the hedgerows including predatory species that assist with pest control.<sup>45</sup>

**Figure 3.9: Agriculture with Biodiversity in Clydeplan**



- 3.34 Diffuse pollution from agriculture continues to pose a risk to water courses including rivers, lochs, transitional and coastal waters. Chemical and waste contamination, and land

<sup>44</sup> Scottish Government (2011) Final results from June Agricultural census [online] Available at: <http://www.scotland.gov.uk/Publications/2011/09/27083355/3>

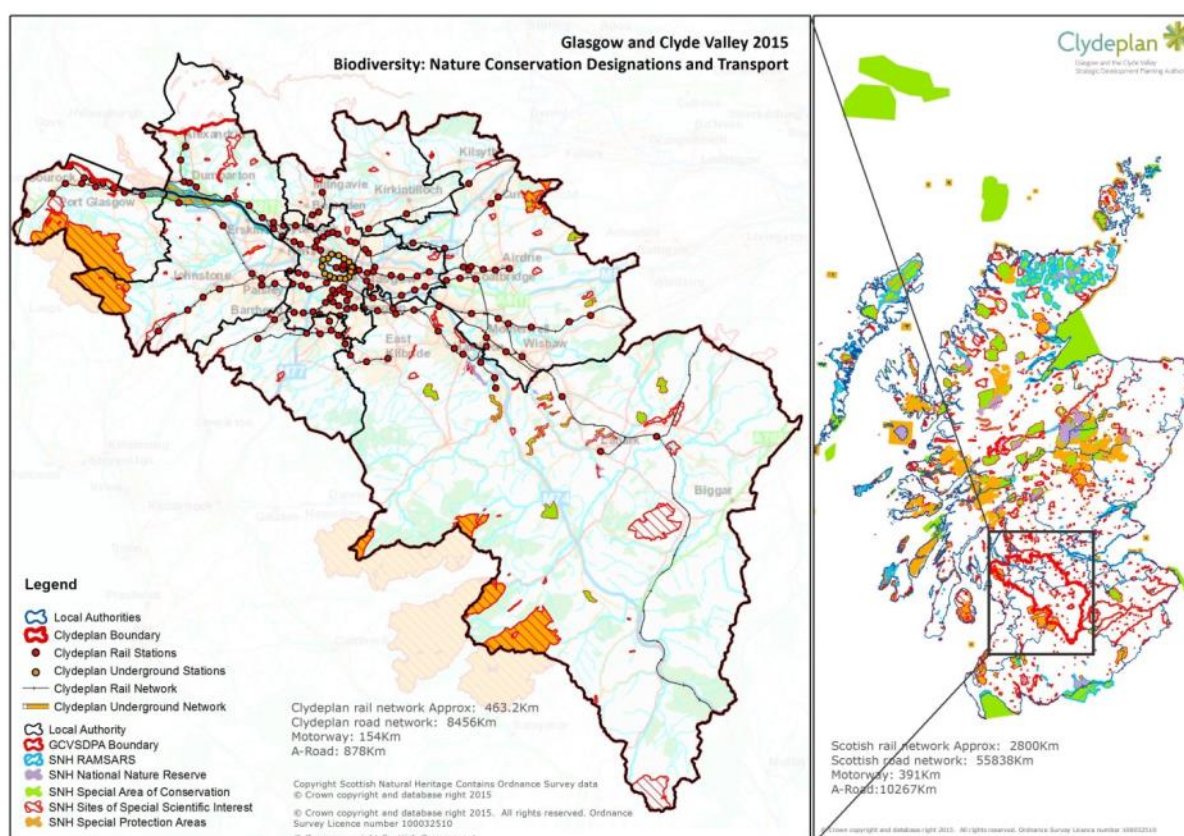
<sup>45</sup> Scottish Government (undated) Scotland's Environment, description of farmland and lowland wildlife. [online] Available at: [http://www.environment.scotland.gov.uk/our\\_environment/wildlife/farmland\\_lowland/description.aspx](http://www.environment.scotland.gov.uk/our_environment/wildlife/farmland_lowland/description.aspx)

disturbance have the potential to affect water quality, air quality and biodiversity.<sup>46</sup> These relationships have an additional, more convoluted effect on sites of designated biodiversity that will require an inclusive approach that considers such complexity.

### *Infrastructure/Urban*

- 3.35 Infrastructure projects including transportation have the potential to adversely affect biodiversity. The relationship between transport infrastructure and designated sites can be seen in Figure 3.10. If sensitively planned and managed, impact on habitat and biodiversity can be limited and concessionary measures implemented such as crossing areas, corridors and sensitive tree and hedge planting that can redistribute wildlife movement in a safeguarding capacity.

**Figure 3.10: Transport with Biodiversity in Clydeplan**



### *Implications for the Forestry and Woodland Strategy*

- 3.36 The Strategy should support the protection of valued habitats, species and designated sites of biodiversity value through sensitive management of forestry operations and in the forest design planning process.
- 3.37 Furthermore, the Strategy should target woodland expansion in areas where benefits can be optimised such as degraded or derelict landscapes. The Strategy should seek to improve the integrated habitat network and the Central Scotland Green Network in the area to reduce fragmentation and isolation of habitats and species.
- 3.38 The Strategy should recognise that there is potential for disturbance to species and habitats from increased public access to woodlands, particularly from intensive recreational activities. In addition, the Strategy should acknowledge that large areas of monoculture biomass are of low value to biodiversity and are difficult for species to permeate and

<sup>46</sup> SEPA (2012) About Diffuse Pollution [online] Available at: [http://www.sepa.org.uk/water/diffuse\\_pollution/about\\_diffuse\\_pollution.aspx](http://www.sepa.org.uk/water/diffuse_pollution/about_diffuse_pollution.aspx)

migrate through. The Strategy has the opportunity to promote low impact methods of timber harvesting, e.g. continuous cover forestry, silvicultural practices, which will minimise the disturbance to species and damage to habitats.

## Climate change

### Overview

- 3.39 Climate change has been accelerating at an unprecedented rate over the last 50 years. Scottish Government and SDP1 have sought to develop policy and strategy that will decelerate climate change triggered by human promulgated greenhouse gasses reported by the IPCC.<sup>47</sup> A growing adaptation framework is developing based around new policies conceived through the Climate Change (Scotland) Act 2009.

### Background

- 3.40 Four main identifiable human derived greenhouse gasses need to be controlled<sup>48</sup>: Carbon Dioxide, Methane, Nitrous Oxide and Halocarbons like the ozone depleting CFCs largely eliminated in the 1980s. They are the main contributors to climate change and in human terms are produced through energy generation and transportation and also activity associated with domestic, industrial, business and agricultural processes.
- 3.41 Ambitious targets have been set to reduce greenhouse gas emissions by 42% by 2020 and 80% by 2050.<sup>49</sup> If successful, emissions will be reduced to pre 21st century and pre-industrial revolution levels in less than 40 years. Whilst the energy sector has been identified as the one of the largest contributors to carbon emissions in Scotland, all sectors will require policy development that will assist greenhouse gas mitigation. Despite reductions in emissions, if policy and implementation is successful, atmospheric concentrations will remain high but will be stabilised.
- 3.42 Since 1990, there has been a gradual yet steady decline in greenhouse gas emissions suggesting that strategy and policy is having a positive effect towards achieving this target.<sup>50</sup> However the system is estimated to operate under a 50 year feedback cycle and current emissions will still be contributing to the cycle in the 2060s.
- 3.43 Decarbonisation within the energy supply sector will continue to rise but other sectors should also look to reduce their emissions. There is concern over forestry policy as a counter to carbon production. Forest planting is falling short of targets by around 20% p/a (June 2014 [woodland trust press release](#)) and felling has increased as swaths of forest have been removed for wind-farm construction. A balanced, cohesive, encompassing strategy should be embraced that will see all sectors of society contribute to carbon reductions.
- 3.44 Tables 3.6 and 3.7 reveal the percentage contribution of greenhouse gas emissions and volume per sector. Those highlighted with the greatest potential for emissions reductions are already being effectively focussed on: energy generation and domestic. Agriculture, business, industry, and transport need work. The figures in the Air Quality section of this report confirm emissions issues associated with the transport network and urban environment are substantial highlighting the need for mitigation and effective policy.

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<sup>47</sup> Intergovernmental Panel on Climate Change FAQ 2.1 How do human activities contribute to climate change and how do they compare with natural influences? [http://www.ipcc.ch/publications\\_and\\_data/ar4/wg1/en/faq-2-1.html](http://www.ipcc.ch/publications_and_data/ar4/wg1/en/faq-2-1.html)

<sup>48</sup> Scotland's Environment (undated) climate change [online] Available at: [http://www.environment.scotland.gov.uk/our\\_environment/air\\_and\\_climate/climate\\_change.aspx](http://www.environment.scotland.gov.uk/our_environment/air_and_climate/climate_change.aspx)

<sup>49</sup> Scotland's environment web Air and Climate Response by Society [http://www.environment.scotland.gov.uk/our\\_environment/air\\_and\\_climate/climate\\_change/response.aspx](http://www.environment.scotland.gov.uk/our_environment/air_and_climate/climate_change/response.aspx)

<sup>50</sup> Scottish Greenhouse Gas Emissions 2010 <http://www.scotland.gov.uk/Publications/2012/07/9583/downloads#res-1>



**Table 3.6 Scottish greenhouse gas emissions by source: 2010 share, 2010 comparisons with 1990 and 2009**

<b>National Communication Sectors</b>	<b>% share of 2010</b>	<b>%change from 1990</b>	<b>%change from 2009</b>
Energy Supply	37%	-7%	12%
Transport (excluding IA&S)	19%	2%	-1%
International Aviation and Shipping (IA&S)	4%	-1%	-12%
<i>International Aviation</i>	2%	118%	-6%
<i>International Shipping</i>	3%	-29%	-16%
Business and Industrial Process	14%	-40%	2%
<i>Business</i>	13%	-33%	2%
<i>Industrial Process</i>	1%	-79%	-4%
Residential	15%	3%	15%
Public	2%	-29%	3%
Waste Management	4%	-67%	-3%
Development	3%	-9%	-1%
Agriculture and Related Land Use	19%	-27%	-3%
Forestry	-17%	15%	-4%
<b>Total greenhouse gas emissions</b>	<b>100%</b>	<b>-23%</b>	<b>6%</b>

Source: <http://www.scotland.gov.uk/Resource/0039/00397478.pdf>

**Table 3.7 Scottish greenhouse gas emissions by gas and government sector, 2012 (values in Mt CO<sub>2</sub>e)**

	<b>TOTAL</b>	<b>Carbon dioxide</b>	<b>Methane</b>	<b>Nitrous oxide</b>	<b>Fluorinated gases</b>
<b>TOTAL</b>	<b>52.9</b>	<b>39.8</b>	<b>6.8</b>	<b>5.1</b>	<b>1.2</b>
<b>Energy Supply</b>	17.1	16.5	0.4	0.1	0.0
<b>Agriculture and related land use</b>	11.2	3.0	3.6	4.6	0.0
<b>Transport (excluding international aviation and shipping)</b>	10.5	10.4	0.0	0.1	0.0
<b>Business and Industrial process</b>	8.5	7.4	0.0	0.1	1.1
<b>Business</b>	8.1	6.9	0.0	0.1	1.1
<b>Industrial Process</b>	0.4	0.4	0.0	0.0	0.0
<b>Residential</b>	7.3	7.0	0.1	0.0	0.2
<b>Waste Management</b>	2.8	0.0	2.7	0.1	0.0
<b>International Aviation and Shipping</b>	2.4	2.3	0.0	0.0	0.0
<b>International aviation</b>	1.1	1.0	0.0	0.0	0.0
<b>International Shipping</b>	1.3	1.3	0.0	0.0	0.0
<b>Development</b>	1.7	1.7	0.0	0.0	0.0
<b>Public</b>	1.4	1.4	0.0	0.0	0.0
<b>Forestry</b>	-9.9	-10.0	0.0	0.0	0.0

Source: <http://www.scotland.gov.uk/Publications/2014/06/5527/3>

#### *Trends and issues*

- 3.45 Extremes of weather will be more common, a fact underlined by the background trend of warming<sup>51</sup> (table 3.8): wetter winters with heavier and more prolonged rainfall, drier summers, snow loss and an increase in the duration of the growing season<sup>52</sup> with much of this being experienced in the north west.<sup>53</sup> In terms of temperature and precipitation changes, table 3.8 below highlights the changes expected by 2050 under a medium emissions scenario. Under a high emissions scenario the UK Climate Projections 2009 (UKCP2009) show that by 2080, west coast and central Scotland could be 3.1°C warmer in winter and 4.3°C in summer, again with drier summers and wetter winters.

<sup>51</sup> Ibid

<sup>52</sup> Ibid

<sup>53</sup> DEFRA et al, (2009) UK Climate Projections [online] Available at: <http://ukclimateprojections.defra.gov.uk/>

- 3.46 Sea level rises are also anticipated and although Scotland is still rising from post glacial rebound, this rate of rebound will not counter sea-level rises. Low lying areas around the Clyde and exposed coastal areas will be vulnerable. Through modelling, it is projected that sea levels could rise between 10.5cm – 18cm by 2050 and 23.4cm to 39.2 cm by 2095 although the worst affected areas would be along the East Coast of Scotland, Orkney and Shetland. The Inner Clyde and sea-lochs of Argyll afford a degree of “protection”<sup>54</sup> because of their orientation to damaging weather systems. Constriction at the mouth of sea lochs also abate the full force of storms and reduce tidal range.
- 3.47 **The UK Climate Projections (UKCP) 2009** for the West of Scotland provides an overview of potential climate changes. **Table 3.8** details the UKCP for West of Scotland over the next 100 years based on a medium and high emission scenario, presented in three time slices.

**Table 3.8 UKCP 09 for west of Scotland**

	2020s		2050s		2080s	
	Medium	High	Medium	High	Medium	High
Increase in summer mean temperature	1.4°C it is very unlikely to be less than 0.6°C and is very unlikely to be more than 2.3°C.	1.4°C it is very unlikely to be less than 0.6°C and is very unlikely to be more than 2.3°C.	2.4°C; it is very unlikely to be less than 1.1°C and is very unlikely to be more than 3.8°C	2.8°C; it is very unlikely to be less than 1.3°C and is very unlikely to be more than 4.4°C.	3.5°C; it is very unlikely to be less than 1.8°C and is very unlikely to be more than 5.4°C	4.3°C; it is very unlikely to be less than 2.4°C and is very unlikely to be more than 6.8°C
Increase in winter mean temperature	1.2°C it is very unlikely to be less than 0.5°C and is very unlikely to be more than 2°C	1.1°C it is very unlikely to be less than 0.3°C and is very unlikely to be more than 2°C	2°C; it is very unlikely to be less than 1°C and is very unlikely to be more than 3°C.	2.2°C; it is very unlikely to be less than 1.2°C and is very unlikely to be more than 3.3°C.	2.6°C; it is very unlikely to be less than 1.4°C and is very unlikely to be more than 4°C	3.1°C; it is very unlikely to be less than 1.9°C and is very unlikely to be more than 4.8°C
Summer mean precipitation	-6% it is very unlikely to be less than -17% and is very unlikely to be more than 7%	-3% it is very unlikely to be less than -14% and is very unlikely to be more than 8%	-13%; it is very unlikely to be less than -27% and is very unlikely to be more than 1%	-13%; it is very unlikely to be less than -28% and is very unlikely to be more than 2%.	-16%; it is very unlikely to be less than -33% and is very unlikely to be more than 1%.	-20%; it is very unlikely to be less than -39% and is very unlikely to be more

<sup>54</sup> Ibid

	2020s		2050s		2080s	
						than -1%.
Winter mean precipitation	7% it is very unlikely to be less than -1% and is very unlikely to be more than 16%.	5% it is very unlikely to be less than -5% and is very unlikely to be more than 16%	15%; it is very unlikely to be less than 5% and is very unlikely to be more than 29%.	16%; it is very unlikely to be less than 4% and is very unlikely to be more than 31%	21%; it is very unlikely to be less than 6% and is very unlikely to be more than 42%	30%; it is very unlikely to be less than 12% and is very unlikely to be more than 55%.

### *Existing environmental issues*

3.48 The following are some of the key environmental issues affecting climate change:

- Increasing demand for fossil fuels for timber transport, forest operations, and indirectly for processing.
- Increasing demand for low carbon fuels for heat and power (i.e. woody biomass).
- Increasing use of private cars to access recreation facilities.

### *Implications for the Forestry and Woodland Strategy*

- 3.49 The Strategy should aim to encourage the uptake of biomass for renewable heat. However, biomass production could have negative effects on biodiversity, landscape, and amenity implications as a result of planting, harvesting, transport or processing.
- 3.50 Therefore, the Strategy should encourage appropriate woodland expansion to mitigate climate change through increasing carbon storage and reducing emissions. This includes ensuring the conservation and enhancement of existing woodland resources, encouraging active travel and the conservation of high carbon soils. The Strategy also has a strong role to play in supporting climate change adaptation. This includes ensuring species mix to promote resilience to climate change, planting in urban areas to manage the effects of increased temperatures and rainfall, and planting to support flood management.

## **Cultural heritage**

### *Overview*

- 3.51 Sites of recognised cultural heritage require designation and protection at international, national and local levels. Townscapes, buildings, battlefields, marine wrecks, landscapes and archaeological sites, known and unknown, need to be protected or enhanced, in keeping with policy that emphasises their cultural importance and significance. The quality of our built and rural environment is enhanced by the presence of cultural heritage and policy aims to improve the nature of these localities by safeguarding and improving traditional sites and fabric. The Royal Commission for Ancient and Historic Monuments in Scotland (RCAHMS) and Historic Scotland (HS) are the two main established bodies tasked with managing and protecting Scottish cultural heritage.

### *Background*

- 3.52 Eighty three percent of visitors to Scotland visit historic sites. As these assets are irreplaceable, it is important to conserve them for future generations and to sustain

national revenue supported by millions of visitors.<sup>55</sup> Historic buildings and artefacts shape communities but cultural heritage extends beyond fabric in more obscure ways such as the arts: language, music and festivals.

- 3.53 Of the 5 designated world heritage sites in Scotland, Clydeplan hosts two: The Antonine Wall and New Lanark. There are numerous other conservation areas, Gardens and Designed Landscapes. National Scenic Areas, Historic Battlefields, scheduled monuments and listed buildings all contribute to the character of Glasgow and the Clyde Valley and Scotland. Whilst there are currently 33 battlefields in the inventory, a further 22 are being researched.<sup>56</sup> Although there is no national park within the area, Loch Lomond and the Trossachs National park borders West Dunbartonshire within the north western extent of the strategic area. The distribution of Scotland's and Clydeplan cultural heritage assets is displayed in Figure 3.14 illustrating The Antonine Wall and New Lanark World Heritage sites.
- 3.54 Cultural heritage assets are well distributed over Scotland with a tendency for aggregation around settlements and coastal areas. Between RCAHMS and HS there are around 290565 known sites or assets. Of the assets being monitored including all categories of listed building, there are around 77829 in Scotland with 8746 of these found in GCVSDPA: approximately 11%.
- 3.55 Clydeplan is responsible for 4.2% of the nation's land area but for 33% of the nation's population. Table 3.9 compares the number of recorded sites between Scotland and Clydeplan. Reflecting upon the significance of the city region culturally, materially and historically the above average distribution of assets in the area reinforces the importance of developing conservation policies that protect culture, community, national identity and revenue. With many sites in Glasgow and the Clyde Valley being accessible to the majority of the country's population, their preservation and promotion yields many benefits.

**Table 3.9 Distribution and comparison of Clydeplan and national cultural heritage**

Asset Type	Scottish Volume	GCVSDPA Volume	GCVSDPA Percentage
Historic Battlefields	39	5	12.8%
Conservation Areas	659	96	14.6%
Scheduled Monuments	8182	365	4.5%
Properties in Care	325	19	5.8%
Historic Marine Protected Areas	8	0	0%
World Heritage Sites	10	2	20%
Gardens Designed Landscapes	391	21	5.4%
Category A Listed	6668	1061	15.9%

<sup>55</sup> Historic Scotland (2012) Why is the Historic Environment Important? [online] Available at: <http://www.historicscotland.gov.uk/index/heritage/valuingourheritage/why-is-the-historic-environment-important.htm>

<sup>56</sup> Historic Scotland (2012) Inventory Battlefields [online] Available at: <http://www.historicscotland.gov.uk/index/heritage/battlefields/battlefieldsunderconsideration.htm>

<b>Buildings</b>			
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- 3.56 The importance of cultural heritage, nationally and internationally, is increasingly being recognised and since 2008 has led to expansion in the number of buildings categorised as listed. According to local, national or international significance a building receives a categorisation level (listing) of A, B or C. These listings often reflect period and style. Buildings of particular significance are placed on the Buildings at Risk Register (BARR). This register has been developed since 1990 and incorporates vulnerable buildings under threat through lack of maintenance. Scottish buildings at risk have declined in volume by 0.5% since 2009 to around 8.2% and in 2010 85% of scheduled monuments were considered to be in optimal or satisfactory condition, similar to the 2007 record. Thirteen percent were deemed to be in unsatisfactory condition and 2% had significant problems.
- 3.57 RCAHMS holds around 135,000 land and 19,170 maritime site records.<sup>57</sup> There are many buildings in Scotland that are not designated for protection that face similar conservation issues. Around 25% of these have no protection from Scottish ministers but may come under the care of individual owners or guardians.<sup>58</sup> It is estimated that around 434,000 buildings 19% of dwellings in Scotland were built prior to 1919. Historic Scotland also protects 345 buildings including Edinburgh Castle and the Calanais Standing stones.

#### *Trends and issues*

- 3.58 Natural and manmade impacts affect the historic environment. Although 85% of the historic environment is in optimal or satisfactory condition, 2% are in immediate risk, 9% in high risk and a further 25% at medium risk. Risk level against failure period is listed in the table 3.10 below. 36% of historic cultural fabric could be lost to decay within 5 years if left protected.

**Table 3.10 Risk Level against expected time until failure**

<b>Risk Level</b>	<b>Volume Affected</b>	<b>Failure period</b>
<b>Immediate</b>	2%	Imminent
<b>High</b>	9%	Within 1 Year
<b>Medium</b>	25%	Within 5 Years

- 3.59 Threats and vulnerability tend to be site and environmentally specific.<sup>31</sup> As with many aspects of SEA, climate change will create significant pressure on cultural fabric and landscapes. Storm events, flooding, rising sea-levels and coastal damage will adversely affect our heritage with exposed sites being at greatest risk.<sup>59</sup> As well as increased physical erosion associated with weather extremes (heat, humidity, aridity, cold) biological and chemical undermining, through for example, algal, fungal and corrosive impacts, need to be considered. Invasive plant species associated with climate change could also adversely impact the resilience of our cultural heritage. Changes in land use can also impact undeveloped areas resulting in pressure on cultural heritage.

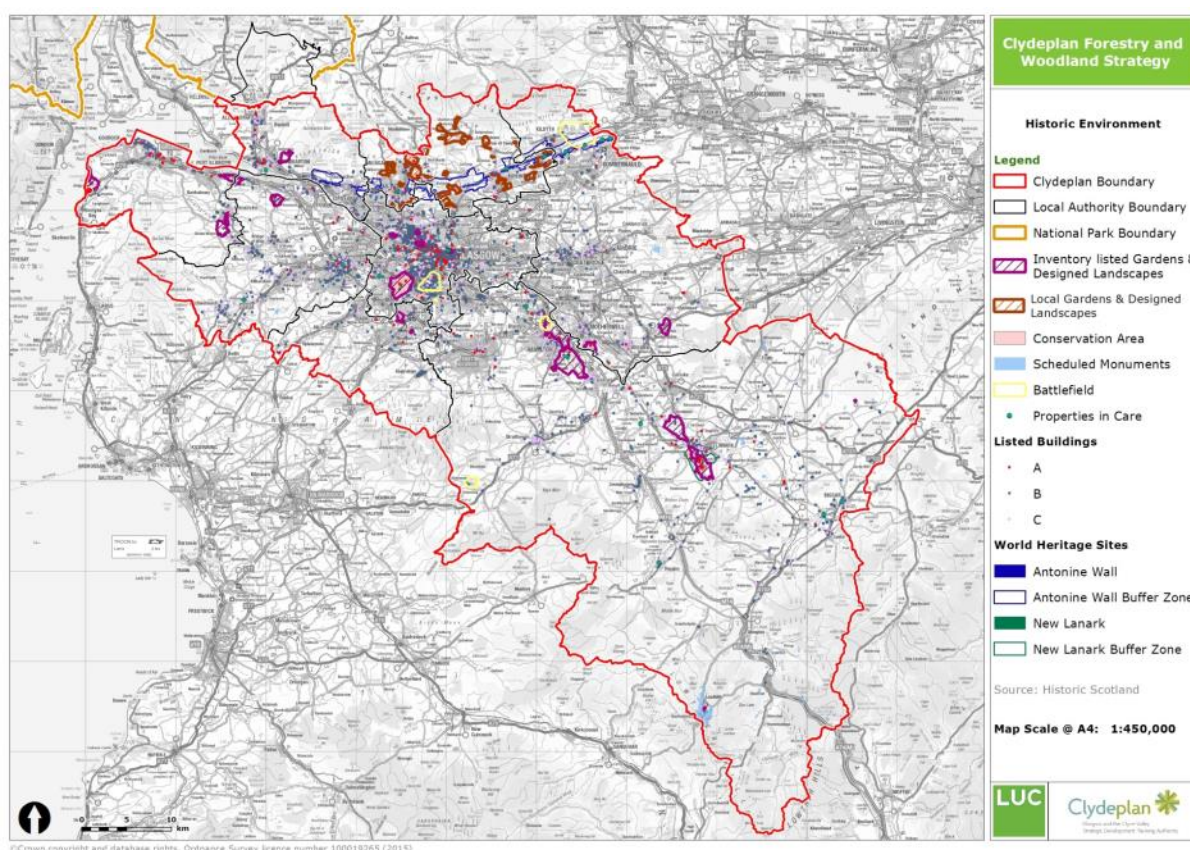
<sup>57</sup> SHEA (2011) Historic environment Audit [online] Available at: <http://www.heritageaudit.org.uk/>

<sup>58</sup> Ibid

<sup>59</sup> Historic Scotland (2012) The Effect on the Historic Environment [online] Available at: <http://www.historicscotland.gov.uk/index/heritage/climatechange/effectonenvironment.htm>



**Figure 3.10: Distribution of Cultural Heritage over Glasgow and the Clyde Valley**



### *Implications for the Forestry and Woodland Strategy*

- 3.60 The Strategy should seek to conserve and enhance the cultural and built environment by:
- Ensuring that woodland expansion safeguards the fabric and setting of heritage assets.
  - Contributing to the character and significance of important historic landscapes.
  - Promoting responsible access to and appreciation of cultural heritage via the green network.
- 3.61 The Strategy should recognise that there is potential for damage to unidentified historic archaeological features on land identified for woodland expansion. In addition, there is potential for damage to occur to assets as a result of irresponsible access and activities. However, the Strategy should promote careful planning and design of proposals in order to avoid any risk of damage occurring.

## **Landscape and Geodiversity**

### *Overview*

- 3.62 The European Landscape Convention and other objectives exist with a view to recognising and protecting special national landscapes and improving degraded landscapes. National Scenic Areas and protected geological sites (some of these falling within Sites of Special Scientific Interest - SSSIs) are recognised as underpinning important local, regional and national landscape character. Scottish Natural Heritage (SNH) and the Scottish Government (SG) lead on managing this environmental objective.

### *Background*

- 3.63 The diverse and distinctive landscapes of Scotland have been recognised for their contribution to natural and cultural heritage as well as to the social and economic well-being of the nation. The European Landscape Convention aims to protect all landscapes,



not just protected areas and it is recognised that underlying geology is crucial to realising this objective.

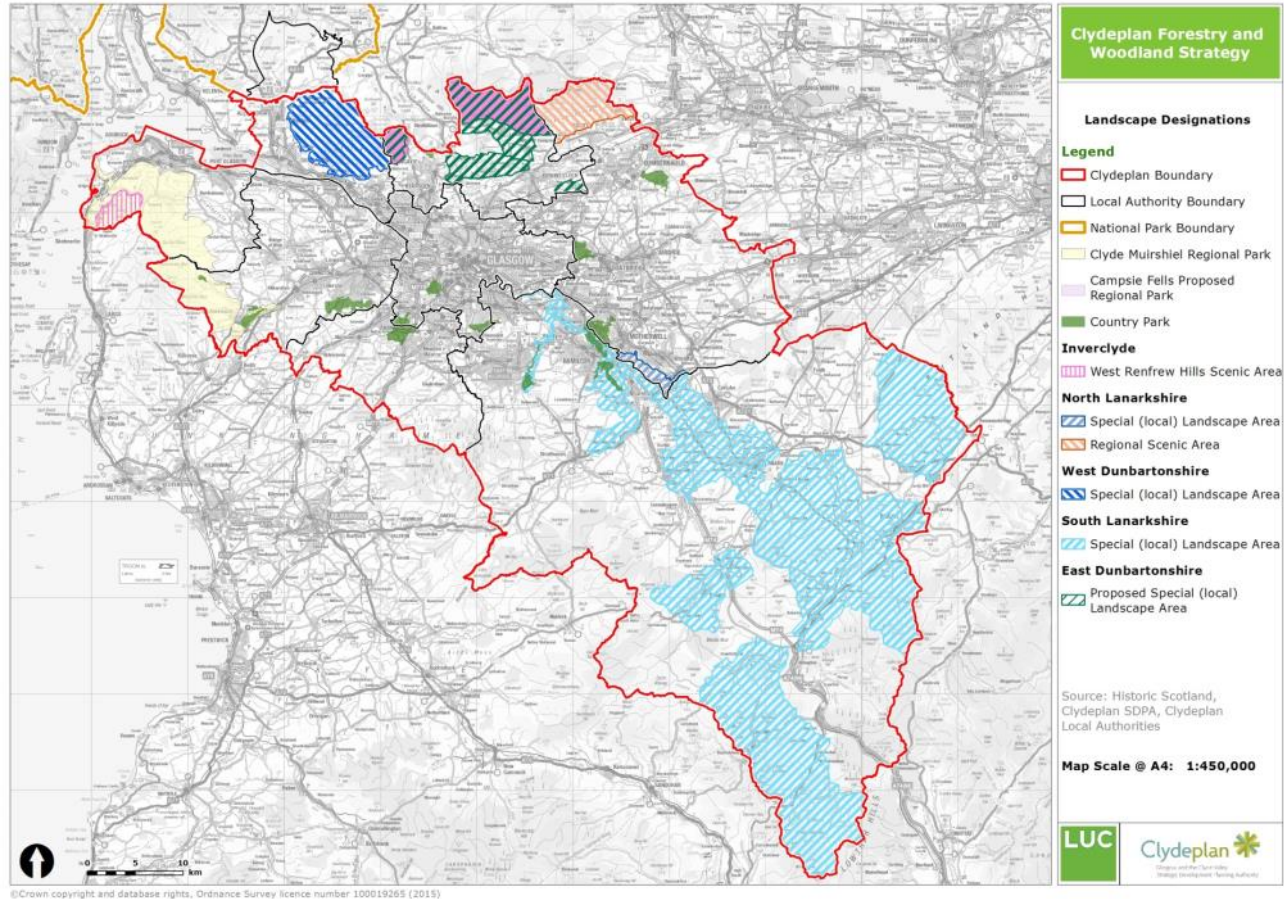
- 3.64 Attractive accessible landscapes support good health whilst providing enjoyment and recreation.<sup>60</sup> Scotland's economy benefits from a £4.2billion tourist industry where landscape contributes to local tourism and contributes to the cultural and natural heritage those visitors come to enjoy. With 9% of the Scottish workforce employed within tourism and by recognising that landscape quality is important to visitors, restoration of degraded landscapes will help ensure revenue and employment associated with tourism is maintained whilst supporting health and well-being. The majority of National Scenic Areas and geologically significant sites lie out with GCV, however Loch Lomond and the Trossachs National Park and the Dark Skies Park lie on the periphery of the Clydeplan boundary to the north and south respectively and are easily accessible as are the scenic and picturesque landscapes of Arran and Perthshire. There are no local biosphere reserves however the footprint of Biospheres are fuzzy and incorporate a buffer zone and broad transitional area that create a wider geographical constraint.<sup>61</sup> There are several extensive areas of local landscape designation across the Clydeplan area, most predominantly at the northern edge and south western uplands, as illustrated in Figure 3.11. There are several Geological Review Sites within the GCV boundary and these are listed in table 3.11. However there are no UNESCO Geoparks. Some geological sites nest within the SSSI boundaries. The distribution of these sites of conservation can be understood from Figure 3.12.

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<sup>60</sup> The Scottish Landscape Forum's Report to Scottish Ministers (2007) Scotland's Living Landscapes  
<http://www.snh.gov.uk/docs/B173495.pdf>

<sup>61</sup> Galloway and Southern Ayrshire Biosphere <http://www.gallowayandsouthernayrshirebiosphere.org.uk/>

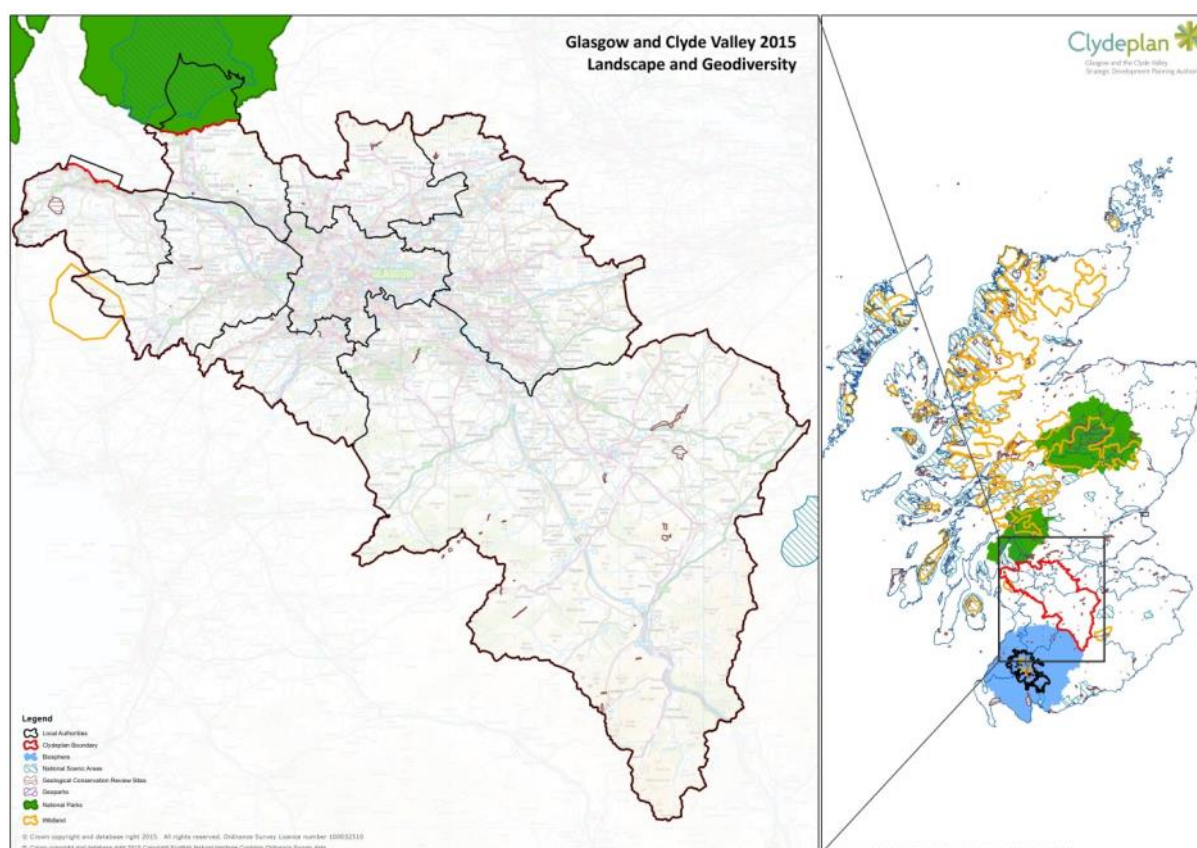
Figure 3.14 Designated landscapes



- 3.65 As with many of the sites associated with landscape and geodiversity, wild land as categorised by Scottish Natural Heritage is predominantly found in the North West of Scotland. These are areas of perceived ruggedness, remoteness, natural vegetation and with minimal infrastructure associated with human activity.<sup>62</sup> Muirshiel Country Park within Renfrewshire Authority is the only wild land found within Clydeplan's boundary.

<sup>62</sup> Scottish Natural Heritage (2002) Natural Heritage Zones: A National Assessment of Scotland's Landscapes  
<http://www.snh.gov.uk/docs/A337653.pdf>

**Figure 3.12 – Distribution of Geodiverse landscapes over Glasgow and the Clyde Valley**



**Table 3.11 SNH GCR sites falling within Clydeplan boundary**

Bearsden	Clochodrick Stone	Falls of Clyde	Ree Burn - Glenbuck Loch
Birk Knowes	Corrie Burn	Glenarbuck	River Calder
Birkenhead Burn	Craighead Hill Quarry	Kennox Water	River Clyde Meanders
Boylestone Quarry	Dippal Burn	Leadhills - Wanlockhead	Rouken Glen
Bridge of Weir	Dumbarton Rock	Loch Humphrey Burn	Shiel Burn
Campsie Fells	Dunrod Hill	Mollinsburn Cuttings	Tinto Hills
Carstairs Kames	Dunside	Raven Gill	Victoria Park
			Waulkmill Glen

### *Trends and issues*

- 3.66 Landscape character is affected by incremental development not necessarily based upon material expansion or exploitation of resources (renewables and extraction) but also based on land use changes associated with agriculture and forestry. Human perception around factors such as ease of access, journey times, visitor experience and access rates also affect, sometimes subjectively, how land and character is perceived.
- 3.67 In the current period, some of these considerations have come to the fore as landscapes are being considerably altered by the energy sector and renewables industry. Some areas are cleared of woodland with turbines erected in their place. Under the European Landscape Convention, caution needs to be applied under this fuzzier legislation that affords “non-protected” landscapes some degree of consideration in the planning process. Whilst climate change is perceived as a threat to most other aspects of SEA, when considering climate change mitigation measures, renewables and the energy sector paradoxically pose the most significant threat to the landscape and geodiversity component of SEA.

### *Implications for the Forestry and Woodland Strategy*

- 3.68 The Strategy should conserve and enhance the character of the region’s landscapes by:
- Steering woodland expansion proposals to appropriate locations and avoiding impacts on local landscape character through inappropriate afforestation.
  - Supporting measures to promote good woodland design and appropriate diversity.
  - Encouraging the restructuring of woodlands to increase structural and species diversity.
  - Encouraging the use of woodland to root new development and existing settlements in the landscape.
  - Using woodland to enhance degraded urban fringes and transport corridors.
  - Supporting the management of existing woodland resources.
- 3.69 The Strategy should promote the avoidance of planting large areas of monoculture biomass as it is likely to result in negative impacts on the area’s landscape character.

## **Material assets**

### *Existing environmental characteristics*

- 3.70 It should be noted that a number of forestry activities may require a waste management exception, or licence, from SEPA.

### *Overview*

- 3.71 Within the context of pursuing sustainable development and promoting a low carbon economy, material assets associated with agriculture, forestry, transport and waste have been identified as contributing most significantly.

### *Background*

- 3.72 Material assets of Clydeplan are wide ranging and relate to infrastructure, resources and production. These areas of business are important in supporting the economy and affect environmental quality.

### *Agriculture*

- 3.73 In terms of sheer coverage, agriculture is the most significant asset within the Scottish economy and planning system, accounting for 80% of Scotland’s land area with 85% of this classified as Less Favoured Area Rough Grazing. For the Clydeplan Area (See Figure 3.13), 84.6% is agricultural with nearly half of this being Less Favoured Area Rough Grazing.



Figure 3.13 Agricultural distribution and type over GCV

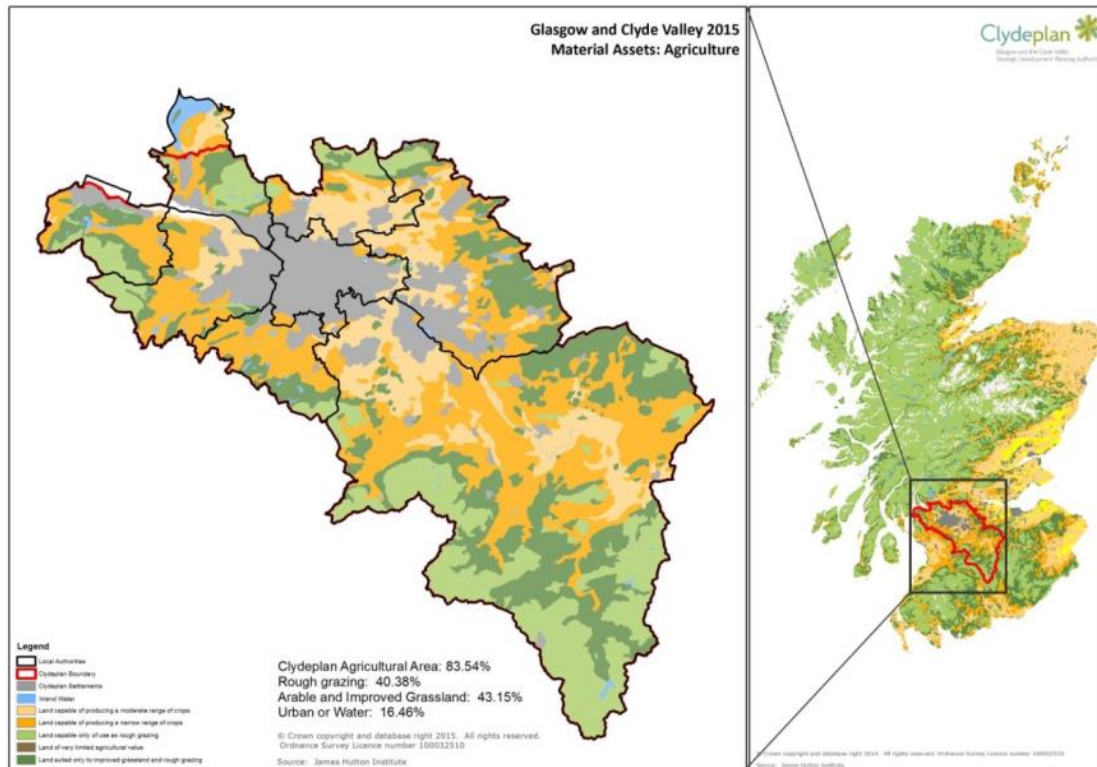
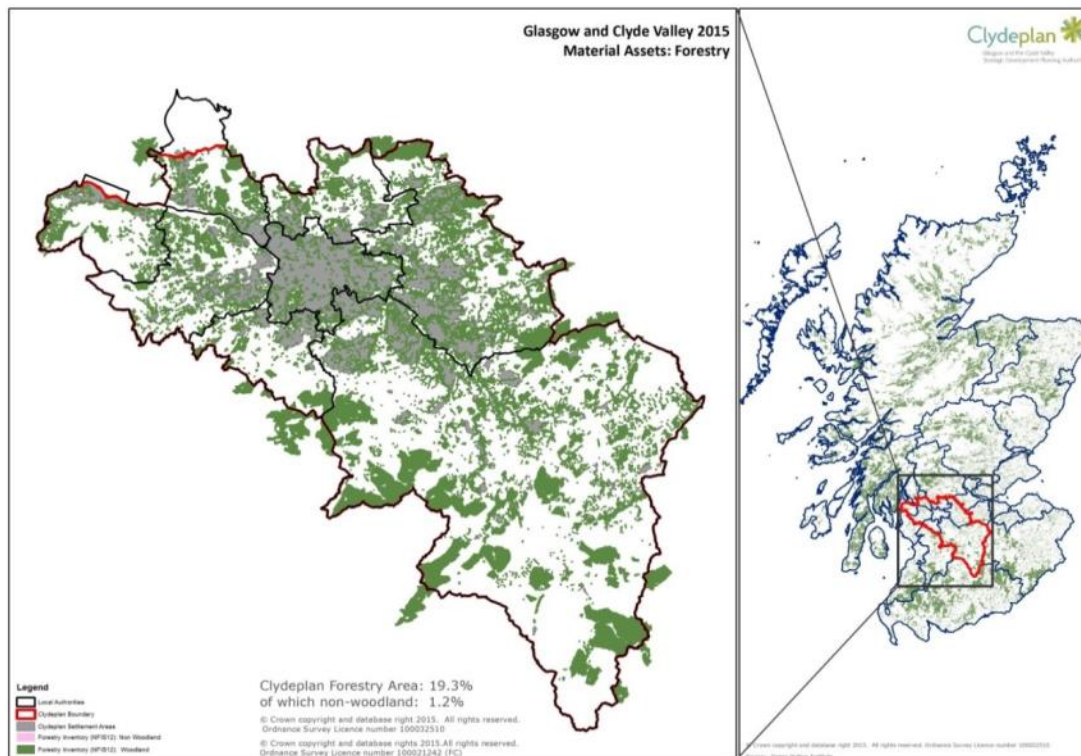


Figure 3.14 Distribution of woodland over Glasgow and the Clyde Valley



### Woodland

- 3.74 Woodland occupies 18.1% of the Clydeplan area comparing favourably with the national total of 18.1%. The vast majority of Clydeplan woodland falls within land classified as rough grazing.

Scotland's forests are highly productive creating 45% or £700 million of the UK total revenue<sup>63</sup> and yields are expected to rise.<sup>64</sup> Within the Clydeplan area woodland is desirable for leisure and amenity, promoting health and wellbeing and if suitably managed (woodland is a carbon sink and net gain should be pursued after harvest) could be used to support biomass energy projects. From Figure 3.14, woodland within Glasgow and the Clyde Valley is evenly distributed with slightly less than average found in East Renfrewshire, Inverclyde and Glasgow City.

### Travel

- 3.75 Traffic volume on the 55,838 kilometres of Scottish Roads has increased by 15% since 1996 and doubled on trunk roads since 1983.<sup>65</sup> Trunk roads make up 6.3% of the network but carry 37% of all traffic and 63% of all cargo with many of these roads being found in the Clydeplan catchment area.<sup>66</sup> The 2800km rail network carries 77million passengers per annum and a slightly increasing amount of freight year on year.<sup>67</sup> Ninety six million tonnes of Cargo pass through Scottish ports every year and 9.5 million passengers, with Greenock in the Clydeplan region being one of the 4 gateway ports in Scotland<sup>41</sup>. Although Edinburgh Airport is now Scotland's busiest airport, Glasgow retains its lead for accommodating transatlantic heavy aircraft.
- 3.76 For a region that occupies 4.2% of the Scottish land mass, Clydeplan not surprisingly hosts a higher than average percentage of the transport infrastructure with table 3.12 below quantifying the region's approximate share. Figure 3.15 highlights the extent of the transport network.

**Table 3.12 Comparison of Clydeplan and Scottish transport network**

Transport	Scotland (Km)	Clydeplan (Km)	Clydeplan Share (%)
Rail	2800	463	16.5
Total Road Network	55838	8456	15.1
Motorway	391	154	39.4
A-Road	10267	878	8.6

<sup>63</sup> HR Wallingford, AMEC Environment & Infrastructure UK Ltd, The Met Office, Collingwood Environmental Planning, Alexander Ballard Ltd, Paul Watkiss Associates, Metroeconomica (2012) A Climate Change Risk Assessment for Scotland, DEFRA

<sup>64</sup> The Scottish Government (2011) Statistics, Agriculture fisheries and rural [online] Available at: <http://www.scotland.gov.uk/Topics/Statistics/Browse/Agriculture-Fisheries/TrendTimberHarvested>

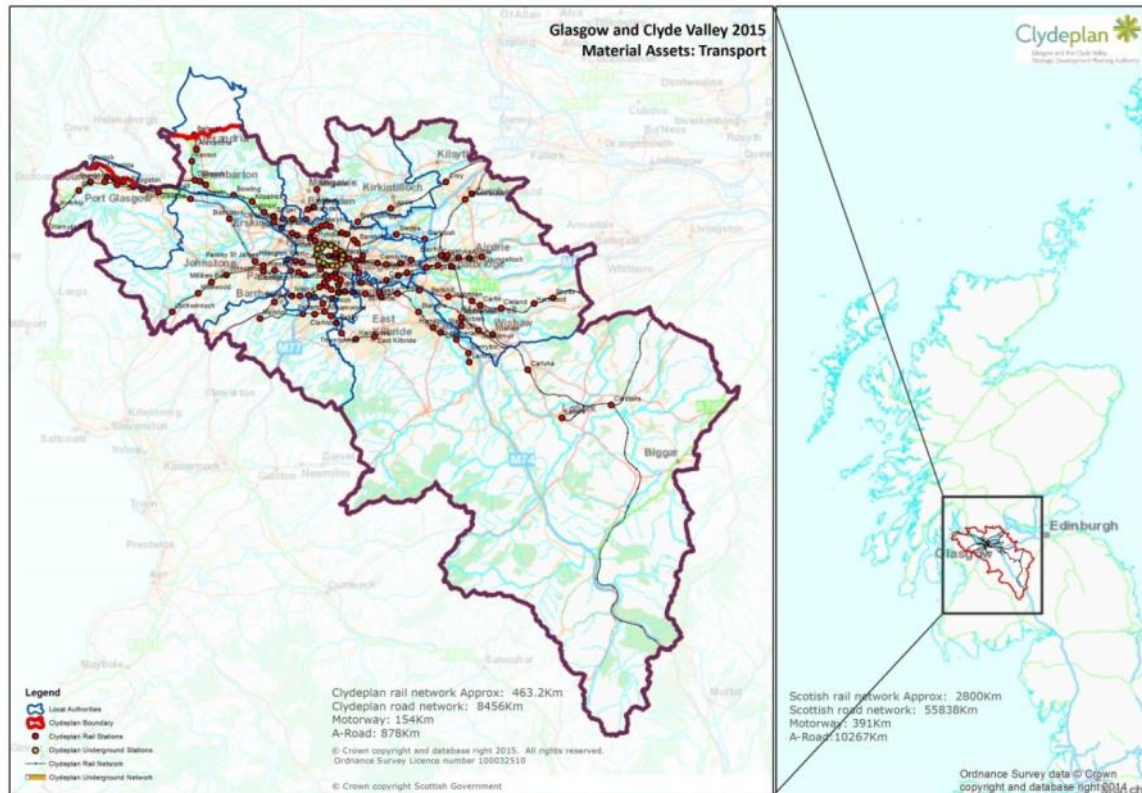
<sup>65</sup> Scottish Government (2009) Private Transport – Road Network Statistics, [online] Available at: <http://www.scotland.gov.uk/Topics/Statistics/Browse/Transport-Travel/TrendRoadNetwork>

<sup>66</sup> Scottish Government (2011) Adaptation framework transport sector action plan [online] Available at: <http://www.scotland.gov.uk/Topics/Environment/climatechange/scotlandsaction/adaptation/AdaptationFramework/SAP/Transport/TheChallenge>

<sup>67</sup> Ibid



**Figure 3.15 Extent of transport network within Clydeplan**



### Waste

- 3.77 7.4 million tonnes of waste was landfilled in Scotland in 2007. Biodegradable Municipal Waste (BMW) accounted for 1.4 million tonnes (14%) of this waste. Although landfill has decreased by 34% and BMW by 28% since 2000, protection against soil and water course pollution needs to be maintained. Material reclamation and recycling needs to be further enhanced to reduce the 1.26 million tonnes being disposed of annually. These materials decompose and release greenhouse gasses such as CO<sub>2</sub> and methane.<sup>68</sup>

### Trend Prediction Risk

#### Agriculture

- 3.78 Within arable and livestock farming, trends show a decrease in productivity over the period 2002-2012. These trends are in both sectors with livestock farming showing steep decline, perhaps since foot and mouth disease. Decrease in arable productivity is less discernible.<sup>69,70</sup> In terms of food security and carbon offset and to support the business of rural, agricultural communities, it would be beneficial develop policy that addresses decline in the farming industry.

#### Forestry

- 3.79 The Forest and Woodland Strategy aims to increase woodland cover to 25% from 18% as stated in the [NIFS survey](#) of 2011.<sup>71</sup> Under climate change it is anticipated that yield will increase particularly with Scandinavian species like Sitka Spruce which grow faster, yet softer and weaker in warmer environments. Scots Pine and Lodgepole Pine growth rates are also expected to rise in

<sup>68</sup> Scottish Government Key Waste Statistics <http://www.scotland.gov.uk/Topics/Environment/waste-andpollution/Waste-1/wastestrategy/key-facts>

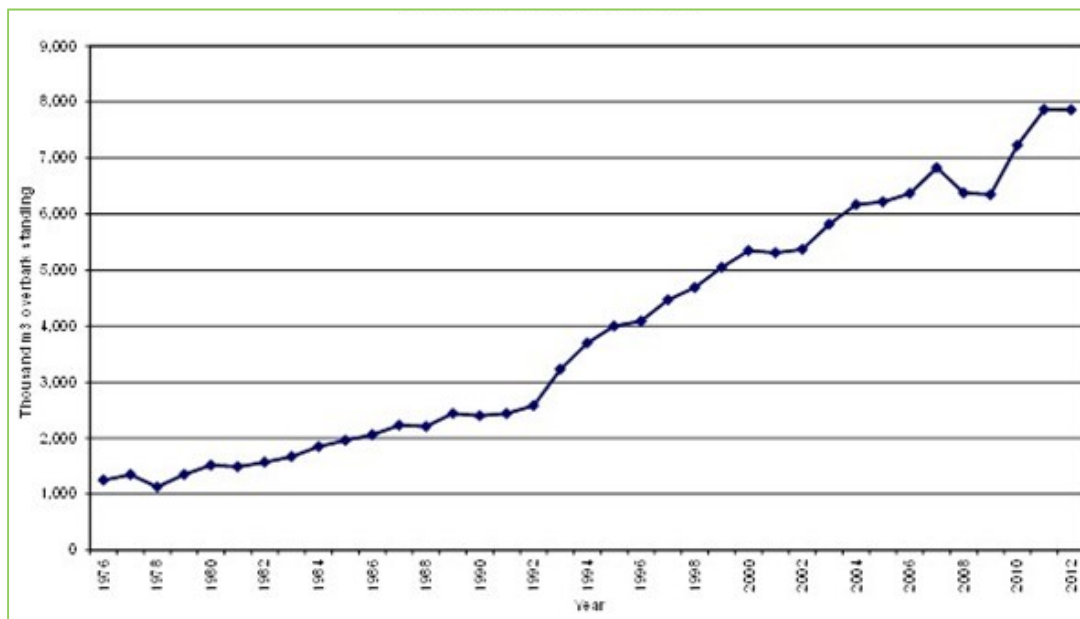
<sup>69</sup> Scottish Government High level Summary of Statistics Trend Last Update September 2012 Livestock Trends <http://www.scotland.gov.uk/Topics/Statistics/Browse/Agriculture-Fisheries/TrendLivestock>

<sup>70</sup> Scottish Government (2012) Statistical Publication, Agriculture Series, First estimate of the cereal and oilseed rape harvest 2012. <http://www.scotland.gov.uk/Resource/0040/00404539.pdf>

<sup>71</sup> Scottish Executive (2006), The Scottish Forestry Strategy [online] Available at: <http://www.forestry.gov.uk/sfs>

warmer conditions. Timber harvest is currently 6 times greater than in the late 1970s as shown in Figure 3.16 below.

**Figure 3.16: Timber harvested in Scotland 1976 to 2012**



#### Travel

- 3.80 Climate change is expected to affect transport of freight and people over Scotland. Road and rail would be the most seriously affected through flooding and landslides with air and shipping less affected. However climate change remains a real threat to all communities, resources and infrastructure.<sup>38</sup>
- 3.81 There has been a large increase in distance travelled by car since 1985, the mode of transport still favoured by 75% of Scotland's inhabitants. On average each individual travels around 7000 miles per annum. Figures from the 2001 census reveal that commuting by car increased by 21%-68% between 1966 and 2001 whilst the use of the bus has decreased from 43%-12% and walkers from 24%-12%.<sup>72</sup> Census data from 2011 has not yet been collated in order to identify the trend for the last decade 2001-2011. These figures are significant to Clydeplan centre where the majority of trunk roads service the working centre. Commuting by train or bike remained relatively stable over this period at 4% and 2% respectively.
- 3.82 Rail haulage of commodities showed signs of declining over 1996-2006 but recovered in 2007, with coal and minerals being the main commodity transported.<sup>73</sup>

#### Waste

- 3.83 Waste recycling rates have grown over the 5 year period from 2006-2011 although the rate of growth has slowed.<sup>74</sup> 37% less waste was landfilled at the end of the 5 year period but with 4.56 million tonnes still being disposed of. As of 2010/11, recycling and compost rates were running at 38.2% over the Scottish Local Authorities.<sup>75</sup>

<sup>72</sup> Scottish Government High level Summary of Statistics Trend 2011, Travel to work

<http://www.scotland.gov.uk/Topics/Statistics/Browse/Transport-Travel/TrendTraveltoWork>

<sup>73</sup> Scottish Government (2009) preparing for Tomorrow, Delivering Today, Freight in Scotland

<http://www.scotland.gov.uk/Publications/2009/08/03104646/0>

<sup>74</sup> SEPA (2012) Waste Data Digest 12: Key Facts and Trends

[http://www.sepa.org.uk/waste/waste\\_data/waste\\_data\\_digest.aspx](http://www.sepa.org.uk/waste/waste_data/waste_data_digest.aspx)

<sup>75</sup> DEFRA (2006) Carbon Balances and Energy Impacts of the Management of UK Wastes Defra R&D Project

### *Key Issues*

- 3.84 Policy should aim to encourage economic development in rural areas whilst providing support for other activities including agricultural change thus minimising adverse impact on landscape character or local economy.
- 3.85 Sustainable forestry is essential in supporting climate change adaptation and mitigation objectives. Biodiversity must be protected whilst understanding the role that biomass production plays albeit carbon generating, in reducing reliance on fossil fuels. Provision of woodland for health, well-being and recreation should also be sustained.

### *Implications for the Forestry and Woodland Strategy*

- 3.86 The Strategy can play a vital role in the reclamation of mineral and waste deposit sites through woodland planting. Furthermore, waste arising from forestry is sustainable relative to other forms of development/land use. The Strategy can protect key mineral resources from sterilisation through inappropriate afforestation. Finally, new woodland planting should be directed away from productive farmland areas.

### **Population and human health**

- 3.87 Deprivation in Scotland is monitored using the Scottish Index of Multiple Deprivation (SIMD) which monitors key areas: Income, Employment, Health, Education, Geographic Access, Housing and Crime. These are aggregated into an index of multiple deprivation revealing that deprivation in the city region has become less concentrated over the period 2004-2012: highlighted in the SIMD 2012 revision.<sup>76</sup> Fifty percent of Scotland's most deprived datazones were found in Glasgow City in 2004 but this reduced to 35.8% in 2012. Other areas have seen increases in deprivation including North Lanarkshire and Renfrewshire where significant shares of their datazones are amongst the 15% most deprived in Scotland. Between SIMD 2009 and SIMD 2012, Glasgow City and South Lanarkshire have seen a decrease in the number of datazones contributing to the 15% most deprived areas in Scotland. For Clydeplan, these changes need to be monitored and understood in order to inform the SDP.
- 3.88 Between 1996 and 2010 an average of 23,600 homes a year were built in Scotland with the peak being around 2007. Glasgow City saw the highest growth rate in Scotland in 2010 with 1828 in completions.

### *Existing environmental characteristics*

- 3.89 The **Scottish Public Health Observatory (ScotPHO) Health and Well-being Profiles 2015**<sup>77</sup> provide statistics and highlight key issues/trends in population, education, health, and housing in Scotland. In relation to the Greater Glasgow and Clyde area (which excludes Lanarkshire) The following is a summary from each domain:
- **Life Expectancy & Mortality:** Across all indicators of life expectancy, deaths and mortality the area is statistically significantly worse than the Scottish average with lower life expectancy and higher death rates.
  - **Behaviours:** Across the indicators relating to smoking, alcohol, drugs and active travel to work, the area is statistically significantly worse than the Scottish average in relation to deaths related to smoking, and deaths and hospital stays associated with smoking, alcohol and drugs.
  - **Ill Health and Injury:** The area performs statistically significantly worse than the national average across all the indicators, with the exception of road traffic casualties.
  - **Mental Health:** The area performs statistically significantly worse than the national average across the indicators for drug prescription for anxiety/depression/ psychosis, and for patients with a psychiatric hospitalisation.
  - **Social Care & Housing:** The area performs statistically significantly worse in relation to incapacity benefit, and worse in relation to looked after children and single adult dwellings.

<sup>76</sup> SIMD 2012 Results <http://simd.scotland.gov.uk/publication-2012/simd-2012-results/overall-simd-results/keyfindings/>

<sup>77</sup> The Scottish Public Health Observatory, 2015. *Health and Well-being Profiles 2015: Scotland Overview report* [online]. Available at: <http://www.scotpho.org.uk/opt/Reports/ScotPHO-HWP-2015-Scotland-Overview-Report-02062015.pdf>

- **Education:** The area is largely in line with the national averages for the education indicators, with the exception of primary school attendance which is statistically significantly worse.
- **Economy:** The area performs statistically significantly worse than the national average across all of the indicators.
- **Crime:** The area performs statistically significantly worse than the national average across all indicators with the exception of referrals to the children's reporter for violence related offences.
- **Environment:** The population living within 500m of a derelict site is statistically significantly worse than the Scotland average, however the number of people living in the 15% most 'access deprived' areas is statistically significantly better than the national average.

3.90 The SIMD is calculated by combining information on seven domains, namely, income; employment; health; education; housing; access; and crime. The following is a summary from each domain. The Scottish Index of Multiple Deprivation 2012<sup>78</sup> showing relative levels of deprivation in the area is illustrated on Figure 3.17.

#### Trends and issues

- 3.91 Life expectancy has improved over recent surveys as has healthy life expectancy (HLE) albeit it at a slower rate. In 2009, HLE for men was 60 and 62.2 for women. The lowest HLE for GCV is highlighted in the 15% most deprived datazones: 57.5 for men and 61.9 for women.
- 3.92 The elderly and those with asthmatic conditions are more susceptible to poor air quality where long term exposure can have adverse effects on the heart and lungs, increasing mortality rates. In recent decades air quality has improved and the incidence of premature deaths has fallen.<sup>56</sup> Short duration high pollution events can however trigger increases in hospital admissions.<sup>79</sup>
- 3.93 Ozone is a pollutant on the increase. Under climate change, a 5°C rise in temperature could see a 4% increase in health burden (500 premature deaths) compared to the baseline.<sup>80</sup> High levels of particulates are found around urban centres and congested traffic routes as is nitrogen Dioxide (NO<sub>2</sub>).
- 3.94 The SEPA National and Strategic Flood Risk Assessments identify flood risk and flood impact to people, economy and environment. Within the Clydeplan Catchment, The Clyde Estuary, White Cart Water, the River Clyde at Motherwell, sections of the River Kelvin, Wemyss Bay, Dumbarton and Loch Lomond/Vale of Leven areas are susceptible.<sup>60</sup>

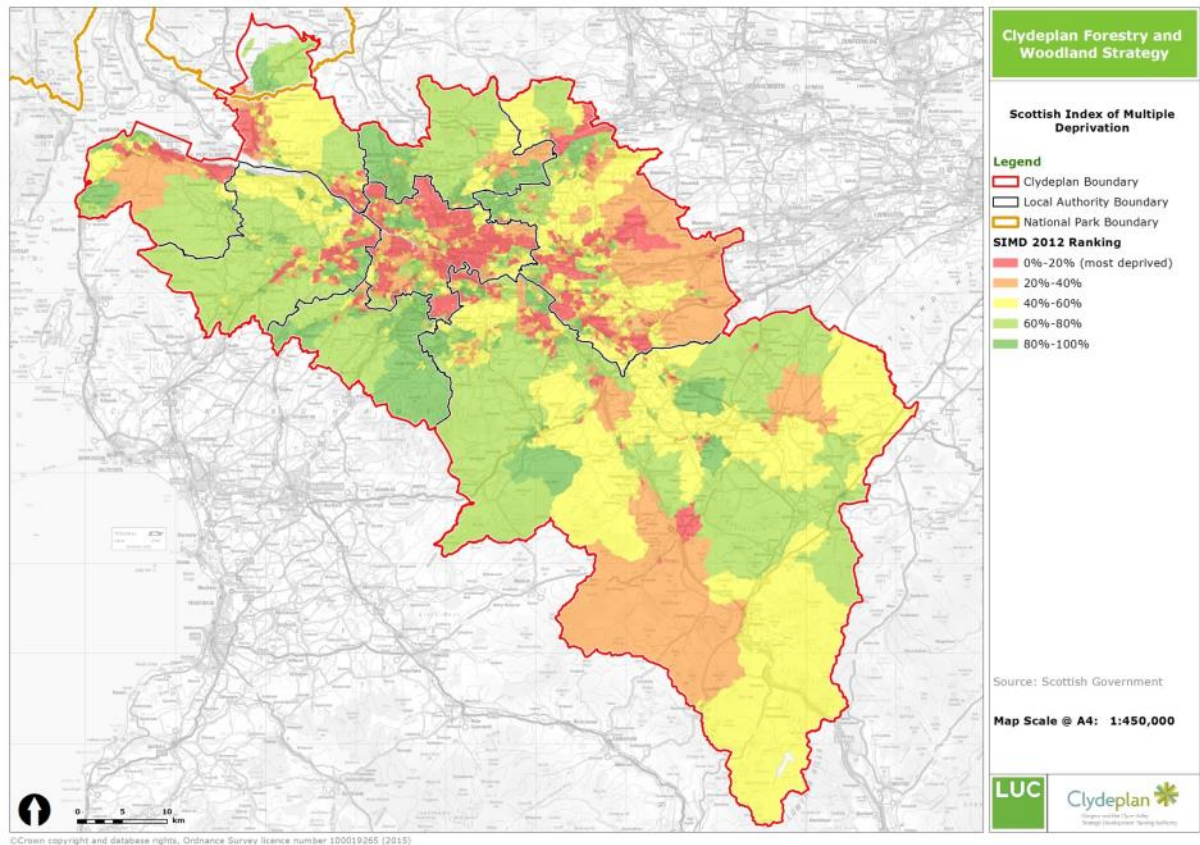
<sup>78</sup> Scottish Government, 2013. *Scottish Index of Multiple Deprivation 2012* [online]. Available at: <http://simd.scotland.gov.uk/publication-2012/> [Accessed 27 March 2014]

<sup>79</sup> Scottish Government Statistics Health of Scotland's population  
<http://www.scotland.gov.uk/Topics/Statistics/Browse/Health/TrendLifeExpectancy>

<sup>80</sup> Vardoulakis, S. and Heaviside, C. (Editors) (2012) Health Effects of Climate Change in the UK 2012 Current evidence, recommendations and research gaps, Health Protection Agency



**Figure 3.17 Scottish Index of Multiple Deprivation 2012 ranking**



### *Implications for the Forestry and Woodland Strategy*

- 3.95 The Strategy should target appropriate woodland creation and expansion to vacant and derelict land or stalled development sites. In addition, woodland access improvements should be encouraged in areas where health and community need is greatest and current provision is weak. The Strategy should seek to utilise the potential of biomass to provide low cost sustainable heat which will contribute to alleviating fuel poverty. Moreover, the Strategy can contribute to community and health benefits by supporting the Central Scotland Green Network objectives to encourage active travel and recreation.
- 3.96 The Strategy should support new woodland planting to support climate change adaptation to ameliorate the impacts of climate change through higher temperatures and increased rainfall.
- 3.97 The Strategy should also recognise that there is potential for adverse effects on health as a result of wider adoption of woody biomass as a domestic / community-scale fuel source (increased PM<sub>10</sub> emissions).

## Soil

### Overview

- 3.98 The importance of soil as a resource and national commitment to its sustainable management has been recognised at a European level. High quality agricultural land and high carbon soils like peat need preserving. Policy is required that assesses windfarm development on peat soils and in the central belt there needs to be remediation from the effects of sealing and contamination associated with development. Under Clydeplan, the latter is significant as is the requirement to protect the remaining agriculturally productive land from pollution and development.

### Background

- 3.99 Soil and soil quality are environmentally, socially and economically important to Scotland. The Scottish Soil Framework (2009) defines soil quality and how it supports the following functions<sup>81</sup>:
- food, forestry and biomass production;
  - regulating environmental function like water flow and quality;
  - storing carbon preventing atmospheric release;
  - promoting habitat and biodiversity; and
  - providing raw material and providing a platform for buildings and roads.
- 3.100 The geology and climate of Scotland render soils relatively infertile and poorly drained. They are high in organic matter in the peat of the highland northwest and they are well leached compared to Europe. 25% of Scottish soils including improved grassland are cultivated for agriculture with another 45% being used for rough grazing. 17% of Scottish soils are forested.<sup>82</sup> Figure 3.18 illustrates the land capability for agriculture. In Glasgow and the Clyde Valley, 43% of soils are used as improved grassland and 40% for rough grazing although not all are used under their specific classification. For example, within these soil classifications, 18% of the soils are forested.
- 3.101 Peat covers around 11% of Scotland's land but holds 70% of the 3,000 million tonnes of "locked-in" carbon (Figure 3.19). This also represents 50% of the UK's soil carbon stocks.<sup>83</sup> These soils that host semi-natural vegetation like heather moorland, native woodland and blanket bog are rare in a UK, European and global context and should be afforded protection.<sup>84</sup>

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<sup>81</sup> Scottish Government (2009) Scottish Soil Framework

<http://www.scotland.gov.uk/Publications/2009/05/20145602/0>

<sup>82</sup> The State of Scotland's Soil, 2011, Dobbie, K.E, Burneau, P.M.C, Towers, W. [online] Available at:

<http://www.sepa.org.uk/land/soil.aspx>

<sup>83</sup> Dobbie, K.E, Bruneau, P.M.C and Towers, W. (eds) (2011) The State of Scotland's Soil, Natural Scotland,

[www.sepa.org.uk/land/land\\_publications.aspx](http://www.sepa.org.uk/land/land_publications.aspx)

<sup>84</sup> The Scottish Government (2009) Scottish Soil Framework. [online] Available at:

<http://scotland.gov.uk/Publications/2009/05/20145602/4>



Figure 3.18 – GCV Soil Classification 1: Land Capability for Agriculture

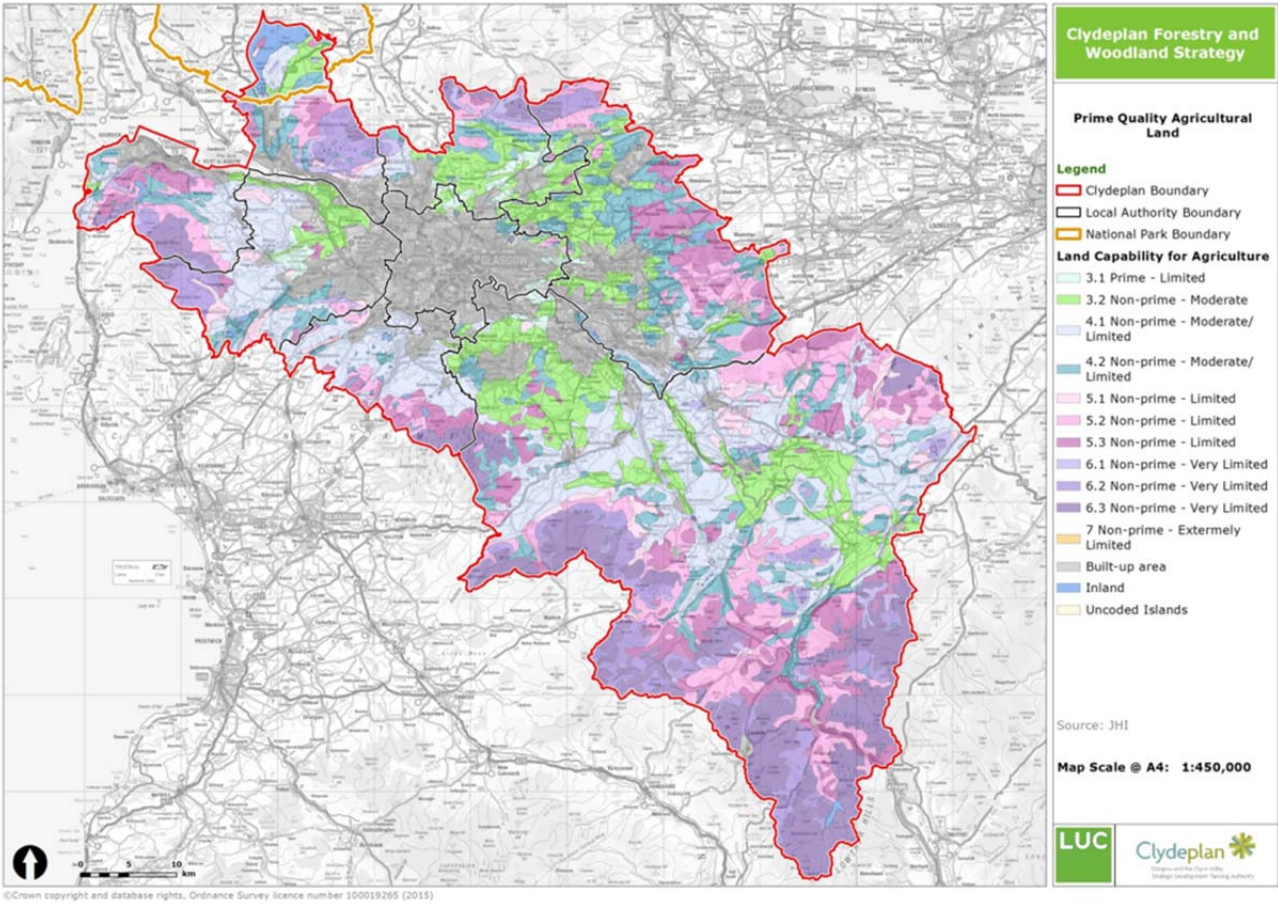
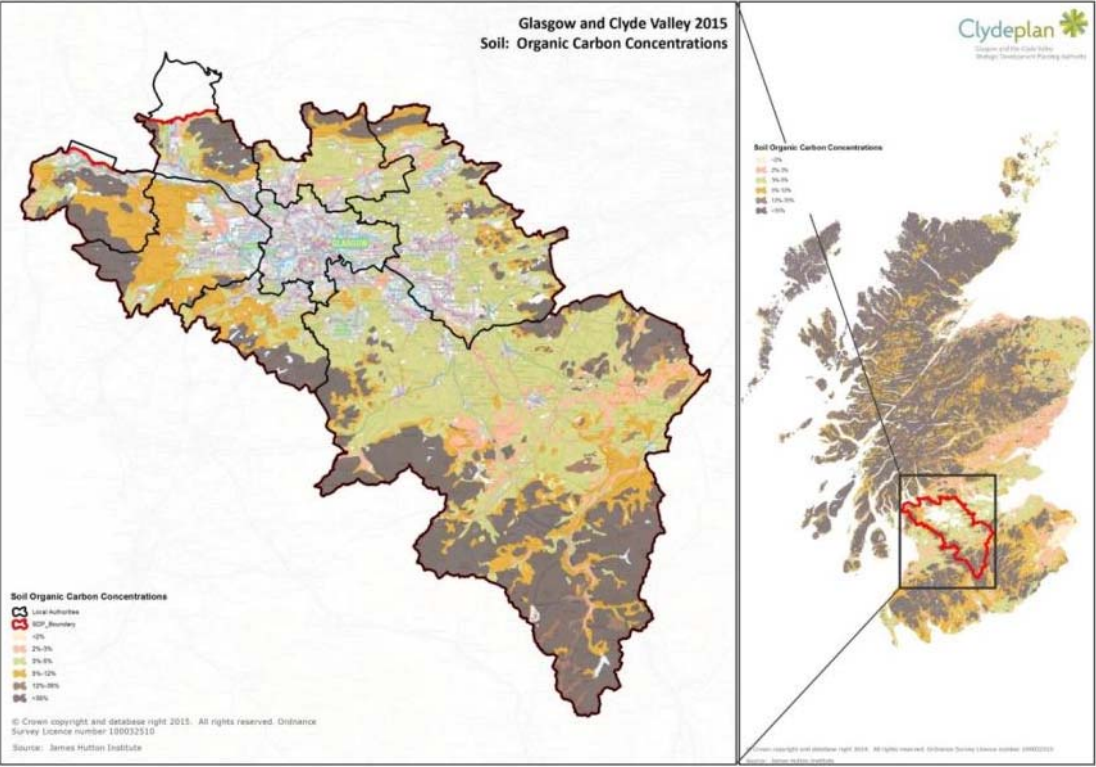


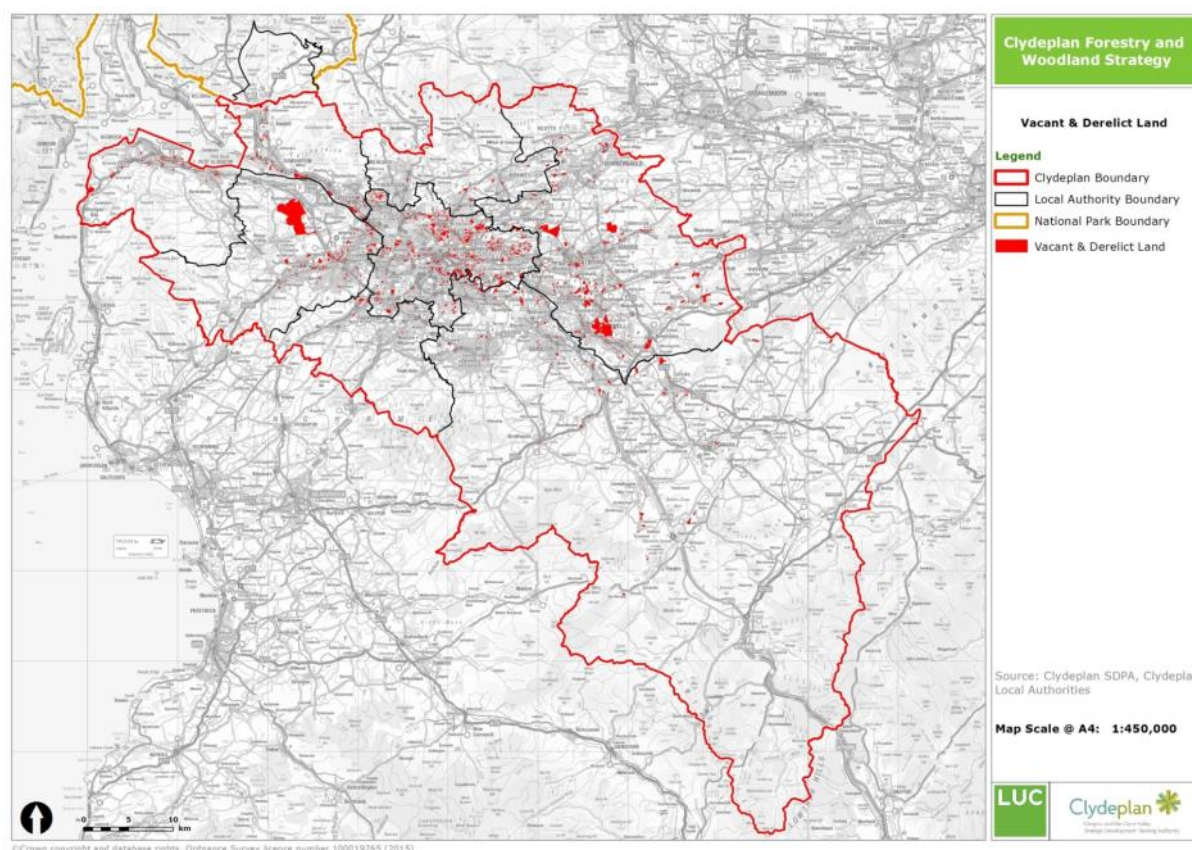
Figure 3.18 – Clydeplan Soil Classification 2: Organic Carbon Concentrations



### *Trends and issues*

- 3.102 There is little trend data to indicate whether Scottish soils, generally considered to be in good condition, are improving in quality or degrading. Climate change and organic loss are considered the main national threats to soil and are thought to be difficult to redress. Loss of carbon to the atmosphere has a global impact.
- 3.103 The significant impacts to GCV are associated with soil sealing, decrease in biodiversity, acidification and eutrophication through pollution. Leaching is also a problem as GCV is exposed to wetter than average conditions. In the agricultural sector and as highlighted in the water framework, cultivation can lead to erosion, contamination, structure loss and compaction which has significant implications on health, rural and built environment. Additionally, debris flow and landslides have increased over the last 200-500 years and the increase is anticipated to continue as the effects of climate change magnify.
- 3.104 Soil contamination is also associated with the central belt and GCV. Vacant and derelict land figures (as shown in Figure 3.19) are at their highest levels in this region and in 2011, North Lanarkshire and Glasgow City accounted for 13% and 12% of the Scottish total respectively. Redevelopment requires appropriate planning in order to address soil and ground water contamination. On average, 488 hectares of vacant and derelict land are brought back into use in Scotland every year.<sup>85</sup> 179 hectares were brought back into use in Clydeplan in 2013.

**Figure 3.19 Vacant and derelict land**



### *Existing environmental issues*

- 3.105 The following are some of the key environmental issues affecting the soil resource:
- There is still a considerable amount of vacant and derelict land within the Clydeplan area, including some severely contaminated sites from past industrial works.

<sup>85</sup> The Scottish Government (2012) Statistical Bulletin Scottish Vacant and Derelict Land Survey 2011

<http://www.scotland.gov.uk/Resource/0038/00386399.pdf>



### *Implications for the Forestry and Woodland Strategy*

- 3.106 Forestry and woodland planting can play a role in the restoration of vacant and derelict land, contaminated sites, and former mines by seeking to re-use these sites for a range of woodland/green network purposes. The Strategy can target areas at risk of soil erosion or with poor soil quality as land cover by woodland shelters soils from wind and rain thus reducing erosion. Furthermore, forestry generally has lower chemical inputs and lower soil disturbance than intensive agriculture and can contribute to improving the quality and stability of the soil. The Strategy should steer woodland expansion away from deeper peat soils to avoid releasing CO<sub>2</sub> emissions to more suitable soil types. In addition, the Strategy should seek to ensure the safeguarding of prime agricultural land.
- 3.107 The Strategy has the opportunity to promote low impact methods of timber harvesting, e.g. continuous cover forestry, silvicultural practices, which will minimise the disturbance and damage to soil.

### **Water**

#### *Existing environmental characteristics*

- 3.108 The **River Basin Management Plan for the Scotland River Basin District 2009-2015**<sup>86</sup> provides detailed information on the environmental quality of rivers, lochs and seas. The following information has been derived from its supplementary plan, namely the:
- **River basins and catchments:**
  - **Ecological status of waterbodies:**
  - **Water pollution.**

#### *Overview*

- 3.109 Scotland currently has two river basin management plans (RBMP) for the Tweed and Solway river catchments. The improvement of water body condition and the protection of coastal and inland waters are key objectives. Many of these areas are relatively undeveloped. In addition to this, there is an emerging National Marine Plan and awareness that coastal and inland flood risk management needs to be strengthened.

#### *Background*

- 3.110 Scotland's water provides a variety of uses from underpinning, health, industry and prosperity, to energy generation and leisure. Water also supports biological and ecological diversity recognised as requiring protection under European Legislation covered by SNH Natura2000 designation. Over the last 20 years Scotland's water environment and water quality has improved.
- 3.111 Eighty two percent of water for our consumption comes from reservoirs and a further 10% directly from rivers. River abstraction has decreased by 13% in the period 2003 – 2010. The remainder of consumed water comes evenly from loch or groundwater. Thirty three percent of water intended for delivery is lost in distribution. Although drought is rare in Scotland and in the city region, leakage should be eliminated to reduce hardship during these periods.
- 3.112 Flooding has a significant impact on residential, cultural, environmental, agricultural and business sectors. Financially, annual damages to the business and domestic sectors amount to around £1.5 billion: a significant stress to the Scottish economy.
- 3.113 Fluvial river flooding is responsible for almost half of all flood damage (45%). Pluvial surface water flooding is a more recent issue and is on the increase, being associated with climate change. Pluvial flooding overwhelms drains and drainage rates of soils. Saturated surfaces and soils cannot cope with deluge conditions responsible for 38% of Scotland's flood damage.<sup>87</sup> The Sustainable Urban Drainage System (SUDS) is being developed to counter this rising phenomenon. River catchments areas are being developed to slow the passage of water as well

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<sup>86</sup> Scottish Government, 2009. *The River Basin Management Plan for the Scotland River Basin District 2009-2015*. Edinburgh: Scottish Government.

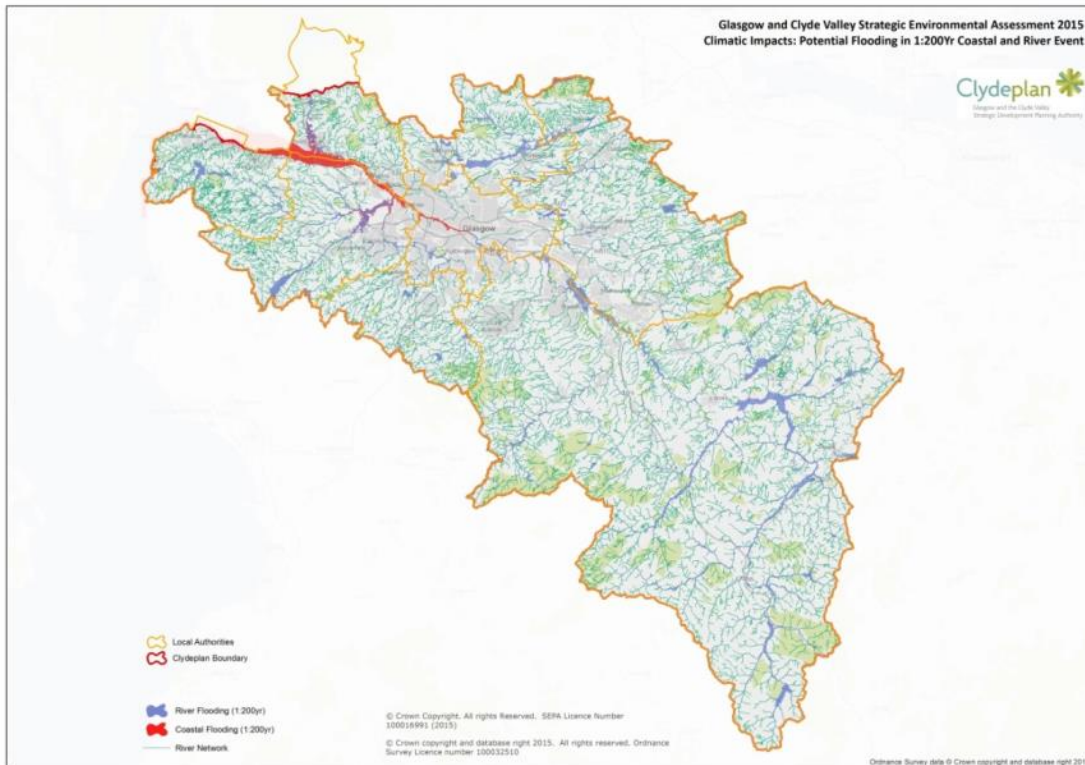
<sup>87</sup> SEPA (2011) National Flood Risk Assessment

[http://www.sepa.org.uk/flooding/flood\\_risk\\_management/national\\_flood\\_risk\\_assessment.aspx](http://www.sepa.org.uk/flooding/flood_risk_management/national_flood_risk_assessment.aspx)

as creating new amenity. New urban developments are required to pass grey water through a SUDs scheme.<sup>88</sup>

- 3.114 The figures below demonstrate the pressure that will be exerted on Glasgow and the Clyde Valley in times of coastal and inland flood. Figure 3.20 shows the impact of coastal and inland river flooding in a 1 in 200 year event. Figure 3.21 highlights areas that would be threatened or potentially inundated with flood water and this has led to the development of the potentially vulnerable areas classification by SEPA as shown in Figure 3.22.
- 3.115 Coastal and estuary environments are also suffering under climate change. Low pressure, high winds, high rainfall and storm surge contribute to coastal flooding and accounts for 17% of Scotland's flood damage.

**Figure 3.20 – River network estuary and coastal flood model for 1 in 200 year event**



<sup>88</sup> SEPA website Sustainable Urban Drainage Systems

[http://www.sepa.org.uk/water/water\\_regulation/regimes/pollution\\_control/suds.aspx](http://www.sepa.org.uk/water/water_regulation/regimes/pollution_control/suds.aspx)

Figure 3.21 – 1:200Yr Flood Tidal and River flooding impacts

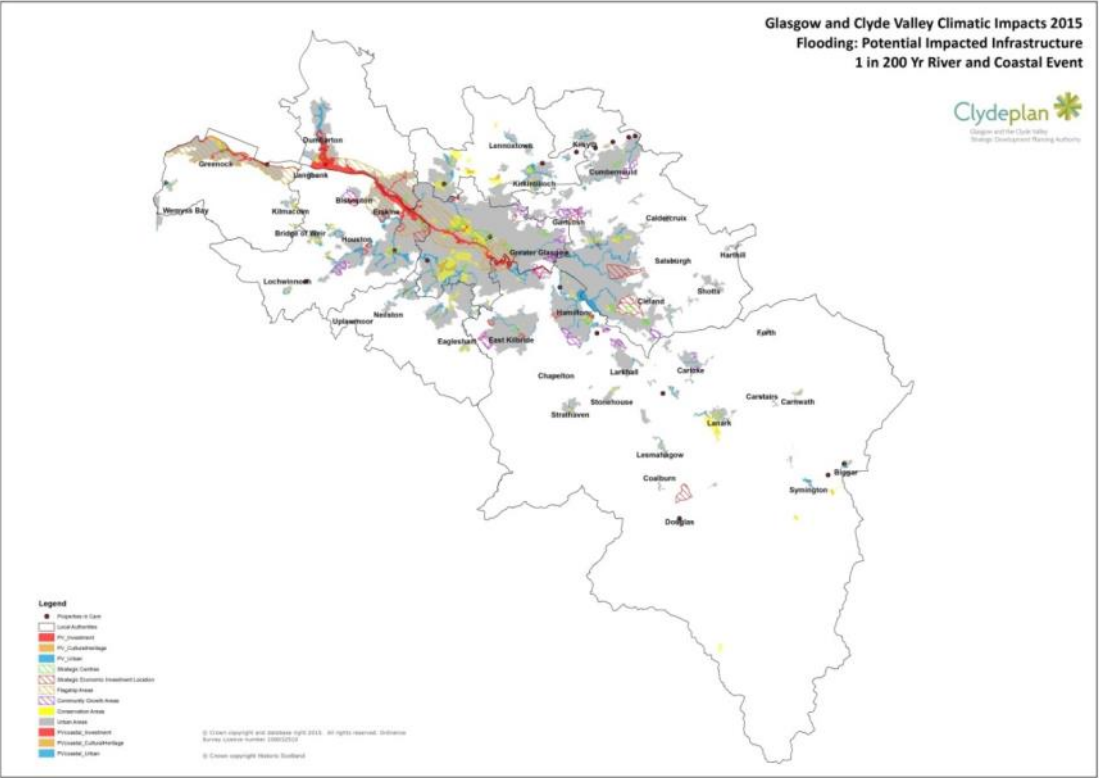
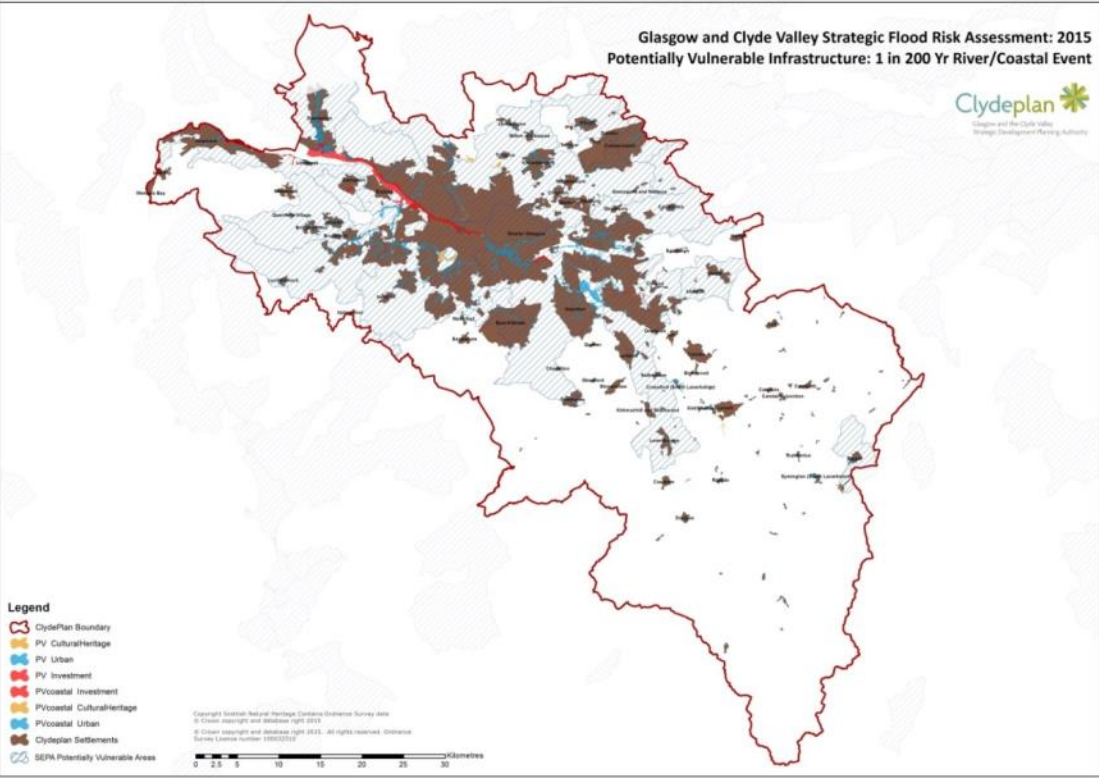


Figure 3.22 – 1:200Yr Flood Tidal and River flooding extents and SEPA Potentially Vulnerable Area Classification

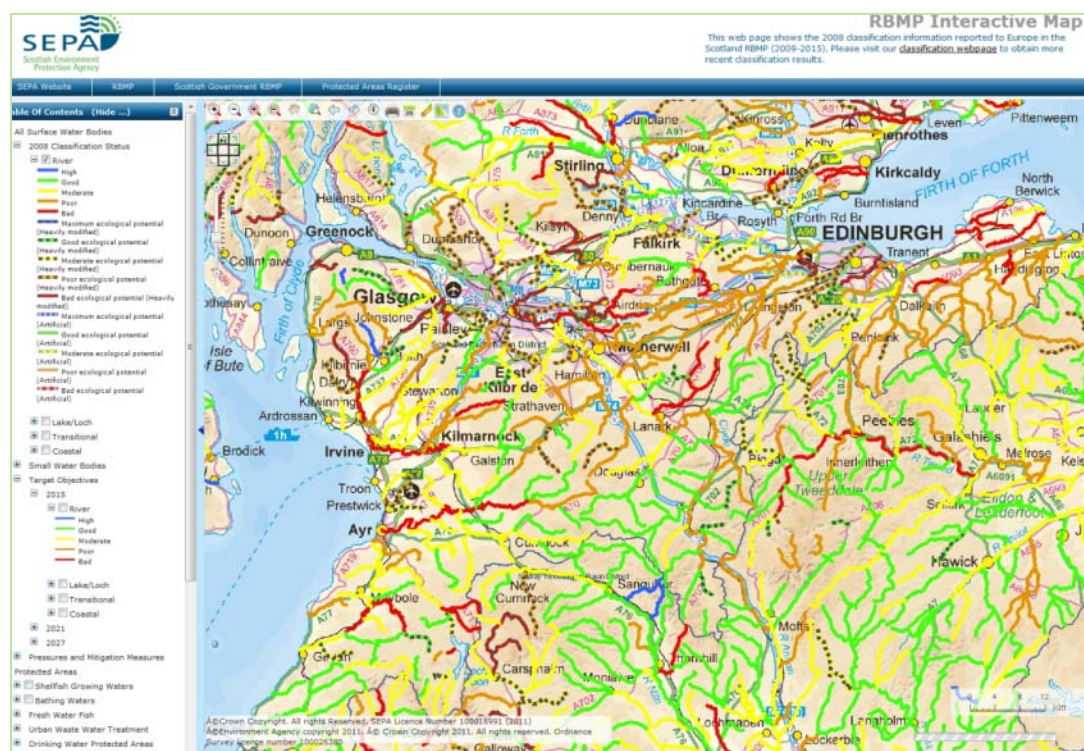




## Trends and issues

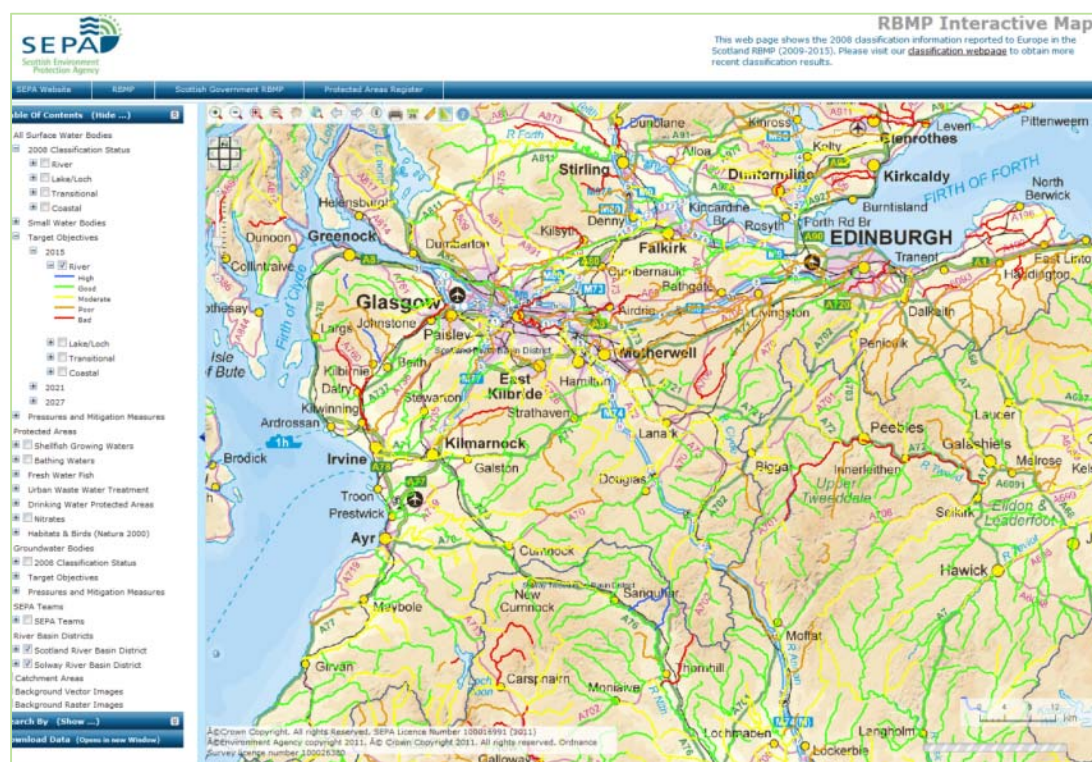
- 3.116 Although a large proportion of the Scottish River Basin is high quality, 35% of the waters are in poor condition being under significant pressure from human activity. Figures 3.23 and 3.24 taken from SEPA's River Basin Management Plan (RBMP) website highlight current river quality in the city region and the 2015 objective respectively. Agriculture, manufacturing, abstraction, sewerage and alteration through urban development and flood protection are all having an impact on water condition. Past engineering and forestry activities also have an impact.<sup>89</sup> Many water bodies are now designated for protection in an effort to restore them to their former purpose or function. 98% of all protected water bodies are to be in good condition by 2027 although a small proportion will not achieve this status as contamination continues from legacy mining and industrial activity. 100% should be operating in their function by 2020<sup>71</sup>. Coastal and estuary waters tend to be in better condition than inland water courses and lochs. The Clyde Estuary and Firth of Clyde are in moderate or good condition.

**Figure 3.23: River quality classification (2008) from SEPA RBMP interactive map website** (<http://map.sepa.org.uk/rbmp/>)



<sup>89</sup> SEPA (2009) Summary The river basin management plan for the Scotland river basin district 2009–2015  
[http://www.sepa.org.uk/water/river\\_basin\\_planning.aspx](http://www.sepa.org.uk/water/river_basin_planning.aspx)

**Figure 3.24: River quality Objectives (2015) from SEPA RBMP interactive map website (<http://map.sepa.org.uk/rbmp/>)**



- 3.117 Climate change presents unique challenges to achieving 2027 objectives. Higher summer temperatures, decrease in rainfall and irrigation creates seasonal concentration and eutrophication. Increases in winter precipitation increases load transport and run off from the transport network, urban and industrial contaminants. For any flood scenario, contamination needs to be considered. The worst highlighted areas are The Clyde Estuary, White Cart Water, the River Clyde at Motherwell, sections of the River Kelvin, Wemyss Bay, Dumbarton and Loch Lomond/Vale of Leven. Whilst changing summer trends would most likely affect inland water and ground water abstraction, winter phenomenon will also affect estuarine areas where deposition of the river load is increased.
- 3.118 As well as creating problems associated with health and achieving environmental objectives, the financial cost of combatting flooding is of concern. The NFRA (National Flood Risk Assessment) addresses the full cross section of issues associated with flooding: health, economy, environment and cultural heritage and looks at strategy for protecting and reducing the £1.5 billion in damages created annually through flooding. NFRA identified 243 potentially vulnerable areas (PVAs) in Scotland that contain 92% of properties at risk. Figure 3.22 highlights the 13 sizeable PVAs of Clydeplan. These areas coincide with main settlements and heavily affect the urban areas of the central belt and Glasgow and the Clyde Valley.

### *Existing environmental issues*

3.119 The following are some of the key environmental issues affecting the water environment:

- Diffuse source pollution can be exacerbated by run off from forestry activities. Diffuse source pollution is a particular problem across large parts of the Clydeplan area.
- Point source pollution is an issue in the very south of the Clydeplan area around the M74 and River Clyde.
- Coastal flooding poses a threat to areas adjacent to the coast and the River Clyde through to the city centre.
- Fluvial flooding poses a threat particularly within the built up areas, but also along most of the main river corridors.

### *Implications for the Forestry and Woodland Strategy*

3.120 The Strategy should seek to contribute to the delivery of the River Basin Management Plans. The Strategy can benefit water quality by:

- Addressing soil erosion problems through provision of land cover, reduction of stock access to riverbanks, helping to stabilise riverbanks, reducing associated issues of sedimentation and transport of soil chemicals.
- Increasing percolation of rainwater into soil and reducing surface run-off.
- Displacing intensive agricultural land use and associated diffuse pollution.
- Promoting natural flood management as woodland can slow down and reduce run-off at a catchment scale and play a role within SUDS schemes.

3.121 The Strategy should recognise that harvesting and associated activities such as extraction have the potential to adversely impact on water quality, through increased erosion rates, sedimentation, and nutrient losses.

### **Evolution of the environmental baseline without the Strategy**

3.122 The logic of carrying out a Strategic Environmental Assessment is to understand the likely environmental effects of the implementation of the Strategy. However, the Environmental Assessment (Scotland) Act 2005 also seeks examination of how the environment is likely to evolve without adoption and implementation of the Strategy.

3.123 Without the Strategy, forestry and woodland planting will continue to be based on the requirements identified in the Indicative Forestry Strategy contained within the Glasgow and Clyde Valley Forestry and Woodland Strategy (2011).

3.124 This provides a framework for woodland expansion but does not deliver the full extent of positive environmental benefits identified within the proposed new strategy.

### **Data gaps or unreliability of the environmental baseline data**

3.125 It is a requirement of both the Act and the SEA Directive<sup>90</sup> to record any difficulties encountered in compiling the information necessary for the assessment.

3.126 It was not possible, due to licencing agreements, to obtain the GIS datasets used by SEPA to compile the revised Flood Risk Maps<sup>91</sup> for Scotland. This proved a limiting factor in the GIS analysis however; it was possible to discern from the online Flood Risk Maps.

3.127 No other significant data gaps were identified which affected the analysis.

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<sup>90</sup> SEA Directive 2001/42/EC

<sup>91</sup> SEPA, 2014. *Flood Maps*. [online] Available at: <http://map.sepa.org.uk/floodmap/map.htm> [Accessed 10 April 2014]

## 4 SEA Methodology

### Introduction

- 4.1 The majority of SEAs are based on the use of environmental objectives against which the policy content of the PPS is compared to ascertain the nature, severity and duration of environmental effects. While this approach is suitable for examining the overarching priorities of the Strategy, it is less successful for the spatial framework. As this is the prime policy driver for woodland expansion provided by the Strategy, a more responsive map-based method is required.

### Framework for assessing environmental effects

- 4.2 The following paragraphs outline the framework chosen to assess the environmental effects of the Strategy.

#### SEA objectives

- 4.3 Where appropriate, issues have been grouped to facilitate the assessment and sub-criteria have been edited to reflect the specific focus of the Strategy. It is considered that the objectives selected adequately reflect the requirements of Schedule 3 of the Environmental Assessment (Scotland) Act 2005.

**Table 4.1 SEA objectives**

Schedule 3 Component	SEA Objectives	Sub-criteria for Assessment
Biodiversity	Avoid adverse effects on protected habitats and species	Expand habitat networks
	Enhance biodiversity	
Population and Health	Avoid adverse effects on health, health inequalities and quality of life/well-being	Target woodland expansion in areas where benefits can be optimised
	Improve the health and living environment of people and communities	Contribute to community and health benefits by promoting access, recreation and active travel using the green network
Soil	Avoid adverse impacts on soil	Safeguard prime agricultural land
	Avoid adverse impacts on valuable soil resources e.g. prime agricultural land, carbon rich soils	Steer woodland expansion away from sensitive soil resources (i.e. peat) to minimise the potential for pollution and loss of soil carbon
	Reduce vacant and derelict land	Where appropriate, seek to re-use VDL for a range of woodland / green network purposes
Water, Coastal, Marine	Avoid adverse impacts on the ecological status of water bodies	Contribute to the delivery of River Basin Management Plans, Area Action Plans and flood management
	Avoid adverse impacts on sensitive coastal areas and marine environment	
	Improve the water environment	Continue to support sustainable water management
Climatic factors	Avoid increasing greenhouse gas emissions	Seek to minimise GHG emissions from the sector



Schedule 3 Component	SEA Objectives	Sub-criteria for Assessment
		Seek to prevent new planting on peat soils to maintain carbon stores Support appropriate renewable energy development Safeguard the standing timber carbon resource
	Support adaptation to climate change	Contribute to sustainable water management and erosion prevention Contribute to resilience planning objectives
Air	Avoid adverse effects on air quality where air quality is a known issue through AQMA	Contribute to reducing emissions of air pollutants within AQMA
	Improve air quality	Contribute to measures which improve air quality
Material Assets	Avoid adversely impacting on material assets (infrastructure etc.)	Protect key mineral resources from sterilisation through inappropriate afforestation
	Enhance material assets	Contribute to the appropriate re-use of VDL Promote the efficient operation of the sector and the safe treatment and disposal of non-reusable/recyclable arisings
Cultural Heritage	Avoid adverse impacts on the protected historic environment and its setting	Seek to ensure that woodland expansion safeguards the fabric and setting of heritage assets
	Enhance, where appropriate, the historic environment	Contribute to the character and significance of important historic landscapes
	Improve the quality of the wider built environment	Seek to promote responsible access to and appreciation of cultural heritage via the green network
Landscape	Avoid adverse impacts on protected landscapes	Steer woodland expansion proposals to appropriate locations
	Enhance landscape quality	Support measures to promote good woodland design and appropriate diversity Encourage the use of woodland to root new development and existing settlements in the landscape Woodland expansion should reflect current and future capacity to accommodate change

### Defining 'significance'

- 4.4 The strategic and regional focus of the Clydeplan Forestry and Woodland Strategy requires an environmental assessment with a similar scope. The SEA will therefore seek to draw out environmental effects that are considered to be significant at the Clydeplan area level or above.
- 4.5 As a result, it is proposed that the following factors are combined and used to identify the significance of effects:
- **Probability of effects** – greater likelihood of effects is likely to increase significance.
  - **Frequency, duration and reversibility** – Will effects be limited to a single event? Will they be temporary or permanent?
  - **Magnitude and spatial extent** – How large an area is likely to be affected? Will the effect comprise total loss or damage to a feature?



- **Sensitivity of receptors** – Does the area have a recognised environmental value? Could effects contribute to existing environmental problems?

### Thematic/objective-based assessment

- 4.6 The 'strategic priorities' identified under each theme of the Strategy will be assessed against the SEA objectives outlined above. It is anticipated that a 'traditional' matrix-based approach will be employed at this stage, with the results of the assessment presented as a discussion of regionally significant effects. Recommendations for changes to the Strategy and desirable mitigation measures will be set out for each strategic priority along with the alternative considered during the policy development process. This will appear as follows:

- **Theme heading** (e.g. "Biodiversity")
  - **Introduction** to the theme
    - **Strategic priority** (e.g. "Promote conservation of key sites and priority habitats")
      - Assessment results
      - Alternative(s)
      - Recommendation (sequentially numbered throughout the ER)
      - Mitigation and monitoring

- 4.7 The following tables outline the framework for assessing environmental effects, and identify proposed measures for avoiding, reducing or offsetting significant adverse effects.

**Table 4.2 Proposed framework for assessing environmental effects**

Topic	Evaluation ++/+/0/--	Timeframe Short/ medium/ long	Duration Temporary/ permanent	Commentary / mitigation/ enhancement , where required
Biodiversity, etc.				

**Table 4.3 Range of potential evaluation scores**

Significant positive	Positive	Neutral	Unknown	Negative	Significant negative
++	+	0	?	-	--

### Map-based assessment

- 4.8 As the Strategy makes a range of spatially-specific policy recommendations, an assessment method with a stronger spatial component is required. The extent of woodland and what it will look like in the future along with the spatial priorities have been assessed using a map based assessment. In setting a regional framework for lower-tier forestry policy, it is important to retain a focus on regionally significant effects. Using maps to represent the key spatial policies (for instance, the spatial framework and potential for woodland expansion) is more visually appealing and more accessible than lengthy descriptions or impenetrable matrices.
- 4.9 Spatial data outputs were compared against a series of GIS 'baseline' maps that bring together the key data for each SEA objective. For example, 'Biodiversity' mapping features local, national and international designations, Integrated Habitat Network data, sensitive habitats, etc.

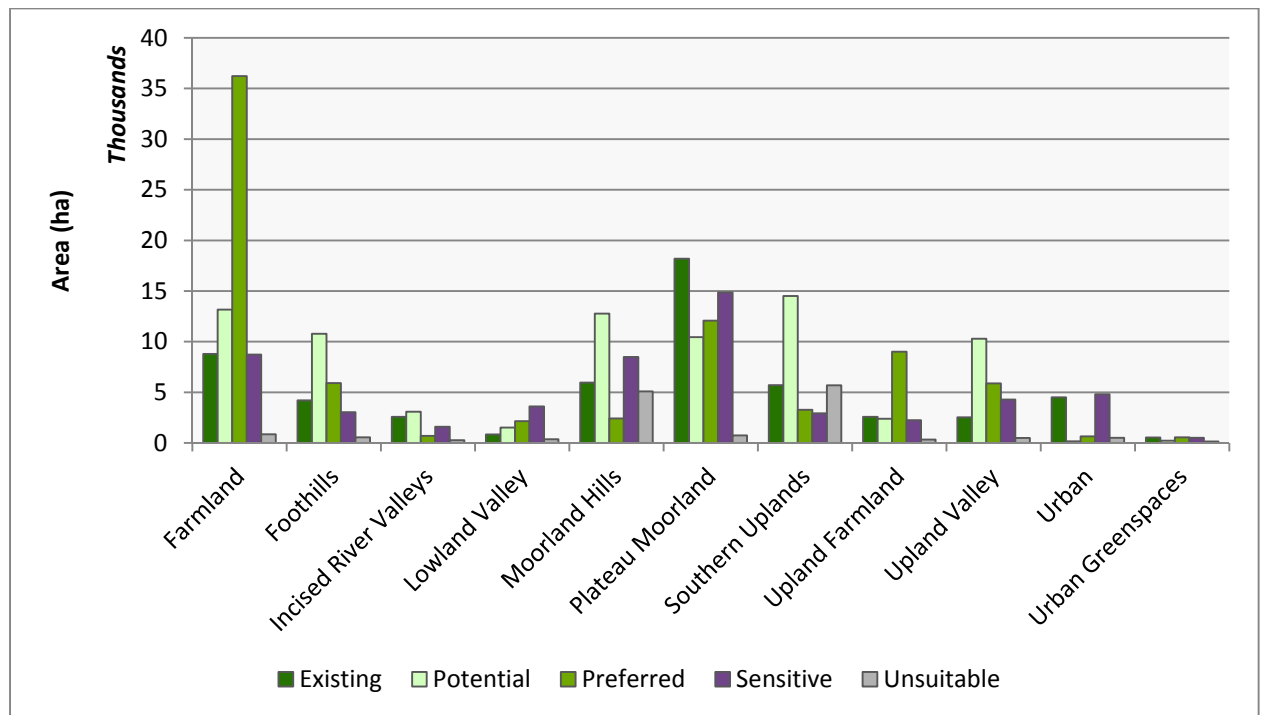
## Assessment of alternatives

### Selection of alternatives

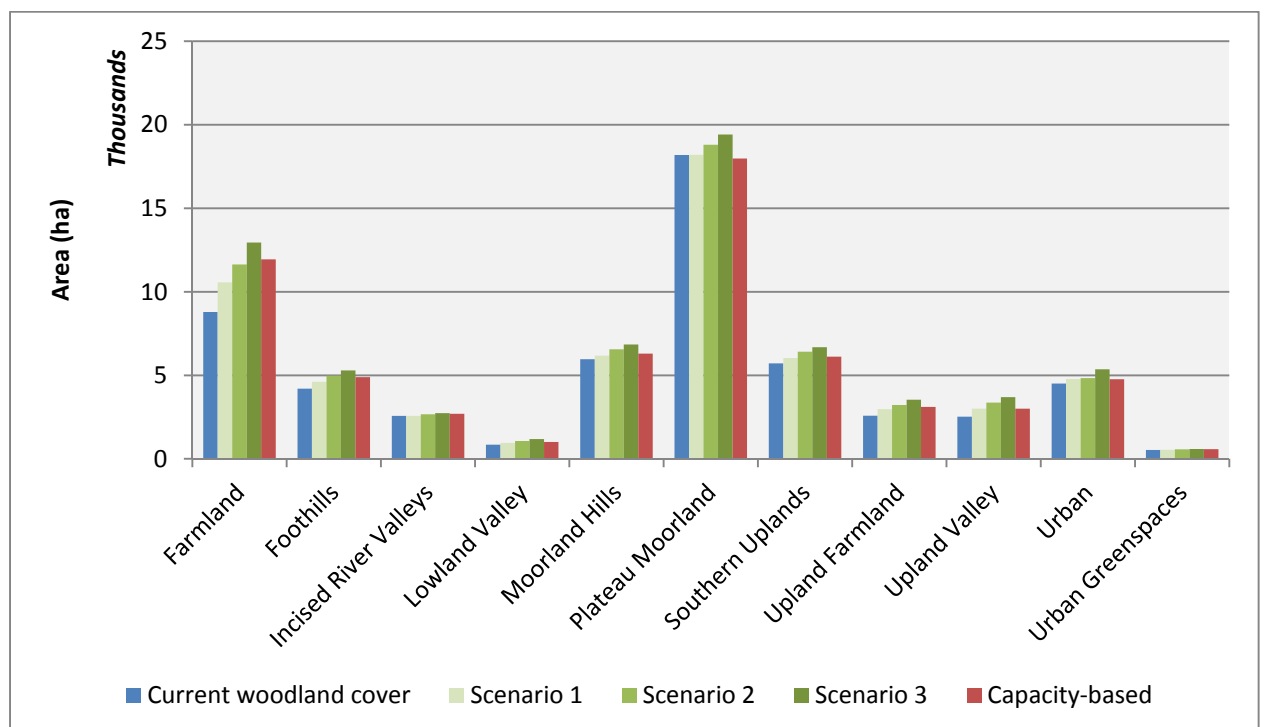
- 4.10 The assessment of alternatives focuses on the core decision-making framework provided by the Strategy – namely the 'Indicative Potential for Woodland Expansion' mapping, which acts as the

prism through which all the Strategy's recommendations are filtered. This is, in part, to provide a more realistic and focussed assessment, and also acknowledges the fact that a significant proportion of the thematic objectives and priorities – assessed above – draw heavily on the UK Forestry Standard and the Scottish Forestry Strategy.

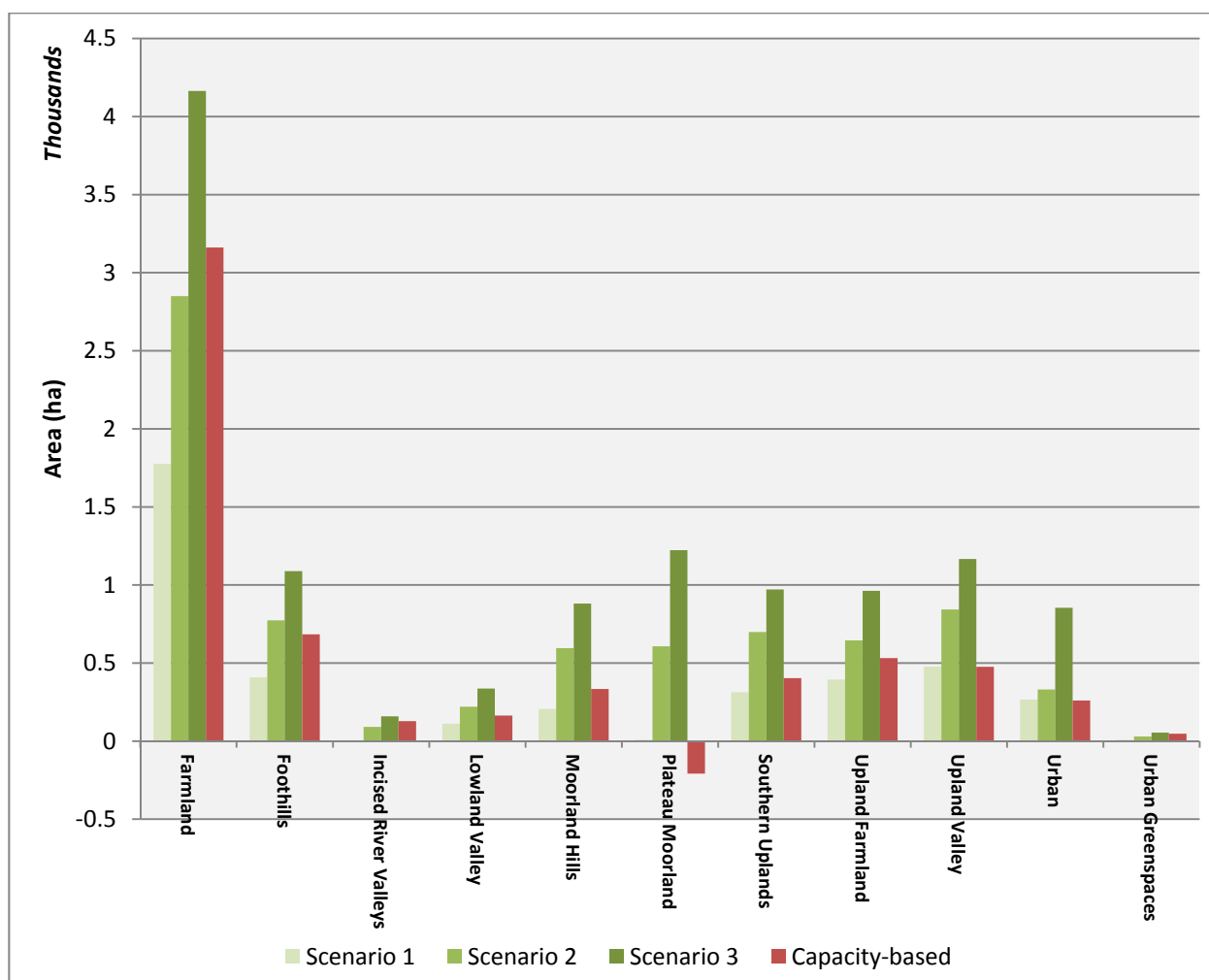
- 4.11 It is difficult to assess the likely environmental effects of the FWS without undertaking high level analysis of the nature and scale of woodland expansion that could, in theory, occur in the region. This process is central to developing an understanding of the level of expansion that could reasonably be accommodated by the area, maintaining ambition and making a meaningful contribution to the Scottish Government's targets, while avoiding significant adverse effects on the environment.
- 4.12 Woodland cover in the region stands at a 17% of land area – equating to some 56,000 ha of woodland.
- 4.13 These are as follows:
- 'Low' level expansion: 18%
  - 'Moderate' expansion: 19%
  - 'High' levels of expansion: 21%
  - A scenario based on notional environmental capacity of each detailed landscape type: 19%
- 4.14 The scenarios were created using the GIS data developed to show the potential for woodland expansion (based on environmental constraints), and sub-divided by each of the detailed landscape types. This process therefore provided a detailed breakdown of the areas of each class of land (i.e. 'preferred,' 'potential,' 'sensitive' etc.) in each landscape type. For scenarios 1-3, this data was then manipulated to affect a standard conversion of each land class to woodland. Scenario 4 applied a disaggregated approach to conversion rates in each zone, based on broad inferences as to landscape and environmental capacity for new woodland, and the likely nature and scale of appropriate woodland.
- 4.15 These calculations then generated:
- indicative cover figures for each zone;
  - overall regional cover;
  - increase in woodland as a proportion of total land cover; and,
  - indicative annual planting / regeneration rate required to achieve the headline cover figure.
- 4.16 This figure will help to provide a contrast with current level of activity within the industry, and give an impression of the scale and rate of possible change.
- 4.17 As it is not possible to accurately predict the precise locations of new woodland, given the number of variables influencing the process, inferences are necessarily restricted to likely regionally significant effects on each broad character zone. Each of the scenarios is intended to represent a realistic alternative means of implementing the spatial guidance of the FWS.
- 4.18 As each scenario is based on the same 'IFS map' it can be assumed that, broadly, the environmental assets included within the 'sensitive' category will not receive direct significant adverse effects. Where cumulative or synergistic effects are identified, this is highlighted below.
- 4.19 It should be noted that these figures do not represent a 'target' per se, but instead offer a means of understanding the potential contribution the region could make to meeting the Scottish Government target of 10,000ha of woodland creation per year.



**Figure 4.1 Distribution of woodland potential by landscape zone**



**Figure 4.2 Distribution of woodland expansion potential by landscape zone for each of the alternative scenarios.**



**Figure 4.1: Additional woodland, by Scenario and by Zone**

#### Scenario 1 – Low-level expansion

- 4.20 This scenario is based around a relatively conservative level of woodland creation activity that offers limited expansion on existing cover – increasing from 17% to 18% of land area. It was considered unrealistic to test a scenario delivering weaker levels of expansion, given the priority given to woodland creation by the Scottish Government (and the explicit requirement for the Strategy to promote woodland creation).

Woodland cover: 18%

Additional woodland: 3,968.14ha

Increase over existing: 7%

#### Scenario 2 – Moderate expansion

- 4.21 This scenario was intended to deliver a more ambitious level of expansion, necessitating more intensive activity and substantially greater conversion of land to woodland (a little more than double that of Scenario 1).

Woodland cover: 19%

Additional woodland: 7,683.50ha

Increase over existing: 14%

### Scenario 3 – High-level expansion

- 4.22 This scenario was developed to push the boundaries of what could be achieved, maximising opportunities for new woodland while retaining a realistic focus on avoiding and minimising adverse environmental effects.

- 4.23 This scenario would, however, represent major change.

Woodland cover: 21%

Additional woodland: 11,859.56ha

Increase over existing: 21%

### Scenario 4 – Notional environmental capacity-based approach

- 4.24 This scenario was developed to embody a more spatially specific approach to implementing the FWS. Instead of applying uniform 'conversion rates' to each land class across the region, a more sensitive approach – based on the notional environmental capacity of each landscape zone – was devised, applying different conversion rates to each class in each zone.

Woodland cover: 19%

Additional woodland: 5,980.89ha

Increase over existing: 11%

## Summary of effects of Alternatives

### Introduction

- 4.25 The alternatives are put forward within the land categorisation process, as set out in '*The Right Tree in the Right Place*'. This is intended to be 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 Strategy therefore states explicitly that it is intended for guidance only, and that site-specific assessment of individual proposals has primacy in determining their suitability.
- 4.26 The datasets used in the constraints mapping process are set out in Table 4.4 below:



**Table 4.4 List of Datasets**

Category	GIS Dataset
<b>Sensitive</b>	<p>Local Nature Reserves (SNH, 2014)</p> <p>Wetlands of International Importance (RAMSAR) (SNH, 2012)</p> <p>Special Areas of Conservation (SNH, 2014)</p> <p>Special Protection Areas (SNH, 2014)</p> <p>Sites of Special Scientific Interest (SNH, 2014)</p> <p>National Nature Reserves (SNH, 2014)</p> <p>Sites of Importance for Nature Conservation (Clydeplan Local Authorities, 2014/2015)</p> <p>Scottish Wildlife Trust Reserves (SWT, 2014)</p> <p>Scheduled Monuments (HS, 2005)</p> <p>World Heritage Sites (HS, 2013)</p> <p>Battlefields (HS, 2013)</p> <p>Inventory of Gardens and Designed Landscapes (HS, 2014)</p> <p>Conservation Areas (HS, 2014)</p> <p>National Scenic Areas – none in the Clydeplan area</p> <p>Carbon and Peatland Class 1, 2, X (SNH, 2015)</p> <p>Land Capability for Agriculture Class 1, 2, 3.1 (JHI, 2011) (no class 1 in the Clydeplan area)</p> <p>Wild Land Areas (SNH, 2014)</p>
<b>Potential</b>	<p>Special (local) Landscape Areas (Clydeplan Local Authorities, 2014/2015)</p> <p>IHN Wetland Hotspot (SNH, 2014)</p> <p>IHN Neutral Grassland Hotspot (SNH, 2014)</p> <p>Carbon and Peatland Class 3 (SNH, 2015)</p> <p>Vacant and Derelict Land (Clydeplan Local Authorities, 2014/2015)</p> <p>Slamannan Plateau SPA supporting habitat: Bean geese (SNH, 2014)</p>
<b>Preferred</b>	No strategic constraints
<b>Unsuitable</b>	<p>Land Capability for Forestry 'unsuitable'</p> <p>OS MasterMap water bodies</p>
<b>Built-up</b>	LDP land allocations (Clydeplan Local Authorities, 2014/2015)
<b>Existing</b>	National Forest Inventory Scotland (Forestry Commission Scotland, 2013)

- 4.27 Datasets were combined in a constraints mapping exercise to identify areas with significant sensitivities to woodland expansion or removal. It should be noted that this classification is not intended to prevent ALL woodland expansion and management activities within sensitive areas, but to ensure that proposals appropriate to local conditions are developed. Similarly, within areas identified as being 'preferred,' detailed assessment is likely to highlight local sensitivities that will influence the nature and scale of woodland that is appropriate (e.g. watercourses, land uses, settings of built heritage).

- 4.28 By identifying key sensitivities – and areas of least constraint – the indicative potential map should effectively steer proposals towards appropriate areas and provide a measure of certainty for land managers, decision-makers and consultees.
- 4.29 It has the potential to generate significant positive effects, particularly in relation to community benefits and local environmental enhancement. Similarly, there is potential for positive economic effects in relation to facilitating rural diversification, supporting agriculture and development of new productive woodlands.
- 4.30 Designated natural and cultural heritage interests and peat soils are explicitly highlighted as being sensitive to woodland expansion (and removal) and should therefore serve to trigger appropriately detailed design and assessment of proposals affecting such areas.
- 4.31 'Preferred' land takes in a considerable range of environments and current land uses which, while they do not register as constraints at the regional scale, will have a strong influence on the type and scale of woodland that is appropriate. While this is made clear in the supporting text, it relies on assumed mitigation for the avoidance of adverse effects – particularly in relation to landscape impacts and potential conflicts with existing land uses. (However, it is judged to be reasonable to assume that FCS assessment processes are robust. Additional safeguards are built in through the consultation process).
- 4.32 The level of interpretation and site-specific judgement required when bringing forward proposals in the 'preferred' area could be viewed as a weakness in the approach – although this was judged to be necessary to ensure that a suitable range of woodland creation proposals were facilitated and were eligible for grant support. No regionally significant effects are predicted as a result of this trade-off.

## Assessment of alternatives

- 4.33 The alternatives are assessed within the framework of the same overarching strategy, but based on the delivery of different levels of woodland within each land category.

### Scenario 1 – Low-level expansion

#### *Assessment*

- 4.34 Low level expansion offers minimal adverse effects as it avoids woodland expansion within all 'sensitive' areas. Minor positive effects are identified in relation to all of the SEA topics. However, this scenario does not bring enhancement to the SEA topics when compared to the other scenarios.

### Scenario 2 – Moderate expansion

#### *Assessment*

- 4.35 Moderate levels of expansion bring some aspects of uncertainty into the assessment, in relation to biodiversity, soil, cultural heritage and landscape. This reflects some expansion within 'sensitive' areas. Overall minor positive effects are identified in relation to the other SEA objectives

### Scenario 3 – High-level expansion

#### *Assessment*

- 4.36 The high level of expansion brings some elements of uncertainty, in relation to protected biodiversity assets, soil resources, cultural heritage and landscape. As with the moderate expansion levels, this reflects expansion within 'sensitive' areas. The higher levels of expansion also bring positive effects in relation to the other SEA objectives with particular positive benefits for population and human health and the water environment in urban areas. Strong positive effects are identified in relation to material assets and expansion of woodland in upland areas, supporting the timber resource.

## Scenario 4 – Notional capacity

### Assessment

- 4.37 The notional capacity scenario offers a moderate level of woodland expansion, with limited expansion within sensitive areas. Expansion within more sensitive landscapes is framed within direction to support the characteristics of those landscapes.
- 4.38 Notional capacity therefore provides a model to achieve moderate levels of woodland expansion, whilst protecting key environmental interests. It allows the sensitive response to key characteristics to facilitate woodland expansion and achieve maximum benefits.

**Table 4.5 Summary of effects of alternatives**

SEA topic	SEA objectives	Scenario 1 - low	Scenario 2 -- medium	Scenario 3 - high	Scenario 4 Notional capacity
Biodiversity	Avoid adverse effects on protected habitats and species	Overall positive effect, no adverse effects on sensitive areas.	Uncertain impacts due to small scale expansion within sensitive area	Uncertain impacts due to higher levels of expansion within sensitive areas	Overall positive effect, no adverse effects on sensitive areas.
	Enhance biodiversity	Minor positive effects from expansion within strategy framework of biodiversity enhancement	Minor positive effects from expansion within strategy framework of biodiversity enhancement	Positive effects from higher levels of expansion within strategy framework of biodiversity enhancement	Overall positive and strong positive effect.
Population and human health	Avoid adverse effects on health, health inequalities and quality of life/well-being	Overall positive effects, with strong positive effects within the urban areas.	Overall positive effects, with strong positive effects within the urban areas.	Overall positive effects, with strong positive effects within the urban areas.	Strong positive effects particularly within farmland and urban areas, with positive effects across other areas.
	Improve the health and living environment of people and communities	Overall positive effects, with strong positive effects within the urban areas	Overall positive effects, with strong positive effects within the urban areas	Overall positive effects, with strong positive effects within the urban areas	Strong positive effects particularly within farmland and urban areas, with positive effects across other areas.
Soil	Avoid adverse impacts on soil	Minor positive effect overall	Uncertain impacts due to small scale expansion within sensitive area	Uncertain impacts due to higher levels of expansion within sensitive area	Positive effects on soil
	Avoid adverse impacts on valuable soil resources e.g. prime agricultural land, carbon rich soils	Minor positive effect overall	Uncertain impacts due to small scale expansion within sensitive area	Uncertain impacts due to higher levels of expansion within sensitive area	Minor positive effect
	Reduce vacant and derelict land	Minor positive effect overall, woodland expansion on VDL	Minor positive effect overall, woodland expansion on	Minor positive effect overall, woodland expansion on	Minor positive effect overall, support for remediation of

SEA topic	SEA objectives	Scenario 1 - low	Scenario 2 -- medium	Scenario 3 - high	Scenario 4 Notional capacity
			VDL	VDL	land.
Water coastal marine	Avoid adverse impacts on the ecological status of water bodies	Minor positive effects overall due to woodland expansion in areas with known water quality issues	Minor positive effects overall due to woodland expansion in areas with known water quality issues	Minor positive effects overall due to woodland expansion in areas with known water quality issues, with strong positive effects in urban areas	Minor positive effect overall due to poor water quality issues being addressed by woodland planting
	Avoid adverse impacts on sensitive coastal areas and marine environment	Minor positive effects overall due to woodland expansion in areas with known water quality issues	Minor positive effects overall due to woodland expansion in areas with known water quality issues	Minor positive effects overall due to woodland expansion in areas with known water quality issues	Minor positive effect overall due to poor water quality issues being addressed by woodland planting
	Improve the water environment	Minor positive effects overall due to woodland expansion in areas with known water quality issues	Minor positive effects overall due to woodland expansion in areas with known water quality issues	Minor positive effects overall due to woodland expansion in areas with known water quality issues	Minor positive effect overall due to poor water quality issues being addressed by woodland planting
Climate change	Avoid increasing greenhouse gas emissions	No direct impact on avoiding increases to greenhouse gas emissions	No direct impact on avoiding increases to greenhouse gas emissions	No direct impact on avoiding increases to greenhouse gas emissions	Minor positive effects through support for biomass production
	Support adaptation to climate change	Minor positive effects through new woodland planting supporting climate change adaptation, with strong positive effects in urban areas.	Minor positive effects through new woodland planting supporting climate change adaptation, with strong positive effects in urban areas.	Minor positive effects through new woodland planting supporting climate change adaptation, with strong positive effects in urban areas.	Minor positive effects through new woodland planting supporting climate change adaptation, with strong positive effects in urban areas.
Air	Avoid adverse effects on air quality where air quality is a known issue through AQMA	Minor positive effects, with stronger positive effects within urban areas	Minor positive effects, with stronger positive effects within urban areas	Minor positive effects, with stronger positive effects within urban areas	Minor positive effects, with stronger positive effects within urban areas
	Improve air quality	Minor positive effects, with stronger positive effects within urban areas	Minor positive effects, with stronger positive effects within urban areas	Minor positive effects, with stronger positive effects within urban areas	Minor positive effects, with stronger positive effects within urban areas
Material assets	Avoid adversely impacting on material assets (infrastructure etc.)	Minor positive effects in some zones from supporting forestry resource	Minor positive effects in some zones from supporting forestry resource	Strong positive effects within plateau moorlands, upland farmland and upland valley due to high levels of new woodland	Minor positive effects in areas delivering new forestry which supports flood management

SEA topic	SEA objectives	Scenario 1 - low	Scenario 2 -- medium	Scenario 3 - high	Scenario 4 Notional capacity
	Enhance material assets	Minor positive effects from expansion of woodland resource	Minor positive effects from expansion of woodland resource	Stronger positive effects from increase in woodland resource	Overall minor positive effect from support for softwood resource and other assets
Cultural heritage	Avoid adverse impacts on the protected historic environment and its setting	Positive effect resulting from no expansion within sensitive areas	Uncertain impacts due to small scale expansion within sensitive area	Uncertain impacts due to higher levels of expansion within sensitive area	Overall positive effect resulting from recognition within strategy of heritage assets and sensitivities to woodland expansion.
	Enhance, where appropriate, the historic environment	Strong positive effect resulting from no expansion within sensitive areas	Uncertain impacts due to small scale expansion within sensitive area	Uncertain impacts due to higher levels of expansion within sensitive area	Overall positive effect resulting from recognition within strategy of heritage assets and sensitivities to woodland expansion
	Improve the quality of the wider built environment	Minor positive effect resulting from woodland expansion within urban areas	Minor positive effect resulting from woodland expansion within urban areas	Minor positive effect resulting from woodland expansion within urban areas	Positive effects with stronger effects within farmland and urban areas
Landscape	Avoid adverse impacts on protected landscapes	Positive effect as no expansion within sensitive areas.	Some expansion within sensitive areas, therefore potential uncertain effects.	Some expansion within sensitive areas, therefore potential uncertain effects.	Overall positive effects with some mixed effects in relation to moorland hills and plateau moorland and upland valley where sensitivities of new planting on SLA not recognised.
	Enhance landscape quality	Positive effects from supporting expansion within framework of good design.	Mixed effects from possible impacts on sensitive landscapes	Mixed effects overall due to higher levels of woodland expansion and possible impacts on sensitive landscapes.	Positive effects overall with strong positive effects in lowland valleys and urban areas



## 5 Assessment of Environmental Effects

### Introduction

- 5.1 This section of the Environmental Report sets out the results of the assessment of environmental effects that are predicted to result from the implementation of the Clydeplan Forestry and Woodland Strategy.
- 5.2 As the Strategy sits within the overall framework of the Scottish Forestry Strategy – which has already been subject to SEA – the overall potential for significant environmental effects should be relatively low. Similarly, a high level of ‘assumed mitigation’<sup>92</sup> is built in to the woodland creation process which makes the occurrence of regionally significant effects unlikely.
- 5.3 The following paragraphs provide a brief summary of the main assessment findings of the policy objectives by SEA topic. Summary assessment tables are provided in **Appendix 3**. This section also includes a summary of environmental effects of the spatial framework, by landscape type.

### Summary of effects by SEA topic

#### SEA Objective 1: Avoid adverse effects on protected habitats and species

##### *Strategy aims and objectives*

- 5.4 In relation to the aim of Expand and Manage mixed effects were identified. The assessment identified the positive effect on protected habitats and species which reflects the positive framework provided by spatial strategy which takes protected habitats and species into account. However potential uncertain effects were identified in relation to the potential for adverse impacts of new woodland planting within the framework in close proximity to protected habitats and species, as new woodland planting can affect predator –prey relationships, and affect foraging areas for certain species.
- 5.5 In relation to Economy, minor positive effects are identified in relation to expanding the area of productive forestry, within the spatial framework which provides protection for protected habitats and species, the limitations of which are noted above.
- 5.6 The aim of Community has limited effect on this SEA objective, however one of the objectives supports community enterprise and development and the potential for unknown effects on protected habitats and species resulting from some types of community enterprise activities were identified. Potential minor negative effects resulting from woodland planting in vacant and derelict land where niche habitats had developed were identified.
- 5.7 The Environment objectives have a strong positive effect in relation to biodiversity through supporting woodland planting for habitat networks, within urban areas, along riparian corridors and improved management of woodland in relation to the historic environment.
- 5.8 The Climate change objectives have a minor indirect positive effect through supporting the expansion of habitat networks which supports climate change resilience of biodiversity, including protected habitats and species.

##### *Spatial implications*

- 5.9 Within the farmland zone 55% of the area is identified as preferred land, with a further 22% as potential. The strategy recognises the protected habitats and species within the area, including remnant peatlands and a number of SSSI and Special Areas of Conservation (e.g. Coalburn,

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<sup>92</sup> ‘Assumed mitigation’ refers to those factors that can reasonably be taken into account when potential effects are being assessed. For example, the forestry EIA and site-specific assessments required as part of the FCS grant administration process and mandatory compliance with the UK Forestry Standard (UKFS)

Braehead and Waulkenwae Mosses), and their vulnerability to hydrological change, and the need to avoid new woodland expansion in the vicinity of these sites. Reflecting the recognition of the protected habitats and species within the farmland zone, no adverse effects are identified.

- 5.10 The foothills zone comprises the foothills of the Kilpatrick Hills and Campsie Fells and the foothills of the Southern Uplands. 34% of the area is preferred land and 35% of the area is potential land. The zone includes the extensive Tinto Hills SSSI, which is identified in the strategy as being sensitive to woodland expansion, and therefore the strategy has a positive effect on this objective.
- 5.11 The incised river valleys zone comprises the wooded gorges and valleys of the Clyde and its tributaries. 9% of the area is identified as preferred and 37% as potential. The zone has a high proportion of designated land, with the Clyde Valley SAC covering several areas. The sensitivity of this resource is recognised in the Strategy and therefore the strategy has a positive effect on this objective.
- 5.12 The lowland valley zone includes the broad valleys of the River Kelvin and the Blane Water and the Lochwinnoch Gap. 37% of the area is identified as preferred, and 8% as potential. The waterbodies of Castle Semple and Barr Loch are designated a SSSI. The priorities for woodland management and expansion do not result in adverse impacts on designated biodiversity sites, with a positive effect on this objective.
- 5.13 The moorland hills zone comprises the Clyde Muirshiel Hills, Kilpatrick Hills, Campsie Fells and Kilsyth Hills and the south western part of the Pentland Hills. 11% of the area is identified as preferred and 40% of the area is identified as potential. The area includes the Renfrewshire Heights SPA and SSSI, and the strategy recognises the sensitivities of these areas to new woodland, which seeks to avoid adverse impacts on protected areas and species. Therefore a positive effect on this SEA objective is identified.
- 5.14 The plateau moorlands zone comprises much of the Clyde Valley to the south and east of the Glasgow conurbation. 22% of the area is identified as preferred and 19% as potential. The area includes designations for internationally significant bird populations – the Muirkirk and North Lowther Uplands (breeding hen harrier) and Slamannan Plateau (overwintering Taiga bean geese) SPAs. New woodland in the vicinity of these sites – particularly the Slamannan Plateau – could have the potential to generate likely significant effects on supporting habitat. The Strategy also recognises the remnant peatland SSSI and Black Loch and North Shotts Mosses SAC. The strategy recognises the sensitivity of these sites to new woodland planting, therefore a positive effect on this SEA objective is identified.
- 5.15 The Southern Uplands includes the high ground in the southernmost part of Clydeplan area. 10% of the area is preferred and 45% of the area is potential. The area does not include areas of international importance for biodiversity, but includes the SSSI Sheil Dod, notified for its upland plant assemblage, and which covers 1188 ha. This area is included within the unsuitable and sensitive categories of mapping, therefore recognising the sensitivity of this site to new woodland planting, therefore a positive effect on this SEA objective is identified.
- 5.16 The Upland Farmland zone occurs across Inverclyde, Renfrewshire and East Renfrewshire and is a complex landscape. 54% of the area is preferred and 14% of the area is potential. The northernmost area is in close proximity to the Renfrewshire Heights SPA and the Inner Clyde SPA. The Strategy does not acknowledge the proximity to these sites, however the priorities for woodland expansion are not identified as having an adverse effect on these resources, therefore no impact on this SEA objective is identified.
- 5.17 The Upland Valley zone includes five river valleys and upland glens surrounded by moorland. 25% of the area is preferred and 44% of the area is potential. One of the upland valleys overlaps with part of the Muirkirk and North Lowther Uplands SPA, designated for its upland birds. The priorities for woodland management and expansion include restructuring of softwood forests, enhancement and creation of riparian networks, development of new floodplain woodlands, within the Strategy framework. These priorities will contribute positively to this objective.
- 5.18 The Urban and Urban Greenspaces zones. Within the urban area 2% is identified as preferred, with no potential land identified. Within the urban greenspaces, 26% of the area is identified as preferred with 11% of the area as potential. In terms of designated sites, the urban area most significantly adjoins the Inner Clyde SPA, Clyde Valley Woods, and North Shotts Moss. The

Strategy does not acknowledge the proximity to these sites, however the priorities for woodland management and expansion include improved management of existing sites, and creating new small scale areas of new woodland, particularly along transport corridors and riparian corridors. The extent of woodland expansion is not identified as having an adverse effect on these resources, therefore no impact on this SEA objective is identified.

## **SEA Objective 2: Enhance biodiversity**

### *Strategy aims and objectives*

- 5.19 The objectives for Expand and Manage have an overall positive effect on enhancing biodiversity through supporting the creation of new areas of well-designed woodland, and improving the biodiversity value of existing woodland.
- 5.20 The Economy objectives also have an overall positive effect on enhancing biodiversity through increasing habitat networks and restructuring existing forests and encouraging hardwood production.
- 5.21 The Community objectives have limited impact on this SEA objective, however uncertain effects were identified in relation to the support for community enterprise and development, which could have biodiversity effects depending on the nature of the community enterprise undertaken. Mixed effects were also identified in relation to improvements to post-industrial landscapes and the potential loss of specialised species and habitats which may have colonised some of these areas, should woodland planting take place.
- 5.22 The Environment objectives have a strong positive effect on enhancing biodiversity as a result of increasing woodland as part of the habitat network, enhancing woodland within urban areas, along riparian routes and improving the management of trees and woodland in relation to historic landscapes.
- 5.23 The Climate change objectives have an overall positive effect through supporting the development of integrated habitat networks which supports climate change resilience for habitats and species and woodland to support sustainable flood management.

### *Spatial implications*

- 5.24 Within the farmland zone 55% of the area is identified as preferred land, with a further 22% as potential. This landscape area is identified as having particular issues of fragmentation and poor management of existing woodland. New woodland planting offers a strong positive contribution to enhancing the biodiversity of this zone by improving the extent of the habitat network and management of the woodland resource.
- 5.25 The foothills zone comprises the foothills of the Kilpatrick Hills and Campsie Fells and the foothills of the Southern Uplands. 34% of the area is preferred land and 35% of the area is potential land. The priorities for this area include developing high quality new native woodland to link with riparian networks in the Clyde Valley and its tributaries and new farm woodlands which will make a positive contribution to this objective.
- 5.26 The incised river valleys zone comprises the wooded gorges and valleys of the Clyde and its tributaries. 9% of the area is identified as preferred and 37% as potential. The priorities for woodland management seek to enhance the biodiversity value of the woodlands, and support the native woodland networks, alongside positive management of the relict orchards. These actions will have a strong positive effect on enhancing biodiversity and this SEA objective.
- 5.27 The lowland valley zone includes the broad valleys of the River Kelvin and the Blane Water and the Lochwinnoch Gap. 37% of the area is identified as preferred, and 8% as potential. The waterbodies of Castle Semple and Barr Loch are designated a SSSI. The priorities for woodland management and expansion enhance the biodiversity of existing woodland and improve habitat connectivity, with strong positive effects on biodiversity.
- 5.28 The moorland hills zone comprises the Clyde Muirshiel Hills, Kilpatrick Hills, Campsie Fells and Kilsyth Hills and the south western part of the Pentland Hills. 11% of the area is identified as preferred and 40% of the area is identified as potential. The priorities for woodland management and enhancement include restructuring softwoods, improving management of riparian woodlands, and managing native woodlands. The area will also be subject to softwood expansion and

expansion of riparian networks and native woodland within the strategy framework. These will result in strong positive effects for biodiversity.

- 5.29 The plateau moorlands zone comprises much of the Clyde Valley to the south and east of the Glasgow conurbation. 22% of the area is identified as preferred and 19% as potential. The strategy priorities include restructuring existing softwoods for improved biodiversity and developing networks of native woodlands on the lower slopes. This results in a minor positive enhancement to biodiversity.
- 5.30 The Southern Uplands includes the high ground in the southernmost part of Clydeplan area. 10% of the area is preferred and 45% of the area is potential. The strategy priorities for the area include restructuring and enhancing existing softwood forests, small scale expansion, creation and expansion of networks of native woodland and exploring potential for 'forest landscape restoration'. This results in a minor positive enhancement to biodiversity.
- 5.31 The Upland Farmland zone occurs across Inverclyde, Renfrewshire and East Renfrewshire and is a complex landscape. 54% of the area is preferred and 14% of the area is potential. The priorities for woodland management and expansion focus on riparian networks, farm woodlands, restructuring, and supporting sustainable water management. These priorities will have a minor positive effect on enhancing biodiversity.
- 5.32 The Upland Valley zone includes five river valleys and upland glens surrounded by moorland. 25% of the area is preferred and 44% of the area is potential. The priorities for woodland management and expansion include restructuring of softwood forests, enhancement and creation of riparian networks, development of new floodplain woodlands. These priorities will bring positive benefits to this objective.
- 5.33 Urban and Urban Greenspaces zones. Within the urban area 2% is identified as preferred, with no potential land identified. Within the urban greenspaces, 26% of the area is identified as preferred with 11% of the area as potential. The priorities for woodland management and expansion include improved management of existing sites, and creating new small scale areas of new woodland, particularly along transport corridors and riparian corridors. Overall increasing the areas of woodland within urban areas will have a strong positive effect on enhancing biodiversity in these areas.

### **SEA Objective 3: Avoid adverse effects on health, health inequalities and quality of life/well-being**

#### *Strategy aims and objectives*

- 5.34 The Expand and Manage objectives have a minor positive effect on population and human health through improving the quality and extent of woodland, improvements to environmental quality, regeneration and climate change adaptation.
- 5.35 The Economy objectives have a strong positive effect through creating an environment for investment, particularly through improving the quality of stalled sites and vacant and derelict land.
- 5.36 The Community objectives have an overall positive effect through supporting community involvement in woodland projects, supporting community enterprise and development in relation to woodlands, supporting the use of woodland for outdoor education. Strong positive effects are identified from using woodland for recreation and improving post-industrial landscapes, including using woodland for cultural activities.
- 5.37 The Environment objectives have an overall positive effect through supporting the aims of the CSGN, improving the role of woodlands in relation to their role for environmental regulation and improving landscape quality for degraded and damaged landscapes. All of these bring positive benefits to health and help to address quality of life and health inequalities.
- 5.38 The Climate Change objectives have an overall minor positive effect on human health through reducing emissions and using woodland to secure environmental benefits from improved flood management and landscape and biodiversity enhancement.

### *Spatial implications*

- 5.39 Within the farmland zone 55% of the area is identified as preferred land, with a further 22% as potential. This landscape zone contains the bulk of the region's peri-urban landscape. Current issues with poor quality landscape, land degradation and abandonment and poor management of woodland resources, present a particular opportunity for the positive effects of new woodland planting and management for human health and quality of life.
- 5.40 The foothills zone comprises the foothills of the Kilpatrick Hills and Campsie Fells and the foothills of the Southern Uplands. 34% of the area is preferred land and 35% of the area is potential land. This zone includes very sparsely populated areas and no impact from the proposed priorities is identified on this objective.
- 5.41 The incised river valleys zone comprises the wooded gorges and valleys of the Clyde and its tributaries. 9% of the area is identified as preferred and 37% as potential. The landscape zone is within close proximity to some areas with relatively high multiple deprivation. The priorities for the area are likely to result in minor positive effects from landscape enhancement but no significant impact on this SEA objective is identified.
- 5.42 The lowland valley zone includes the broad valleys of the River Kelvin and the Blane Water and the Lochwinnoch Gap. 37% of the area is identified as preferred, and 8% as potential. The Kelvin and Blane valleys includes some areas of higher multiple deprivation. The woodland management and expansion priorities result in enhancement to landscape quality and increased resilience to climate change which have a minor positive effect on health and wellbeing.
- 5.43 The moorland hills zone comprises the Clyde Muirshiel Hills, Kilpatrick Hills, Campsie Fells and Kilsyth Hills and the south western part of the Pentland Hills. 11% of the area is identified as preferred and 40% of the area is identified as potential. Significant parts of this area include or are close to areas of higher deprivation, particularly Greenock, Port Glasgow, Vale of Leven and Kelvin Valley. The priorities for the area include delivering multi benefit woodland through restructuring, continuing to develop the tourism and recreation offer of the woodlands and expanding native woodland in lower lying areas to contribute to landscape objectives. This will contribute positively to this objective.
- 5.44 The plateau moorlands zone comprises much of the Clyde Valley to the south and east of the Glasgow conurbation. 22% of the area is identified as preferred and 19% as potential. The strategy priorities include restructuring existing softwoods for improved recreational value. The western part of this area is relatively remote from settlement, although the eastern part is closer to settlement and within an area with relatively high multiple deprivation. The priorities do not directly help to avoid adverse effects and therefore no significant impact on this SEA objective is identified.
- 5.45 The Southern Uplands includes the high ground in the southernmost part of Clydeplan area. 10% of the area is preferred and 45% of the area is potential. The strategy priorities for the area include restructuring and enhancing existing softwood forests, small scale expansion, creation and expansion of networks of native woodland and exploring potential for 'forest landscape restoration'. The area is largely rural, and relatively distant from main centres of population and therefore no significant impact on this SEA objective is identified.
- 5.46 The Upland Farmland zone occurs across Inverclyde, Renfrewshire and East Renfrewshire and is a complex landscape. 54% of the area is preferred and 14% of the area is potential. The landscape zone contains relatively low levels of deprivation, although parts adjoin the Neilston area which has much higher levels of relative deprivation. The priorities for woodland management and expansion help to reduce adverse effects on communities from flooding, and enhance the landscape of new housing development, which has a positive effect on this SEA objective.
- 5.47 The Upland Valley zone includes five river valleys and upland glens surrounded by moorland. 25% of the area is preferred and 44% of the area is potential. The priorities for woodland management and expansion include restructuring of softwood forests, enhancement and creation of riparian networks, development of new floodplain woodlands. These priorities help to reduce the adverse effects of flooding on health, making a positive contribution to this objective.
- 5.48 Urban and Urban Greenspaces zones. Within the urban area 2% is identified as preferred, with no potential land identified. Within the urban greenspaces, 26% of the area is identified as



preferred with 11% of the area as potential. The urban areas include areas with the highest levels of relative deprivation and the priorities for management and expansion contribute positively to improving the urban environment, with strong positive effect on health and well-being.

#### **SEA Objective 4: Improve the health and living environment of people and communities**

##### *Strategy aims and objectives*

- 5.49 The Expand and Manage objectives have a minor positive effect as a result of improvements to the quality and extent of woodlands, supporting environmental improvements, regeneration and adaptation to climate change. Community involvement in forest plans and planting proposals also contributes positive to improving the health and living environment of people and communities.
- 5.50 The Economy objectives have a positive effect through improving landscape quality and maximising environmental benefits from new woodland, alongside creating new access routes within existing woodland.
- 5.51 The Community objectives also have a positive effect in relation this objective through securing community involvement in woodland projects, supporting community enterprise and development, using woodland for outdoor education. The strongest positive benefits result from encouraging the use of woodland for recreation and improvements to post industrial landscapes, including the creation of community woodlands and using woodlands for cultural activities.
- 5.52 The Environment objectives also have an overall positive effect, particularly through the support for the aims of the CSGN, improving the role of woodland in environmental regulation and improving landscape quality particularly in relation to degraded or damaged landscapes.
- 5.53 The Climate Change objectives bring minor benefits to population and human health through woodland planting to support sustainable flood management, habitat networks which improve landscape quality and the protection of historic and semi natural woodland.

##### *Spatial implications*

- 5.54 Within the farmland zone 55% of the area is identified as preferred land, with a further 22% as potential. As noted above, this landscape zone contains the bulk of the region's peri-urban landscape. Current issues with poor quality landscape, land degradation and abandonment and poor management of woodland resources, present a particular opportunity for the strong positive effects of new woodland planting and management for human health and quality of life. The peri-urban location means that the majority of this landscape area is in close proximity to some of the areas of higher deprivation within the Clydeplan area.
- 5.55 The foothills zone comprises the foothills of the Kilpatrick Hills and Campsie Fells and the foothills of the Southern Uplands. 34% of the area is preferred land and 35% of the area is potential land. This zone includes very sparsely populated areas and no impact from the proposed priorities is identified on this objective.
- 5.56 The incised river valleys zone comprises the wooded gorges and valleys of the Clyde and its tributaries. 9% of the area is identified as preferred and 37% as potential. The landscape zone is within close proximity to some areas with relatively high multiple deprivation and the proposals to improve landscape quality could contribute minor positive effects on this SEA objective.
- 5.57 The lowland valley zone includes the broad valleys of the River Kelvin and the Blane Water and the Lochwinnoch Gap. 37% of the area is identified as preferred, and 8% as potential. The Kelvin and Blane valleys includes some areas of higher multiple deprivation, and the priorities for woodland management or expansion seek to improve landscape quality and flood management with minor positive effects on this SEA objective.
- 5.58 The moorland hills zone comprises the Clyde Muirshiel Hills, Kilpatrick Hills, Campsie Fells and Kilsyth Hills and the south western part of the Pentland Hills. 11% of the area is identified as preferred and 40% of the area is identified as potential. Significant parts of this area include or are close to areas of higher deprivation, particularly Greenock, Port Glasgow, Vale of Leven and Kelvin Valley. The priorities for the area include delivering multi benefit woodland through restructuring, continuing to develop the tourism and recreation offer of the woodlands and expanding native woodland in lower lying areas to contribute to landscape objectives. This will contribute positively to improving health and quality of life.

- 5.59 The plateau moorlands zone comprises much of the Clyde Valley to the south and east of the Glasgow conurbation. 22% of the area is identified as preferred and 19% as potential. The western part of this area is relatively remote from settlement, although the eastern part is closer to settlement and within an area with relatively high multiple deprivation. The strategy priorities include restructuring existing softwoods for improved recreational value which has a minor positive effect on this SEA objective.
- 5.60 The Southern Uplands includes the high ground in the southernmost part of Clydeplan area. 10% of the area is preferred and 45% of the area is potential. The strategy priorities for the area include restructuring and enhancing existing softwood forests, small scale expansion, creation and expansion of networks of native woodland and exploring potential for 'forest landscape restoration'. The strategy priorities make a minor positive impact on this SEA objective through enhancing the overall value of the woodland in the area.
- 5.61 The Upland Farmland zone occurs across Inverclyde, Renfrewshire and East Renfrewshire and is a complex landscape. 54% of the area is preferred and 14% of the area is potential. The landscape zone contains relatively low levels of deprivation, although parts adjoin the Neilston area which has much higher levels of relative deprivation. The priorities for woodland management and expansion help to improve flood management, and enhance the landscape of new housing development, which has a positive effect on this SEA objective.
- 5.62 The Upland Valley zone includes five river valleys and upland glens surrounded by moorland. 25% of the area is preferred and 44% of the area is potential. The priorities for woodland management and expansion include restructuring of softwood forests, enhancement and creation of riparian networks, development of new floodplain woodlands. These priorities help to improve the environment, making a positive contribution to this objective.
- 5.63 Urban and Urban Greenspaces zones. Within the urban area 2% is identified as preferred, with no potential land identified. Within the urban greenspaces, 26% of the area is identified as preferred with 11% of the area as potential. The proposals for woodland management and expansion make a positive contribution to improving the quality and long term maintenance of existing woodland, and for woodland expansion, particularly areas which would benefit from landscape enhancement. The priorities also include working positively with communities in relation to the forthcoming Community Empowerment Act, with a strong positive effect on this objective.

### **SEA Objective 5: Avoid adverse impacts on soil**

#### *Strategy aims and objectives*

- 5.64 The Expand and Manage objectives have an overall minor positive effect in relation to creating new woodland in the most appropriate locations which takes sensitive soil characteristics into account, and also supports improving urban areas and the use of vacant and derelict land. Restructuring existing softwood forests and adapting lower impact silvicultural systems is also positive for soil management.
- 5.65 The Economy objectives have an overall minor positive effect through their support for improving vacant and derelict land and expanding the area of productive forest within the strategy framework (as assessed above). The objectives also support the restoration of peatlands which is positive for avoiding adverse impacts on soil.
- 5.66 The Community objectives have limited impacts on this SEA objective with the exception of unknown effects in relation to community enterprise activities and strong positive effects resulting from the objective to improve post industrial landscapes and develop community woodland.
- 5.67 The Environment objectives have an overall positive effect through enhancing native woodland, encouraging woodland creation and supporting the protection of non-woodland habitats, including bog habitats. Other positive effects include support for the aims of the CSGN which supports remediation of derelict land and woodland planting on derelict and contaminated sites.
- 5.68 The Climate Change objectives have a minor positive effect in relation to the protection of soils through support for the protection of peat soils in relation to new woodland planting.

### *Spatial implications*

- 5.69 Within the farmland zone 55% of the area is identified as preferred land, with a further 22% as potential. The strategy recognises the existing areas of remnant peatland within the farmland zone and their sensitivities to woodland planting, and the majority of carbon rich soils are not located within the farmland zone. The strategy also supports the use of continuous cover forestry in this zone, which has benefits for soil quality. No adverse effects on soil are identified.
- 5.70 The foothills zone comprises the foothills of the Kilpatrick Hills and Campsie Fells and the foothills of the Southern Uplands. 34% of the area is preferred land and 35% of the area is potential land. The priorities for woodland management include restructuring existing softwood areas and improving management of existing woodland however no adverse impacts are identified on this SEA objective.
- 5.71 The incised river valleys zone comprises the wooded gorges and valleys of the Clyde and its tributaries. 9% of the area is identified as preferred and 37% as potential. The priorities for woodland management seek to improve the existing woodland resources, and no adverse effects on soil are identified.
- 5.72 The lowland valley zone includes the broad valleys of the River Kelvin and the Blane Water and the Lochwinnoch Gap. 37% of the area is identified as preferred, and 8% as potential. The priorities seek to improve the quality of existing woodland and expand woodland networks. The priorities do not result in adverse impacts on soil, so there is no impact on this SEA objective.
- 5.73 The moorland hills zone comprises the Clyde Muirshiel Hills, Kilpatrick Hills, Campsie Fells and Kilsyth Hills and the south western part of the Pentland Hills. 11% of the area is identified as preferred and 40% of the area is identified as potential. The landscape zone includes a high proportion of high carbon soils, which is recognised in the strategy, and no adverse impacts on soil are identified, with a positive effect on this objective.
- 5.74 The plateau moorlands zone comprises much of the Clyde Valley to the south and east of the Glasgow conurbation. 22% of the area is identified as preferred and 19% as potential. The landscape zone includes a high proportion of carbon rich soil and peat, which is recognised within the strategy, and includes restructuring of forestry on peatland and peatland restoration. The strategy recognises the limitations of the peat soil for woodland expansion, and therefore makes a positive contribution to this SEA objective.
- 5.75 The Southern Uplands includes the high ground in the southernmost part of Clydeplan area. 10% of the area is preferred and 45% of the area is potential. The landscape area includes a high proportion of carbon rich soil and peat. The carbon rich soils are reflected in the strategy framework and only small scale softwood expansion is proposed. No adverse impacts on soil are identified, with a positive effect on this objective.
- 5.76 The Upland Farmland zone occurs across Inverclyde, Renfrewshire and East Renfrewshire and is a complex landscape. 54% of the area is preferred and 14% of the area is potential. The landscape zone contains several areas of carbon rich soil and peat. The priorities for woodland management and expansion include small scale woodland planting and riparian woodland planting which will bring benefits through managing soil erosion on watercourses, with a minor positive effect on this objective.
- 5.77 The Upland Valley zone includes five river valleys and upland glens surrounded by moorland. 25% of the area is preferred and 44% of the area is potential. The priorities for woodland management and expansion include restructuring of softwood forests, enhancement and creation of riparian networks, development of new floodplain woodlands. These priorities help to protect the soil resource, making a positive contribution to this objective.
- 5.78 Urban and Urban Greenspaces zones. Within the urban area 2% is identified as preferred, with no potential land identified. Within the urban greenspaces, 26% of the area is identified as preferred with 11% of the area as potential. The proposals for woodland management and expansion make a positive contribution to using woodland in bioremediation of contaminated land, incorporating woodland into new development and. These have a positive effect on avoiding adverse effects on soils.

## **SEA Objective 6: Avoid adverse impacts on valuable soil resources e.g. prime agricultural land, carbon rich soils**

### *Strategy aims and objectives*

- 5.79 The Expand and Manage objectives have an overall minor positive effect on this SEA objective through providing a spatial framework which directs new woodland planting to the most appropriate locations, which takes into account valuable soil characteristics. The objectives also support lower impact silvicultural systems and continuous cover forestry which bring minor benefits for soil. Woodland expansion and management to optimise carbon sequestration also takes soil carbon content into account.
- 5.80 The Economy objectives include mixed effects resulting from woodland on vacant and derelict land, and small scale woodland expansion in rural areas. It is not clear if small scale woodland expansion in rural areas will take place within the framework which seeks to protect sensitive soil resources. Minor positive effects relate to the overall expansion of woodland within the strategy framework, and support for the restoration of peatlands.
- 5.81 The Community objectives largely do not impact directly on soil resources. There is uncertainty regarding potential impacts resulting from community enterprise development, depending on the activities which emerge. Minor positive effects are anticipated from improvement of degraded soils in post-industrial landscapes.
- 5.82 The Environment objectives have minor positive effects overall as a result of support for woodland creation within the strategy framework which takes soil resources into account. The objective also supports woodland creation and expansion with a focus on derelict and contaminated sites, which has a positive effect on this SEA objective.
- 5.83 The Climate Change objectives have a minor positive effect through support for the protection of peat soils in relation to new woodland planting.

### *Spatial implications*

- 5.84 Within the farmland zone 55% of the area is identified as preferred land, with a further 22% as potential. As noted under the previous SEA objective, the strategy recognises the existing areas of remnant peatland within the farmland zone and their sensitivities to woodland planting, and the majority of carbon rich soils are not located within the farmland zone and no adverse effects on valuable soil resources are identified.
- 5.85 The foothills zone comprises the foothills of the Kilpatrick Hills and Campsie Fells and the foothills of the Southern Uplands. 34% of the area is preferred land and 35% of the area is potential land. This zone includes some areas of carbon rich soils which are reflected in the sensitive land category, and no adverse impacts are identified on this SEA objective.
- 5.86 The incised river valleys zone comprises the wooded gorges and valleys of the Clyde and its tributaries. 9% of the area is identified as preferred and 37% as potential. The valleys are not identified as high carbon soils and the priorities for woodland management seek to improve the existing woodland resources. No adverse impacts on important soil resources are identified.
- 5.87 The lowland valley zone includes the broad valleys of the River Kelvin and the Blane Water and the Lochwinnoch Gap. 37% of the area is identified as preferred, and 8% as potential. The lowland valleys do not contain carbon rich soils and no impact on this SEA objective is identified.
- 5.88 The moorland hills zone comprises the Clyde Muirshiel Hills, Kilpatrick Hills, Campsie Fells and Kilsyth Hills and the south western part of the Pentland Hills. 11% of the area is identified as preferred and 40% of the area is identified as potential. The landscape zone includes a high proportion of high carbon soils, and does not include high quality agricultural land. The sensitivity of the high carbon soils is recognised in the strategy, and no adverse impacts on valuable soil resources are identified, with a positive effect on this objective.
- 5.89 The plateau moorlands zone comprises much of the Clyde Valley to the south and east of the Glasgow conurbation. 22% of the area is identified as preferred and 19% as potential. The landscape zone includes a high proportion of carbon rich soil and peat, which is recognised within the strategy, and includes restructuring of forestry on peatland and peatland restoration. The upland nature of the area has lower value for agriculture. The strategy recognises the limitations

of the peat soil for woodland expansion, and therefore makes a positive contribution to this SEA objective.

- 5.90 The Southern Uplands includes the high ground in the southernmost part of Clydeplan area. 10% of the area is preferred and 45% of the area is potential. The landscape area includes a high proportion of carbon rich soil and peat. The carbon rich soils are reflected in the strategy framework and only small scale softwood expansion is proposed. The upland nature of the area has lower value for agriculture. No adverse impacts on soil are identified, with a positive effect on this objective.
- 5.91 The Upland Farmland zone occurs across Inverclyde, Renfrewshire and East Renfrewshire and is a complex landscape. 54% of the area is preferred and 14% of the area is potential. The landscape zone contains several areas of carbon rich soil and peat which are reflected within the strategy framework, with a minor positive effect on this objective.
- 5.92 The Upland Valley zone includes five river valleys and upland glens surrounded by moorland. 25% of the area is preferred and 44% of the area is potential. The landscape zone does not include the best and most versatile agricultural land and the valley landscapes do not hold significant areas of carbon rich soil. The priorities for woodland management and expansion include restructuring of softwood forests, enhancement and creation of riparian networks, development of new floodplain woodlands. These priorities help to protect the soil resource, making a positive contribution to this objective.
- 5.93 Urban and Urban Greenspaces zones. Within the urban area 2% is identified as preferred, with no potential land identified. Within the urban greenspaces, 26% of the area is identified as preferred with 11% of the area as potential. High quality agricultural land and carbon rich soils are not typically found within the urban area and therefore no impact is identified on this objective.

### **SEA Objective 7: Reduce vacant and derelict land**

#### *Strategy aims and objectives*

- 5.94 The objectives for Expand and Manage have a positive effect in relation to reducing vacant and derelict land, through the incorporation of this within the Strategy framework, and a minor positive effect identified in respect of aiming to provide community benefits and improve urban areas through new planting.
- 5.95 The Economy objective which supports environmental enhancement of vacant and derelict sites through woodland planting has a strong positive effect on reducing vacant and derelict land.
- 5.96 The Community objective which supports improving post-industrial landscapes, developing community woodlands close to where people live has a strong positive effect on this SEA objective. There is limited impact from the other objectives, with uncertainty regarding how support for community enterprise and development could contribute positively towards this SEA objective.
- 5.97 The Environment objectives include some strong positive effects on vacant and derelict land through support for the CSGN which supports remediation of derelict land and the objective which supports woodland creation and expansion with a focus on derelict and contaminated sites.
- 5.98 The Climate change objectives do not have any direct impact on this SEA objective.

#### *Spatial implications*

- 5.99 Within the farmland zone 55% of the area is identified as preferred land, with a further 22% as potential. The strategy recognises that key issues of land degradation and abandonment within this zone and increased woodland planting and management will make a positive contribution to this SEA objective.
- 5.100 The foothills zone comprises the foothills of the Kilpatrick Hills and Campsie Fells and the foothills of the Southern Uplands. 34% of the area is preferred land and 35% of the area is potential land. These are largely rural areas and do not impact on vacant and derelict land.
- 5.101 The incised river valleys zone comprises the wooded gorges and valleys of the Clyde and its tributaries. 9% of the area is identified as preferred and 37% as potential. The valleys are not key locations for vacant and derelict land and no impacts on this SEA objective are identified.



- 5.102 The lowland valley zone includes the broad valleys of the River Kelvin and the Blane Water and the Lochwinnoch Gap. 37% of the area is identified as preferred, and 8% as potential. The Kelvin and Blane valleys include some vacant and derelict sites however the priorities for this area do not explicitly address these, with minor negative effects in relation to this SEA objective.

**Recommendation:**

The Strategy should make explicit the links between the spatial part of the strategy and the Economy objective which supports environmental enhancement of vacant and derelict sites through woodland.

- 5.103 The moorland hills zone comprises the Clyde Muirshiel Hills, Kilpatrick Hills, Campsie Fells and Kilsyth Hills and the south western part of the Pentland Hills. 11% of the area is identified as preferred and 40% of the area is identified as potential. The landscape area is upland in character and does not include significant areas of vacant and derelict land, therefore no impact is identified on this objective.
- 5.104 The plateau moorlands zone comprises much of the Clyde Valley to the south and east of the Glasgow conurbation. 22% of the area is identified as preferred and 19% as potential. The landscape zone includes areas affected by mineral working, but the strategy does not identify the role of woodland in restoration of these sites with minor negative effects.

**Recommendation:**

The Strategy should highlight any potential role of woodland in the restoration of former mineral sites.

- 5.105 The Southern Uplands includes the high ground in the southernmost part of Clydeplan area. 10% of the area is preferred and 45% of the area is potential. No vacant and derelict land is identified within the area, and therefore no impact is identified for this objective.
- 5.106 The Upland Farmland zone occurs across Inverclyde, Renfrewshire and East Renfrewshire and is a complex landscape. 54% of the area is preferred and 14% of the area is potential. This zone includes part of the Bishopton Royal Ordnance Factory site, which is an extensive area of vacant and derelict land which is undergoing redevelopment. The priorities contribute positively to supporting woodland planting as part of the redevelopment of this site, with a minor positive contribution to this objective.
- 5.107 The Upland Valley zone includes five river valleys and upland glens surrounded by moorland. 25% of the area is preferred and 44% of the area is potential. The landscape area does not include significant areas of vacant and derelict land, therefore no impact is identified on this objective.
- 5.108 Urban and Urban Greenspaces zones. Within the urban area 2% is identified as preferred, with no potential land identified. Within the urban greenspaces, 26% of the area is identified as preferred with 11% of the area as potential. The proposals for woodland management and expansion make a positive contribution to using woodland in bioremediation of contaminated land, and planting on stalled sites. These priorities have a positive effect on reducing vacant and derelict land.

**SEA Objective 8: Avoid adverse impacts on the ecological status of water bodies**

*Strategy aims and objectives*

- 5.109 The Expand and Manage objectives set the spatial framework for woodland creation, and include the objective promoting high standards of woodland design supports woodland creation to achieve multiple benefits, which helps to avoid adverse impacts on water bodies. The other objectives have limited impact on this SEA objective.
- 5.110 The Economy objectives have a minor positive effect on this SEA objective through using woodland in sustainable urban drainage and in rural areas as riparian woodland planting, both of which achieve benefits for water quality.

- 5.111 The Community objectives have very limited impact on this objective, with the exception of support for community enterprise and development where there is uncertainty regarding the type of community enterprise which may be developed and potential impacts on water quality.
- 5.112 The Environment objectives make a number of indirect contributions to avoiding adverse impacts on the water environment, and the direct positive benefits of supporting riparian woodland through improving woodlands contribution to the conservation and management of ecosystem services and functions.
- 5.113 The Climate change objectives do not impact directly on this SEA objective, with only indirect benefits for the water environment from increased woodland cover.

#### *Spatial implications*

- 5.114 Within the farmland zone 55% of the area is identified as preferred land, with a further 22% as potential. The strategy recognises that there is generally poor ecological condition of waterbodies within this zone, with agricultural diffuse pollution a key issue. Increased woodland planting within this zone will make a strong positive contribution to reducing the effects of agricultural pollution, particularly where this is implemented as riparian woodland.
- 5.115 The foothills zone comprises the foothills of the Kilpatrick Hills and Campsie Fells and the foothills of the Southern Uplands. 34% of the area is preferred land and 35% of the area is potential land. There are some issues with poor water quality in water bodies in the north of the region, however the priorities for the zone make a positive contribution to water quality by increasing riparian woodland links and farm woodland, which helps to intercept pollutants. There is an overall minor positive effect on this SEA objective.
- 5.116 The incised river valleys zone comprises the wooded gorges and valleys of the Clyde and its tributaries. 9% of the area is identified as preferred and 37% as potential. Water quality on the main waterbodies could be enhanced within the area and the proposed priorities will not result in adverse effects on the ecological status of waterbodies, so no impact is identified in relation to this SEA objective.
- 5.117 The lowland valley zone includes the broad valleys of the River Kelvin and the Blane Water and the Lochwinnoch Gap. 37% of the area is identified as preferred, and 8% as potential. The ecological status of Blane Water and Castle Semple and Barr Loch is moderate, the River Kelvin has bad ecological status. The priorities for woodland expansion and management make a positive contribution to riparian woodland which helps to create a buffer between pollution sources and watercourses. There is an overall positive effect on this objective.
- 5.118 The moorland hills zone comprises the Clyde Muirshiel Hills, Kilpatrick Hills, Campsie Fells and Kilsyth Hills and the south western part of the Pentland Hills. 11% of the area is identified as preferred and 40% of the area is identified as potential. The strategy recognises the importance of the area in flood risk and water management, and priorities for management and expansion include improving management of riparian woodlands and reinforcing riparian networks. These actions help to avoid adverse impacts on the ecological status of waterbodies, with a positive effect on this SEA objective.
- 5.119 The plateau moorlands zone comprises much of the Clyde Valley to the south and east of the Glasgow conurbation. 22% of the area is identified as preferred and 19% as potential. No significant water quality issues are identified within this landscape zone and the priorities for the area include do not significantly impact on water quality, therefore no impact is identified.
- 5.120 The Southern Uplands includes the high ground in the southernmost part of Clydeplan area. 10% of the area is preferred and 45% of the area is potential. Water quality within the area is relatively good, and the proposals for the area include only small scale softwood expansion, and no impact is identified on this objective.
- 5.121 The Upland Farmland zone occurs across Inverclyde, Renfrewshire and East Renfrewshire and is a complex landscape. 54% of the area is preferred and 14% of the area is potential. The area does not have any significant water quality issues. The priorities for the area help to address flooding with indirect positive effects on water quality, however no impact is identified on this objective.
- 5.122 The Upland Valley zone includes five river valleys and upland glens surrounded by moorland. 25% of the area is preferred and 44% of the area is potential. There are no significant issues

with water quality within the area. The priorities for woodland management and expansion include restructuring of softwood forests, enhancement and creation of riparian networks, development of new floodplain woodlands. These priorities help to protect water quality, making a positive contribution to this objective.

- 5.123 Urban and Urban Greenspaces zones. Within the urban area 2% is identified as preferred, with no potential land identified. Within the urban greenspaces, 26% of the area is identified as preferred with 11% of the area as potential. Flood risk is identified as a major issue in the urban areas. The priorities for woodland management and expansion include reinforcing river corridor woodlands, new street trees and urban woodland, including retrofitting green infrastructure into urban areas. This has a positive effect on water bodies through improving flood management, infiltration and absorption.

### **SEA Objective 9: Avoid adverse impacts on sensitive coastal areas and marine environment**

#### *Strategy aims and objectives*

- 5.124 The Expand and Manage objectives have limited direct impacts on coastal and marine water quality, with the objective which promotes high standards of woodland design, including woodland creation to achieve multiple benefits resulting in minor positive effect.
- 5.125 The Economy objectives have a minor positive effect on this objective through supporting the use of woodland to support flood management, which also contributes to supporting water quality.
- 5.126 The Community objectives have limited impact on this SEA objective with the exception of the uncertainty regarding potential impacts resulting from community enterprise development, depending on the activities which emerge.
- 5.127 The Environment objectives have limited impact on this SEA objective, with the minor positive effect of support for riparian woodland through the objective which supports improving woodland's contribution to the conservation and management of ecosystem services and functions.
- 5.128 The Climate change objectives do not impact directly on this objective.

#### *Spatial implications*

- 5.129 Within the farmland zone 55% of the area is identified as preferred land, with a further 22% as potential. As noted in relation to the previous SEA objective, the strategy recognises that there is generally poor ecological condition of waterbodies within this zone, with agricultural diffuse pollution a key issue. Increased woodland planting within this zone will make a positive contribution to reducing the effects of agricultural pollution, which will contribute to improving water quality within the coastal and marine environment.
- 5.130 The foothills zone comprises the foothills of the Kilpatrick Hills and Campsie Fells and the foothills of the Southern Uplands. 34% of the area is preferred land and 35% of the area is potential land. No significant impacts on the water quality within the coastal and marine environment are identified.
- 5.131 The incised river valleys zone comprises the wooded gorges and valleys of the Clyde and its tributaries. 9% of the area is identified as preferred and 37% as potential. Water quality on the main waterbodies could be enhanced within the area. The proposed priorities will not result in adverse effects on the coastal and marine environment, so no impact is identified in relation to this SEA objective.
- 5.132 The lowland valley zone includes the broad valleys of the River Kelvin and the Blane Water and the Lochwinnoch Gap. 37% of the area is identified as preferred, and 8% as potential. The landscape zones are some distance from the coast and the priorities for woodland expansion and management make a positive contribution to improving water quality with an overall minor positive effect on this objective.
- 5.133 The moorland hills zone comprises the Clyde Muirshiel Hills, Kilpatrick Hills, Campsie Fells and Kilsyth Hills and the south western part of the Pentland Hills. 11% of the area is identified as preferred and 40% of the area is identified as potential. No significant impacts on the water quality within the coastal and marine environment are identified.

- 5.134 The plateau moorlands zone comprises much of the Clyde Valley to the south and east of the Glasgow conurbation. 22% of the area is identified as preferred and 19% as potential. The plateau moorlands are upland areas with no significant water quality issues and therefore no impact on coastal and marine areas is identified.
- 5.135 The Southern Uplands includes the high ground in the southernmost part of Clydeplan area. 10% of the area is preferred and 45% of the area is potential. Water quality within the area is relatively good and therefore no impact on coastal and marine areas is identified.
- 5.136 The Upland Farmland zone occurs across Inverclyde, Renfrewshire and East Renfrewshire and is a complex landscape. 54% of the area is preferred and 14% of the area is potential. The area is adjacent to the Firth of Clyde transitional water body which has moderate water quality. The priorities for woodland management and expansion make a minor contribution to sustainable water management and flood attenuation but do not directly impact on the coastal and marine water quality, therefore no impact on this objective is identified.
- 5.137 The Upland Valley zone includes five river valleys and upland glens surrounded by moorland. 25% of the area is preferred and 44% of the area is potential. Water quality within the area is relatively good, and therefore no impact on coastal and marine areas is identified.
- 5.138 Urban and Urban Greenspaces zones. Within the urban area 2% is identified as preferred, with no potential land identified. Within the urban greenspaces, 26% of the area is identified as preferred with 11% of the area as potential. The urban area is in close proximity to sensitive coastal environments and the priorities for woodland expansion and management help to support improvements to water quality, with a minor positive effect on this SEA objective.

### **SEA Objective 10: Improve the water environment**

#### *Strategy aims and objectives*

- 5.139 The Expand and Manage objectives have a limited impact on this SEA objective with minor positive benefits resulting from woodland creation to achieve multiple benefits, through flood management and sustainable urban drainage systems.
- 5.140 The Economy objectives have a minor positive effect as a result of supporting woodland as part of sustainable water management in urban and rural environments.
- 5.141 The Community objectives do not impact on this SEA objective, with the exception of the objective which supports community enterprise and development, where impacts are unknown as they will be dependent on the nature of the community enterprise activities.
- 5.142 The Environment objectives have a minor positive effect through support for the benefits of riparian woodland.
- 5.143 The Climate change objectives have a positive effect through support for increasing woodland cover and supporting new tree cover to contribute to sustainable flood management.

#### *Spatial implications*

- 5.144 Within the farmland zone 55% of the area is identified as preferred land, with a further 22% as potential. As noted in relation to the previous SEA objective, the strategy recognises that there is generally poor ecological condition of waterbodies within this zone, with agricultural diffuse pollution a key issue. Increased woodland planting within this zone will make a positive contribution to reducing the effects of agricultural pollution on the water environment.
- 5.145 The foothills zone comprises the foothills of the Kilpatrick Hills and Campsie Fells and the foothills of the Southern Uplands. 34% of the area is preferred land and 35% of the area is potential land. There are some issues with poor water quality in water bodies in the north of the region, however the priorities for the zone make a positive contribution to water quality by increasing riparian woodland links and farm woodland, which helps to intercept pollutants. There is an overall minor positive effect on this SEA objective.
- 5.146 The incised river valleys zone comprises the wooded gorges and valleys of the Clyde and its tributaries. 9% of the area is identified as preferred and 37% as potential. Water quality on the main waterbodies could be enhanced within the area. The proposed priorities will not result in significant effects on the water environment, so no impact is identified in relation to this SEA objective.

- 5.147 The lowland valley zone includes the broad valleys of the River Kelvin and the Blane Water and the Lochwinnoch Gap. 37% of the area is identified as preferred, and 8% as potential. The priorities for woodland expansion and management make a positive contribution to improving water quality through riparian planting and floodplain woodland with an overall positive effect on this objective.
- 5.148 The moorland hills zone comprises the Clyde Muirshiel Hills, Kilpatrick Hills, Campsie Fells and Kilsyth Hills and the south western part of the Pentland Hills. 11% of the area is identified as preferred and 40% of the area is identified as potential. The strategy recognises the importance of the area in flood risk and water management, and priorities for management and expansion include improving management of riparian woodlands and reinforcing riparian networks. These actions help to improve the water environment, with a positive effect on this SEA objective.
- 5.149 The plateau moorlands zone comprises much of the Clyde Valley to the south and east of the Glasgow conurbation. 22% of the area is identified as preferred and 19% as potential. Developing networks of native woodland and promoting the development of farm forestry will make a minor positive contribution to improving water quality.
- 5.150 The Southern Uplands includes the high ground in the southernmost part of Clydeplan area. 10% of the area is preferred and 45% of the area is potential. Water quality within the area is relatively good and new native woodland and farm woodland will have a minor positive effect on this objective .
- 5.151 The Upland Farmland zone occurs across Inverclyde, Renfrewshire and East Renfrewshire and is a complex landscape. 54% of the area is preferred and 14% of the area is potential. The priorities for woodland management and expansion make a minor contribution to sustainable water management and flood attenuation, with a minor positive effect on this objective.
- 5.152 The Upland Valley zone includes five river valleys and upland glens surrounded by moorland. 25% of the area is preferred and 44% of the area is potential. The priorities for woodland management and expansion include restructuring of softwood forests, enhancement and creation of riparian networks, development of new floodplain woodlands. These priorities help to protect and improve water quality, making a positive contribution to this objective.
- 5.153 Urban and Urban Greenspaces zones. Within the urban area 2% is identified as preferred, with no potential land identified. Within the urban greenspaces, 26% of the area is identified as preferred with 11% of the area as potential. Flood risk is identified as a major issue in the urban areas. The priorities for woodland management and expansion include reinforcing river corridor woodlands, new street trees and urban woodland, including retrofitting green infrastructure into urban areas. This has a minor positive effect on improving the water environment.

### **SEA Objective 11: Avoid increasing greenhouse gas emissions**

#### *Strategy aims and objectives*

- 5.154 The Expand and Manage objectives have a positive effect on this SEA objective through woodland creation to reduce greenhouse gas emissions and the objective which supports optimising woodland for carbon sequestration.
- 5.155 The Economy objectives have a minor positive effect on this SEA objective through increasing the area of productive woodland, producing wood for biomass and encouraging the use of timber in construction. The support for local timber processing facilities and creating and protecting local markets also helps to avoid increases in greenhouse gas emissions.
- 5.156 The Community objectives have limited impact on this SEA objective with the exception of support for community enterprise and development where there is uncertainty regarding the type of community enterprise which may be developed and potential impacts on greenhouse gas emissions.
- 5.157 The Environment objectives have a minor positive effect on this SEA objective as a result of encouraging woodland creation and protecting non woodland habitats, including bog habitat, which helps to avoid greenhouse gas emissions.
- 5.158 The Climate change objectives make a strong positive contribution to this SEA objective through reducing emissions within the forestry sector and supporting emission reduction through the



provision of biomass and wood fibre as fuel, timber as a construction material, and supporting renewable energy development.

### *Spatial implications*

- 5.159 Within the farmland zone 55% of the area is identified as preferred land, with a further 22% as potential. The planting proposals for this zone includes expanding biomass production opportunities and makes appositive contribution to avoiding increases in greenhouse gas emissions.
- 5.160 The foothills zone comprises the foothills of the Kilpatrick Hills and Campsie Fells and the foothills of the Southern Uplands. 34% of the area is preferred land and 35% of the area is potential land. The priorities for this area do not directly contribute to avoiding greenhouse gas emission increases and no impact is identified for this objective.
- 5.161 The incised river valleys zone comprises the wooded gorges and valleys of the Clyde and its tributaries. 9% of the area is identified as preferred and 37% as potential. The proposed priorities will not result in increases to greenhouse gas emissions, so no impact is identified in relation to this SEA objective.
- 5.162 The lowland valley zone includes the broad valleys of the River Kelvin and the Blane Water and the Lochwinnoch Gap. 37% of the area is identified as preferred, and 8% as potential. The priorities for woodland expansion and management do not directly contribute to avoiding greenhouse gas emission increases and no impact is identified for this objective.
- 5.163 The moorland hills zone comprises the Clyde Muirshiel Hills, Kilpatrick Hills, Campsie Fells and Kilsyth Hills and the south western part of the Pentland Hills. 11% of the area is identified as preferred and 40% of the area is identified as potential. The priorities for this area include expansion of softwood forests, whilst recognising the sensitivities of carbon rich soils, which has a positive effect on avoiding increases in greenhouse gas emissions.
- 5.164 The plateau moorlands zone comprises much of the Clyde Valley to the south and east of the Glasgow conurbation. 22% of the area is identified as preferred and 19% as potential. The proposed priorities will not result in increases to greenhouse gas emissions, so no impact is identified in relation to this SEA objective.
- 5.165 The Southern Uplands includes the high ground in the southernmost part of Clydeplan area. 10% of the area is preferred and 45% of the area is potential. The proposed priorities will not result in increases to greenhouse gas emissions, so no impact is identified in relation to this SEA objective.
- 5.166 Upland Farmland zone occurs across Inverclyde, Renfrewshire and East Renfrewshire and is a complex landscape. 54% of the area is preferred and 14% of the area is potential. The proposed priorities will not result in increases to greenhouse gas emissions, so no impact is identified in relation to this SEA objective.
- 5.167 The Upland Valley zone includes five river valleys and upland glens surrounded by moorland. 25% of the area is preferred and 44% of the area is potential. The proposed priorities will not result in increases to greenhouse gas emissions, so no impact is identified in relation to this SEA objective.
- 5.168 Urban and Urban Greenspaces zones. Within the urban area 2% is identified as preferred, with no potential land identified. Within the urban greenspaces, 26% of the area is identified as preferred with 11% of the area as potential. The priorities for woodland management and expansion include potential use of stalled development sites for biomass, but otherwise do not directly reduce greenhouse gas emissions.

## **SEA Objective 12: Support adaptation to climate change**

### *Strategy aims and objectives*

- 5.169 The Expand and Manage objectives have an overall minor positive effect on this SEA objective as a result of woodland creation to aid climate change adaptation, supporting the use of lower impact silvicultural systems and continuous cover forestry, and supporting woodland creation to deliver multiple benefits which includes climate change adaptation.

- 5.170 The Economy objectives have a minor positive effect on this SEA objective through supporting urban tree planting along transport corridors and in rural areas for benefits such as stock shelter, and restructuring forests to ensure climate change resilience.
- 5.171 The Community objectives have limited impact on this SEA objective with the exception of support for community enterprise and development where there is uncertainty regarding the type of community enterprise which may be developed and potential impacts on climate change adaptation.
- 5.172 The Environment objectives have a minor positive effect on this SEA objective as a result of support for enhancing woodland habitats, strengthening habitat networks and tackling invasive non-native species. The objective supporting woodland's contribution to the conservation and management of ecosystem services and functions supports riparian woodland to reduce the risk of flooding which contributes positively to climate change adaptation.
- 5.173 The Climate change objective makes a strong positive contribution to climate change adaptation through supporting sustainable water and flood management and increased resilience through expanded habitat networks, urban woodland and forestry management practices.

#### *Spatial implications*

- 5.174 Within the farmland zone 55% of the area is identified as preferred land, with a further 22% as potential. The development of new woodland habitat networks, delivering new farm woodland to aid climate change adaptation, and the application of continuous cover forestry make a positive contribution to this SEA objective.
- 5.175 The foothills zone comprises the foothills of the Kilpatrick Hills and Campsie Fells and the foothills of the Southern Uplands. 34% of the area is preferred land and 35% of the area is potential land. The priorities for this area include improving farm woodland and using woodland to support agricultural adaptation to climate change and improve resilience, with a minor positive effect on this objective.
- 5.176 The incised river valleys zone comprises the wooded gorges and valleys of the Clyde and its tributaries. 9% of the area is identified as preferred and 37% as potential. The proposed priorities support climate change adaptation through reinforcing the native woodland networks to boost resilience to the effects of climate change and improved management of existing woodlands, so minor positive effects are identified in relation to this SEA objective.
- 5.177 The lowland valley zone includes the broad valleys of the River Kelvin and the Blane Water and the Lochwinnoch Gap. 37% of the area is identified as preferred, and 8% as potential. The priorities for woodland expansion and management make a strong positive contribution to climate change adaptation through supporting riparian woodland, new floodplain woodland and agricultural woodlands to assist with climate change adaptation.
- 5.178 The moorland hills zone comprises the Clyde Muirshiel Hills, Kilpatrick Hills, Campsie Fells and Kilsyth Hills and the south western part of the Pentland Hills. 11% of the area is identified as preferred and 40% of the area is identified as potential. The priorities support managing and reinforcing riparian woodlands to improve flood management, and managing native woodlands to maximise biodiversity value which makes a minor positive contribution to climate change adaptation.
- 5.179 The plateau moorlands zone comprises much of the Clyde Valley to the south and east of the Glasgow conurbation. 22% of the area is identified as preferred and 19% as potential. The priorities for the area include restructuring existing softwood forests, developing networks of native woodland and promoting the development of farm forestry which all make a minor positive contribution to climate change adaptation.
- 5.180 The Southern Uplands includes the high ground in the southernmost part of Clydeplan area. 10% of the area is preferred and 45% of the area is potential. The strategy priorities for the area include restructuring and enhancing existing softwood forests, small scale expansion, creation and expansion of networks of native woodland and exploring potential for 'forest landscape restoration' which make a minor positive contribution to climate change adaptation.
- 5.181 Upland Farmland zone occurs across Inverclyde, Renfrewshire and East Renfrewshire and is a complex landscape. 54% of the area is preferred and 14% of the area is potential. The priorities

for woodland management and expansion make a minor contribution to restructuring, sustainable water management and flood attenuation, supporting climate change adaptation, with a minor positive effect on this objective.

- 5.182 The Upland Valley zone includes five river valleys and upland glens surrounded by moorland. 25% of the area is preferred and 44% of the area is potential. The priorities for woodland management and expansion include restructuring of softwood forests, enhancement and creation of riparian networks, development of new floodplain woodlands. These priorities help to support climate change adaptation, making a positive contribution to this objective.
- 5.183 Urban and Urban Greenspaces zones. Within the urban area 2% is identified as preferred, with no potential land identified. Within the urban greenspaces, 26% of the area is identified as preferred with 11% of the area as potential. The priorities for woodland management and expansion include improved management of existing woodland, succession planning for parks and gardens, new urban edge and riparian woodlands, new street trees and urban woodlands. All of these priorities have a strong positive effect on supporting climate change adaptation.

### **SEA Objective 13: Avoid adverse effects on air quality where air quality is a known issue through AQMA**

#### *Strategy aims and objectives*

- 5.184 The Expand and Manage objectives have an overall minor positive effect on this SEA objective through supporting woodland creation within urban areas which directly helps to improve air quality within the areas where AQMA have been declared.
- 5.185 The Economy objectives also have an overall minor positive effect on this objective through supporting woodland creation in urban areas, where AQMA have been declared, and reducing emissions from the timber industry.
- 5.186 The Community objectives have limited impact on this objective, with the exception of new woodland planting close to where people live, and in areas with AQMA which will have a positive effect on this objective.
- 5.187 The Environment objectives have an overall minor positive effect on this objective through increasing woodland creation, particularly in urban areas where the AQMA are located.
- 5.188 The Climate Change objectives have an overall minor positive effect on this objective through their support for emission reduction and creation of new tree cover, particularly in urban areas.

#### *Spatial implications*

- 5.189 The farmland zone falls within parts of the Glasgow city wide AQMA which also includes some areas with higher levels of air pollution. The priorities for woodland management and expansion include improving management of urban fringe woodlands and developing new woodlands which will contribute positively towards improving air quality.
- 5.190 The foothills zone comprises the foothills of the Kilpatrick Hills and Campsie Fells and the foothills of the Southern Uplands. This zone lies outwith the AQMA, but includes some transport corridors which have elevated levels of air pollutants. The priorities for this area include improving farm woodland and using woodland to support agricultural adaptation to climate change and improve resilience, with a minor positive effect on air quality.
- 5.191 The incised river valleys zone comprises the wooded gorges and valleys of the Clyde and its tributaries. This includes part of the AQMA, and some of the valleys also include transport routes and have higher levels of air pollutants. The proposals for management and expansion include management of existing woodland and small scale woodland expansion. These proposals will make a minor contribution to improving air quality.
- 5.192 The lowland valley zone includes the broad valleys of the River Kelvin and the Blane Water and the Lochwinnoch Gap. These areas are outside of the AQMA but include some areas with elevated levels of air pollutants. Priorities for woodland management and expansion include manage and enhance historic woodland assets and woodland associated with historic resources, and expand riparian woodland, floodplain woodland, shelterbelts and field trees. These proposals will have a minor positive effect on air quality.

- 5.193 The moorland hills zone comprises the Clyde Muirshiel Hills, Kilpatrick Hills, Campsie Fells and Kilsyth Hills and the south western part of the Pentland Hills. This zone lies outside of the AQMA and does not have significant issues with levels of air pollutants. Priorities for woodland management and expansion are unlikely to impact significantly on air quality.
- 5.194 The plateau moorlands zone comprises much of the Clyde Valley to the south and east of the Glasgow conurbation. This zone lies outside of the AQMA. Priorities for woodland management and expansion include restructuring and forestry expansion, however this is unlikely to impact significantly on air quality.
- 5.195 The Southern Uplands includes the high ground in the southernmost part of Clydeplan area. This is outside of the AQMA, but includes some transport corridors which include areas with elevated levels of air pollutants. The levels of proposed woodland expansion are unlikely to impact significantly on air quality.
- 5.196 Upland Farmland zone occurs across Inverclyde, Renfrewshire and East Renfrewshire and is a complex landscape. This zone lies outside of the AQMA, but includes some transport corridors which have elevated levels of air pollutants. The priorities for woodland management and expansion include improving existing woodland resources and expanding woodland in riparian corridors and in parallel with new housing development. This will make a minor contribution towards improving air quality, but not significantly in relation to the AQMA.
- 5.197 The Upland Valley zone includes five river valleys and upland glens surrounded by moorland. This landscape area does not coincide with the AQMA, but includes areas with elevated levels of air pollutants. The priorities for woodland management and expansion include additional new woodland which will make a minor contribution towards improving air quality, but not significantly in relation to the AQMA.
- 5.198 Urban and Urban Greenspaces zones. Air pollution levels are at their highest within the urban and urban greenspaces zones, and the AQMA coincides with the majority of this landscape zone. The priorities for woodland management and expansion include improved management of existing woodland, succession planning for parks and gardens, new urban edge and riparian woodlands, new street trees and urban woodlands. All of these priorities have a strong positive effect on improving air quality.

#### **SEA Objective 14: Improve air quality**

##### *Strategy aims and objectives*

- 5.199 The Expand and Manage objectives have an overall minor positive effect on this SEA objective through supporting woodland creation, including within urban areas which directly helps to improve air quality where higher levels of air pollution are found.
- 5.200 The Economy objectives also have an overall minor positive effect on this objective through supporting woodland creation in urban areas, where higher levels of air pollution are found, and reducing emissions from the timber industry.
- 5.201 The Community objectives have limited impact on this objective, with the exception of new woodland planting close to where people live, where higher levels of air pollution are found, which will have a positive effect on this objective.
- 5.202 The Environment objectives have an overall minor positive effect on this objective through increasing woodland creation, particularly in urban areas where higher levels of air pollution are found.
- 5.203 The Climate Change objectives have an overall minor positive effect on this objective through their support for emission reduction and creation of new tree cover, particularly in urban areas.

##### *Spatial implications*

- 5.204 The farmland zone falls includes some of the urban fringe areas of the Glasgow conurbation includes some areas with higher levels of air pollution. The priorities for woodland management and expansion include improving management of urban fringe woodlands and developing new woodlands which will contribute positively towards improving air quality.
- 5.205 The foothills zone comprises the foothills of the Kilpatrick Hills and Campsie Fells and the foothills of the Southern Uplands. This zone includes some transport corridors which have elevated levels

of air pollutants. The priorities for this area include improving farm woodland and using woodland to support agricultural adaptation to climate change and improve resilience, with a minor positive effect on air quality.

- 5.206 The incised river valleys zone comprises the wooded gorges and valleys of the Clyde and its tributaries. This includes some transport routes and which have higher levels of air pollutants. The proposals for management and expansion include management of existing woodland and small scale woodland expansion. These proposals will make a minor contribution to improving air quality.
- 5.207 The lowland valley zone includes the broad valleys of the River Kelvin and the Blane Water and the Lochwinnoch Gap. These areas include some areas with elevated levels of air pollutants. Priorities for woodland management and expansion include manage and enhance historic woodland assets and woodland associated with historic resources, and expand riparian woodland, floodplain woodland, shelterbelts and field trees. These proposals will have a minor positive effect on air quality.
- 5.208 The moorland hills zone comprises the Clyde Muirshiel Hills, Kilpatrick Hills, Campsie Fells and Kilsyth Hills and the south western part of the Pentland Hills. This zone does not have significant issues with levels of air pollutants. Priorities for woodland management and expansion are unlikely to impact significantly on air quality.
- 5.209 The plateau moorlands zone comprises much of the Clyde Valley to the south and east of the Glasgow conurbation. The zone does not have particular air quality issues. Priorities for woodland management and expansion include restructuring and forestry expansion, however this is unlikely to impact significantly on air quality.
- 5.210 The Southern Uplands includes the high ground in the southernmost part of Clydeplan area. This includes some transport corridors which include areas with elevated levels of air pollutants. The levels of proposed woodland expansion are unlikely to impact significantly on air quality.
- 5.211 Upland Farmland zone occurs across Inverclyde, Renfrewshire and East Renfrewshire and is a complex landscape. This zone includes some transport corridors which have elevated levels of air pollutants. The priorities for woodland management and expansion include improving existing woodland resources and expanding woodland in riparian corridors and in parallel with new housing development. This will make a minor contribution towards improving air quality.
- 5.212 The Upland Valley zone includes five river valleys and upland glens surrounded by moorland. The alignment of this landscape zone with valleys which also hold main road routes means that there are elevated levels of air pollutants in this area. The priorities for woodland management and expansion include additional new woodland which will make a minor contribution towards improving air quality in this area.
- 5.213 Urban and Urban Greenspaces zones. Air pollution levels are at their highest within the urban and urban greenspaces zones, and areas with the highest levels of air pollutants coincide with the majority of this landscape zone. The priorities for woodland management and expansion include improved management of existing woodland, succession planning for parks and gardens, new urban edge and riparian woodlands, new street trees and urban woodlands. All of these priorities have a strong positive effect on improving air quality.

### **SEA Objective 15: Avoid adversely impacting on material assets**

#### *Strategy aims and objectives*

- 5.214 The Expand and Manage, Economy, Community, Environment and Climate Change objectives have no impact on this SEA objective.

#### *Spatial implications*

- 5.215 Within the farmland zone 55% of the area is identified as preferred land, with a further 22% as potential. Productive farmland is an important material asset, however the majority of the farmland within the Clydeplan area is not the most productive agricultural land and no adverse impacts are identified for this SEA objective.
- 5.216 The foothills zone comprises the foothills of the Kilpatrick Hills and Campsie Fells and the foothills of the Southern Uplands. 34% of the area is preferred land and 35% of the area is potential land.



The priorities for this area do not directly impact on high quality agricultural land and no impact is identified for this objective.

- 5.217 The incised river valleys zone comprises the wooded gorges and valleys of the Clyde and its tributaries. 9% of the area is identified as preferred and 37% as potential. The proposed priorities support improved management of woodlands and bringing relict orchards back into positive management and productive use. No impact on this SEA objective is identified.
- 5.218 The lowland valley zone includes the broad valleys of the River Kelvin and the Blane Water and the Lochwinnoch Gap. 37% of the area is identified as preferred, and 8% as potential. The landscape zone includes some of the more productive agricultural land in the region however based on the priorities for management and scale of expansion, no adverse impacts are identified for this SEA objective.
- 5.219 The moorland hills zone comprises the Clyde Muirshiel Hills, Kilpatrick Hills, Campsie Fells and Kilsyth Hills and the south western part of the Pentland Hills. 11% of the area is identified as preferred and 40% of the area is identified as potential. The strategy recognises some loss of productive woodland as a consequence of restructuring, but also proposes expansion of softwood forests to compensate, resulting in no impact on this SEA objective.
- 5.220 The plateau moorlands zone comprises much of the Clyde Valley to the south and east of the Glasgow conurbation. 22% of the area is identified as preferred and 19% as potential. The priorities for the area include delivering new softwood forests to compensate for losses of productive area to development and restructuring, with a positive effect on supporting the forestry asset.
- 5.221 The Southern Uplands includes the high ground in the southernmost part of Clydeplan area. 10% of the area is preferred and 45% of the area is potential. The strategy priorities for the area include restructuring and enhancing existing softwood forests, small scale expansion, creation and expansion of networks of native woodland and exploring potential for 'forest landscape restoration'. The scale of landscape change will not result in adverse impacts on material assets, with no impact on this SEA objective.
- 5.222 Upland Farmland zone occurs across Inverclyde, Renfrewshire and East Renfrewshire and is a complex landscape. 54% of the area is preferred and 14% of the area is potential. The priorities for woodland management and expansion support the use of woodland in flood attenuation, helping to protect the built and natural environment, with a positive impact on this objective.
- 5.223 The Upland Valley zone includes five river valleys and upland glens surrounded by moorland. 25% of the area is preferred and 44% of the area is potential. The priorities for woodland management and expansion include restructuring of softwood forests, enhancement and creation of riparian networks, development of new floodplain woodlands. These priorities help to support flood management, making a minor positive contribution to this objective.
- 5.224 Urban and Urban Greenspaces zones. Within the urban area 2% is identified as preferred, with no potential land identified. Within the urban greenspaces, 26% of the area is identified as preferred with 11% of the area as potential. The priorities for woodland management and expansion focus on slotting woodland into the urban environment and improving the management of existing woodland which does not impact adversely on material assets.

### **SEA Objective 16: Enhance material assets**

#### *Strategy aims and objectives*

- 5.225 The Expand and Manage objectives have a minor positive effect on this SEA objective as a result of support for improving urban landscapes and supporting the use of vacant and derelict land.
- 5.226 The Economy objectives also have a minor positive effect through the focus on improving urban sites, particularly the improvement and re-use of vacant and derelict land. The second objective also supports increased use of waste products from timber harvesting which reduces waste arisings.
- 5.227 The Community objectives have no impact on this objective with the exception of the strong positive effect resulting from improving the environmental quality of areas of degraded landscape and using new woodland to enhance landscape and townscape quality.

- 5.228 The Environment objectives have a minor positive effect resulting from support for the aims of the CSGN which supports the development of active travel and improving derelict land, and woodland creation and expansion on derelict and contaminated sites.
- 5.229 The Climate Change objectives have no impact on this SEA objective.

#### *Spatial implications*

- 5.230 Within the farmland zone 55% of the area is identified as preferred land, with a further 22% as potential. The priorities for this zone include increased woodland planting which will help to address land degradation and abandonment which will make a minor positive contribution to improving poor quality land.
- 5.231 The foothills zone comprises the foothills of the Kilpatrick Hills and Campsie Fells and the foothills of the Southern Uplands. 34% of the area is preferred land and 35% of the area is potential land. The priorities for this area enhance the value of farmland but no significant impact is identified for this SEA objective.
- 5.232 The incised river valleys zone comprises the wooded gorges and valleys of the Clyde and its tributaries. 9% of the area is identified as preferred and 37% as potential. The proposed priorities support improved management of woodlands and bringing relict orchards back into positive management and productive use, with a minor positive effect on these assets.
- 5.233 The lowland valley zone includes the broad valleys of the River Kelvin and the Blane Water and the Lochwinnoch Gap. 37% of the area is identified as preferred, and 8% as potential. The management and expansion priorities enhance the landscape quality and role of woodland in flood management, but no significant impact is identified for this SEA objective.
- 5.234 The moorland hills zone comprises the Clyde Muirshiel Hills, Kilpatrick Hills, Campsie Fells and Kilsyth Hills and the south western part of the Pentland Hills. 11% of the area is identified as preferred and 40% of the area is identified as potential. The strategy recognises some loss of productive woodland as a consequence of restructuring, but also proposes expansion of softwood forests to compensate, resulting in no impact on this SEA objective.
- 5.235 The plateau moorlands zone comprises much of the Clyde Valley to the south and east of the Glasgow conurbation. 22% of the area is identified as preferred and 19% as potential. The strategy recognises some loss of productive woodland as a consequence of restructuring, but also proposes expansion of softwood forests to compensate, resulting in no impact on this SEA objective.
- 5.236 The Southern Uplands includes the high ground in the southernmost part of Clydeplan area. 10% of the area is preferred and 45% of the area is potential. The strategy priorities for the area support the maintenance of the softwood forest resource, and based on the priorities for management and scale of expansion, minor positive effect is identified for this SEA objective.
- 5.237 Upland Farmland zone occurs across Inverclyde, Renfrewshire and East Renfrewshire and is a complex landscape. 54% of the area is preferred and 14% of the area is potential. The priorities for woodland management and expansion include positive management of historic gardens, designed landscapes and policy woodlands, and delivering woodland in parallel with new housing development. This helps to contribute positively to enhancing these existing assets, with a minor positive effect on this SEA objective.
- 5.238 The Upland Valley zone includes five river valleys and upland glens surrounded by moorland. 25% of the area is preferred and 44% of the area is potential. The priorities for woodland management and expansion include restructuring of softwood forests, enhancement and creation of riparian networks, development of new floodplain woodlands. These priorities help to support flood management, helping to protect assets downstream, making a minor positive contribution to this objective.
- 5.239 Urban and Urban Greenspaces zones. Within the urban area 2% is identified as preferred, with no potential land identified. Within the urban greenspaces, 26% of the area is identified as preferred with 11% of the area as potential. The priorities for woodland management and expansion focus on using woodland to enhance the urban environment and improving the management of existing woodland which has a minor positive effect on material assets.

## **SEA Objective 17: Avoid adverse impacts on the protected historic environment and its setting**

### *Strategy aims and objectives*

- 5.240 The Expand and Manage objectives have a minor positive effect on this SEA objective through the strategy framework of preferred and potential areas, which takes the protected historic environment into account.
- 5.241 The Economy objectives have a minor positive effect resulting from support for managing trees and woodlands in historic sites to improve landscape quality.
- 5.242 The Community objectives have not impact on this SEA objective with the exception of the objective which supports new woodland to enhance local townscape and landscape quality which could indirectly result in minor positive benefits for the historic environment.
- 5.243 The Environment objectives do not have an impact on this SEA objective with the exception of the objective to support improvements of townscapes and landscapes and the protection of the historic environment.
- 5.244 The Climate change objectives have a minor positive effect on this objective through protecting historic and semi- natural woodlands.

### *Spatial implications*

- 5.245 Within the farmland zone 55% of the area is identified as preferred land, with a further 22% as potential. The zone includes the New Lanark World Heritage site and the southern edge of the Frontiers of the Roman Empire (Antonine Wall) World Heritage Site and buffer zone. It also contains a number of policy landscapes. The strategy recognises the sensitivities of these sites to new woodland planting, which has a strong positive effect on this SEA objective.
- 5.246 The foothills zone comprises the foothills of the Kilpatrick Hills and Campsie Fells and the foothills of the Southern Uplands. 34% of the area is preferred land and 35% of the area is potential land. The richness of archaeological remains, particularly within the western part of this area is recognised and the need for new planting to avoid adverse effects is highlighted which has a positive effect on this SEA objective.
- 5.247 The incised river valleys zone comprises the wooded gorges and valleys of the Clyde and its tributaries. 9% of the area is identified as preferred and 37% as potential. The area includes the New Lanark World Heritage site and Chatelherault designed landscape and these are recognised in the strategy. The Strategy supports woodland planting to support the landscape at Chatelherault, and improving the management of the areas woodlands, which has a positive effect on these protected historic environment features, and the SEA objective.
- 5.248 The lowland valley zone includes the broad valleys of the River Kelvin and the Blane Water and the Lochwinnoch Gap. 37% of the area is identified as preferred, and 8% as potential. The historic environment is recognised in the strategy as a significant resource in both areas, including the Castle Semple Estate, the Forth and Clyde Canal and the Frontiers of the Roman Empire (Antonine Wall) World Heritage Site. The site of the Battle of Kilsyth (1645) is included on the Inventory of Historic Battlefields. The priorities for woodland management and expansion recognise the sensitivities of these resources with a strong positive effect on this objective.
- 5.249 The moorland hills zone comprises the Clyde Muirshiel Hills, Kilpatrick Hills, Campsie Fells and Kilsyth Hills and the south western part of the Pentland Hills. 11% of the area is identified as preferred and 40% of the area is identified as potential. This area is not noted for significant historic environment assets therefore no impact is identified on this SEA objective.
- 5.250 The plateau moorlands zone comprises much of the Clyde Valley to the south and east of the Glasgow conurbation. 22% of the area is identified as preferred and 19% as potential. The strategy recognises the importance of the Wilsontown Ironworks Scheduled Monument, which is located within the area, and the improvements being undertaken to support interpretation and access to this site, with a minor positive effect on this objective.
- 5.251 The Southern Uplands includes the high ground in the southernmost part of Clydeplan area. 10% of the area is preferred and 45% of the area is potential. The Strategy recognises the heritage assets of the area, although the scale of woodland expansion is low, therefore a minor positive impact on the historic environment is identified.

- 5.252 Upland Farmland zone occurs across Inverclyde, Renfrewshire and East Renfrewshire and is a complex landscape. 54% of the area is preferred and 14% of the area is potential. The Strategy recognises the heritage of the area and the need to ensure new woodland planting protects these, with a positive effect on this SEA objective.
- 5.253 The Upland Valley zone includes five river valleys and upland glens surrounded by moorland. 25% of the area is preferred and 44% of the area is potential. The Strategy notes the historical significance of the area and the rich cultural heritage, therefore positive effects on the historic environment are identified.
- 5.254 Urban and Urban Greenspaces zones. Within the urban area 2% is identified as preferred, with no potential land identified. Within the urban greenspaces, 26% of the area is identified as preferred with 11% of the area as potential. The priorities for woodland management and expansion focus on improving the management of existing woodland in parks and gardens which helps to avoid future adverse effects on the protected historic environment.

**SEA Objective 18: Enhance, where appropriate, the protected historic environment**  
*Strategy aims and objectives*

- 5.255 The Expand and Manage objectives have a minor positive effect on this SEA objective through the support of woodland to achieve multiple benefits.
- 5.256 The Economy objectives have a minor positive effect on this objective through managing trees and woodlands in historic sites to improve landscape quality.
- 5.257 The Community objectives have no impact on this SEA objective with the exception of the strategy objective which seeks to enhance local sense of place and improving environmental quality which could have indirect positive effects on the historic environment.
- 5.258 The Environment objectives have a strong positive effect in relation to support for improving townscapes and landscapes, and protecting the historic environment.
- 5.259 The Climate change objectives have no impact on this SEA objective.

*Spatial implications*

- 5.260 Within the farmland zone 55% of the area is identified as preferred land, with a further 22% as potential. The zone includes the New Lanark World Heritage site and the southern edge of the Frontiers of the Roman Empire (Antonine Wall) World Heritage Site and buffer zone. It also contains a number of policy landscapes, and recognises the sensitivities of these areas. The priorities for woodland management in this zone include succession planning for key features in gardens and designed landscapes, and for important field trees which will have a positive on this objective.
- 5.261 The foothills zone comprises the foothills of the Kilpatrick Hills and Campsie Fells and the foothills of the Southern Uplands. 34% of the area is preferred land and 35% of the area is potential land. The richness of archaeological remains, particularly within the western part of this area is recognised and the need for new planting to avoid adverse effects is highlighted.

**Recommendation:**

The Strategy should set out the mechanism for ensuring new planting identifies and avoids adverse impacts on heritage assets.

- 5.262 The incised river valleys zone comprises the wooded gorges and valleys of the Clyde and its tributaries. 9% of the area is identified as preferred and 37% as potential. The area includes the New Lanark World Heritage site and Chatelherault designed landscape and these are recognised in the strategy. The Strategy supports woodland planting to support the landscape at Chatelherault, and improving the management of the areas woodlands, which has a positive effect on these protected historic environment features, and the SEA objective.
- 5.263 The lowland valley zone includes the broad valleys of the River Kelvin and the Blane Water and the Lochwinnoch Gap. 37% of the area is identified as preferred, and 8% as potential. The historic environment is recognised in the strategy as a significant resource in both areas, including

the Castle Semple Estate, the Forth and Clyde Canal and the Frontiers of the Roman Empire (Antonine Wall) World Heritage Site. The site of the Battle of Kilsyth (1645) is included on the Inventory of Historic Battlefields. The priorities for woodland management and expansion recognise the sensitivities of these resources, and the opportunities for enhancing them, with a minor positive effect on this objective.

- 5.264 The moorland hills zone comprises the Clyde Muirshiel Hills, Kilpatrick Hills, Campsie Fells and Kilsyth Hills and the south western part of the Pentland Hills. 11% of the area is identified as preferred and 40% of the area is identified as potential. This area is not noted for significant historic environment assets therefore no impact is identified on this SEA objective.
- 5.265 The plateau moorlands zone comprises much of the Clyde Valley to the south and east of the Glasgow conurbation. 22% of the area is identified as preferred and 19% as potential. The Strategy recognises the sensitivities of this site, with a minor positive effect on this objective.
- 5.266 The Southern Uplands includes the high ground in the southernmost part of Clydeplan area. 10% of the area is preferred and 45% of the area is potential. The Strategy recognises the heritage assets of the area, but does not propose enhancement therefore no impact is identified on this SEA objective.
- 5.267 Upland Farmland zone occurs across Inverclyde, Renfrewshire and East Renfrewshire and is a complex landscape. 54% of the area is preferred and 14% of the area is potential. The priorities for woodland management and expansion include positive management of historic gardens, designed landscapes and policy woodlands, with a positive impact on this SEA objective.
- 5.268 The Upland Valley zone includes five river valleys and upland glens surrounded by moorland. 25% of the area is preferred and 44% of the area is potential. The Strategy notes the historical significance of the area and the rich cultural heritage, but does not provide guidance on how the Strategy can use woodland planting to enhance this resource. The Strategy should explore the links between the heritage assets and enhancement opportunities.
- 5.269 Urban and Urban Greenspaces zones. Within the urban area 2% is identified as preferred, with no potential land identified. Within the urban greenspaces, 26% of the area is identified as preferred with 11% of the area as potential. The priorities for woodland management and expansion focus on improving the management of existing woodland in parks and gardens, and enhance the urban environment which has a positive effect on enhancing the protected historic environment.

#### **Recommendation:**

The Strategy should explore the links between the heritage assets and enhancement opportunities.

### **SEA Objective 19: Improve the quality of the wider built environment**

#### *Strategy aims and objectives*

- 5.270 The Expand and Manage objectives have a minor positive effect as a result of supporting creation of woodland for multiple benefits including improving urban areas and improving local landscape quality.
- 5.271 The Economy objectives have a strong positive effect through the objective which supports creating an environment for investment which focuses on enhancing the environmental quality of proposed development sites and vacant and derelict land, alongside managing trees and woodland in historic sites to improve landscape quality.
- 5.272 The Community objectives have no impact on this SEA objective with the exception of the strategy objective which seeks to enhance local sense of place and improving environmental quality which could have strong positive effects on improving degraded landscapes and enhancing townscapes and landscape quality.
- 5.273 The Environment objectives have a positive effect on this objective through the objective which support for the aims of the CSGN and improving urban centres and derelict land. The objective



also supports woodland creation and expansion with a focus on derelict and contaminated sites which will contribute to the wider built environment. Strong positive effects are identified from the objective which supports the improvement of townscapes and landscapes and protection of the historic environment.

- 5.274 The Climate change objectives have a minor positive effect through adaptation measures which support expanding the woodland area and using trees in urban areas to improve environmental quality.

#### *Spatial implications*

- 5.275 Within the farmland zone 55% of the area is identified as preferred land, with a further 22% as potential. The zone adjoins a large part of the urban area and the priorities for woodland management of under-managed urban fringe landscapes and expansion of woodland to support the delivery of significant housing development on the urban fringes, make a strong positive contribution to this SEA objective.
- 5.276 The foothills zone comprises the foothills of the Kilpatrick Hills and Campsie Fells and the foothills of the Southern Uplands. 34% of the area is preferred land and 35% of the area is potential land. The priorities focus on improving shelterbelts, farm woodlands and field trees which makes a positive contribution to improving landscape quality, however the area is largely rural and will not impact significantly on the built environment. No impact is identified for this SEA objective.
- 5.277 The incised river valleys zone comprises the wooded gorges and valleys of the Clyde and its tributaries. 9% of the area is identified as preferred and 37% as potential. The proposed priorities support improved management of woodlands and bringing relict orchards back into positive management and productive use. These priorities have a positive effect on enhancing the wider landscape structure.
- 5.278 The lowland valley zone includes the broad valleys of the River Kelvin and the Blane Water and the Lochwinnoch Gap. 37% of the area is identified as preferred, and 8% as potential. The priorities for woodland management and expansion seek to achieve overall enhancement of the landscape, with a particular focus on the historic environment, with a minor positive effect on this objective.
- 5.279 The moorland hills zone comprises the Clyde Muirshiel Hills, Kilpatrick Hills, Campsie Fells and Kilsyth Hills and the south western part of the Pentland Hills. 11% of the area is identified as preferred and 40% of the area is identified as potential. This area is primarily upland in character and therefore no impact is identified on this SEA objective.
- 5.280 The plateau moorlands zone comprises much of the Clyde Valley to the south and east of the Glasgow conurbation. 22% of the area is identified as preferred and 19% as potential. This area is primarily upland in character and therefore no impact is identified on this SEA objective.
- 5.281 The Southern Uplands includes the high ground in the southernmost part of Clydeplan area. 10% of the area is preferred and 45% of the area is potential. This area is primarily upland in character and therefore no impact is identified on this SEA objective.
- 5.282 Upland Farmland zone occurs across Inverclyde, Renfrewshire and East Renfrewshire and is a complex landscape. 54% of the area is preferred and 14% of the area is potential. The priorities for woodland management and expansion include positive management of historic gardens, designed landscapes and policy woodlands, and delivering woodland in parallel with new housing development. This helps to contribute positively to enhancing the built environment, with a minor positive effect on this SEA objective.
- 5.283 The Upland Valley zone includes five river valleys and upland glens surrounded by moorland. 25% of the area is preferred and 44% of the area is potential. The landscape zone includes main transport corridors and a number of towns, but does not explore how the priorities for woodland management and enhancement will contribute to enhancing the landscape quality of the built environment, therefore no impact is identified on this objective.

### Recommendation:

The Strategy should provide further guidance on how the priorities will contribute to the character of the built environment.

- 5.284 Urban and Urban Greenspaces zones. Within the urban area 2% is identified as preferred, with no potential land identified. Within the urban greenspaces, 26% of the area is identified as preferred with 11% of the area as potential. The priorities for woodland management and expansion have a strong focus on enhancing the urban environment which has a strong positive effect on this SEA objective.

### SEA Objective 20: Avoid adverse impacts on protected landscapes

#### *Strategy aims and objectives*

- 5.285 The Expand and Manage objectives have a minor positive effect through the objective which supports the creation of woodland within the strategy framework of preferred and potential areas.
- 5.286 The Economy objectives have a minor positive effect through the objective which supports managing trees and woodlands in historic sites to improve the landscape quality, which will support the quality of the protected historic environment.
- 5.287 The Community, Environment and Climate change objectives do not impact on this SEA objective.

#### *Spatial implications*

- 5.288 Within the farmland zone 55% of the area is identified as preferred land, with a further 22% as potential. A substantial proportion of the zone is also covered by local landscape designations (South Lanarkshire 'Special Landscape Areas') intended to conserve the special qualities of the Clyde and Avon Valleys and the rural environs of Lanark. The strategy recognises the need for new woodland proposals to be sensitive to the key characteristics of these areas, and therefore has a positive effect on this objective.
- 5.289 The foothills zone comprises the foothills of the Kilpatrick Hills and Campsie Fells and the foothills of the Southern Uplands. 34% of the area is preferred land and 35% of the area is potential land. A substantial proportion of this zone is recognised as having local landscape designations. Priorities focus on improving shelterbelts, farm woodlands and field trees which makes a positive contribution to improving landscape quality, however the strategy is not explicit about how new woodland planting can be located support the special qualities of the designated landscapes, which could result in mixed effects on landscape quality.

### Recommendation:

The Strategy should provide further guidance on woodland planting to support local landscape designations and character.

- 5.290 The incised river valleys zone comprises the wooded gorges and valleys of the Clyde and its tributaries. 9% of the area is identified as preferred and 37% as potential. The area includes the New Lanark World Heritage site and Chatelherault designed landscape and these are recognised in the strategy. The Strategy supports woodland planting to support the landscape at Chatelherault, and improving the management of the areas woodlands, which has a positive effect on these protected historic environment features, and the SEA objective.

The lowland valley zone includes the broad valleys of the River Kelvin and the Blane Water and the Lochwinnoch Gap. 37% of the area is identified as preferred, and 8% as potential. The priorities for woodland management and expansion seek to achieve overall enhancement of the landscape, with a particular focus on the historic environment, and recognises the local landscape designation of the Galzert Valley. The strategy is not explicit about how new woodland planting can be located to support the special qualities of the designated landscape, which could result in mixed effects on landscape quality with a minor positive effect on this objective.

- 5.291 The moorland hills zone comprises the Clyde Muirshiel Hills, Kilpatrick Hills, Campsie Fells and Kilsyth Hills and the south western part of the Pentland Hills. 11% of the area is identified as

preferred and 40% of the area is identified as potential. The area includes the Kilsyth Hills Special Landscape area, and recreational value as the Clyde Muirshiel regional park and proposed regional park for the Campsies. The Strategy includes proposals to increase the area of softwood forest which could result in mixed effects on landscape quality.

- 5.292 The plateau moorlands zone comprises much of the Clyde Valley to the south and east of the Glasgow conurbation. 22% of the area is identified as preferred and 19% as potential. The area includes part of the Douglas Valley Special Landscape Area. . The Strategy includes proposals to increase the area of softwood forest which could result in mixed effects on landscape quality.
- 5.293 The Southern Uplands includes the high ground in the southernmost part of Clydeplan area. 10% of the area is preferred and 45% of the area is potential. The area is widely covered by Special Landscape Area designations, and the Strategy recognises the need for new woodland in these areas to reflect this, with positive effects on this objective.
- 5.294 The Upland Farmland zone occurs across Inverclyde, Renfrewshire and East Renfrewshire and is a complex landscape. 54% of the area is preferred and 14% of the area is potential. The priorities for woodland management and expansion include positive management of historic gardens, designed landscapes and policy woodlands. The landscape zone also includes Gleniffer Braes Country Park, and part of Dams to Darnley Mills Country Park. There is an overall positive effect on this SEA objective.
- 5.295 The Upland Valley zone includes five river valleys and upland glens surrounded by moorland. 25% of the area is preferred and 44% of the area is potential. Large parts of the landscape zone lie within the South Lanarkshire Special Landscape Areas, but this is not noted as a sensitivity within this part of the Strategy, with minor adverse effects on landscape quality.
- 5.296 Urban and Urban Greenspaces zones include urban greenspaces. Within the urban area 2% is identified as preferred, with no potential land identified. Within the urban greenspaces, 26% of the area is identified as preferred with 11% of the area as potential. The Strategy recognises the sensitivities of Inventory listed Gardens and Designed Landscapes and trees and woodland within Conservation Areas in the urban area. The priorities for management and expansion of woodland and forestry reflects the need to manage trees and woodland within these areas within the framework of Conservation Management Plans, making a positive contribution to this SEA objective.

#### **Recommendation:**

The Strategy should provide further guidance on woodland planting to support local landscape designations and character.

### **SEA Objective 21: Enhance landscape quality**

#### *Strategy aims and objectives*

- 5.297 The Expand and Manage objectives have an overall minor positive effect on landscape quality as a result of the objectives which support increasing the area of well-designed woodland within the strategy framework of preferred and potential areas, restructuring softwood forests and creating new woodland to achieve multiple benefits.
- 5.298 The Economy objectives have a strong positive effect on landscape quality through support for enhancing landscape quality, particularly in urban areas and a minor positive effect through the objective which supports the restructuring and redesign of existing productive forest to achieve landscape enhancement.
- 5.299 The Community objectives have some minor positive effects through the objectives which support community involvement in woodland projects and local landscape improvements, increasing recreational use of woodlands and strong positive effects from improving environmental quality in areas of degraded landscape and ensuring new woodlands enhance local townscape and landscape quality.
- 5.300 The Environment objectives have an overall minor positive effect through the objectives which support woodland creation, including the objectives which focus on regenerating derelict and

contaminated sites, and the improvement of townscape, landscapes and the protection of the historic environment.

- 5.301 The Climate change objectives have a minor positive effect through supporting climate change adaptation by expanding woodland , protecting the quality of urban environments, succession planting in vulnerable gardens, designed landscapes and policy landscapes and promoting continuous cover forestry techniques.

*Spatial implications*

- 5.302 Within the farmland zone 55% of the area is identified as preferred land, with a further 22% as potential. The strategy supports improved management of urban fringe woodlands, existing farm woodlands, and succession planning for key features in gardens and designed landscapes and for important field trees, all of which make a positive contribution to enhancing landscape quality.
- 5.303 The foothills zone comprises the foothills of the Kilpatrick Hills and Campsie Fells and the foothills of the Southern Uplands. 34% of the area is preferred land and 35% of the area is potential land. The priorities focus on improving shelterbelts, farm woodlands and field trees which makes a positive contribution to improving landscape quality.
- 5.304 The incised river valleys zone comprises the wooded gorges and valleys of the Clyde and its tributaries. 9% of the area is identified as preferred and 37% as potential. The Strategy supports woodland planting to support the landscape at Chatelherault, and improving the management of the areas woodlands and orchards, which has a positive effect on improving landscape quality.
- 5.305 The lowland valley zone includes the broad valleys of the River Kelvin and the Blane Water and the Lochwinnoch Gap. 37% of the area is identified as preferred, and 8% as potential. The priorities for woodland management and expansion seek to achieve overall enhancement of the landscape, with a particular focus on the historic environment. This has an overall strong positive effect on improving landscape quality.
- 5.306 The moorland hills zone comprises the Clyde Muirshiel Hills, Kilpatrick Hills, Campsie Fells and Kilsyth Hills and the south western part of the Pentland Hills. 11% of the area is identified as preferred and 40% of the area is identified as potential. The Strategy seeks to restructure softwood forests, improve management of riparian woodlands and native woodland which bring landscape benefits. The expansion of softwood forests can have less positive landscape impacts, however this is put forward within the framework of the most appropriate locations and therefore minor positive effects are identified overall for this SEA objective.
- 5.307 The plateau moorlands zone comprises much of the Clyde Valley to the south and east of the Glasgow conurbation. 22% of the area is identified as preferred and 19% as potential. The Strategy seeks to restructure existing softwood forests and deliver new areas of softwood forest, but also develop networks of native woodland on the lower slopes and farm forestry. The expansion of softwood forests can have less positive landscape impacts, however this is put forward within the framework of the most appropriate locations and therefore minor positive effects are identified overall for this SEA objective.
- 5.308 The Southern Uplands includes the high ground in the southernmost part of Clydeplan area. 10% of the area is preferred and 45% of the area is potential. The management and expansion priorities make a minor positive contribution to improving landscape quality.
- 5.309 The Upland Farmland zone occurs across Inverclyde, Renfrewshire and East Renfrewshire and is a complex landscape. 54% of the area is preferred and 14% of the area is potential. The priorities for woodland management and expansion include positive management of historic gardens, designed landscapes and policy woodlands, improving management of existing woodlands, restructuring and new woodland in association with new housing development. All of these actions will make a minor positive contribution to landscape quality within the area.
- 5.310 The Upland Valley zone includes five river valleys and upland glens surrounded by moorland. 25% of the area is preferred and 44% of the area is potential. The priorities for woodland management and expansion should contribute overall to enhancing landscape quality through restructuring existing softwoods and improving riparian links, with a positive effect on this objective.

- 5.311 Urban and Urban Greenspaces zones include urban greenspaces. Within the urban area 2% is identified as preferred, with no potential land identified. Within the urban greenspaces, 26% of the area is identified as preferred with 11% of the area as potential. The priorities for woodland management and expansion make a strong positive contribution to improving landscape quality within urban areas.



## 6 Mitigation and Enhancement

### Introduction

- 6.1 Schedule 3 of the Environmental Assessment (Scotland) Act 2005 requires that the Environmental Report includes the measures envisaged to prevent, reduce and, as fully as possible, offset any significant adverse effects on the environment of implementing the Strategy. It is also required to outline opportunities for the enhancement of positive effects.

### Recommendations

- 6.2 In general, the Strategy will have a positive overall effect on the environment of the region. The following table provides a summary of proposed mitigation measures for the Strategy, structured by SEA objective for which mitigation has been identified.

**Table 6.1 Summary of mitigation measures**

SEA Objective	Mitigation measure
SEA Objective 7: Reduce vacant and derelict land	In relation to the plateau moorlands landscape zone , the Strategy should highlight any potential role of woodland in the restoration of former mineral sites.
SEA Objective 16: Enhance, where appropriate, the protected historic environment	<p>In relation to the proposals for the foothills zone, the Strategy should set out the mechanism for ensuring new planting identifies and avoids adverse impacts on heritage assets.</p> <p>In relation to the upland valley zone, the Strategy should explore the links between the heritage assets and enhancement opportunities.</p>
SEA Objective 17: Improve the quality of the wider built environment	In relation to the upland valley zone, The Strategy should provide further guidance on how the priorities will contribute to the character of the built environment
SEA Objective 18: Avoid adverse impacts on protected landscapes	In the foothills zone , the lowland valley zone, the moorland hills zone and the upland valley zone the Strategy should provide further guidance on woodland planting to support local landscape designations and character.

### Key Issues Requiring Guidance

- 6.3 The following issues require special attention, and could benefit from the publication of context-specific guidance to support Forestry Commission Scotland, local authorities and land managers in developing and assessing proposals:

#### *Design*

- Providing specific guidance on new woodland within local landscape designations. Providing guidance on how this should reflect landscape scale, form, and character. Guidance on species mix, and also in relation to key views.
- Providing guidance on new woodland to support landscape form and character across all landscapes.
- Providing guidance on new woodland within urban areas, supporting climate change adaptation and enhancing townscape.

- Providing guidance on the use of woodland in the restoration of mineral sites.
- Providing guidance on using tools, such as Integrated Habitat Network data, to ensure that new woodlands protect important habitat resources and build connectivity in the right places;
- Understanding the role trees and woodland play in contributing to the character and significance of the historic environment and to improve the settings of key assets, and understanding key vistas
- Integrated guidance regarding species choice, stocking densities and silvicultural systems to help 'climate proof' future woodlands.

*Understanding the ecosystem services of different areas of land*

- Understanding where new woodland can add the greatest value, and where alternative land uses are a priority. Also understanding how different woodland types can be designed and managed for multifunctional benefit. This will allow new woodland to achieve as many of the Strategy objectives as possible.

## 7 Monitoring

- 7.1 Section 19 of the Environmental Assessment (Scotland) Act 2005 requires the Responsible Authority to monitor significant environmental effects of the implementation of the PPS. This needs to be done in such a way as to also enable them to identify any unforeseen adverse effects at an early stage and to enable them to take appropriate remedial action.
- 7.2 No significant adverse environmental effects were identified; however monitoring is required to allow identification of unforeseen adverse environmental effects.
- 7.3 The following activities were undertaken to establish the monitoring approach:
- An initial review of indicators associated with the SEA objectives and emerging from the baseline analysis;
  - Review of key issues emerging from the assessment requiring monitoring;
  - Consideration of appropriate indicators and monitoring processes.
- 7.4 No monitoring framework is identified within the Strategy, but it is understood that this will be delivered through a stand-alone Action Plan.
- 7.5 The following table outlines the key issues for which monitoring could be beneficial.

**Table 7.1 Monitoring**

Monitoring Issue	Data Source	Monitoring Target
Habitat networks: broadleaved woodland <ul style="list-style-type: none"> <li>• Loss of key links</li> <li>• Creation of new links</li> <li>• Protection of core areas of biodiversity significance</li> <li>• Total area</li> </ul> Opportunities for species movement and migration as a result of climate change	<i>IHN woodland dataset</i> <i>Phase 1 habitat Survey data where available</i> <i>Relevant biological records centres – records</i> <i>LBAP monitoring</i> <i>SNH</i>	Maintenance of core areas of woodland and key links Increase in total area of physical and functional connectivity Increase in linkages
Distribution of invasive species	<i>Scottish Biodiversity Forum</i> <i>Plantlife</i>	Decrease in distribution of invasive species
Loss of structural diversity in plantations to satisfy economic demands of timber production	<i>FCS funding database</i> <i>Forest Design Plans</i> <i>Illegal felling incidences</i>	Increase in structural diversity of woodland
Area of peat soil	<i>SNH Peatland dataset / Forestry Commission Scotland</i> <i>SEPA monitoring</i>	No loss of deep peat / functional peatland habitat to forestry operations Rehabilitation of peat soils previously affected by forestry
Prime agricultural land	<i>JHI</i>	No loss of prime agricultural land to forestry and woodland
Vacant and derelict land	<i>Scottish Government Vacant and Derelict Land Survey / Local authorities</i>	Increase in area of vacant and derelict land reclaimed by woodland planting

Local landscape character and protected landscapes	<i>Regional / local LCAs</i>	No adverse changes to local landscape character through inappropriate afforestation
Pollution and emissions resulting from the timber transportation and processing	<i>SEPA Scottish Government Statistics</i>	No increase in pollution and emissions resulting from timber transportation and processing
Levels of particulate emissions from promotion of wood fuel technologies	<i>Scottish Government</i>	No increase in particulate emissions
Quality of archeology and the historic environment	<i>Historic Scotland WoSAS HER data</i>	No adverse impacts on cultural heritage resources as a result of forestry activities  Enhanced access and understanding of cultural heritage resources
Levels of use of woodlands for recreation	<i>Forestry Commission and local authority access monitoring</i>	Increased levels of use of forestry and woodland for recreation
Water quality	<i>SEPA</i>	Area of woodland planted Improvement in water quality
Flood risk	<i>SEPA</i>	Area of woodland planted in areas of flood risk and flood risk catchments

7.6 It is anticipated that the Forestry and Woodland Strategy will be subject to review as part of the process of developing Strategic Development Plan 3.

## 8 Next Steps

- 8.1 This section sets out the future milestones in the development of the Clydeplan Forestry and Woodland Strategy and its SEA, and the dates when these are expected to be completed.

**Table 8.1 Anticipated SEA milestones**

Expected date	Stage
xxx 2015	Publication of draft Environmental Report and draft CFWS.
6-week consultation period	Public and stakeholder consultation on draft CFWS and draft Environmental Report.
Xx 2015	Closing date for responses to draft CFWS and draft Environmental Report.
xx 2015	Analysis of comments received.
xxx2015	Revision of draft CFWS on basis of consultation findings.
xxx2016	Publication of Post-Adoption SEA Statement and Final CFWS



## Appendix 1

### Collated Aims, Objectives and Key Priorities

## **THEME: EXPAND AND MANAGE**

**AIM:** Expanding Clydeplan's woodland resource and improving its management

### **OBJECTIVES:**

Encourage the creation of well-designed woodland of an appropriate nature, scale and composition to deliver the Strategy's priorities.

Promote improved management of the Clydeplan area's woodland resource.

Promote high standards of woodland design in new and existing woodlands.

Make a sustainable contribution to the delivery of national woodland expansion targets.

## **THEME: ECONOMY**

**AIM:** Building and supporting the forest and woodland economy

### **OBJECTIVES:**

Creating an environment for investment

Contributing to a healthy wood production and processing sector

## **THEME: COMMUNITY**

**AIM:** Empowering communities and enhancing quality of life

### **OBJECTIVES:**

Facilitating community involvement in woodland planning, management and ownership.

Supporting community enterprise and development.

Supporting opportunities for education and lifelong learning.

Contributing to physical and mental wellbeing.

Enhancing local sense of place and promoting connections to the wider environment.

## **THEME: ENVIRONMENT**

**AIM:** Promoting and enhancing the quality of the environment

### **OBJECTIVES:**

Improve the condition and resilience of biodiversity.

Support the Central Scotland Green Network.

Improve woodland's contribution to the conservation and management of ecosystem services and functions.

Contribute to the conservation, enhancement and understanding of Clydeplan's valued natural heritage and historic environment.

## **THEME: CLIMATE CHANGE**

**AIM:** Securing resilience to climate change and adapting to its impacts

### **OBJECTIVES:**

Reducing the forestry sector's emissions and contribute to mitigation measures

Adapting to the predicted effects of climate change

## Appendix 2

### Relationship with other plans, programmes and strategies (PPS)

**Table A2.1 PPS – Economic, general, forestry and inter-relationships**

ECONOMIC, GENERAL, PLANNING, FORESTRY AND INTER-RELATIONSHIPS	
Name of PPS	Environmental requirements of PPS
<b>ECONOMY</b>	
Skills for Scotland: Accelerating the Recovery and Increasing Sustainable Economic Growth <sup>93</sup>	The Strategy is an update to the Skills for Scotland: A Lifelong Skills Strategy published in 2007. It identifies four priority themes: empowering people, supporting employers, simplifying the skills system and strengthening partnerships.
Supporting Business Development Strategy: The role of Forestry Commission Scotland <sup>94</sup>	This document provides a strategic framework for supporting business development on the Forestry Commission Scotland estate, and for stimulating wider economic development in the Scottish forest industries.
The Government Economic Strategy <sup>95</sup>	The Government Economic Strategy reaffirms the Scottish Government's commitment to delivering faster sustainable growth. It focuses on six Strategic Priorities: Supportive Business Environment; Learning, Skills and Well-being; Effective Government; Transition to a Low Carbon Economy; Infrastructure, Development and Place; Equity. Forestry has an important role to play across all six of these objectives.
<b>PLANNING</b>	
<b>The Town and Country Planning (Scotland) Act 1997</b>	Places a duty on planning authorities to ensure that, whenever appropriate, planning permissions make adequate provision for the preservation or planting of trees.
<b>Planning Circular 6/2013 Development Planning</b>	Identifies forestry and woodland strategies as a suitable topic for supplementary guidance to a new generation of development plans.
National Planning Policy Framework 3	Aims to increase the rate of woodland creation to deliver 100,000 hectares of new woodland over the next 10 years. In addition, NPF3 reaffirms the Scottish Government's pledge to plant 100 million trees by 2015, and to take action towards the proposal Low Carbon Scotland (RPP2) to increase the rate of peatland restoration to 22,000 hectares per year.
The Scottish Planning Policy (SPP)	Requires the protection and enhancement of ancient and semi-natural woodland as an important and irreplaceable resource, together with other native or long established woods, hedgerows and individual trees with high nature conservation or landscape value.
<b>FORESTRY</b>	
The Role of Scotland's National Forest Estate and Strategic Directions 2013-2016 <sup>96</sup>	The Role of Scotland's National Forest Estate and Strategic Directions 2013-2016 is a strategic plan which defines how Forestry Commission Scotland, through its operating arm, Forest Enterprise Scotland, will implement the Scottish Forestry Strategy in the National Forest Estates. The strategy is complemented by a set of strategic plans – one for each of the ten forest districts.
Scottish Lowlands Forest District Strategic Plan 2007-2017 <sup>97</sup>	The aim of this Plan is to describe how the District will deliver its part of the Scottish Forestry Strategy (SFS 2006), which is the forest policy of

<sup>93</sup> Scottish Government, 2010. *Skills for Scotland: Accelerating the Recovery and Increasing Sustainable Economic Growth*. Edinburgh: Scottish Government.

<sup>94</sup> Forestry Commission Scotland, 2009. *Supporting Business Development – The role of Forestry Commission Scotland*. Edinburgh: Forestry Commission Scotland.

<sup>95</sup> Scottish Government, 2011. *The Government Economic Strategy*. Edinburgh: Scottish Government.

<sup>96</sup> Forest Enterprise Scotland, 2013. *The Role of Scotland's National Forest Estate and Strategic Directions 2013-2016*. Edinburgh: Forestry Commission Scotland.

ECONOMIC, GENERAL, PLANNING, FORESTRY AND INTER-RELATIONSHIPS	
	the Scottish Government.
GENERAL	
The Scotland Rural Development Programme <sup>98</sup>	The Scotland Rural Development Programme (SRDP) supports the development of rural areas through a programme of economic, environmental and social measures. Individuals and groups may seek funding to help deliver the Government's strategic objectives in rural Scotland. SRDP brings together a wide range of formerly separate support schemes including those covering the farming, forestry and primary processing sectors, rural enterprise and business development, diversification and rural tourism. It includes measures to support and encourage rural communities and delivers the LEADER initiative for local innovation in rural areas..
IMPLICATIONS:	
<ul style="list-style-type: none"> <li>The Strategy has an important role to play in generating economic growth in the Scottish forest industry.</li> </ul>	

**Table A2.2 PPS – Biodiversity, flora and fauna**

BIODIVERSITY, FLORA AND FAUNA	
Name of PPS	Environmental requirements of PPS
LEGISLATION, NATIONAL POLICY AND GUIDANCE	
Directive 2009/147/EC <sup>99100</sup> (the 'Birds Directive')	The Birds Directive aims to protect all European wild birds and the habitats of listed species, in particular through the designation of Special Protection Areas.
Directive 92/43/EEC <sup>101</sup> (the 'Habitats Directive')	The main aim of the Habitats Directive is to promote the maintenance of biodiversity by requiring Member States to take measures to maintain or restore natural habitats and wild species listed on the Annexes to the Directive to a favourable conservation status. The Directive introduced robust protection for those habitats and species of European importance.
Forests and Biodiversity - UK Forestry Standard Guidelines <sup>102</sup>	Forests and Biodiversity is one of a series of seven Guidelines that support The UK Forestry Standard (UKFS). The UKFS and Guidelines outline the context for forestry in the UK, set out the approach of the UK governments to sustainable forest management, define standards and requirements and provide a basis for regulation and monitoring.
Nature Conservation (Scotland) Act 2004 <sup>103</sup>	Introduced a 'duty to further the conservation of biodiversity' for all public bodies, and sets out more specific provisions within this (e.g. for SSSIs). Also states a requirement for the preparation of a Scottish Biodiversity Strategy, to which all public bodies should pay regard.
Scotland's Biodiversity: It's In Your Hands <sup>104</sup>  2020 Challenge for Scotland's Biodiversity – A Strategy for the Conservation and Enhancement of Biodiversity in Scotland <sup>105</sup>	Scotland's Biodiversity Strategy sets out how the Scottish Government will conserve biodiversity for the health, enjoyment and well-being of the people of Scotland now and in the future. The Strategy sets out the aim of halting biodiversity loss by 2010 and of Scotland being recognised as a world leader in biodiversity by 2030.  The 2020 Challenge is a supplement to the Scottish Biodiversity Strategy (2004), focused on desired outcomes for 2020 including achieving the 'Aichi Targets' (2010) and the new European Biodiversity Strategy

<sup>97</sup> Forest Enterprise Scotland, 2007. *Scottish Lowlands Forest District Strategic Plan 2007-2017*. [pdf] Available at: [http://www.forestry.gov.uk/pdf/ScottishLowlandsFDSP.pdf/\\$FILE/ScottishLowlandsFDSP.pdf](http://www.forestry.gov.uk/pdf/ScottishLowlandsFDSP.pdf/$FILE/ScottishLowlandsFDSP.pdf) [Accessed 10 April 2014]

<sup>98</sup> The Scottish Rural Development Programme 2014 – 2020 <http://www.gov.scot/Topics/farmingrural/SRDP>

<sup>99</sup>

<sup>100</sup> EC Council Directive 2009/147/EC.

<sup>101</sup> EC Council Directive 92/43/EEC.

<sup>102</sup> Forestry Commission, 2011. *Forests and Biodiversity - UK Forest Standard Guidelines*. Edinburgh: Forestry Commission.

<sup>103</sup> Nature Conservation (Scotland) Act 2004.

<sup>104</sup> Scottish Executive, 2004. *Scotland's Biodiversity: It's In Your Hands*. Edinburgh: Scottish Executive.

<sup>105</sup> Scottish Government, 2013. *2020 Challenge for Scotland's Biodiversity – A Strategy for the Conservation and Enhancement of Biodiversity in Scotland*. Edinburgh: Scottish Government.



BIODIVERSITY, FLORA AND FAUNA	
	<p>(2011) targets.</p> <p>The 2020 Challenge aims to:</p> <p>(1) Increase the general level of biodiversity on land in our seas, and support healthy, well-functioning ecosystems</p> <p>(2) Engage people with the natural world, for the health and well-being benefits that this brings, and empower them to have a say in decisions about their environment</p> <p>(3) Maximise the benefits for Scotland of a diverse natural environment and the services it provides, contributing to sustainable economic growth.</p>
Scottish Planning Policy: Valuing the Natural Environment <sup>106</sup>	Protection of international and national environmental designations complemented by local designations are key policies in the SPP (para 207-214). Woodland protection and enhancement are also key policies in the 2014 SPP (para. 216-218).
The Conservation (Natural Habitats, & c.) Regulations 1994 <sup>107</sup> (as amended) <sup>108</sup>	The Conservation (Natural Habitats, & c.) Regulations 1994 (as amended) provides for the designation and protection of 'European sites' – SPAs, SACs and Ramsar wetland sites. The Regulations also provide for the protection of 'European Protected Species' (EPS).
The Wildlife and Countryside Act 1981 <sup>109</sup> (as amended)	This legislation offers protection to many specified plants and animals, as well as broad protection to unspecified plants and animals such as nesting birds. An important development for forestry was the Wildlife and Countryside (Amendment) Act 1985. This amended the Forestry Act 1967 which required Forestry Commissioners to endeavour to achieve a reasonable balance between afforestation, timber production, the conservation and enhancement of natural beauty, and the conservation of flora, fauna and geological and physiographical features of special interest.
UK Post-2010 Biodiversity Framework <sup>110</sup>	The UK Post-2010 Biodiversity Framework succeeds the UK BAP although the UK BAP lists of priority species and habitats remains valid.
Wildlife and Natural Environment (Scotland) Act 2011 <sup>111</sup>	This Act makes the law on wildlife and the natural environment in Scotland more efficient, effective and proportionate. It introduced new provisions governing the introduction of non-native species in Scotland, the protection of birds, hares, and rabbits and associated poaching.
Woods for Nature – Our Biodiversity Programme 2008-2011 <sup>112</sup>  Woods for Nature – Next Steps <sup>113</sup>	<p>In 2008, FCS published the Woods for Nature – Our Biodiversity Programme which aimed to enhance or conserve biodiversity by managing the national forest estate and encouraging good practice and conservation projects in private woodlands. Woods for Nature – Next Steps sets out priorities for the period up to March 2014. The programme has four aims:</p> <p>(1) To help halt the loss of biodiversity and reverse previous losses through targeted action for species and habitats</p> <p>(2) Broader action for biodiversity at a landscape or ecosystem scale</p> <p>(3) Increase awareness and public enjoyment of woodland biodiversity</p> <p>(4) Improve knowledge of biodiversity and ensure it is integrated into decision making</p>
<p><b>IMPLICATIONS:</b></p> <ul style="list-style-type: none"> <li>The SEA will assess the extent to which the Clydeplan Forestry and Woodland Strategy will contribute to the core aims of protection and enhancement of biodiversity.</li> </ul>	

<sup>106</sup> Scottish Government, 2014. *Scottish Planning Policy*. Edinburgh: Scottish Government.

<sup>107</sup> The Conservation (Natural Habitats, &c.) Regulations 1994.

<sup>108</sup> The Conservation of Habitats and Species Regulations 2010.

<sup>109</sup> The Conservation of Wildlife Scotland Act 1981.

<sup>110</sup> JNCC and DEFRA (on behalf of the Four Countries' Biodiversity Group), 2012. *The UK Post-2010 Biodiversity Framework*. [pdf] Available at: [http://jncc.defra.gov.uk/pdf/UK\\_Post2010\\_Bio-Fwork.pdf](http://jncc.defra.gov.uk/pdf/UK_Post2010_Bio-Fwork.pdf) [Accessed 09 April 2014]

<sup>111</sup> Wildlife and Natural Environment (Scotland) Act 2011.

<sup>112</sup> Forestry Commission Scotland, 2008. *Woods for Nature – Our Biodiversity Programme 2008-2011*. Edinburgh: Forestry Commission Scotland.

<sup>113</sup> Forestry Commission Scotland, 2012. *Woods for Nature – Next Steps*. Edinburgh: Forestry Commission Scotland.

## BIODIVERSITY, FLORA AND FAUNA

- The FWS should aim to conserve Scotland's biodiversity for future generations by conserving habitats and species and raising public awareness on the importance of biodiversity. The FWS should also aim to conserve the ancient and semi natural woodland of the region whilst recognising the potential of forestry for biomass.

**Table A2.3 PPS – Population and human health**

POPULATION AND HUMAN HEALTH	
Name of PPS	Environmental requirements of PPS
<b>LEGISLATION, NATIONAL POLICY AND GUIDANCE</b>	
Better Heath, Better Care: Action Plan <sup>114</sup>	The Scottish Government's Action Plan aims to deliver a healthier Scotland by helping people to sustain and improve their health, especially in disadvantaged communities, ensuring better, local and faster access to health care. It endeavours to shift care into communities, raise quality and reduce inequality.
Environmental Noise Directive <sup>115</sup>	The Directive provides a strategic approach to controlling environmental noise including drawing up strategic noise maps and action plans.
Forests and People - UK Forestry Standard Guidelines <sup>116</sup>	Forests and People is one of a series of seven guidelines that support The UK Forestry Standard (UKFS). The UKFS Guidelines on Forests and People replaces the Forest recreation guidelines published in 1992. The Guidelines support local involvement in woodland projects in order to improve health, enhance learning opportunities, and strengthen communities.
Forests for People - Access, Recreation & Tourism on the National Forest Estate <sup>117</sup>	Forestry Commission Scotland's Recreation Framework sets out the vision, priorities and focus for action for access, recreation, and tourism on the national forest estate. The framework focuses on six key recreation themes including accessible woodlands close to communities.
Getting the best from our land: A land use strategy for Scotland <sup>118</sup>	Community woodland ownership under the National Forest Land Scheme has helped to build community participation and capacity. The Government will continue to encourage and give appropriate guidance on land ownership models that give local communities a stake in their future, and which support sustainable land use.
Good Places, Better Health: A New Approach to Environment and Health in Scotland <sup>119</sup>	Good Places, Better Health (GPBH) was launched in 2008 as the Scottish Government's Strategy on health and the environment. The document recognises that, to achieve the Government's purpose, themes and national outcomes, there is a need for greater connections around how physical environment influences health.
Making the Links: Greenspace for a More Successful and Sustainable Scotland <sup>120</sup>	In 2009, Greenspace Scotland responded to the Scottish Government's Programme for Scotland by publishing this document which demonstrates that greenspace can make an important contribution to quality of life, access, health and well-being, education, community cohesion, biodiversity and enterprise.
Scottish Government various Health Action Plans (Scottish Government, various years)	Health and well-being are fundamental to quality of life. Improving health and addressing health inequality involves wide-ranging action across not just health and care services but also public services including education, employment, housing, community safety and environment.
Scottish Planning Policy: Maximising the Benefits of Green	In relation to population and human health, the SPP explicitly states that <i>"Green infrastructure and improved access to open space can help build</i>

<sup>114</sup> Scottish Government, 2007. *Better Heath, Better Care: Action Plan*. Edinburgh: Scottish Government.

<sup>115</sup> EC Council Directive 2002/49/EC.

<sup>116</sup> Forestry Commission Scotland, 2011. *Forests and People - UK Forestry Standard Guidelines*. Edinburgh: Forestry Commission Scotland.

<sup>117</sup> Forestry Commission Scotland, 2008. *Forests for People - Access, Recreation & Tourism on the National Forest Estate*. Edinburgh: Forestry Commission Scotland.

<sup>118</sup> Scottish Government, 2011. *Getting the best from our land: A land use strategy for Scotland*. Edinburgh: Scottish Government.

<sup>119</sup> Scottish Government, 2008. *Good Places, Better Health: A New Approach to Environment and Health in Scotland*. Edinburgh: Scottish Government.

<sup>120</sup> Greenspace Scotland, 2009. *Making the Links: Greenspace for a More Successful and Sustainable Scotland*. [pdf] Available at: <http://www.greenspacescotland.org.uk/SharedFiles/Download.aspx?pageid=133&mid=129&fileid=86> [Accessed 09 April 2014]

POPULATION AND HUMAN HEALTH	
Infrastructure <sup>121</sup>	<i>stronger, healthier communities</i> " (para. 219).  Access to good quality open spaces and opportunities for sport and recreation make important contributions to a healthier Scotland. The planning system has a role in helping to create an environment where physical well-being is improved and activity made easier.
Woods for Health <sup>122</sup>	This document sets out the Strategy for woods and health in Scotland for the years 2009-2011. FCS aims to create new health promoting opportunities in our green environment, particularly trees, woods and forests, to improve the health and life expectancy of Scotland's people and reduce health inequalities in Scotland.
Woods for Learning <sup>123</sup> Woods for Learning Action Plan 2013-2015 <sup>124</sup>	The Strategy outlines Forestry Commission Scotland's approach to working with young people both in and outside of school. It provides the foundation for FCS to develop lifelong learning programmes, especially through recreation and health. The updated Action Plan sets new objectives for the period 2013-2015.
Woods In and Around Towns 'WIAT' Phase III <sup>125</sup>	The WIAT programme objectives are to regenerate the woodland environment close to centres of population and thereby improve the quality of life and also contribute to improved community and mental and physical health through improved access.
<b>IMPLICATIONS:</b> <ul style="list-style-type: none"> <li>The Strategy needs to ensure woodlands are managed to secure positive health benefits for people, alongside the value woodland makes to enhancing environmental quality. This includes securing landscape value, community involvement and improving recreational and educational opportunities.</li> </ul>	

**Table A2.4 PPS – Climatic factors**

CLIMATIC FACTORS	
Name of PPS	Environmental requirements of PPS
LEGISLATION, NATIONAL POLICY AND GUIDANCE	
2020 Renewable Routemap for Scotland - Update <sup>126</sup>	Scottish Government is adopting the interim target of 50% of Scottish demand for electricity by the end of 2015, and 100% by 2020. In relation to woodlands and forestry, it recognises the challenges in delivering bioenergy and energy from waste as <i>"engaging local communities, biomass operators, woodfuel suppliers and other stakeholders in forward thinking approach"</i> .
Biomass Action Plan for Scotland <sup>127</sup>	The Biomass Action Plan sets out a coordinated programme for the development of the biomass sector in Scotland and aims to: <ul style="list-style-type: none"> <li>to provide a summary of the wide range of existing activities, actions and initiatives;</li> <li>to provide a focus for a strategic coordinated approach to developing biomass for energy production across the heat, electricity and transport sectors;</li> <li>to identify roles and responsibilities for government, industry and public stakeholders to develop a vibrant bio-energy industry in Scotland; and,</li> <li>to identify future actions and gaps.</li> </ul>
Climate Change (Scotland) Act 2009 <sup>128</sup>	Sets targets for reducing greenhouse gas emissions, including a 42% reduction target by 2020, and an 80% reduction by 2050, and requires the setting of annual targets for 2010-2050.

<sup>121</sup> Scottish Government, 2014. *Scottish Planning Policy*. Edinburgh: Scottish Government.

<sup>122</sup> Forestry Commission Scotland, 2009. *Woods for Health*. Edinburgh: Forestry Commission Scotland.

<sup>123</sup> Forestry Commission Scotland, 2009. *Woods for Learning*. Edinburgh: Forestry Commission Scotland.

<sup>124</sup> Forestry Commission Scotland, 2013. *Woods for Learning Action Plan 2013-2015*. Edinburgh: Forestry Commission Scotland.

<sup>125</sup> Forestry Commission Scotland 2011. *Woods In and Around Towns 'WIAT' Phase III*. Edinburgh: Forestry Commission Scotland.

<sup>126</sup> Scottish Government, 2013. *2020 Renewable Routemap for Scotland – Update*. Edinburgh: Scottish Government.

<sup>127</sup> Scottish Government, 2007. *Biomass Action Plan for Scotland*. Edinburgh: Scottish Government.

<sup>128</sup> Climate Change (Scotland) Act 2009.

CLIMATIC FACTORS	
Climate Change Adaptation Framework <sup>129</sup>	<p>Climate Change Adaptation Framework presents a national, co-ordinated approach to ensure that Scotland understands the risks and opportunities these changes present and is adapting in a sustainable way. It sets out:</p> <ul style="list-style-type: none"> <li>• The overarching model for adapting to climate change in Scotland; and,</li> <li>• Summaries of climate change adaptation in key sectors.</li> </ul> <p>The aim of the Adaptation Framework is to lead planned adaptation across all sectors, including the forestry sector, to increase the resilience of Scotland's communities, and the natural and economic systems on which they depend, to the impacts of climate change.</p>
Climate Change Adaptation Framework Forests and Forestry Sector Action Plan <sup>130</sup>	<p>The Action Plan identifies that the forestry sector must manage existing and future woodlands that can increase their resilience to climate change; develop/promote synergies between adaptation and sustainable development; support ecological adaptation; prevent and prepare for new pests and diseases triggered by extreme weather; increase resilience through silvicultural and forest operations; promote the role of forests in helping other ecosystems adapt to climate change (e.g. natural flood management, reducing riverbank erosion etc.).</p>
Climate Change Delivery Plan Meeting Scotland's Statutory Climate Change Targets <sup>131</sup>	<p>To meet the highly ambitious targets set out in the Climate Change (Scotland) Act, the Scottish Government has prepared a delivery plan to target investment and effort across a range of relevant sectors, and renewable energy has a fundamental place in this strategy.</p> <p>One of the four transformational outcomes which the Scottish Government is working towards is to ensure that carbon is fully factored into strategic and local decisions about rural land use through encouraging the sequestration of carbon through woodland planting; minimising emissions for agriculture and other land use businesses (forestry operations); and the use of natural resources to generate renewable energy (woody biomass).</p>
Climate Change Programme <sup>132</sup>	<p>The Climate Change Programme describes what the Forestry Commission will do to increase the contribution and response of Scottish forestry to the challenges of climate change.</p>
Combating Climate Change – A Role for UK Forests <sup>133</sup>	<p>This report commissioned by the Forestry Commission presents the findings of the first national assessment of the UK forestry and climate change and it forms part of the UK's response to the Intergovernmental Panel on Climate Change 4th Assessment Report. The report illustrates the threat of climate change; the current impact on trees and woodland; and the adjustments the UK can make to deal with the changing environment.</p>
Electricity Generation Policy Statement <sup>134</sup>	<p>The Statement is constructed around a number of targets and requirements including:</p> <ul style="list-style-type: none"> <li>• delivering the equivalent of at least 100% of gross electricity consumption from renewables by 2020;</li> <li>• sourcing 11% of heat demand and 10% of transport fuels from renewables by 2020;</li> <li>• ensuring a largely decarbonised electricity system by 2030;</li> <li>• enabling local and community ownership of over 500MW of renewable energy by 2020;</li> <li>• lowering energy consumption in Scotland by 12%;</li> <li>• demonstrating the possibility of carbon capture and storage at</li> </ul>

<sup>129</sup> Scottish Government, 2009. *Climate Change Adaptation Framework*. Edinburgh: Scottish Government.

<sup>130</sup> Scottish Government, 2011. *Climate Change Adaptation Framework Forests and Forestry Sector Action Plan*. [pdf] Available at: <http://www.scotland.gov.uk/Resource/Doc/175776/0114913.pdf> [Accessed 09 April 2014]

<sup>131</sup> Scottish Government, 2009. *Climate Change Delivery Plan Meeting Scotland's Statutory Climate Change Targets*. Edinburgh: Scottish Government.

<sup>132</sup> Forestry Commission Scotland, 2013. *Climate Change Programme*. Edinburgh: Forestry Commission Scotland.

<sup>133</sup> Forestry Commission, 2009. *Combating Climate Change – A Role for UK Forests*. Edinburgh: The Stationery Office.

<sup>134</sup> Scottish Government, 2013. *Electricity Generation Policy Statement*. Edinburgh: Scottish Government.

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	<p>commercial scale by 2020; and</p> <ul style="list-style-type: none"> <li>providing interconnection and transmission upgrades to support the projected growth of renewable energy.</li> </ul>
Forests and Climate Change - UK Forestry Standard Guidelines <sup>135</sup>	Forests and Climate Change is one of a series of seven guidelines that support The UK Forestry Standard (UKFS). The document sets out the UKFS Guidelines for climate change mitigation and adaptation.
Four Agency Statement – Action on Climate Change <sup>136</sup>	Four key agencies (Forestry Commission Scotland, SEPA, SNH, and Historic Scotland) have come together to make a joint statement on climate change. The value of woodland and forests is acknowledged in mitigating and adapting to climate change.
Getting the best from our land: A Land Use Strategy for Scotland <sup>137</sup>	To sustain the net amount of carbon sequestered by forestry there is a need to increase woodland creation rates to 10-15,000 hectares per year and to sustain this rate thereafter. This will also ensure that deforestation is only permitted with compensatory planting. The Strategy states that there must be recognition of the need to balance the gains arising from tree-planting against potential losses of soil carbon, so that the main focus of woodland creation will be away from areas with deeper peat soil (also stated in FCS Rationale for Woodland Expansion).
Intergovernmental Panel on Climate Change <sup>138</sup>	The Intergovernmental Panel on Climate Change states that “ <i>Forestry can make a very significant contribution to a low-cost global mitigation portfolio that provides synergies with adaptation and sustainable development</i> ”.
Low Carbon Scotland: Meeting the Emissions Reduction Targets	<p><b>Low Carbon Scotland: Meeting the Emissions Reduction Targets 2010-2022</b><sup>139</sup>, published on 14 March 2011, describes the measures identified to meet the emissions reduction targets established by the Climate Change (Scotland) Act 2009, over the period 2010-2022. By 2020 renewable electricity generation must account for at least 80% of gross electricity consumption.</p> <p>On 27 June 2013 the Scottish Government published the <b>Low Carbon Scotland: Meeting the Emissions Reduction Targets 2013-2027: The Second Report on Proposals and Policies (RPP2)</b><sup>140</sup>. The report sets a decarbonisation target of 50 gCO<sub>2</sub>/kWh by 2030 to meet overall emissions targets. The Ministerial Foreword notes that the target set is challenging and that the decarbonisation of electricity is a key driver in the progress towards a low carbon economy. The report highlights that Scotland missed its annual carbon reduction target for 2011 by 0.8 million tonnes of carbon dioxide equivalent (CO<sub>2e</sub>) having also missed its targets in 2010 by 1.1 million tonnes of CO<sub>2e</sub>.</p>
Online Renewables Planning Advice – Woody Biomass <sup>141</sup>	The advice recognises the significant potential of biomass to deliver on renewable heat targets in addition to providing local economic and fuel security benefits.
Scottish Planning Policy: Principal Policies <sup>142</sup>	Sustainability is identified as a principal policy of the SPP. The 2014 SPP introduces a presumption in favour of development that contributes to sustainable development. Policies and decisions are guided by several principles including supporting climate change mitigation and adaptation.

<sup>135</sup> Forestry Commission Scotland, 2011. *Forests and Climate Change - UK Forestry Standard Guidelines*. Edinburgh: Forestry Commission Scotland.

<sup>136</sup> Forestry Commission Scotland, SEPA, SNH, and Historic Scotland, 2013. *Four Agency Statement – Action on Climate Change*. [pdf] Available at: <http://www.sepa.org.uk/ldoc.ashx?docid=612faddc-acdf-42a8-a08e-1744db65bafa&version=-1> [Accessed 09 April 2014]

<sup>137</sup> Scottish Government, 2011. *Getting the best from our land: A land use strategy for Scotland*. Edinburgh: Scottish Government.

<sup>138</sup> Nabuurs, G.J., O. Masera, K. Andrasko, P. Benitez-Ponce, R. Boer, M. Dutschke, E. Elsidig, J. Ford-Robertson, P. Frumhoff, T. Karjalainen, O. Krankina, W.A. Kurz, M. Matsumoto, W. Oyhantcabal, N.H. Ravindranath, M.J. Sanz Sanchez, X. Zhang, 2007. *Forestry. In Climate Change 2007: Mitigation*. Contribution of Working Group III to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change [B. Metz, O.R. Davidson, P.R. Bosch, R. Dave, L.A. Meyer (Eds.)]. Cambridge: Cambridge University Press.

<sup>139</sup> Scottish Government, 2011. *Low Carbon Scotland: Meeting the Emissions Reduction Targets 2010-2022*. Edinburgh: Scottish Government.

<sup>140</sup> Scottish Government, 2013. *Low Carbon Scotland: Meeting the Emissions Reduction Targets 2013-2027: The Second Report on Proposals and Policies (RPP2)*. Edinburgh: Scottish Government.

<sup>141</sup> Scottish Government, 2013. *Online renewables planning advice – Woody biomass*. [online] Available at: <http://www.scotland.gov.uk/Topics/Built-Environment/planning/Policy/Subject-Policies/Utilities/Delivering-heat-electricity/renewables-advice> [Accessed 09 April 2014]

<sup>142</sup> Scottish Government, 2014. *Scottish Planning Policy*. Edinburgh: Scottish Government.



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### IMPLICATIONS:

- The Strategy should support key measures to reduce greenhouse gas emissions, both in forestry operation and management, and in providing low carbon products such as biomass and timber for construction. The Strategy needs to support adaptation and resilience to climate change both for the natural environment and people.

**Table A2.5 PPS – Soil**

SOIL	
Name of PPS	Environmental requirements of PPS
LEGISLATION, NATIONAL POLICY AND GUIDANCE	
European Soil Charter (Council of Europe Committee of Ministers, 1972) <a href="https://wcd.coe.int/ViewDoc.jsp?id=654589">https://wcd.coe.int/ViewDoc.jsp?id=654589</a>	In 1972 the European Commission Committee of Government Ministers, including the UK, recognised the increasing biological deterioration of the soil in many parts of Europe and adopted a charter for soil protection. Among other things the charter recognises that: <ul style="list-style-type: none"> <li>soil is a precious asset;</li> <li>soil is a limited resource which is easily destroyed;</li> <li>farmers and foresters must preserve the soil's quality; and,</li> <li>soil must be protected from erosion and pollution.</li> </ul>
Forests and soil – UK Forestry Standard Guidelines <sup>143</sup>	The Guidelines advise owners and managers how to conserve the soil as a fundamental resource upon which trees and the whole forest ecosystem depend.
Getting the best from our land: A Land Use Strategy for Scotland <sup>144</sup>	To sustain the net amount of carbon sequestered by forestry there is a need to increase woodland creation rates to 10-15,000 hectares per year and to sustain this rate thereafter. This will also ensure that deforestation is only permitted with compensatory planting. The Strategy states that there must be recognition of the need to balance the gains arising from tree-planting against potential losses of soil carbon, so that the main focus of woodland creation will be away from areas with deeper peat soil (also stated in FCS Rationale for Woodland Expansion).
Management of carbon rich soils <sup>145</sup>	The Scottish Government's discussion paper notes the importance of peatlands and other carbon-rich soils in holding carbon. Emphasises the multiple benefits of peatland in particular, and the complexity of restoration.
PAN 33: Development of Contaminated Land <sup>146</sup>	This PAN provides advice with regards to the development of contaminated land, which any developments will need to adhere to.
Pesticides: Code of Practice for Using Plant Protection Products in Scotland <sup>147</sup>	The Code of Practice reflects the Scottish Government's policy to reduce to the lowest possible level the effect of pesticide use on people, wildlife, plants and the environment while making sure pests, diseases, and weeds are effectively controlled.
Pollution Prevent and Control (Scotland) Regulations 2000 <sup>148</sup>	Set out a regime for preventing and controlling pollution. Identifies activities that are subject to pollution control.
Scotland's National Peatland Plan: Working for our future <sup>149</sup>	Scotland's National Peatland Plan sets out a strategic framework to protect, manage, and where required, restore peatlands. The plan states that peatlands are ecosystems, with a peat deposit exceeding 50cm, which may currently support vegetation that is peat-forming, may not, or may lack vegetation entirely. The plan recognises that carbon stock can be boosted by increasing Scotland's woodland cover outwith peatland

<sup>143</sup> Forestry Commission Scotland, 2011. *Forests and soil – UK Forestry Standard Guidelines*. Falkirk: Falkirk Council.

<sup>144</sup> Scottish Government, 2011. *Getting the best from our land: A land use strategy for Scotland*. Edinburgh: Scottish Government.

<sup>145</sup> Scottish Government, 2013. *Management of carbon rich soils*. [pdf] Available at: <http://www.scotland.gov.uk/Resource/Doc/921/0109512.pdf> [Accessed 10 April 2014]

<sup>146</sup> Scottish Government, 2000. *PAN 33: Development of Contaminated Land*. Edinburgh: Scottish Government.

<sup>147</sup> Scottish Executive, 2006. *Pesticides: Code of Practice for Using Plant Protection Products in Scotland*. Edinburgh: Scottish Executive.

<sup>148</sup> Pollution Prevent and Control (Scotland) Regulations 2000.

<sup>149</sup> Scottish Natural Heritage, 2014. *Scotland's National Peatland Plan: Working for our future: A consultation paper* [pdf]. Available at: <http://www.snh.gov.uk/docs/A1306595.pdf> [Accessed 15 October 2014]

SOIL	
	areas. Bog woodland is recognised as one of the rarest peatland habitats in Scotland.
Scottish Planning Policy: Valuing the Natural Environment <sup>150</sup>	SPP states that the planning system should seek to protect soils from damage such as erosion or compaction (para. 194).
The Contaminated Land (Scotland) Regulations 2005 <sup>151</sup>	The Regulations which amend Part IIA of the Environmental Protection Act 1990 details activities that are prohibited to prevent the contamination of land and watercourses.
The Scottish Soil Framework <sup>152</sup>	The Framework aims to raise awareness of the services soils provide to society and the pressures they face. Scotland's soils are generally in good health but the most significant pressures are climate change and loss of soil organic matter. Both affect most soil functions with national impacts which are difficult to reverse. In the case of greenhouse gas emissions, the impacts are global. The Framework identifies a wide range of activities that will contribute to thirteen soil outcomes.
The Waste Management Licensing Regulations 1994 <sup>153</sup>	The Regulations bring into force the waste management licensing system under Part II of the Environmental Protection Act 1990, which is designed to control the disposal of waste materials, including sewage sludge, waste soil, and waste wood, bark and other plant material.
Thematic Strategy for Soil Protection <sup>154</sup>	The European Commission adopted the Thematic Strategy for Soil Protection, including proposals for a 'Framework Directive for Soils', in 2006. The proposed Directive (not yet in force) lays down a framework for the protection and sustainable use of soil.
<b>IMPLICATIONS:</b> <ul style="list-style-type: none"> <li>The SEA will assess the extent to which the FWS protects valuable soil resources. The FWS should support management measures which support the protection of all soil resources, and support the use of forestry in the management of vacant and derelict land..</li> </ul>	

**Table A2.6 PPS – Water**

WATER	
Name of PPS	Environmental requirements of PPS
<b>LEGISLATION, NATIONAL POLICY AND GUIDANCE</b>	
Drinking Water Directive 98/83/EC <sup>155</sup>	The Drinking Water Directive sets minimum levels for quality and control standards for water intended for human consumption.
Flood Directive 2007/60/EC <sup>156</sup>	EU Directive 2007/60/EC on the assessment and management of flood risks aims to reduce and manage the risks that floods pose to human health, the environment, cultural heritage and economic activity.
Flood Risk Management (Scotland) Act 2009 <sup>157</sup>	The Act provides a framework for a modernised approach to flood management, taking into account the impact of climate change and improved management processes. Aims to achieve co-ordinated approaches to flood management and requires the preparation of flood risk management plans. Sets out processes and responsibilities, including for flood protection schemes and public engagement in the process.
Forests and Water: UK Forestry Standard Guidelines <sup>158</sup>	Guidelines on the environmental effects of land-use, pollutant inputs and forest operations, and consideration of the impact of lowland and native woodland expansion on the freshwater environment.

<sup>150</sup> Scottish Government, 2014. *Scottish Planning Policy*. Edinburgh: Scottish Government.

<sup>151</sup> The Contaminated Land (Scotland) Regulations 2005.

<sup>152</sup> Scottish Government, 2009. *The Scottish Soil Framework*. Edinburgh: Scottish Government.

<sup>153</sup> The Waste Management Licensing Regulations 1994.

<sup>154</sup> European Commission, 2006. *Thematic Strategy for Soil Protection* [online] Available at: [http://ec.europa.eu/environment/soil/three\\_en.htm](http://ec.europa.eu/environment/soil/three_en.htm) [Accessed 09 April 2014]

<sup>155</sup> Drinking Water Directive 98/83/EC.

<sup>156</sup> Flood Directive 2007/60/EC.

<sup>157</sup> Flood Risk Management (Scotland) Act 2009.

<sup>158</sup> Forestry Commission Scotland, 2011. *Forests and Water: UK Forestry Standard Guidelines*. Edinburgh: Forestry Commission Scotland.

WATER	
Groundwater Directive 2006/118/EC <sup>159</sup>	The Groundwater Directive establishes specific measures to prevent and control groundwater pollution.
Marine (Scotland) Act 2010 <sup>160</sup>	The Marine (Scotland) Act provides a framework which will help balance competing demands on Scotland's seas. It introduces a duty to protect and enhance the marine environment.
Nitrates Directive 91/676/EEC <sup>161</sup>	The Nitrates Directive aims to prevent and reduce water pollution caused or induced by nitrates from agricultural sources by introducing voluntary 'good agricultural practices' and the designation of Nitrate Vulnerable Zones.
Revised Bathing Waters Directive 2006/7/EC <sup>162</sup>	The Bathing Waters Directive aims to preserve, protect and improve the quality of the environment and to protect human health by complementing the Water Framework Directive.
Scottish Planning Policy: Managing Flood Risk and Drainage <sup>163</sup>	The SPP states that development which would have a significant probability of flooding or which would increase the probability of flooding elsewhere should not be permitted (para. 256). The planning system should promote a precautionary approach to flood risk; flood avoidance; flood reduction; and avoidance of increased surface water flooding through requirements for SuDS (para. 255).
Scottish Planning Policy: Promoting Rural Development <sup>164</sup>	Development plans should recognise that rising sea levels and more extreme weather events resulting from climate change will have a significant impact on coastal and island areas, and that a precautionary approach to flood risk should be taken. Plans should identify areas of largely developed coast that are a major source of economic or recreational activity that are likely to be suitable for further development; areas subject to significant constraints; and largely unspoiled areas of the coast that are generally unsuitable for development (para. 74-83).
The National Flood Risk Assessment <sup>165</sup>	In the National Flood Risk Assessment, SEPA identifies geographical areas across Scotland, called Local Plan Districts, which include whole river catchments and cross local authority boundaries. The Assessment identifies potentially vulnerable areas where the potential impact of flooding justified further assessment and appraisal of actions to address flooding. This will be taken forward in the Flood Risk Management Strategies which are due to be published in December 2015, and the Local Flood Risk Management Plans which will be produced and published by each local authority in June 2016.
<p>The River Basin Management Plan for the Scotland River Basin District 2009-2015<sup>166</sup></p> <p>Forth Area Management Plan 2010-2015<sup>167</sup></p>	<p>Key measures include:</p> <ul style="list-style-type: none"> <li>Identifying areas of the water environment for protection and improvement;</li> <li>Identifying where current or historic activities are constraining the quality of the water environment and the biodiversity it supports;</li> <li>Details the actions required to ensure waters of special value (e.g. drinking, biodiversity, shellfish, bathing) are up to standard and maintain the quality where they already meet those standards;</li> <li>Sets out actions needed to deliver environmental improvements to 2015 and longer to 2027.</li> </ul>
Water Environment and Water	The Act took forward the provisions of the Water Framework Directive.

<sup>159</sup> Groundwater Directive 2006/118/EC.

<sup>160</sup> Marine (Scotland) Act 2010.

<sup>161</sup> Nitrates Directive 91/676/EEC.

<sup>162</sup> Revised Bathing Waters Directive 2006/7/EC.

<sup>163</sup> Scottish Government, 2014. *Scottish Planning Policy*. Edinburgh: Scottish Government.

<sup>164</sup> Scottish Government, 2014. *Scottish Planning Policy*. Edinburgh: Scottish Government.

<sup>165</sup> SEPA, 2011. *The National Flood Risk Assessment*. Stirling: SEPA.

<sup>166</sup> Scottish Government, 2009. *The River Basin Management Plan for the Scotland River Basin District 2009-2015*. Edinburgh: Scottish Government.

<sup>167</sup> SEPA, 2010. *Forth Area Management Plan 2010-2015*. [pdf] Available at: [http://www.sepa.org.uk/water/river\\_basin\\_planning/area\\_advisory\\_groups/ldoc.ashx?docid=eced7f6b-c171-4ef7-bf76-b57351277277&version=-1](http://www.sepa.org.uk/water/river_basin_planning/area_advisory_groups/ldoc.ashx?docid=eced7f6b-c171-4ef7-bf76-b57351277277&version=-1) Accessed 01 April 2014]

WATER	
Services (Scotland) Act 2003 <sup>168</sup>	Set out the systems for developing River Basin Management Plans for Scotland. These plans aim to improve the environmental status of water bodies, and reduce adverse impacts on the water environment as a whole.
Water Framework Directive 2000/60/EC <sup>169</sup>	Introduced in 2000, the Directive provided a framework approach to managing the water environment. Covers all water bodies including Shellfish and Bathing Waters. The Directive was transposed into Scots law by the Water Environment and Water Services Act (2003)
Water Resources (Scotland) Bill <sup>170</sup>	The Bill (as introduced) makes provision for the development of water resources. Sets out responsibilities of Scottish Water and Scottish Ministers. Key elements relate to water abstraction, water quality, water supplies and sewerage services.
<b>IMPLICATIONS:</b> <ul style="list-style-type: none"> <li>The SEA assesses the potential impacts on the water environment. The Strategy should support the protection and enhancement of the water environment, and support flood management measures.</li> </ul>	

**Table A2.7 PPS - Air**

AIR	
Name of PPS	Environmental requirements of PPS
<b>LEGISLATION, NATIONAL POLICY AND GUIDANCE</b>	
Directive 2008/50/EC Air Quality Framework Directive <sup>171</sup>	Brings together existing legislation on air quality, including objectives for key pollutants: SO <sub>2</sub> , NO <sub>x</sub> , particulates, lead, benzene and ozone. Sets new objectives for fine particulates (PM <sub>2.5</sub> ) including reduction target. Aims to combat emissions to meet World Health Organization standards.
Local Air Quality Management Act (Part of the Environmental Act 1995) <sup>172</sup>	Sets out duties requiring local authorities to review and assess air quality in their area from time to time, the reviews forming the cornerstone of the system of local air quality management.
The Air Quality Standards (Scotland) Regulations 2010 <sup>173</sup>	The Air Quality Standards (Scotland) Regulations 2010 transpose into law the requirements of Directives 2008/50/EC and 2004/107/EC on ambient air quality.
The Air Quality Strategy for England, Scotland, Wales and Northern Ireland <sup>174</sup>	Aims to improve and protect ambient air quality in the UK, with overall aim of health protection. Sets objectives for specific emissions, against which monitoring is undertaken.
<b>IMPLICATIONS:</b> <ul style="list-style-type: none"> <li>The SEA will assess the extent to which the Strategy could help to reduce, or may increase emissions of pollutants to air at a strategic level.</li> <li>The Strategy should contribute to a reduction in air pollution e.g. by encouraging sustainable transport choices and improving air quality by supporting the role of urban trees to remove pollutants from the air for the benefit of human health and biodiversity. Furthermore, AQMAS may indicate where potential air quality benefits from tree planting are greatest.</li> </ul>	

**Table A2.8 PPS – Material assets**

MATERIAL ASSETS	
Name of PPS	Environmental requirements of PPS
<b>LEGISLATION, NATIONAL POLICY AND GUIDANCE</b>	
Infrastructure Investment Plan	Sets out short, medium and long term investment in a range of infrastructure projects including transport, water, waste, health,

<sup>168</sup> Water Environment and Water Services (Scotland) Act 2003.

<sup>169</sup> Water Framework Directive 2000/60/EC.

<sup>170</sup> Water Resources (Scotland) Bill 2012.

<sup>171</sup> Directive 2008/50/EC Air Quality Framework Directive.

<sup>172</sup> Part IV of the Environmental Act 1995.

<sup>173</sup> The Air Quality Standards (Scotland) Regulations 2010.

<sup>174</sup> Department for Environment Food and Rural Affairs, 2007. *The Air Quality Strategy for England, Scotland, Wales and Northern Ireland*. Edinburgh: Scottish Executive.

MATERIAL ASSETS	
2011: Progress Report for 2013 <sup>175</sup>	education, housing, digital, energy, culture, sport, regeneration and justice. Progress report sets out key activities since the IIP was published, including delivery of a number of priorities set out in NPF2.
Rail 2014: Public Consultation <sup>176</sup>	The Consultation on the Rail programme aimed to inform the framework for contracting rail passenger services and financial arrangements for Network Rail, which are due for renewal in 2014 (High Level Output Specification). The consultation noted the importance of the rail industry in delivering sustainable economic growth. Reference is made to the Government Economic Strategy and the aim of delivering high quality rail infrastructure and services which: reflect needs, are efficient and represent good value for money, support businesses and communities by connecting settlements and rural areas, and provide a more sustainable personal and freight transport option.
Scotland's National Transport Strategy <sup>177</sup>	The NTS aims to promote economic growth by building, enhancing managing and maintaining transport services, infrastructure and networks to maximise their efficiency. Its key themes include connecting remote and disadvantaged communities, increasing accessibility, protecting the environment and improving health through investment in public transport, improving safety and integrating different modes of transport.
Scottish Planning Policy: Promoting Sustainable Transport and Active Travel <sup>178</sup>	The SPP promotes sustainable patterns of transport and travel as part of the transition to a low carbon economy.
Strategic Transport Projects Review (STPR) <sup>179</sup>	STPR complements the National Transport Review and sets out a range of projects that aim to improve journey times and connections, reduce emissions and improve quality, accessibility and affordability.
The Scottish Government's Policy on Non-Timber Forest Products <sup>180</sup>	This Forestry Commission Scotland document outlines how responsible and sustainable management of products such as berries, lichens, fruits nuts and fungi could bring substantial benefits to rural communities, small businesses and landowners.
Waste Management Zero Waste Plan for Scotland <sup>181</sup>	The Zero Waste Plan aimed to achieve a significant shift in the way waste is managed. Its key measures included waste prevention, reducing landfill, improving management, and contributing to renewable energy. The Plan set new targets of 70% of waste to be recycled and a maximum of 5% to be sent to landfill, by 2025. Measures also relate to improving information to inform future decisions, and measuring the carbon impacts of waste to prioritise recycling for resources which could provide the most significant benefits.
<b>IMPLICATIONS:</b> <ul style="list-style-type: none"> <li>• The SEA will assess the extent to which the Clydeplan Forestry and Woodland Strategy will impact on the material assets within the Clydeplan area.</li> <li>• The FWS should seek to integrate with the aims of the National Transport Strategy e.g. by providing venues for outdoor recreation and woodland-based tourism that are accessible by sustainable modes.</li> <li>• The FWS should contribute to ensuring that wood fuel and timber transport is achieved in an environmentally sustainable manner, e.g. by encouraging siting of wood production and processing close to markets, reducing air pollutants and thus improving air quality.</li> </ul>	

<sup>175</sup> Scottish Government, 2014. *Infrastructure Investment Plan 2011: Progress Report for 2013*. Edinburgh: Scottish Government.

<sup>176</sup> Transport Scotland, 2011. *Rail 2014: Public Consultation*. Glasgow: Transport Scotland.

<sup>177</sup> Scottish Executive, 2006. *Scotland's National Transport Strategy*. Edinburgh: Scottish Executive.

<sup>178</sup> Scottish Government, 2014. *Scottish Planning Policy*. Edinburgh: Scottish Government.

<sup>179</sup> Transport Scotland, 2009. *Strategic Transport Projects Review*. Glasgow: Transport Scotland.

<sup>180</sup> Forestry Commission Scotland, 2009. *The Scottish Government's Policy on Non-Timber Forest Products*. Edinburgh: Forestry Commission Scotland.

<sup>181</sup> Scottish Government, 2010. *Scotland's Zero Waste Plan*. Edinburgh: Scottish Government.



**Table A2.9 PPS – Cultural heritage**

CULTURAL HERITAGE	
Name of PPS	Environmental requirements of PPS
LEGISLATION, NATIONAL POLICY AND GUIDANCE	
Forests and Historic Environment: UK Forestry Standard <sup>182</sup>	These guidelines set out the Forestry Commission's requirements for archaeological conservation in the creation of new forests and in the management of existing woodlands.
Managing Change in the Historic Environment Guidance Notes <sup>183</sup>	The series 'Managing Change in the Historic Environment Guidance Notes' explain how to apply the principles contained in SHEP 2011 and SPP 2010. Topics covered by guidance notes include battlefields, setting, etc.
PAN 2/2011 Planning and Archaeology <sup>184</sup>	This PAN informs the day-to-day work of a range of local authority advisory services and other organisations that have a role in the handling of archaeological matters within the planning process.
PAN 71 Conservation Area Management <sup>185</sup>	This provides further advice on the management of conservation areas. It identifies good practice for managing change, sets out a checklist for appraising conservation areas and provides advice on funding and implementation.
Scotland's Woodlands and the Historic Environment <sup>186</sup>	Forestry Commission Scotland policy setting out how the forestry sector can tap into Scotland's rich cultural heritage and help develop historic sites - including designed landscapes and ancient woodlands.
Scottish Historic Environment Policy (SHEP) <sup>187</sup>	SHEP is the overarching policy statement for the historic environment. It provides a framework for more detailed strategic policies and operational policies that inform the day-to-day work of a range of organisations that have a role and interest in managing the historic environment.
Scottish Planning Policy: Valuing the Historic Environment <sup>188</sup>	<p>The SPP states that the planning system should promote the care and protection of the designated and non-designated historic environment, including the individual assets, related settings and the wider cultural landscape (para. 137).</p> <p>The Development Plan should set the framework for the protection, conservation and enhancement of all elements of the historic environment (World Heritage Sites, Scheduled Monuments, Designated Wrecks, Conservation Areas, Listed Buildings, Gardens &amp; Designed Landscapes, etc.) to allow for the assessment of the impact of proposed development on the historic environment and its setting.</p>
Our Place in Time: The Historic Environment Strategy for Scotland <sup>189</sup>	The historic environment strategy is a framework which sets out a 10 year vision for the historic environment in Scotland. The key identified outcome is to ensure that the cultural, social, environmental and economic value of Scotland's historic environment continues to make a strong contribution to the wellbeing of the nation and its people.
<b>IMPLICATIONS:</b> <ul style="list-style-type: none"> <li>The SEA will assess the extent to which the Clydeplan Forestry and Woodland Strategy will impact on cultural heritage in the Clydeplan area.</li> <li>The FWS should safeguard and, where appropriate, enhance the historic environment. The spatial elements of the strategy should be informed by considerations such as the capacity of the historic landscape to accommodate afforestation without damage to its historic value.</li> </ul>	

<sup>182</sup> Forestry Commission Scotland, 2011. *Forests and Historic Environment : UK Forestry Standard Guidelines*. Edinburgh: Forestry Commission Scotland.

<sup>183</sup> Historic Scotland, 2010. *Managing Change in the Historic Environment Guidance Notes*. [online] Available at: <http://www.historic-scotland.gov.uk/managingchange> [Accessed 07 April 2014]

<sup>184</sup> Scottish Government, 2011. *Planning Advice Note: PAN 2/2011: Planning and Archaeology*. Edinburgh: Scottish Government.

<sup>185</sup> Scottish Government, 2004. *Planning Advice Note: PAN 71: Conservation Area Management*. Edinburgh: Scottish Government.

<sup>186</sup> Forestry Commission Scotland, 2008. *Scotland's Woodlands and the Historic Environment*. Edinburgh: Forestry Commission Scotland.

<sup>187</sup> Historic Scotland, 2011. *Scottish Historic Environment Policy December 2011*. Edinburgh: Historic Scotland.

<sup>188</sup> Scottish Government, 2014. *Scottish Planning Policy*. Edinburgh: Scottish Government.

<sup>189</sup> Scottish Government, 2014. *Our Place in Time: The Historic Environment Strategy for Scotland*. Edinburgh: Scottish Government.

**Table A2.10 PPS - Landscape**

LANDSCAPE	
Name of PPS	Environmental requirements of PPS
<b>LEGISLATION, NATIONAL POLICY AND GUIDANCE</b>	
Designing Places: A Policy Statement for Scotland <sup>190</sup>	Planning policy statement sets out Government aspirations for design and the role of the planning system in delivering these. It aims to demystify urban design and demonstrate how it can contribute to quality of life.
Designing Streets: A Policy Statement for Scotland <sup>191</sup>	Policy statement on street design changing the emphasis of guidance on street design towards place-making and away from a system focused upon the dominance of motor vehicles.
Forests and Landscape: UK Forestry Standard Guidelines <sup>192</sup>	These guidelines set out the forest design process (i.e. landscape character, landscape and visual sensitivities, etc.) and principles (shape, landform, scale, diversity, etc.).
National Scenic Areas Programme <sup>193</sup>	Scotland has 40 National Scenic Areas, covering 13% of the total area. SNH published information on the special qualities of each area, with further guidance expected on how protection of these characteristics can be achieved.
PAN 65 Planning and Open Space <sup>194</sup>	Provides advice on the role of the planning system in protecting and enhancing existing open spaces and providing high quality new spaces.
Scotland's Landscape Charter <sup>195</sup>	Produced by the Scottish Landscape Forum and SNH, the Charter sets an agenda for landscape planning and management. Reflects the key principles of the European Landscape Convention and emphasises the need to maintain distinctiveness and sense of place within Scotland. Calls on public bodies to recognise the importance of landscape in decision making, encourage involvement of communities in managing landscape change, recognise the need for landscape expertise within planning, raise awareness of the role of local and national designations in safeguarding landscapes.
Scottish Planning Policy: Maximising the Benefits of Green Infrastructure <sup>196</sup>	<p>The SPP states that the planning system should:</p> <ul style="list-style-type: none"> <li>• Consider green infrastructure as an integral element of places from the outset of the planning process;</li> <li>• Assess current and future needs and opportunities for green infrastructure to provide multiple benefits.</li> <li>• Facilitate the provision and long-term management of green infrastructure and prevent fragmentation; and</li> <li>• Provide for easy and safe access to and within green infrastructure, including core paths and other important routes, within the context of statutory access rights under the Land Reform (Scotland) Act 2003.</li> </ul>
SNH Map of Wild Land Areas <sup>197</sup>	SNH identified and mapped 42 wild land areas in Scotland. In accordance with SPP, plans should safeguard the character of these areas.
SNH's Landscape Policy Framework <sup>198</sup>	The overarching aim of the framework is <i>"to safeguard and enhance the distinct identity, the diverse character and the special qualities of</i>

<sup>190</sup> Scottish Government, 2010. *A Policy Statement for Scotland: Designing Places*. Edinburgh: Scottish Government.

<sup>191</sup> Scottish Government, 2010. *A Policy Statement for Scotland: Designing Streets*. Edinburgh: Scottish Government.

<sup>192</sup> Forestry Commission Scotland, 2011. *Forests and Landscape – UK Forestry Standard Guidelines*. Edinburgh: Forestry Commission Scotland.

<sup>193</sup> Scottish Natural Heritage, 2010. *The special qualities of the National Scenic Areas: Commissioned Report No. 374*. [online] Available at: <http://www.snh.gov.uk/protecting-scotlands-nature/protected-areas/national-designations/nsa/special-qualities/> [Accessed 08 April 2014]

<sup>194</sup> Scottish Government, 2008. *Planning Advice Note: PAN 65: Planning and Open Space*. Edinburgh: Scottish Government.

<sup>195</sup> Scottish Natural Heritage, and Scottish Landscape Forum, 2010. *Scotland's Landscape Charter*. [pdf] Available at: <http://www.snh.gov.uk/docs/B721956.pdf> [Accessed 07 April 2014]

<sup>196</sup> Scottish Government, 2014. *Scottish Planning Policy*. Edinburgh: Scottish Government.

<sup>197</sup> Scottish Natural Heritage, 2014. *Wild land areas 2014* [pdf]. Available at: <http://www.snh.gov.uk/docs/A1323225.pdf> [Accessed 15 October 2014]

LANDSCAPE	
	<i>Scotland's landscapes as a whole, so as to ensure tomorrow's landscapes contribute positively to people's environment and are at least as attractive and valued as they are today".</i>
The European Landscape Convention <sup>199</sup>	<p>Highlights the importance of all landscapes and five key principles:</p> <ul style="list-style-type: none"> <li>• Our landscape – where people are involved in their management.</li> <li>• All landscape – recognising the importance of areas which are not formally designated, whether intact or degraded.</li> <li>• Changing landscapes – reflecting the continuous evolution of landscape and the need to manage change.</li> <li>• Understanding landscapes – the need to improve awareness of landscapes and their benefits.</li> <li>• Tomorrow's landscapes – supporting a forward-looking approach that reflects past evolution of landscapes and shapes new ones.</li> </ul>
Woods In and Around Towns 'WIAT' Phase III <sup>200</sup>	The WIAT programme objectives are to regenerate the woodland environment close to centres of population and thereby improving the quality of the landscape.
<b>IMPLICATIONS:</b> <ul style="list-style-type: none"> <li>• The SEA will assess the impacts of woodland expansion on protected landscapes. The Strategy should support the protection of important landscape resources, and support the role of new woodland and woodland management in achieving landscape benefits.</li> </ul>	

<sup>198</sup> Scottish Natural Heritage, 2005. *SNH's Landscape Policy Framework: Policy Statement No. 05/01*. [pdf] Available at: <http://www.snh.gov.uk/docs/A147583.pdf> Accessed 08 April 2014]

<sup>199</sup> Council of Europe, 2000. European Landscape Convention. CETS No.176. Treaty Office.

<sup>200</sup> Forestry Commission Scotland, 2011. *Woods In and Around Towns Phase III Next Steps*. Edinburgh: Forestry Commission Scotland.

# Appendix 3

## Assessment tables

## SEA THEME: Biodiversity

### SEA Objective: Avoid adverse effects on protected habitats and species

- Does the strategy expand habitat networks?

Strategy Objectives		Evaluation	Timeframe	Duration	Commentary	Mitigation / Enhancement
		+ +/+/?/0/- /--	Short / medium / long	Temporary / permanent		
EXPAND AND MANAGE	Encourage the creation of well-designed woodlands of an appropriate nature, scale and composition to deliver the CFWS's priorities	+/-	Short - long	permanent	The Strategy sets out the potential for woodland expansion across the region which supports creation of habitat networks. Enhanced habitat networks will indirectly support some protected habitats and species. The spatial strategy recognises the need to avoid areas with environmental designations, avoiding adverse effects on these resources. Additional woodland adjacent to protected sites can have adverse effects on some habitats and species which require particular water levels or open landscape to avoid predators.	The strategy should seek to ensure that new woodland creation recognises proximity to sensitive protected sites and species, not just the boundary.
	Promote improved management of Clydeplan's woodland resource	+/-	Short - long	permanent	Restructuring of softwood forests will bring local biodiversity benefits as a result of increased habitat diversity but the extent of impacts on nearby protected habitats and species is uncertain.	The strategy should seek to ensure improved woodland management takes into account management requirements of nearby protected habitats and species.
	Promote high standards of woodland design	+/-	Short - long	permanent	Promoting high standards of woodland design helps to ensure creation of habitat networks and producing long term management plans will help to ensure biodiversity considerations are taken into account. The extent to which this avoids harm to protected habitats and species is uncertain.	The strategy should seek to ensure woodland design takes into account the management requirements of nearby protected habitats and species.



## SEA THEME: Biodiversity

### SEA Objective: Avoid adverse effects on protected habitats and species

- Does the strategy expand habitat networks?

Strategy Objectives		Evaluation	Timeframe	Duration	Commentary	Mitigation / Enhancement
		+ +/+/?/0/- /--	Short / medium / long	Temporary / permanent		
	Make a sustainable contribution to national woodland expansion targets	+/-	Short - long	permanent	This element of the Strategy supports woodland expansion for carbon sequestration, within the framework of preferred or potential land classes, which takes into account the constraints of protected habitats and species.	The strategy should seek to ensure that new woodland creation recognises proximity to sensitive protected sites and species, and potential interactions with these beyond the boundary.
ECONOMY	Creating an environment for investment	0	-	-	The Strategy seeks to improve habitat networks by planting, and improving the quality of the environment. This includes sensitive creation of woodland trails in ecologically rich woodlands but does not explicitly refer to protected habitats and species.	The Strategy should seek to ensure new woodland planting and recreational development under this aim is designed to avoid damage to and provide benefits to protected habitats and species.
	Contributing to a healthy wood production and processing sector	+	Short - long	permanent	This aspect of the Strategy will result in an increase in the area of productive forestry and restructuring of existing forests. The identification of preferred areas for new planting seeks to avoid adverse effects on environmental sensitivities.	The strategy should seek to ensure that new woodland creation recognises proximity to sensitive protected sites and species, and potential interactions with these beyond the boundary.
COMMUNITY	Facilitating community involvement in woodland planning, management and ownership	0			This strategy objective supports community involvement which does not directly impact on protected habitats and species.	

## SEA THEME: Biodiversity

### SEA Objective: Avoid adverse effects on protected habitats and species

- Does the strategy expand habitat networks?

Strategy Objectives		Evaluation	Timeframe	Duration	Commentary	Mitigation / Enhancement
		++/+/0/-/--	Short / medium / long	Temporary / permanent		
ENVIRON MENT	Supporting community enterprise and development	?			The strategy objective supports development of woodland based community enterprises. Potential impacts on protected species depend on the type of enterprise and location. Some examples could result in disturbance to protected species.	The Strategy should ensure woodland based community enterprises are assessed within the context of the strategy objectives which seek to protect biodiversity
	Supporting opportunities for education and lifelong learning	0			This strategy objective supports the use of woodland for outdoor education and does not directly impact on protected habitats and species.	
	Contributing to physical and mental health and wellbeing	0			This strategy objective supports the use of woodland for physical health and mental well being through encouraging the use of woodlands for recreation and does not directly impact on protected habitats and species.	
	Enhancing local sense of place and promoting connections to the wider environment	+/-	Short - long	permanent	This objective seeks to improve post industrial landscapes, develop community woodlands close to where people live and increase the use of woods for cultural activities. Post industrial landscapes can provide niche habitats for some species.	The Strategy should ensure development of community woodlands are assessed within the context of the strategy objectives which seek to protect biodiversity.
	Improve the condition and resilience of biodiversity	++	Short - long	permanent	This objective makes explicit reference to the protection and management of designated and non-designated woodland habitats and non-woodland habitats and has a strong positive effect.	

## SEA THEME: Biodiversity

### SEA Objective: Avoid adverse effects on protected habitats and species

- Does the strategy expand habitat networks?

Strategy Objectives		Evaluation	Timeframe	Duration	Commentary	Mitigation / Enhancement
		++/+/0/-/--	Short / medium / long	Temporary / permanent		
	Supporting the Central Scotland Green Network	0	-	-	The focus of this objective is on the aims of the CSGN which do not directly relate to protected habitats and species. This objective is assessed in the context of the above objective which seeks to improve the condition and resilience of biodiversity, and no adverse effects are identified.	
	Improving woodland's contribution to the conservation and management of ecosystem services and functions	0	-	-	This objective seeks to use woodland to improve environmental quality which indirectly avoids adverse effects on protected habitats and species.	
	Contributing to the conservation, enhancement and understanding of Clydeplan's valued natural heritage and historic environment	0	-	-	This objective relates to the management of trees and woodlands, and does not directly impact on the SEA objective.	
CLIMATE CHANGE	Reduce the forestry sector's emissions and contribute to mitigation measures	0	-	-	Reducing emissions from the forestry sector indirectly benefits protected habitats and species.	
	Adapt to the predicted effects of climate change	+	Short- long	permanent	The strategy priorities support increasing the resilience of Clydeplans's woodlands in the face of climate change and expanding habitat networks, but does not refer explicitly to protected species.	The Strategy should make a more explicit reference to IHN and their role in relation to protected sites and species.

## SEA THEME: Biodiversity

### SEA Objective: Enhance biodiversity

- Does the strategy expand habitat networks?

Strategy Objectives		Evaluation	Timeframe	Duration	Commentary	Mitigation / Enhancement
		++/+/?/0/-/--	Short / medium / long	Temporary / permanent		
EXPAND AND MANAGE	Encourage the creation of well-designed woodlands of an appropriate nature, scale and composition to deliver the CFWS's priorities	+	Short-long	permanent	The Strategy will support the creation of new areas of woodland which will have biodiversity benefits and recognises the need to avoid areas with environmental designations.	
	Promote improved management of Clydeplan's woodland resource	+	Short-long	Permanent	Restructuring and restocking older softwood forests and improving woodland management will bring benefits for biodiversity through improving habitat networks.	
	Promote high standards of woodland design	+	Short-long	Permanent	Restructuring and restocking and designing woodland to optimise multiple benefits will make a positive contribution to enhancing biodiversity.	
	Make a sustainable contribution to national woodland expansion targets	+	Short-long	Permanent	Increasing the area of woodland within the context of good design to optimise multiple benefits and directing woodland expansion to the most suitable locations will have a positive effect on biodiversity.	
ECONOMY	Creating an environment for investment	++	Medium - long	Permanent and temporary	The Strategy makes a strong positive contribution to increasing habitat networks particularly in urban areas but also in rural areas.	

## SEA THEME: Biodiversity

### SEA Objective: Enhance biodiversity

- Does the strategy expand habitat networks?

Strategy Objectives		Evaluation	Timeframe	Duration	Commentary	Mitigation / Enhancement
		+ +/+/?/0/- /--	Short / medium / long	Temporary / permanent		
	Contributing to a healthy wood production and processing sector	+	Short - long	permanent	Restructuring existing forests and encouraging hardwood production bring positive biodiversity benefits due to the biodiversity associated with native hardwoods.	
COMMUNITY	Facilitating community involvement in woodland planning, management and ownership	0			This strategy objective supports community involvement which does not directly enhance biodiversity.	
	Supporting community enterprise and development	?			The strategy objective supports development of woodland based community enterprises. Potential impacts on biodiversity depend on the type of enterprise and location. Some examples could result in adverse effects on biodiversity such as increased disturbance.	The Strategy should ensure that woodland based community enterprises are assessed within the context of the strategy objectives which seek to protect biodiversity.
	Supporting opportunities for education and lifelong learning	0			This strategy objective supports the use of woodland for outdoor education and does not directly impact on biodiversity.	
	Contributing to physical and mental health and wellbeing	0			This strategy objective supports the use of woodland for physical health and mental well being through encouraging the use of woodlands for recreation and does not directly impact on biodiversity.	

## SEA THEME: Biodiversity

### SEA Objective: Enhance biodiversity

- Does the strategy expand habitat networks?

Strategy Objectives		Evaluation	Timeframe	Duration	Commentary	Mitigation / Enhancement
		++/+/0/-/--	Short / medium / long	Temporary / permanent		
	Enhancing local sense of place and promoting connections to the wider environment	+/ -	Short - long	permanent	This objective seeks to improve post industrial landscapes, develop community woodlands close to where people live and increase the use of woods for cultural activities. The development of new woodland is likely to bring biodiversity benefits. However post industrial landscapes can provide niche habitats for some species and development of community woodlands should be sensitive to the presence of rare species.	
ENVIRONMENT	Improve the condition and resilience of biodiversity	++	Medium - long	permanent	This objective makes a strong positive contribution to developing woodlands as part of the habitat network.	
	Supporting the Central Scotland Green Network	++	Medium - long	permanent	This objective makes a strong positive contribution to enhancing biodiversity, particularly within urban areas.	
	Improving woodland's contribution to the conservation and management of ecosystem services and functions	++	Medium - long	permanent	This objective supports increased woodland planting along riparian routes and adjacent to transport corridors, with particular benefits for enhancing habitat networks.	
	Contributing to the conservation, enhancement and understanding of Clydeplan's valued natural heritage and historic environment	+	Medium - long	permanent	The management of trees and woodland in relation to the historic environment and landscape will bring biodiversity benefits, particularly in relation to habitat networks.	



## SEA THEME: Biodiversity

### SEA Objective: Enhance biodiversity

- Does the strategy expand habitat networks?

Strategy Objectives		Evaluation	Timeframe	Duration	Commentary	Mitigation / Enhancement
		++/+/?/0/- /--	Short / medium / long	Temporary / permanent		
CLIMATE CHANGE	Reduce the forestry sector's emissions and contribute to mitigation measures	+	Medium - long	permanent	The strategy priorities make a positive contribution to using IHN to inform land management decisions with positive effect on habitat networks.	
	Adapt to the predicted effects of climate change	++	Medium - long	permanent	The strategy priorities support the role of woodland in sustainable flood management and in developing IHN, in urban areas and protecting existing resources which all contribute positively to expanding habitat networks.	

## SEA THEME: Population and human health

### SEA Objective: Avoid adverse effects on health, health inequalities and quality of life/well-being

- Does the Strategy target woodland expansion in areas where benefits can be optimised?

Strategy Objectives		Evaluation	Timeframe	Duration	Commentary	Mitigation / Enhancement
		++/+/0/-/--	Short / medium / long	Temporary / permanent		
EXPAND AND MANAGE	Encourage the creation of well-designed woodlands of an appropriate nature, scale and composition to deliver the CFWS's priorities	+	Medium - long	permanent	The objective seeks to improve the quality and extent of woodland, with emphasis on improving environmental quality, regeneration and adaptation to climate change. These aspects help to make a positive impact on health and well being.	
	Promote improved management of Clydeplan's woodland resource	0			Restructuring softwood forests will bring some minor social benefits and enhancement of landscape quality.	
	Promote high standards of woodland design	+	Short - long	Permanent	This objective supports community involvement in forest plans and planting proposals with a positive effect on health and quality of life.	
	Make a sustainable contribution to national woodland expansion targets	0			Optimising woodland for carbon sequestration does not directly avoid adverse effects on health and wellbeing.	
ECONOMY	Creating an environment for investment	++	Short - long	Permanent and temporary	The Strategy makes a strong positive contribution to improving urban environments, in particular improving the quality of stalled sites and VDL which would otherwise impact negatively on the local communities.	

## SEA THEME: Population and human health

### SEA Objective: Avoid adverse effects on health, health inequalities and quality of life/well-being

- Does the Strategy target woodland expansion in areas where benefits can be optimised?

Strategy Objectives		Evaluation	Timeframe	Duration	Commentary	Mitigation / Enhancement
		++/+/0/-/--	Short / medium / long	Temporary / permanent		
	Contributing to a healthy wood production and processing sector	0			The strategy objective focuses on increasing the area of productive forest and timber processing and local markets, and does not directly impact on health and wellbeing.	
COMMUNITY	Facilitating community involvement in woodland planning, management and ownership	+	Short - long	Temporary	This strategy objective supports community involvement in woodland projects which secures benefits for health and well being.	
	Supporting community enterprise and development	+	Short - long	Temporary	This strategy objective brings social benefits which have a positive effect on health and well being.	
	Supporting opportunities for education and lifelong learning	+	Short - long	Temporary	This strategy objective supports the use of woodland for outdoor education which contributes positively to health and quality of life.	
	Contributing to physical and mental health and wellbeing	++	Short - long	Temporary	This strategy objective supports the use of woodland for physical health and mental well being through encouraging the use of woodlands for recreation and has a strong positive impact on this objective.	

## SEA THEME: Population and human health

### SEA Objective: Avoid adverse effects on health, health inequalities and quality of life/well-being

- Does the Strategy target woodland expansion in areas where benefits can be optimised?

Strategy Objectives		Evaluation	Timeframe	Duration	Commentary	Mitigation / Enhancement
		++/+/0/- /--	Short / medium / long	Temporary / permanent		
	Enhancing local sense of place and promoting connections to the wider environment	++	Short - long	permanent	This objective seeks to improve post industrial landscapes, develop community woodlands close to where people live and increase the use of woods for cultural activities. This brings strong positive benefits for local communities as post industrial landscapes are concentrated in areas with greater inequality.	
ENVIRONMENT	Improve the condition and resilience of biodiversity	0	-	-	This objective will have minor indirect benefits on population and human health as a result of environmental improvement.	
	Supporting the Central Scotland Green Network	++	Short- long	permanent	This objective has a strong positive impact on population and human health by supporting the aims of the CSGN.	
	Improving woodland's contribution to the conservation and management of ecosystem services and functions	+	Short- long	permanent	This objective has indirect benefits for health as a result of supporting improvements to the role of woodland in regulating the environment in terms of air pollution and flooding, and woodland creation on derelict and contaminated sites.	
	Contributing to the conservation, enhancement and understanding of Clydeplan's valued natural heritage and historic environment	+	Short- long	permanent	Improving landscape quality, including using trees and woodland to enhance the character of degraded or damaged landscapes has a minor positive effect on health and well being.	

## SEA THEME: Population and human health

### SEA Objective: Avoid adverse effects on health, health inequalities and quality of life/well-being

- Does the Strategy target woodland expansion in areas where benefits can be optimised?

Strategy Objectives		Evaluation	Timeframe	Duration	Commentary	Mitigation / Enhancement
		++/+/?/0/- /--	Short / medium / long	Temporary / permanent		
CLIMATE CHANGE	Reduce the forestry sector's emissions and contribute to mitigation measures	+	Medium - long	permanent	The strategy priorities reduce emissions and support facilitation of renewable energy development which has a positive effect on this objective.	
	Adapt to the predicted effects of climate change	+	Medium - long	permanent	The strategy supports increased woodland planting to secure benefits for sustainable flood management and habitat networks which will have positive effects on health and wellbeing.	

## SEA THEME: Population and human health

### SEA Objective: Improve the health and living environment of people and communities

- Does the Strategy contribute to community and health benefits by promoting access, recreation and active travel using the green network?

Strategy Objectives		Evaluation	Timeframe	Duration	Commentary	Mitigation / Enhancement
		++/+/?/0/-/--	Short / medium / long	Temporary / permanent		
EXPAND AND MANAGE	Encourage the creation of well-designed woodlands of an appropriate nature, scale and composition to deliver the CFWS's priorities	+	Medium - long	permanent	The objective seeks to improve the quality and extent of woodland, with emphasis on improving environmental quality, regeneration and adaptation to climate change. These aspects help to make a positive impact on the health and living environment of people.	
	Promote improved management of Clydeplan's woodland resource	0			Restructuring softwood forests will bring some social benefits and enhancement of landscape quality.	
	Promote high standards of woodland design	+	Short - long	Permanent	This objective supports community involvement in forest plans and planting proposals with a positive effect on health and quality of life.	
	Make a sustainable contribution to national woodland expansion targets	0			Optimising woodland for carbon sequestration does not directly improve health and wellbeing.	
ECONOMY	Creating an environment for investment	++	Short - long	Permanent	All of the actions seek to improve landscape quality and maximise the environmental benefits from new woodland. The actions also support creation of new access routes within existing woodland which has strong positive health benefits.	



## SEA THEME: Population and human health

### SEA Objective: Improve the health and living environment of people and communities

- Does the Strategy contribute to community and health benefits by promoting access, recreation and active travel using the green network?

Strategy Objectives		Evaluation	Timeframe	Duration	Commentary	Mitigation / Enhancement
		++/+/0/-/--	Short / medium / long	Temporary / permanent		
	Contributing to a healthy wood production and processing sector	0			The strategy objective focuses on increasing the area of productive forest and timber processing and local markets, and does not directly impact on health and wellbeing.	
COMMUNITY	Facilitating community involvement in woodland planning, management and ownership	+	Short - long	Temporary	This strategy objective supports community involvement in woodland projects which secures benefits for health and well being and improves people's living environment.	
	Supporting community enterprise and development	+	Short - long	Temporary	This strategy objective brings social benefits which have a positive effect on health and well being.	
	Supporting opportunities for education and lifelong learning	+	Short - long	Temporary	This strategy objective supports the use of woodland for outdoor education which contributes positively to health and quality of life.	
	Contributing to physical and mental health and wellbeing	++	Short - long	Temporary	This strategy objective supports the use of woodland for physical health and mental well being through encouraging the use of woodlands for recreation and has a strong positive impact on this objective.	

## SEA THEME: Population and human health

### SEA Objective: Improve the health and living environment of people and communities

- Does the Strategy contribute to community and health benefits by promoting access, recreation and active travel using the green network?

Strategy Objectives		Evaluation	Timeframe	Duration	Commentary	Mitigation / Enhancement
		++/+/0/-/--	Short / medium / long	Temporary / permanent		
	Enhancing local sense of place and promoting connections to the wider environment	++	Short - long	permanent	This objective seeks to improve post industrial landscapes, develop community woodlands close to where people live and increase the use of woods for cultural activities. This brings strong positive benefits for local communities.	
ENVIRONMENT	Improve the condition and resilience of biodiversity	0	-	-	This objective will have minor indirect benefits on population and human health as a result of environmental improvement and the positive effect this will have on health and environmental quality.	
	Supporting the Central Scotland Green Network	++	Short- long	permanent	This objective has a strong positive impact on population and human health by supporting the aims of the CSGN which support health and living environment.	
	Improving woodland's contribution to the conservation and management of ecosystem services and functions	+	Short- long	permanent	This objective has indirect benefits on health as a result of supporting improvements to the role of woodland in regulating the environment in terms of air pollution and flooding, and woodland creation on derelict and contaminated sites.	

## SEA THEME: Population and human health

### SEA Objective: Improve the health and living environment of people and communities

- Does the Strategy contribute to community and health benefits by promoting access, recreation and active travel using the green network?

Strategy Objectives		Evaluation	Timeframe	Duration	Commentary	Mitigation / Enhancement
		++/+/0/-/--	Short / medium / long	Temporary / permanent		
CLIMATE CHANGE	Contributing to the conservation, enhancement and understanding of Clydeplan's valued natural heritage and historic environment	+	Short- long	permanent	Improving landscape quality, including using trees and woodland to enhance the character of degraded or damaged landscapes has a minor positive effect on the health and living environment of people and communities.	
	Reduce the forestry sector's emissions and contribute to mitigation measures	0	-	-	The strategy priorities reduce emissions and support facilitation of renewable energy development which has an indirect positive effect on this objective.	
	Adapt to the predicted effects of climate change	+	Medium - long	permanent	The strategy supports increased woodland planting to secure benefits for sustainable flood management and habitat networks, the use of woodland within urban environments and protecting historic and semi-natural woodland which will have positive effects on health and wellbeing.	

## SEA THEME: Soil

### SEA Objective: Avoid adverse impacts on soil

- Does the Strategy safeguard prime agricultural land?
- Does the Strategy steer woodland expansion away from sensitive soil resources (i.e. peat) to minimise the potential for pollution and loss of soil carbon?
- Does the Strategy where appropriate, seek to re-use VDL for a range of woodland / green network purposes

Strategy Objectives		Evaluation	Timeframe	Duration	Commentary	Mitigation / Enhancement
		++/+/0/-/--	Short / medium / long	Temporary / permanent		
EXPAND AND MANAGE	Encourage the creation of well-designed woodlands of an appropriate nature, scale and composition to deliver the CFWS's priorities	+	Short- long	permanent	The objective aims to create new woodland planting to the most appropriate locations which takes into account a range of sensitivities including soil characteristics. The objective also aims to support provide community benefits and improve urban areas supporting use of VDL.	
	Promote improved management of Clydeplan's woodland resource	+	Short- long	permanent	This objective relates to existing areas of woodland and includes restructuring existing softwood forests and adopting lower impact silvicultural systems / continuous cover which has an indirect positive effect on soil management.	
	Promote high standards of woodland design	0			The objective indirectly contributes to avoiding adverse impacts on soil through the delivery of multiple benefits through woodland creation, which could include directing planting to protect soil resources.	
	Make a sustainable contribution to national woodland expansion targets	0			This objective supports woodland expansion in relation to carbon sequestration and although it does not explicitly refer to avoidance of high carbon soils, woodland expansion would be within the framework of preferred and potential areas.	

## SEA THEME: Soil

### SEA Objective: Avoid adverse impacts on soil

- Does the Strategy safeguard prime agricultural land?
- Does the Strategy steer woodland expansion away from sensitive soil resources (i.e. peat) to minimise the potential for pollution and loss of soil carbon?
- Does the Strategy where appropriate, seek to re-use VDL for a range of woodland / green network purposes

Strategy Objectives		Evaluation	Timeframe	Duration	Commentary	Mitigation / Enhancement
		++/+/0/-/--	Short / medium / long	Temporary / permanent		
ECONOMY	Creating an environment for investment	+	Short - long	permanent	The Strategy makes a positive contribution to improving the quality of vacant and derelict land and supports rural woodland to mitigate agricultural pollution	
	Contributing to a healthy wood production and processing sector	+	Short - long	Permanent	The Strategy objective supports the expansion of the area of productive forest, and this is likely to be focused on the fringes of the plateau moorland and plateau farmland. It also supports the restoration of peatlands. This supports the avoidance of adverse impacts on soil.	
COMMUNITY	Facilitating community involvement in woodland planning, management and ownership	0			This strategy objective supports community involvement in woodland projects which would take place within the strategy framework.	
	Supporting community enterprise and development	?			This strategy objective does not directly impact on the soil resource, however the impacts will be dependent on the social enterprise activities.	The Strategy should ensure that community enterprise activities are assessed within the context of the strategy objectives which seek to protect the soil resource.

## SEA THEME: Soil

### SEA Objective: Avoid adverse impacts on soil

- Does the Strategy safeguard prime agricultural land?
- Does the Strategy steer woodland expansion away from sensitive soil resources (i.e. peat) to minimise the potential for pollution and loss of soil carbon?
- Does the Strategy where appropriate, seek to re-use VDL for a range of woodland / green network purposes

Strategy Objectives		Evaluation	Timeframe	Duration	Commentary	Mitigation / Enhancement
		++/+/0/-/--	Short / medium / long	Temporary / permanent		
	Supporting opportunities for education and lifelong learning	0			This strategy objective supports the use of woodland for outdoor education and is unlikely to result in adverse impacts on soil.	
	Contributing to physical and mental health and wellbeing	0			This strategy objective supports the use of woodland for physical health and mental well being through encouraging the use of woodlands for recreation and does not impact on soils.	
	Enhancing local sense of place and promoting connections to the wider environment	++	Short - long	permanent	This objective seeks to improve post industrial landscapes, develop community woodlands close to where people live and increase the use of woods for cultural activities. There is a strong positive focus on enhancing degraded land.	
ENVIRONMENT	Improve the condition and resilience of biodiversity	+	Short to long	permanent	This objective enhances native woodland and encourages woodland creation, whilst supporting the protection of non-woodland habitats including bog habitat. Woodland creation will be within the framework of the strategy which takes soil quality into account.	



## SEA THEME: Soil

### SEA Objective: Avoid adverse impacts on soil

- Does the Strategy safeguard prime agricultural land?
- Does the Strategy steer woodland expansion away from sensitive soil resources (i.e. peat) to minimise the potential for pollution and loss of soil carbon?
- Does the Strategy where appropriate, seek to re-use VDL for a range of woodland / green network purposes

Strategy Objectives		Evaluation	Timeframe	Duration	Commentary	Mitigation / Enhancement
		++/+/0/-/--	Short / medium / long	Temporary / permanent		
	Supporting the Central Scotland Green Network	+	Short - long	permanent	This objective has a positive effect on soils by supporting the aims of the CSGN which includes remediation of derelict land.	
	Improving woodland's contribution to the conservation and management of ecosystem services and functions	+	Short - long	permanent	This objective supports woodland creation and expansion, including a focus on derelict and contaminated sites which has a positive effect on this objective.	
	Contributing to the conservation, enhancement and understanding of Clydeplan's valued natural heritage and historic environment	0			This objective supports the improvement of townscapes and landscapes and the protection of the historic environment.	
CLIMATE CHANGE	Reduce the forestry sector's emissions and contribute to mitigation measures	+	Short long	permanent	The strategy supports protection of peat soils in relation to new woodland planting which has a positive effect on this SEA objective.	
	Adapt to the predicted effects of climate change	0	-	-	Promoting woodland in relation to sustainable flood management and continuous cover forestry indirectly protects soils of all types, with a minor positive contribution to this objective.	

## SEA THEME: Soil

**SEA Objective: Avoid adverse impacts on valuable soil resources e.g. prime agricultural land, carbon rich soils**

- Does the Strategy safeguard prime agricultural land?
- Does the Strategy steer woodland expansion away from sensitive soil resources (i.e. peat) to minimise the potential for pollution and loss of soil carbon?
- Does the Strategy where appropriate, seek to re-use VDL for a range of woodland / green network purposes?

Strategy Objectives		Evaluation	Timeframe	Duration	Commentary	Mitigation / Enhancement
		++/+/0/-/--	Short / medium / long	Temporary / permanent		
EXPAND AND MANAGE	Encourage the creation of well-designed woodlands of an appropriate nature, scale and composition to deliver the CFWS's priorities	+	Short- long	permanent	The objective aims to direct new woodland planting to the most appropriate locations which takes into account a range of sensitivities including soil characteristics and to achieve a range of ecosystem service benefits.	
	Promote improved management of Clydeplan's woodland resource	+	Short - long	permanent	This objective focuses on restructuring softwoods, including promoting lower impact silvicultural systems and continuous cover forestry, which have minor positive effects on soil.	
	Promote high standards of woodland design	0			Promoting high standards of woodland design includes creating woodlands to achieve multiple benefits, community involvement in forest plans and planting proposals and using good design to unlock potential for woodland expansion in more sensitive landscapes which could include taking account of soil resources.	
	Make a sustainable contribution to national woodland expansion targets	+	Short - long	permanent	This objective focuses on woodland expansion and management to optimise carbon sequestration, which will be within the framework of preferred and potential areas which takes soil carbon content into account.	

## SEA THEME: Soil

### SEA Objective: Avoid adverse impacts on valuable soil resources e.g. prime agricultural land, carbon rich soils

- Does the Strategy safeguard prime agricultural land?
- Does the Strategy steer woodland expansion away from sensitive soil resources (i.e. peat) to minimise the potential for pollution and loss of soil carbon?
- Does the Strategy where appropriate, seek to re-use VDL for a range of woodland / green network purposes?

Strategy Objectives		Evaluation	Timeframe	Duration	Commentary	Mitigation / Enhancement
		++/+/0/- /--	Short / medium / long	Temporary / permanent		
ECONOMY	Creating an environment for investment	+/-	Short - long	Permanent and temporary	The actions are primarily focused on woodland within urban areas including the use of VDL, which is positive in relation to this objective. The actions for rural areas are focused on small scale woodland expansion.	The Strategy should ensure that planting to promote rural development and diversification are assessed within the context of the strategy objectives which seek to protect sensitive soil resources.
	Contributing to a healthy wood production and processing sector	+	Short - long	Permanent	The Strategy objective supports the expansion of the area of productive forest, and this is likely to be focused on the fringes of the plateau moorland and plateau farmland. It also supports the restoration of peatlands. This supports the avoidance of adverse impacts on valuable soil resources.	
COMMUNITY	Facilitating community involvement in woodland planning, management and ownership	0			This strategy objective supports community involvement in woodland projects the scale of which are unlikely to impact adversely on soil resources.	
	Supporting community enterprise and development	?			This strategy objective does not directly impact on the soil resource, however the impacts will be dependent on the social enterprise activities.	The strategy should ensure that social enterprise activities are assessed within the context of the strategy objectives which seek to protect sensitive soil resources.

## SEA THEME: Soil

### SEA Objective: Avoid adverse impacts on valuable soil resources e.g. prime agricultural land, carbon rich soils

- Does the Strategy safeguard prime agricultural land?
- Does the Strategy steer woodland expansion away from sensitive soil resources (i.e. peat) to minimise the potential for pollution and loss of soil carbon?
- Does the Strategy where appropriate, seek to re-use VDL for a range of woodland / green network purposes?

Strategy Objectives		Evaluation	Timeframe	Duration	Commentary	Mitigation / Enhancement
		++/+/0/-/--	Short / medium / long	Temporary / permanent		
	Supporting opportunities for education and lifelong learning	0			This strategy objective supports the use of woodland for outdoor education and is unlikely to result in adverse impacts on valuable soil resources.	
	Contributing to physical and mental health and wellbeing	0			This strategy objective supports the use of woodland for physical health and mental well being through encouraging the use of woodlands for recreation and does not impact on soils.	
	Enhancing local sense of place and promoting connections to the wider environment	+	Short - long	permanent	This objective seeks to improve post industrial landscapes, develop community woodlands close to where people live and increase the use of woods for cultural activities. There is a strong positive focus on enhancing degraded land which does not impact on valuable soil resources.	
ENVIRONMENT	Improve the condition and resilience of biodiversity	+	Short to long	permanent	This objective enhances native woodland and encourages woodland creation, whilst supporting the protection of non-woodland habitats including bog habitat. Woodland creation will be within the framework of the strategy which takes soil quality into account.	

## SEA THEME: Soil

### SEA Objective: Avoid adverse impacts on valuable soil resources e.g. prime agricultural land, carbon rich soils

- Does the Strategy safeguard prime agricultural land?
- Does the Strategy steer woodland expansion away from sensitive soil resources (i.e. peat) to minimise the potential for pollution and loss of soil carbon?
- Does the Strategy where appropriate, seek to re-use VDL for a range of woodland / green network purposes?

Strategy Objectives		Evaluation	Timeframe	Duration	Commentary	Mitigation / Enhancement
		++/+/0/-/--	Short / medium / long	Temporary / permanent		
	Supporting the Central Scotland Green Network	0			This objective supports the aims of the CSGN which includes remediation of derelict land, but does not directly relate to valuable soil resources.	
	Improving woodland's contribution to the conservation and management of ecosystem services and functions	+	Short - long	permanent	This objective supports woodland creation and expansion, including a focus on derelict and contaminated sites which has a minor positive effect on this objective.	
	Contributing to the conservation, enhancement and understanding of Clydeplan's valued natural heritage and historic environment	0			This objective supports the improvement of townscapes and landscapes and the protection of the historic environment but does not relate to valuable soil resources.	
CLIMATE CHANGE	Reduce the forestry sector's emissions and contribute to mitigation measures	+	Short long	permanent	The strategy supports protection of peat soils in relation to new woodland planting which has a positive effect on this SEA objective.	
	Adapt to the predicted effects of climate change	0	-	-	Promoting woodland in relation to sustainable flood management and continuous cover forestry indirectly protects soils of all types.	

## SEA THEME: Soil

### SEA Objective: Reduce vacant and derelict land

- Does the Strategy, where appropriate, seek to re-use VDL for a range of woodland / green network purposes?

Strategy Objectives		Evaluation	Timeframe	Duration	Commentary	Mitigation / Enhancement
		++/+/0/-/--	Short / medium / long	Temporary / permanent		
EXPAND AND MANAGE	Encourage the creation of well-designed woodlands of an appropriate nature, scale and composition to deliver the CFWS's priorities	+	Short- long	permanent	The objective aims to direct new woodland planting to the most appropriate locations and also aims to provide community benefits and improve urban areas, indirectly supporting use of VDL.	The strategy does not explicitly identify how VDL is addressed within the categorisation process
	Promote improved management of Clydeplan's woodland resource	0			This objective supports restructuring of existing woodland and does not impact directly on reducing vacant and derelict land.	
	Promote high standards of woodland design	0			This objective supports woodland creation to deliver multiple benefits and community involvement in planting plans and proposals. This does not directly refer to the use of VDL.	
	Make a sustainable contribution to national woodland expansion targets	0			This objective focuses on optimising carbon sequestration and does not directly relate to the use of VDL.	
ECONOMY	Creating an environment for investment	++	short	Permanent and temporary	The strategy supports environmental enhancement of vacant and derelict sites through woodland planting, advance tree planting, using VDL sites for short rotation forestry and woodfuel. This has a strong positive effect on reducing VDL.	
	Contributing to a healthy wood production and processing sector	0			This strategy objective does not impact on the use of VDL.	
COMMUNITY	Facilitating community involvement in woodland planning, management and ownership	0			This strategy objective supports community involvement in woodland projects but does not refer to the use of VDL.	



## SEA THEME: Soil

### SEA Objective: Reduce vacant and derelict land

- Does the Strategy, where appropriate, seek to re-use VDL for a range of woodland / green network purposes?

Strategy Objectives		Evaluation	Timeframe	Duration	Commentary	Mitigation / Enhancement
		++/+/0/-/--	Short / medium / long	Temporary / permanent		
	Supporting community enterprise and development	?			This strategy objective does not directly relate to VDL, however the impacts will be dependent on the community enterprise activities.	
	Supporting opportunities for education and lifelong learning	0			This strategy objective supports the use of woodland for outdoor education and is unlikely impact on the use of VDL.	
	Contributing to physical and mental health and wellbeing	0			This strategy objective supports the use of woodland for physical health and mental well being through encouraging the use of woodlands for recreation and does not impact on soils.	
	Enhancing local sense of place and promoting connections to the wider environment	++	Short - long	permanent	This objective seeks to improve post industrial landscapes, develop community woodlands close to where people live and increase the use of woods for cultural activities. There is a strong positive focus on enhancing degraded land.	
ENVIRONMENT	Improve the condition and resilience of biodiversity	0			This objective enhances native woodland and encourages woodland creation, but does not explicitly involve vacant and derelict land.	
	Supporting the Central Scotland Green Network	++	Short - long	permanent	This objective has a strong positive effect on soils by supporting the aims of the CSGN which includes remediation of derelict land.	

## SEA THEME: Soil

### SEA Objective: Reduce vacant and derelict land

- Does the Strategy, where appropriate, seek to re-use VDL for a range of woodland / green network purposes?

Strategy Objectives		Evaluation	Timeframe	Duration	Commentary	Mitigation / Enhancement
		++/+/0/-/--	Short / medium / long	Temporary / permanent		
	Improving woodland's contribution to the conservation and management of ecosystem services and functions	++	Short - long	permanent	This objective supports woodland creation and expansion, including a focus on derelict and contaminated sites which has a strong positive effect on this objective.	
	Contributing to the conservation, enhancement and understanding of Clydeplan's valued natural heritage and historic environment	0			This objective supports the improvement of townscapes and landscapes and the protection of the historic environment and does not directly relate to vacant and derelict land.	
CLIMATE CHANGE	Reduce the forestry sector's emissions and contribute to mitigation measures	0	-	-	The strategy priorities for reducing emissions and climate change mitigation do not directly impact on vacant and derelict land.	
	Adapt to the predicted effects of climate change	0	-	-	The strategy priorities for climate change adaptation do not directly impact on vacant and derelict land.	

## SEA THEME: Water, coastal, marine

### SEA Objective: Avoid adverse impacts on the ecological status of water bodies

- Does the Strategy contribute to the delivery of River Basin Management Plans, Area Action Plans and flood management?
- Does the Strategy continue to support sustainable water management?

Strategy Objectives		Evaluation	Timeframe	Duration	Commentary	Mitigation / Enhancement
		++/+/0/-/--	Short / medium / long	Temporary / permanent		
EXPAND AND MANAGE	Encourage the creation of well-designed woodlands of an appropriate nature, scale and composition to deliver the CFWS's priorities	0			This objective supports woodland creation to achieve multiple benefits including aiding climate change adaptation and supporting ecosystem service provision. This will have indirect benefits on water quality.	
	Promote improved management of Clydeplan's woodland resource	0			Restructuring softwood forests and promoting lower impact silvicultural systems and continuous cover forestry brings indirect benefits to water quality.	
	Promote high standards of woodland design	+	Short - long	Permanent	Woodland creation to achieve multiple benefits, and using good woodland design in sensitive landscapes will help to avoid adverse impacts on water bodies.	
	Make a sustainable contribution to national woodland expansion targets	0			Optimising woodland for carbon sequestration does not impact directly on this objective.	
ECONOMY	Creating an environment for investment	+	Medium - long	permanent	The strategy makes a positive contribution to using woodland in sustainable urban drainage, and in rural areas as riparian woodland planting with associated benefits for water quality.	

## SEA THEME: Water, coastal, marine

### SEA Objective: Avoid adverse impacts on the ecological status of water bodies

- Does the Strategy contribute to the delivery of River Basin Management Plans, Area Action Plans and flood management?
- Does the Strategy continue to support sustainable water management?

Strategy Objectives		Evaluation	Timeframe	Duration	Commentary	Mitigation / Enhancement
		++/+/0/-/--	Short / medium / long	Temporary / permanent		
	Contributing to a healthy wood production and processing sector	0			The Strategy objective supports the expansion of the area of productive woodland within the framework of the strategy preferred and potential areas.	
COMMUNITY	Facilitating community involvement in woodland planning, management and ownership	0			This strategy objective supports community involvement in woodland projects and does not directly impact on the water environment.	
	Supporting community enterprise and development	?			This strategy objective does not directly impact on the water resource, however the impacts will be dependent on the social enterprise activities.	
	Supporting opportunities for education and lifelong learning	0			This strategy objective supports the use of woodland for outdoor education and is unlikely to result in adverse impacts on the water environment.	

## SEA THEME: Water, coastal, marine

### SEA Objective: Avoid adverse impacts on the ecological status of water bodies

- Does the Strategy contribute to the delivery of River Basin Management Plans, Area Action Plans and flood management?
- Does the Strategy continue to support sustainable water management?

Strategy Objectives		Evaluation	Timeframe	Duration	Commentary	Mitigation / Enhancement
		++/+/0/-/--	Short / medium / long	Temporary / permanent		
	Contributing to physical and mental health and wellbeing	0			This strategy objective supports the use of woodland for physical health and mental well being through encouraging the use of woodlands for recreation and does not impact on the water environment.	
	Enhancing local sense of place and promoting connections to the wider environment	0			This objective seeks to improve post industrial landscapes, develop community woodlands close to where people live and increase the use of woods for cultural activities. This is likely to have indirect benefits for the water environment.	
ENVIRONMENT	Improve the condition and resilience of biodiversity	0	-	-	This objective includes a focus on enhancing woodland habitats, conserving non- woodland habitats and species and tackling invasive species which may only indirectly contribute to this SEA objective.	
	Supporting the Central Scotland Green Network	0	-	-	This objective again only indirectly contributes to the SEA objective, but does not explicitly refer to the wider benefits of the CSGN for the water environment.	
	Improving woodland's contribution to the conservation and management of ecosystem services and functions	+	Short - long	permanent	This objective makes a positive contribution to the SEA objective as a result of supporting the benefits of riparian woodland.	

## SEA THEME: Water, coastal, marine

### SEA Objective: Avoid adverse impacts on the ecological status of water bodies

- Does the Strategy contribute to the delivery of River Basin Management Plans, Area Action Plans and flood management?
- Does the Strategy continue to support sustainable water management?

Strategy Objectives		Evaluation	Timeframe	Duration	Commentary	Mitigation / Enhancement
		++/+/0/-/--	Short / medium / long	Temporary / permanent		
	Contributing to the conservation, enhancement and understanding of Clydeplan's valued natural heritage and historic environment	0	-	-	This objective supports the improvement of townscape and landscapes and the protection of the historic environment and does not directly relate to the water environment.	
CLIMATE CHANGE	Reduce the forestry sector's emissions and contribute to mitigation measures	0	-	-	Increasing woodland cover for the purposes of carbon sequestration indirectly contributes to protecting water quality through increasing interception of pollutants.	
	Adapt to the predicted effects of climate change	0	-	-	New tree cover to contribute to sustainable flood management indirectly contributes to protecting water quality through increasing interception of pollutants and stabilising slopes.	



## SEA THEME: Water, coastal, marine

### SEA Objective: Avoid adverse impacts on sensitive coastal areas and marine environment

- Does the Strategy contribute to the delivery of River Basin Management Plans, Area Action Plans and flood management?
- Does the Strategy continue to support sustainable water management?

Strategy Objectives		Evaluation	Timeframe	Duration	Commentary	Mitigation / Enhancement
		++/+/0/-/--	Short / medium / long	Temporary / permanent		
EXPAND AND MANAGE	Encourage the creation of well-designed woodlands of an appropriate nature, scale and composition to deliver the CFWS's priorities	0			This objective supports woodland creation to achieve multiple benefits including aiding climate change adaptation and supporting ecosystem service provision. This will have indirect benefits on water quality.	
	Promote improved management of Clydeplan's woodland resource	0			Restructuring softwood forests and promoting lower impact silvicultural systems and continuous cover forestry brings indirect benefits to water quality.	
	Promote high standards of woodland design	+	Short - long	Permanent	Woodland creation to achieve multiple benefits, and using good woodland design in sensitive landscapes will help to avoid adverse impacts on the water environment.	
	Make a sustainable contribution to national woodland expansion targets	0			Optimising woodland for carbon sequestration does not impact directly on this objective.	
ECONOMY	Creating an environment for investment	+	Short - long	permanent	The strategy objective supports the use of woodland to support flood management in urban and rural areas with a positive effect on this objective.	

## SEA THEME: Water, coastal, marine

### SEA Objective: Avoid adverse impacts on sensitive coastal areas and marine environment

- Does the Strategy contribute to the delivery of River Basin Management Plans, Area Action Plans and flood management?
- Does the Strategy continue to support sustainable water management?

Strategy Objectives		Evaluation	Timeframe	Duration	Commentary	Mitigation / Enhancement
		++/+/0/-/--	Short / medium / long	Temporary / permanent		
	Contributing to a healthy wood production and processing sector	0			The strategy objective focuses on expanding the area of productive woodland which will indirectly support flood management but is not a direct outcome of the objective.	
COMMUNITY	Facilitating community involvement in woodland planning, management and ownership	0			This strategy objective supports community involvement in woodland projects and does not impact on the coast and marine environment.	
	Supporting community enterprise and development	?			This strategy objective does not directly impact on the water resource, however the impacts will be dependent on the social enterprise activities.	
	Supporting opportunities for education and lifelong learning	0			This strategy objective supports the use of woodland for outdoor education and is unlikely to result in adverse impacts on the water environment.	

## SEA THEME: Water, coastal, marine

### SEA Objective: Avoid adverse impacts on sensitive coastal areas and marine environment

- Does the Strategy contribute to the delivery of River Basin Management Plans, Area Action Plans and flood management?
- Does the Strategy continue to support sustainable water management?

Strategy Objectives		Evaluation	Timeframe	Duration	Commentary	Mitigation / Enhancement
		++/+/0/-/--	Short / medium / long	Temporary / permanent		
	Contributing to physical and mental health and wellbeing	0			This strategy objective supports the use of woodland for physical health and mental well being through encouraging the use of woodlands for recreation and does not impact on the water environment.	
	Enhancing local sense of place and promoting connections to the wider environment	0			This objective seeks to improve post industrial landscapes, develop community woodlands close to where people live and increase the use of woods for cultural activities. This is likely to have indirect benefits for the water environment.	
ENVIRONMENT	Improve the condition and resilience of biodiversity	0			This objective includes a focus on enhancing woodland habitats, conserving non- woodland habitats and species and tackling invasive species which may only indirectly contribute to this SEA objective.	
	Supporting the Central Scotland Green Network	0			This objective again only indirectly contributes to the SEA objective, but does not explicitly refer to the wider benefits of the CSGN for the water environment.	
	Improving woodland's contribution to the conservation and management of ecosystem services and functions	+	Short - long	permanent	This objective makes a positive contribution to the SEA objective as a result of supporting the benefits of riparian woodland.	

## SEA THEME: Water, coastal, marine

### SEA Objective: Avoid adverse impacts on sensitive coastal areas and marine environment

- Does the Strategy contribute to the delivery of River Basin Management Plans, Area Action Plans and flood management?
- Does the Strategy continue to support sustainable water management?

Strategy Objectives		Evaluation	Timeframe	Duration	Commentary	Mitigation / Enhancement
		++/+/0/-/--	Short / medium / long	Temporary / permanent		
	Contributing to the conservation, enhancement and understanding of Clydeplan's valued natural heritage and historic environment	0	-	-	This objective supports the improvement of townscapes and landscapes and the protection of the historic environment and does not directly relate to the water environment.	
CLIMATE CHANGE	Reduce the forestry sector's emissions and contribute to mitigation measures	0	-	-	Increasing woodland cover for the purposes of carbon sequestration indirectly contributes to protecting water quality through increasing interception of pollutants.	
	Adapt to the predicted effects of climate change	0	-	-	New tree cover to contribute to sustainable flood management indirectly contributes to protecting water quality through increasing interception of pollutants and stabilising slopes.	

## SEA THEME: Water, coastal, marine

### SEA Objective: Improve the water environment

- Does the Strategy contribute to the delivery of River Basin Management Plans, Area Action Plans and flood management?
- Does the Strategy continue to support sustainable water management?

Strategy Objectives		Evaluation	Timeframe	Duration	Commentary	Mitigation / Enhancement
		++/+/0/-/--	Short / medium / long	Temporary / permanent		
EXPAND AND MANAGE	Encourage the creation of well-designed woodlands of an appropriate nature, scale and composition to deliver the CFWS's priorities	0			This objective supports woodland creation to achieve multiple benefits including aiding climate change adaptation and supporting ecosystem service provision. This will have indirect benefits for the water environment.	
	Promote improved management of Clydeplan's woodland resource	0			Restructuring softwood forests and promoting lower impact silvicultural systems and continuous cover forestry brings indirect benefits to water quality.	
	Promote high standards of woodland design	+	Short - long	Permanent	Woodland creation to achieve multiple benefits, and using good woodland design in sensitive landscapes will help to support the quality of the water environment.	
	Make a sustainable contribution to national woodland expansion targets	0			Optimising woodland for carbon sequestration does not impact directly on this objective.	
ECONOMY	Creating an environment for investment	+	Short - long	permanent	The strategy objective supports the use of woodland as part of sustainable water management in urban and rural environments with a positive impact on this objective.	

## SEA THEME: Water, coastal, marine

### SEA Objective: Improve the water environment

- Does the Strategy contribute to the delivery of River Basin Management Plans, Area Action Plans and flood management?
- Does the Strategy continue to support sustainable water management?

Strategy Objectives		Evaluation	Timeframe	Duration	Commentary	Mitigation / Enhancement
		++/+/0/-/--	Short / medium / long	Temporary / permanent		
	Contributing to a healthy wood production and processing sector	0			The strategy objective supports the expansion of productive woodland which will indirectly support improvements to the water environment, but is not a direct outcome.	
COMMUNITY	Facilitating community involvement in woodland planning, management and ownership	0			This strategy objective supports community involvement in woodland projects and does not impact significantly on the water environment.	
	Supporting community enterprise and development	?			This strategy objective does not directly impact on the water resource, however the impacts will be dependent on the social enterprise activities.	
	Supporting opportunities for education and lifelong learning	0			This strategy objective supports the use of woodland for outdoor education and is unlikely to result in adverse impacts on the water environment.	



## SEA THEME: Water, coastal, marine

### SEA Objective: Improve the water environment

- Does the Strategy contribute to the delivery of River Basin Management Plans, Area Action Plans and flood management?
- Does the Strategy continue to support sustainable water management?

Strategy Objectives		Evaluation	Timeframe	Duration	Commentary	Mitigation / Enhancement
		++/+/0/-/--	Short / medium / long	Temporary / permanent		
	Contributing to physical and mental health and wellbeing	0			This strategy objective supports the use of woodland for physical health and mental well being through encouraging the use of woodlands for recreation and does not impact on the water environment.	
	Enhancing local sense of place and promoting connections to the wider environment	0			This objective seeks to improve post industrial landscapes, develop community woodlands close to where people live and increase the use of woods for cultural activities. This is likely to have indirect benefits for water quality and sustainable water management.	
ENVIRONMENT	Improve the condition and resilience of biodiversity	0			This objective includes a focus on enhancing woodland habitats, conserving non- woodland habitats and species and tackling invasive species which may only indirectly contribute to this SEA objective.	
	Supporting the Central Scotland Green Network	0			This objective again only indirectly contributes to the SEA objective, but does not explicitly refer to the wider benefits of the CSGN for the water environment.	
	Improving woodland's contribution to the conservation and management of ecosystem services and functions	+	Short - long	permanent	This objective makes a positive contribution to the SEA objective as a result of supporting the benefits of riparian woodland.	

## SEA THEME: Water, coastal, marine

### SEA Objective: Improve the water environment

- Does the Strategy contribute to the delivery of River Basin Management Plans, Area Action Plans and flood management?
- Does the Strategy continue to support sustainable water management?

Strategy Objectives		Evaluation	Timeframe	Duration	Commentary	Mitigation / Enhancement
		++/+/0/-/--	Short / medium / long	Temporary / permanent		
	Contributing to the conservation, enhancement and understanding of Clydeplan's valued natural heritage and historic environment	0			This objective supports the improvement of townscapes and landscapes and the protection of the historic environment and does not directly relate to the water environment.	
CLIMATE CHANGE	Reduce the forestry sector's emissions and contribute to mitigation measures	+	Medium - long	permanent	Increasing woodland cover for the purposes of carbon sequestration indirectly contributes to protecting water quality through increasing interception of pollutants, and towards sustainable water management.	
	Adapt to the predicted effects of climate change	++	Medium - long	permanent	New tree cover to contribute to sustainable flood management contributes to protecting water the water environment, particularly in relation to sustainable flood management.	

## SEA THEME: Climatic factors

### SEA Objective: Avoid increasing greenhouse gas emissions

- Does the Strategy seek to minimise GHG emissions from the sector
- Does the Strategy seek to prevent new planting on peat soils to maintain carbon stores
- Does the Strategy support appropriate renewable energy development
- Does the Strategy safeguard the standing timber carbon resource?

Strategy Objectives		Evaluation	Timeframe	Duration	Commentary	Mitigation / Enhancement
		++/+/0/-/--	Short / medium / long	Temporary / permanent		
EXPAND AND MANAGE	Encourage the creation of well-designed woodlands of an appropriate nature, scale and composition to deliver the CFWS's priorities	+	Medium - long	permanent	This objective supports woodland creation to reduce greenhouse gas emissions which has a positive impact on this SEA objective.	
	Promote improved management of Clydeplan's woodland resource	0			This objective does not directly result in changes to levels of greenhouse gas emissions.	
	Promote high standards of woodland design	0			This objective does not directly result in changes to levels of greenhouse gas emissions.	
	Make a sustainable contribution to national woodland expansion targets	++	Medium - long	Permanent	This objective supports optimising woodland for carbon sequestration which has a strong positive effect on this objective.	
ECONOMY	Creating an environment for investment	0			This strategy objective does not directly avoid increases to greenhouse gas emissions	

## SEA THEME: Climatic factors

### SEA Objective: Avoid increasing greenhouse gas emissions

- Does the Strategy seek to minimise GHG emissions from the sector
- Does the Strategy seek to prevent new planting on peat soils to maintain carbon stores
- Does the Strategy support appropriate renewable energy development
- Does the Strategy safeguard the standing timber carbon resource?

Strategy Objectives		Evaluation	Timeframe	Duration	Commentary	Mitigation / Enhancement
		++/+/0/-/--	Short / medium / long	Temporary / permanent		
COMMUNITY	Contributing to a healthy wood production and processing sector	+	Short - medium	permanent	The strategy objective makes a positive contribution to increasing the area of productive woodland including production of woodland for biomass and encouraging the use of timber in construction. The strategy also supports expanding local timber processing facilities and creating and protecting local markets. This has a positive effect on avoiding increases in greenhouse gas emissions.	
	Facilitating community involvement in woodland planning, management and ownership	0			This strategy objective supports community involvement in woodland projects and does not impact significantly on greenhouse gas emissions.	
	Supporting community enterprise and development	?			This strategy objective could result in activities which avoid increasing greenhouse gas emissions through production of firewood or charcoal, however the impacts will be dependent on the social enterprise activities.	
	Supporting opportunities for education and lifelong learning	0			This strategy objective supports the use of woodland for outdoor education and is unlikely to affect greenhouse gas emissions.	

## SEA THEME: Climatic factors

### SEA Objective: Avoid increasing greenhouse gas emissions

- Does the Strategy seek to minimise GHG emissions from the sector
- Does the Strategy seek to prevent new planting on peat soils to maintain carbon stores
- Does the Strategy support appropriate renewable energy development
- Does the Strategy safeguard the standing timber carbon resource?

Strategy Objectives		Evaluation	Timeframe	Duration	Commentary	Mitigation / Enhancement
		++/+/0/-/--	Short / medium / long	Temporary / permanent		
	Contributing to physical and mental health and wellbeing	0			This strategy objective supports the use of woodland for physical health and mental well being through encouraging the use of woodlands for recreation and does not impact on greenhouse gas emissions.	
	Enhancing local sense of place and promoting connections to the wider environment	0			This objective seeks to improve post industrial landscapes, develop community woodlands close to where people live and increase the use of woods for cultural activities. This does not impact directly on greenhouse gas emissions.	
ENVIRONMENT	Improve the condition and resilience of biodiversity	+	Short - long	permanent	This objective enhances native woodland and encourages woodland creation, whilst supporting the protection of non-woodland habitats including bog habitat. This has a minor positive effect in relation to avoiding increases in greenhouse gas emissions from high carbon soils.	
	Supporting the Central Scotland Green Network	0			This objective supports the aims of the CSGN, which includes promoting active travel but does not directly contribute to reducing greenhouse gas emissions.	

## SEA THEME: Climatic factors

### SEA Objective: Avoid increasing greenhouse gas emissions

- Does the Strategy seek to minimise GHG emissions from the sector
- Does the Strategy seek to prevent new planting on peat soils to maintain carbon stores
- Does the Strategy support appropriate renewable energy development
- Does the Strategy safeguard the standing timber carbon resource?

Strategy Objectives		Evaluation	Timeframe	Duration	Commentary	Mitigation / Enhancement
		++/+/0/-/--	Short / medium / long	Temporary / permanent		
	Improving woodland's contribution to the conservation and management of ecosystem services and functions	0			This objective identifies the value of woodland soils as carbon stores but does not directly avoid increases to greenhouse gas emissions.	
	Contributing to the conservation, enhancement and understanding of Clydeplan's valued natural heritage and historic environment	0			This objective does not impact on greenhouse gas emissions.	
CLIMATE CHANGE	Reduce the forestry sector's emissions and contribute to mitigation measures	++	Short - long	permanent	The strategy makes a positive contribution to reducing emissions within the forestry sector and supporting emission reduction through the provision of biomass and wood fibre as fuel, timber as a construction material, and supporting renewable energy development.	
	Adapt to the predicted effects of climate change	0			The adaptation actions protect standing timber and support expansion of woodland but do not explicitly refer to protection of vulnerable peat soils, however the planting strategy takes vulnerable soils into account through the potential and preferred areas.	



## SEA THEME: Climatic factors

### SEA Objective: Support adaptation to climate change

- Does the Strategy contribute to sustainable water management and erosion prevention?
- Does the Strategy contribute to resilience planning objectives?

Strategy Objectives		Evaluation	Timeframe	Duration	Commentary	Mitigation / Enhancement
		++/+/0/-/--	Short / medium / long	Temporary / permanent		
EXPAND AND MANAGE	Encourage the creation of well-designed woodlands of an appropriate nature, scale and composition to deliver the CFWS's priorities	+	Medium - long	Permanent	The Strategy objective is for woodland creation to aid climate change adaptation and therefore has a minor positive effect on this SEA objective.	
	Promote improved management of Clydeplan's woodland resource	+	Short - long	Permanent	The strategy objective supports the use of lower impact silvicultural systems and continuous cover forestry which has a minor positive effect on supporting climate change adaptation.	
	Promote high standards of woodland design	+	Short - long	Permanent	The strategy objective supports woodland creation to deliver multiple benefits, which includes climate change adaptation with minor positive effect on this SEA objective.	
	Make a sustainable contribution to national woodland expansion targets	0			Managing woodland for carbon sequestration does not impact on climate change adaptation.	
ECONOMY	Creating an environment for investment	+	Medium - long	permanent	The strategy objectives support urban tree planting along transport corridors and in rural areas for stock shelter etc which supports climate change adaptation.	

## SEA THEME: Climatic factors

### SEA Objective: Support adaptation to climate change

- Does the Strategy contribute to sustainable water management and erosion prevention?
- Does the Strategy contribute to resilience planning objectives?

Strategy Objectives		Evaluation	Timeframe	Duration	Commentary	Mitigation / Enhancement
		++/+/0/-/--	Short / medium / long	Temporary / permanent		
	Contributing to a healthy wood production and processing sector	+	long	permanent	The strategy objective supports the expansion of the area of productive forestry and refers to forest restructuring to ensure climate change resilience.	The strategy should include explicit reference to how climate change is likely to affect productive forestry and how productive woodland can be planned and managed to secure climate change resilience.
COMMUNITY	Facilitating community involvement in woodland planning, management and ownership	0			This strategy objective supports community involvement in woodland projects and does not directly contribute to climate change adaptation.	
	Supporting community enterprise and development	?			This strategy objective does not directly support climate change adaptation, however the impacts will be dependent on the social enterprise activities.	
	Supporting opportunities for education and lifelong learning	0			This strategy objective supports the use of woodland for outdoor education and does not directly support climate change adaptation activities.	

## SEA THEME: Climatic factors

### SEA Objective: Support adaptation to climate change

- Does the Strategy contribute to sustainable water management and erosion prevention?
- Does the Strategy contribute to resilience planning objectives?

Strategy Objectives		Evaluation	Timeframe	Duration	Commentary	Mitigation / Enhancement
		++/+/0/-/--	Short / medium / long	Temporary / permanent		
	Contributing to physical and mental health and wellbeing	0			This strategy objective supports the use of woodland for physical health and mental well being through encouraging the use of woodlands for recreation and does not relate to climate change adaptation.	
	Enhancing local sense of place and promoting connections to the wider environment	0			This objective seeks to improve post industrial landscapes, develop community woodlands close to where people live and increase the use of woods for cultural activities. This does not directly support climate change adaptation.	
ENVIRONMENT	Improve the condition and resilience of biodiversity	+	Medium - long	permanent	This objective enhances woodland habitats and builds and strengthens strategic habitat networks and tackles invasive non-native species which is a positive impact on adaptation to climate change.	
	Supporting the Central Scotland Green Network	0			Climate change adaptation is an element of the CSGN work, however this is not explicit within the Strategy in relation to this objective.	The Strategy should make explicit the links to climate change adaptation and the CSGN.

## SEA THEME: Climatic factors

### SEA Objective: Support adaptation to climate change

- Does the Strategy contribute to sustainable water management and erosion prevention?
- Does the Strategy contribute to resilience planning objectives?

Strategy Objectives		Evaluation	Timeframe	Duration	Commentary	Mitigation / Enhancement
		++/+/0/-/--	Short / medium / long	Temporary / permanent		
	Improving woodland's contribution to the conservation and management of ecosystem services and functions	+	Medium - long	permanent	This objective makes a minor positive contribution to climate change adaption through its support of riparian woodland planting to reduce the risk of flooding.	
	Contributing to the conservation, enhancement and understanding of Clydeplan's valued natural heritage and historic environment	0			This objective supports the improvement of townscape and landscapes and the protection of the historic environment and does not directly relate to climate change adaption, although using woodland planting within urban areas indirectly supports climate change adaptation.	
CLIMATE CHANGE	Reduce the forestry sector's emissions and contribute to mitigation measures	0			Mitigation actions include increasing tree cover for carbon sequestration which indirectly supports climate change adaptation.	
	Adapt to the predicted effects of climate change	++	Medium - long	permanent	The adaptation measures make a strong positive contribution to sustainable water and flood management and increased resilience through expanded habitat networks, urban woodland and forestry management practices.	

## SEA THEME: Air

**SEA Objective:** Avoid adverse effects on air quality where air quality is a known issue through AQMA

- Does the Strategy contribute to reducing emissions of air pollutants within AQMA?

Strategy Objectives		Evaluation	Timeframe	Duration	Commentary	Mitigation / Enhancement
		++/+/?/0/-/--	Short / medium / long	Temporary / permanent		
EXPAND AND MANAGE	Encourage the creation of well-designed woodlands of an appropriate nature, scale and composition to deliver the CFWS's priorities	+	Medium - long	permanent	This objective supports woodland creation which increases filtration of particles, including in urban areas where AQMA are located which has a minor positive impact on this SEA objective.	
	Promote improved management of Clydeplan's woodland resource	0			This objective does not directly result in impacts on air quality.	
	Promote high standards of woodland design	0			This objective does not directly result in impacts on air quality.	
	Make a sustainable contribution to national woodland expansion targets	+	Medium - long	Permanent	This objective supports woodland creation which increases filtration of particles which has a minor positive impact on this SEA objective.	
ECONOMY	Creating an environment for investment	+	Medium - long	Permanent	This objective supports woodland creation in urban areas where the AQMA are located, which increases filtration of particles which has a minor positive impact on this SEA objective.	

## SEA THEME: Air

**SEA Objective:** Avoid adverse effects on air quality where air quality is a known issue through AQMA

- Does the Strategy contribute to reducing emissions of air pollutants within AQMA?

Strategy Objectives		Evaluation	Timeframe	Duration	Commentary	Mitigation / Enhancement
		++/+/0/-/--	Short / medium / long	Temporary / permanent		
	Contributing to a healthy wood production and processing sector	+	Short - medium	permanent	The strategy objective makes a positive contribution to increasing the area of productive woodland including production of woodland for biomass and encouraging the use of timber in construction. The strategy also supports expanding local timber processing facilities and creating and protecting local markets. This has a minor positive effect on air quality, and AQMA, through support for short supply chains and local processing.	
COMMUNITY	Facilitating community involvement in woodland planning, management and ownership	0			This strategy objective supports community involvement in woodland projects and does not impact significantly on air quality.	
	Supporting community enterprise and development	0			This strategy objective is unlikely to impact on air quality.	
	Supporting opportunities for education and lifelong learning	0			This strategy objective supports the use of woodland for outdoor education but does not impact on air quality.	
	Contributing to physical and mental health and wellbeing	0			This strategy objective supports the use of woodland for physical health and mental well being through encouraging the use of woodlands for recreation and does not impact on air quality.	



## SEA THEME: Air

**SEA Objective:** Avoid adverse effects on air quality where air quality is a known issue through AQMA

- Does the Strategy contribute to reducing emissions of air pollutants within AQMA?

Strategy Objectives		Evaluation	Timeframe	Duration	Commentary	Mitigation / Enhancement
		++/+/0/-/--	Short / medium / long	Temporary / permanent		
	Enhancing local sense of place and promoting connections to the wider environment	+	Short - long	permanent	This objective seeks to improve post-industrial landscapes, develop community woodlands close to where people live and increase the use of woods for cultural activities. Increasing woodland close to where people live, where the AQMA are located has a minor positive effect on this objective	
ENVIRONMENT	Improve the condition and resilience of biodiversity	+	Short - long	permanent	This objective enhances native woodland and encourages woodland creation, whilst supporting the protection of non-woodland habitats. This has a minor positive effect in relation to increasing woodland and improving air quality in AQMA.	
	Supporting the Central Scotland Green Network	+	Short - long	permanent	This objective supports the aims of the CSGN, which includes promoting active travel which has a minor positive impact on air quality within urban areas, improving air quality in AQMA.	
	Improving woodland's contribution to the conservation and management of ecosystem services and functions	+	Short - long	permanent	This objective supports woodland planting, particularly in urban areas, to enhance air quality which has a minor positive impact on air quality in AQMA.	

## SEA THEME: Air

**SEA Objective:** Avoid adverse effects on air quality where air quality is a known issue through AQMA

- Does the Strategy contribute to reducing emissions of air pollutants within AQMA?

Strategy Objectives		Evaluation	Timeframe	Duration	Commentary	Mitigation / Enhancement
		++/+/0/- /--	Short / medium / long	Temporary / permanent		
	Contributing to the conservation, enhancement and understanding of Clydeplan's valued natural heritage and historic environment	+	Short - long	permanent	This objective supports woodland planting in urban locations with a positive impact on air quality, where the AQMA are found.	
CLIMATE CHANGE	Reduce the forestry sector's emissions and contribute to mitigation measures	+	Short - long	permanent	The strategy makes a positive contribution to reducing emissions within the forestry sector and supporting emission reduction overall through the provision of biomass and wood fibre as fuel, timber as a construction material, and supporting renewable energy development. This has a minor positive effect on air quality overall.	
	Adapt to the predicted effects of climate change	+	Short - long	permanent	The adaptation actions protect and support the creation of new tree cover, particularly in urban areas where the AQMA are found which has a minor positive effect on air quality.	

## SEA THEME: Air

### SEA Objective: Improve air quality

- Does the Strategy Contribute to measures which improve air quality?

Strategy Objectives		Evaluation	Timeframe	Duration	Commentary	Mitigation / Enhancement
		++/+/?/0/- /--	Short / medium / long	Temporary / permanent		
EXPAND AND MANAGE	Encourage the creation of well-designed woodlands of an appropriate nature, scale and composition to deliver the CFWS's priorities	+	Medium - long	permanent	This objective supports woodland creation which increases filtration of particles which has a minor positive impact on this SEA objective.	
	Promote improved management of Clydeplan's woodland resource	0			This objective does not directly result in impacts on air quality.	
	Promote high standards of woodland design	0			This objective does not directly result in impacts on air quality.	
	Make a sustainable contribution to national woodland expansion targets	+	Medium - long	Permanent	This objective supports woodland creation which increases filtration of particles which has a minor positive impact on this SEA objective.	
ECONOMY	Creating an environment for investment	+			This objective supports woodland creation in urban areas which increases filtration of particles which has a minor positive impact on this SEA objective.	

## SEA THEME: Air

### SEA Objective: Improve air quality

- Does the Strategy Contribute to measures which improve air quality?

Strategy Objectives		Evaluation	Timeframe	Duration	Commentary	Mitigation / Enhancement
		+ +/+/?/0/- /--	Short / medium / long	Temporary / permanent		
COMMUNITY	Contributing to a healthy wood production and processing sector	+	Short - medium	permanent	The strategy objective makes a positive contribution to increasing the area of productive woodland including production of woodland for biomass and encouraging the use of timber in construction. The strategy also supports expanding local timber processing facilities and creating and protecting local markets. This has a minor positive effect on air quality through support for short supply chains and local processing.	
	Facilitating community involvement in woodland planning, management and ownership	0			This strategy objective supports community involvement in woodland projects and does not impact significantly on air quality.	
	Supporting community enterprise and development	0			This strategy objective is unlikely to impact on air quality.	

## SEA THEME: Air

### SEA Objective: Improve air quality

- Does the Strategy Contribute to measures which improve air quality?

Strategy Objectives		Evaluation	Timeframe	Duration	Commentary	Mitigation / Enhancement
		++/+/0/-/--	Short / medium / long	Temporary / permanent		
	Supporting opportunities for education and lifelong learning	0			This strategy objective supports the use of woodland for outdoor education but does not impact on air quality.	
	Contributing to physical and mental health and wellbeing	0			This strategy objective supports the use of woodland for physical health and mental well being through encouraging the use of woodlands for recreation and does not impact on air quality.	
	Enhancing local sense of place and promoting connections to the wider environment	+	Short - long	permanent	This objective seeks to improve post industrial landscapes, develop community woodlands close to where people live and increase the use of woods for cultural activities. Increasing woodland close to where people live has a minor positive effect on this objective	

## SEA THEME: Air

### SEA Objective: Improve air quality

- Does the Strategy Contribute to measures which improve air quality?

Strategy Objectives		Evaluation	Timeframe	Duration	Commentary	Mitigation / Enhancement
		++/+/?/0/-/--	Short / medium / long	Temporary / permanent		
ENVIRONMENT	Improve the condition and resilience of biodiversity	+	Short - long	permanent	This objective enhances native woodland and encourages woodland creation, whilst supporting the protection of non-woodland habitats. This has a minor positive effect in relation to increasing woodland and improving air quality	
	Supporting the Central Scotland Green Network	+	Short - long	permanent	This objective supports the aims of the CSGN, which includes promoting active travel which has a minor positive impact on air quality.	
	Improving woodland's contribution to the conservation and management of ecosystem services and functions	+	Short - long	permanent	This objective supports woodland planting to enhance air quality which has a minor positive impact on air quality.	
	Contributing to the conservation, enhancement and understanding of Clydeplan's valued natural heritage and historic environment	+	Short - long	permanent	This objective supports woodland planting in urban locations with a positive impact on air quality.	



## SEA THEME: Air

### SEA Objective: Improve air quality

- Does the Strategy Contribute to measures which improve air quality?

Strategy Objectives		Evaluation	Timeframe	Duration	Commentary	Mitigation / Enhancement
		++/+/0/- /--	Short / medium / long	Temporary / permanent		
CLIMATE CHANGE	Reduce the forestry sector's emissions and contribute to mitigation measures	+	Short - long	permanent	The strategy makes a positive contribution to reducing emissions within the forestry sector and supporting emission reduction through the provision of biomass and wood fibre as fuel, timber as a construction material, and supporting renewable energy development. This has a positive effect on air quality.	
	Adapt to the predicted effects of climate change	+	Short - long	permanent	The adaptation actions protect support the creation of new tree cover which has a minor positive effect on air quality.	

## SEA THEME: Material assets

### SEA Objective: Avoid adversely impacting on material assets (infrastructure etc.)

- Does the Strategy protect key mineral resources from sterilisation through inappropriate afforestation?

Strategy Objectives		Evaluation	Timeframe	Duration	Commentary	Mitigation / Enhancement
		++/+/0/- /--	Short / medium / long	Temporary / permanent		

## SEA THEME: Material assets

### SEA Objective: Avoid adversely impacting on material assets (infrastructure etc.)

- Does the Strategy protect key mineral resources from sterilisation through inappropriate afforestation?

Strategy Objectives		Evaluation	Timeframe	Duration	Commentary	Mitigation / Enhancement
		++/+/0/- /--	Short / medium / long	Temporary / permanent		
EXPAND AND MANAGE	Encourage the creation of well-designed woodlands of an appropriate nature, scale and composition to deliver the CFWS's priorities	0			The strategy supports increasing the area of woodland within the framework of preferred and potential areas which would take place within the strategy framework and is highly unlikely to result in sterilisation of mineral resources.	
	Promote improved management of Clydeplan's woodland resource	0			Restructuring existing softwoods will not impact on material assets.	
	Promote high standards of woodland design	0			Management of woodland to achieve multiple benefits, community involvement and good design will not impact on material assets.	
	Make a sustainable contribution to national woodland expansion targets	0			Optimising woodland for carbon sequestration does not directly impact on material assets.	
ECONOMY	Creating an environment for investment	0			The strategy objective has a primary focus on urban sites particularly development sites and VDL and will not adversely impact on material assets.	

## SEA THEME: Material assets

### SEA Objective: Avoid adversely impacting on material assets (infrastructure etc.)

- Does the Strategy protect key mineral resources from sterilisation through inappropriate afforestation?

Strategy Objectives		Evaluation	Timeframe	Duration	Commentary	Mitigation / Enhancement
		++/+/0/-/--	Short / medium / long	Temporary / permanent		
	Contributing to a healthy wood production and processing sector	0			The strategy supports increasing the area of productive woodland within the framework of preferred and potential areas which would take place within the strategy framework and is highly unlikely to result in sterilisation of mineral resources.	
COMMUNITY	Facilitating community involvement in woodland planning, management and ownership	0			This strategy objective supports community involvement in woodland projects and does not affect material assets.	
	Supporting community enterprise and development	0			This strategy objective is very unlikely to impact on material assets.	
	Supporting opportunities for education and lifelong learning	0			This strategy objective supports the use of woodland for outdoor education and is unlikely to result in adverse impacts on material assets.	
	Contributing to physical and mental health and wellbeing	0			This strategy objective supports the use of woodland for physical health and mental well being through encouraging the use of woodlands for recreation and does not impact on material assets.	

## SEA THEME: Material assets

### SEA Objective: Avoid adversely impacting on material assets (infrastructure etc.)

- Does the Strategy protect key mineral resources from sterilisation through inappropriate afforestation?

Strategy Objectives		Evaluation	Timeframe	Duration	Commentary	Mitigation / Enhancement
		+ +/+/?/0/- /--	Short / medium / long	Temporary / permanent		
	Enhancing local sense of place and promoting connections to the wider environment	0			This strategy objective makes a positive contribution to improving environmental quality of areas of degraded landscape, and to ensure new woodlands enhance local townscape and landscape quality. This is unlikely to result in adverse impacts on material assets.	
ENVIRONMENT	Improve the condition and resilience of biodiversity	0			This objective includes a focus on enhancing woodland habitats, creating woodland habitat networks, conserving non-woodland habitats and species and tackling invasive species. The scale and focus of this activity will not have an adverse impact on material assets.	
	Supporting the Central Scotland Green Network	0			This objective supports the aims of the CSGN which focuses on creating physical and functional links between urban centres and rural habitats, derelict land and active travel. The scale and focus of this activity will not have an adverse impact on material assets.	
	Improving woodland's contribution to the conservation and management of ecosystem services and functions	0			This objective supports woodland creation and expansion, including a focus on derelict and contaminated sites which will not have an adverse impact on material assets.	

## SEA THEME: Material assets

### SEA Objective: Avoid adversely impacting on material assets (infrastructure etc.)

- Does the Strategy protect key mineral resources from sterilisation through inappropriate afforestation?

Strategy Objectives		Evaluation	Timeframe	Duration	Commentary	Mitigation / Enhancement
		++/+/0/-/--	Short / medium / long	Temporary / permanent		
	Contributing to the conservation, enhancement and understanding of Clydeplan's valued natural heritage and historic environment	0			This objective supports the improvement of townscape and landscapes and the protection of the historic environment and will not have an adverse impact on material assets.	
CLIMATE CHANGE	Reduce the forestry sector's emissions and contribute to mitigation measures	0	-	-	The strategy supports increasing tree cover within the framework of preferred and potential areas which would take place within the strategy framework and is highly unlikely to result in sterilisation of mineral resources.	
	Adapt to the predicted effects of climate change	0	-	-	The adaptation measures include woodland expansion which would take place within the strategy framework and is highly unlikely to result in sterilisation of mineral resources.	

## SEA THEME: Material assets

### SEA Objective: Enhance material assets

- Does the Strategy contribute to the appropriate re-use of VDL?
- Does the Strategy promote the efficient operation of the sector and the safe treatment and disposal of non-reusable/recyclable arisings?

Strategy Objectives		Evaluation	Timeframe	Duration	Commentary	Mitigation / Enhancement
		++/+/0/-/--	Short / medium / long	Temporary / permanent		
EXPAND AND MANAGE	Encourage the creation of well-designed woodlands of an appropriate nature, scale and composition to deliver the CFWS's priorities	+	Short - long	positive	The strategy supports increasing the area of woodland within the framework of preferred and potential areas, enhancing urban areas and improving landscapes which has a minor positive effect on enhancing VDL.	
	Promote improved management of Clydeplan's woodland resource	0			Restructuring existing softwoods will not impact on material assets.	
	Promote high standards of woodland design	0			Management of woodland to achieve multiple benefits, community involvement and good design will not impact on material assets.	
	Make a sustainable contribution to national woodland expansion targets	0			Optimising woodland for carbon sequestration does not directly impact on material assets.	
ECONOMY	Creating an environment for investment	+	short	permanent	The strategy objective has a primary focus on urban sites particularly development sites and VDL and has a positive effect on the re-use of VDL.	



## SEA THEME: Material assets

### SEA Objective: Enhance material assets

- Does the Strategy contribute to the appropriate re-use of VDL?
- Does the Strategy promote the efficient operation of the sector and the safe treatment and disposal of non-reusable/recyclable arisings?

Strategy Objectives		Evaluation	Timeframe	Duration	Commentary	Mitigation / Enhancement
		++/+/0/-/--	Short / medium / long	Temporary / permanent		
	Contributing to a healthy wood production and processing sector	+	short	temporary	The strategy objective supports the increased use of waste products from timber harvesting with a minor positive effect on this objective.	
COMMUNITY	Facilitating community involvement in woodland planning, management and ownership	0			This strategy objective supports community involvement in woodland projects and does not affect material assets.	
	Supporting community enterprise and development	0			This strategy objective is very unlikely to impact on material assets.	
	Supporting opportunities for education and lifelong learning	0			This strategy objective supports the use of woodland for outdoor education and is unlikely to result in adverse impacts on material assets.	
	Contributing to physical and mental health and wellbeing	0			This strategy objective supports the use of woodland for physical health and mental well being through encouraging the use of woodlands for recreation and does not impact on material assets.	

## SEA THEME: Material assets

### SEA Objective: Enhance material assets

- Does the Strategy contribute to the appropriate re-use of VDL?
- Does the Strategy promote the efficient operation of the sector and the safe treatment and disposal of non-reusable/recyclable arisings?

Strategy Objectives		Evaluation	Timeframe	Duration	Commentary	Mitigation / Enhancement
		++/+/0/-/--	Short / medium / long	Temporary / permanent		
ENVIRONMENT	Enhancing local sense of place and promoting connections to the wider environment	++	Short - long	permanent	This strategy objective makes a positive contribution to improving environmental quality of areas of degraded landscape, and to ensure new woodlands enhance local townscape and landscape quality. This could result in strong positive effects on the use of VDL.	
	Improve the condition and resilience of biodiversity	0			This objective includes a focus on enhancing woodland habitats, creating woodland habitat networks, conserving non-woodland habitats and species and tackling invasive species. The scale and focus of this activity will not impact on material assets.	
	Supporting the Central Scotland Green Network	+			This objective supports the aims of the CSGN which focuses on creating physical and functional links between urban centres and rural habitats, derelict land and active travel. This will have a minor positive impact on material assets.	
	Improving woodland's contribution to the conservation and management of ecosystem services and functions	+			This objective supports woodland creation and expansion, including a focus on derelict and contaminated sites which has a minor positive effect on this SEA objective.	

## SEA THEME: Material assets

### SEA Objective: Enhance material assets

- Does the Strategy contribute to the appropriate re-use of VDL?
- Does the Strategy promote the efficient operation of the sector and the safe treatment and disposal of non-reusable/recyclable arisings?

Strategy Objectives		Evaluation	Timeframe	Duration	Commentary	Mitigation / Enhancement
		++/+/0/-/--	Short / medium / long	Temporary / permanent		
	Contributing to the conservation, enhancement and understanding of Clydeplan's valued natural heritage and historic environment	0			This objective supports the improvement of townscales and landscapes and the protection of the historic environment and will not have an impact on material assets.	
CLIMATE CHANGE	Reduce the forestry sector's emissions and contribute to mitigation measures	0			The strategy objective does not impact on use of VDL or waste.	
	Adapt to the predicted effects of climate change	0			The strategy objective does not impact on use of VDL or waste.	

## SEA THEME: Cultural heritage

### SEA Objective: Avoid adverse impacts on the protected historic environment and its setting

- Does the Strategy seek to ensure that woodland expansion safeguards the fabric and setting of heritage assets?

Strategy Objectives		Evaluation	Timeframe	Duration	Commentary	Mitigation / Enhancement
		++/+/0/-/--	Short / medium / long	Temporary / permanent		
EXPAND AND MANAGE	Encourage the creation of well-designed woodlands of an appropriate nature, scale and composition to deliver the CFWS's priorities	+	Short - long	permanent	The objective supports the creation of woodland to achieve multiple benefits, within the framework of preferred and potential areas which takes the protected historic environment into account.	
	Promote improved management of Clydeplan's woodland resource	0			Restructuring softwood forests will not result in adverse impacts on the protected historic environment.	
	Promote high standards of woodland design	0			Woodland creation to deliver multiple benefits will not result in adverse impacts on the protected historic environment and will take place within the framework of preferred and potential areas which takes the protected historic environment into account.	
	Make a sustainable contribution to national woodland expansion targets	0			Optimising woodland for carbon sequestration does not directly impact on the historic environment	
ECONOMY	Creating an environment for investment	+	Medium - long	Permanent	The strategy objectives focus on enhancing the environmental quality of primarily proposed development sites and VDL, and also managing trees and woodlands in historic sites to improve the landscape quality which is likely to have a minor positive impact on the protected historic environment.	

## SEA THEME: Cultural heritage

### SEA Objective: Avoid adverse impacts on the protected historic environment and its setting

- Does the Strategy seek to ensure that woodland expansion safeguards the fabric and setting of heritage assets?

Strategy Objectives		Evaluation	Timeframe	Duration	Commentary	Mitigation / Enhancement
		++/+/0/-/--	Short / medium / long	Temporary / permanent		
	Contributing to a healthy wood production and processing sector	0			The strategy objective has a focus on expanding the area of productive forestry and supporting supply chains. Forestry expansion will take place within the framework of the strategy's preferred and potential areas which seek to avoid adverse impacts on the protected historic environment.	The strategy should be explicit about how different assets are protected from inappropriate planting through the framework.
COMMUNITY	Facilitating community involvement in woodland planning, management and ownership	0			This strategy objective supports community involvement in woodland projects which does not directly impact on the historic environment.	
	Supporting community enterprise and development	0			This strategy objective is unlikely to result in activities which impact on the protected historic environment and its setting.	
	Supporting opportunities for education and lifelong learning	0			This strategy objective supports the use of woodland for outdoor education and is unlikely to result in adverse impacts on the historic environment.	
	Contributing to physical and mental health and wellbeing	0			This strategy objective supports the use of woodland for physical health and mental well being through encouraging the use of woodlands for recreation and does not impact on the protected historic environment.	

## SEA THEME: Cultural heritage

### SEA Objective: Avoid adverse impacts on the protected historic environment and its setting

- Does the Strategy seek to ensure that woodland expansion safeguards the fabric and setting of heritage assets?

Strategy Objectives		Evaluation	Timeframe	Duration	Commentary	Mitigation / Enhancement
		+ +/+/?/0/- /--	Short / medium / long	Temporary / permanent		
	Enhancing local sense of place and promoting connections to the wider environment	+	Short - long	permanent	This strategy objective makes a positive contribution to improving environmental quality of areas of degraded landscape, and to ensure new woodlands enhance local townscape and landscape quality. This could result in indirect positive effects on the historic environment.	
ENVIRONMENT	Improve the condition and resilience of biodiversity	0			This objective includes a focus on enhancing woodland habitats, creating woodland habitat networks, conserving non-woodland habitats and species and tackling invasive species. This does not impact on the historic environment.	
	Supporting the Central Scotland Green Network	0			This objective supports the aims of the CSGN which focuses on creating physical and functional links between urban centres and rural habitats, derelict land and active travel. This will not impact on the historic environment.	
	Improving woodland's contribution to the conservation and management of ecosystem services and functions	0			This objective supports woodland creation and expansion, including a focus on derelict and contaminated sites. This will not impact on the historic environment.	



## SEA THEME: Cultural heritage

### SEA Objective: Avoid adverse impacts on the protected historic environment and its setting

- Does the Strategy seek to ensure that woodland expansion safeguards the fabric and setting of heritage assets?

Strategy Objectives		Evaluation	Timeframe	Duration	Commentary	Mitigation / Enhancement
		++/+/0/-/--	Short / medium / long	Temporary / permanent		
	Contributing to the conservation, enhancement and understanding of Clydeplan's valued natural heritage and historic environment	++	Medium - long	permanent	This objective supports the improvement of townscales and landscapes and the protection of the historic environment and will have a strong positive impact on this SEA objective.	
CLIMATE CHANGE	Reduce the forestry sector's emissions and contribute to mitigation measures	0			The strategy supports increasing tree cover within the framework of preferred and potential areas which would take place within the strategy framework and which seeks to avoid adverse effects on sensitive assets.	
	Adapt to the predicted effects of climate change	+			The adaptation measures include woodland expansion which would take place within the strategy framework and protecting historic and semi natural woodland which has a minor positive effect on this SEA objective.	

## SEA THEME: Cultural heritage

### SEA Objective: Enhance, where appropriate, the historic environment

- Does the Strategy contribute to the character and significance of important historic landscapes?

Strategy Objectives		Evaluation	Timeframe	Duration	Commentary	Mitigation / Enhancement
		++/+/0/-/--	Short / medium / long	Temporary / permanent		
EXPAND AND MANAGE	Encourage the creation of well-designed woodlands of an appropriate nature, scale and composition to deliver the CFWS's priorities	+	Short - long	permanent	The objective supports the creation of woodland to achieve multiple benefits, within the framework of preferred and potential areas which takes the protected historic environment into account.	
	Promote improved management of Clydeplan's woodland resource	0			Restructuring softwood forests could provide localised opportunities for enhancement of the historic environment.	
	Promote high standards of woodland design	0			Woodland creation to deliver multiple benefits could include local enhancement of the historic environment.	
	Make a sustainable contribution to national woodland expansion targets	0			Optimising woodland for carbon sequestration does not directly impact on enhancement of the historic environment.	
ECONOMY	Creating an environment for investment	+	Medium - long	Permanent	The strategy objectives focus on enhancing the environmental quality of primarily proposed development sites and VDL, and also managing trees and woodlands in historic sites to improve the landscape quality which is likely to have a minor positive impact on the wider historic environment.	
	Contributing to a healthy wood production and processing sector	0			The strategy objective supports expanding the area of productive woodland but does not directly support enhancement of the historic environment.	

## SEA THEME: Cultural heritage

### SEA Objective: Enhance, where appropriate, the historic environment

- Does the Strategy contribute to the character and significance of important historic landscapes?

Strategy Objectives		Evaluation	Timeframe	Duration	Commentary	Mitigation / Enhancement
		++/+/0/-/--	Short / medium / long	Temporary / permanent		
COMMUNITY	Facilitating community involvement in woodland planning, management and ownership	0			This strategy objective supports community involvement in woodland projects and does not directly impact on the historic environment.	
	Supporting community enterprise and development	0			This strategy objective is unlikely to result in activities which contribute to the enhancement of the historic environment.	
	Supporting opportunities for education and lifelong learning	0			This strategy objective supports the use of woodland for outdoor education and is unlikely to result in adverse impacts on the historic environment.	
	Contributing to physical and mental health and wellbeing	0			This strategy objective supports the use of woodland for physical health and mental well being through encouraging the use of woodlands for recreation and does not impact on the historic environment.	
	Enhancing local sense of place and promoting connections to the wider environment	+	Short - long	permanent	This strategy objective makes a positive contribution to improving environmental quality of areas of degraded landscape, and to ensure new woodlands enhance local townscape and landscape quality. This could result in indirect positive effects on the historic environment.	

## SEA THEME: Cultural heritage

### SEA Objective: Enhance, where appropriate, the historic environment

- Does the Strategy contribute to the character and significance of important historic landscapes?

Strategy Objectives		Evaluation	Timeframe	Duration	Commentary	Mitigation / Enhancement
		++/+/0/-/--	Short / medium / long	Temporary / permanent		
ENVIRONMENT	Improve the condition and resilience of biodiversity	0			This objective includes a focus on enhancing woodland habitats, creating woodland habitat networks, conserving non-woodland habitats and species and tackling invasive species. This does not impact on the historic environment.	
	Supporting the Central Scotland Green Network	0			This objective supports the aims of the CSGN which focuses on creating physical and functional links between urban centres and rural habitats, derelict land and active travel. This will not impact on the historic environment.	
	Improving woodland's contribution to the conservation and management of ecosystem services and functions	0			This objective supports woodland creation and expansion, including a focus on derelict and contaminated sites. This will not impact on the historic environment.	
	Contributing to the conservation, enhancement and understanding of Clydeplan's valued natural heritage and historic environment	++	Medium - long	permanent	This objective supports the improvement of townscape and landscapes and the protection of the historic environment and will have a strong positive impact on this SEA objective.	

## SEA THEME: Cultural heritage

### SEA Objective: Enhance, where appropriate, the historic environment

- Does the Strategy contribute to the character and significance of important historic landscapes?

Strategy Objectives		Evaluation	Timeframe	Duration	Commentary	Mitigation / Enhancement
		++/+/0/- /--	Short / medium / long	Temporary / permanent		
CLIMATE CHANGE	Reduce the forestry sector's emissions and contribute to mitigation measures	0			The strategy supports increasing tree cover within the framework of preferred and potential areas which would take place within the strategy framework and is unlikely to impact on this SEA objective.	
	Adapt to the predicted effects of climate change	0			The adaptation measures include expanding woodland and supporting the use of trees in urban areas which can help to protect the quality of the urban environment.	

## SEA THEME: Cultural heritage

### SEA Objective: Improve the quality of the wider built environment

- Does the Strategy seek to promote responsible access to and appreciation of cultural heritage via the green network?

Strategy Objectives		Evaluation	Timeframe	Duration	Commentary	Mitigation / Enhancement
		++/+/?/0/- /--	Short / medium / long	Temporary / permanent		
EXPAND AND MANAGE	Encourage the creation of well-designed woodlands of an appropriate nature, scale and composition to deliver the CFWS's priorities	+	Short - long	permanent	Creation of woodland for multiple benefits includes improving urban areas which is positive for this SEA objective.	
	Promote improved management of Clydeplan's woodland resource	0			Softwood forests are typically in more remote locations and restructuring will not impact directly on the quality of the built environment.	
	Promote high standards of woodland design	+	Short to long	Permanent	Woodland creation to achieve multiple benefits and improve local landscape quality will achieve minor positive benefits for the quality of the wider built environment.	
	Make a sustainable contribution to national woodland expansion targets	0			Optimising woodland for carbon sequestration does not impact directly the quality of the wider built environment.	
ECONOMY	Creating an environment for investment	++	Medium - long	Permanent	The strategy objectives focus on enhancing the environmental quality of primarily proposed development sites and VDL, increasing recreational opportunities and also managing trees and woodlands in historic sites to improve the landscape quality which is likely to have a minor positive impact on the protected historic environment.	



## SEA THEME: Cultural heritage

### SEA Objective: Improve the quality of the wider built environment

- Does the Strategy seek to promote responsible access to and appreciation of cultural heritage via the green network?

Strategy Objectives		Evaluation	Timeframe	Duration	Commentary	Mitigation / Enhancement
		++/+/0/-/--	Short / medium / long	Temporary / permanent		
	Contributing to a healthy wood production and processing sector	0			The strategy objective supports the expansion of the area of productive forestry and some biomass planting could take place on sites within the built environment however the objective is not focused on the built environment.	
COMMUNITY	Facilitating community involvement in woodland planning, management and ownership	0			This strategy objective supports community involvement in woodland projects and does not directly impact on the built environment.	
	Supporting community enterprise and development	0			This strategy objective is unlikely to result in activities which contribute to the enhancement of the wider built environment.	
	Supporting opportunities for education and lifelong learning	0			This strategy objective supports the use of woodland for outdoor education and is unlikely to result in adverse impacts on the wider built environment.	
	Contributing to physical and mental health and wellbeing	0			This strategy objective supports the use of woodland for physical health and mental well being through encouraging the use of woodlands for recreation and does not impact on the wider built environment.	

## SEA THEME: Cultural heritage

### SEA Objective: Improve the quality of the wider built environment

- Does the Strategy seek to promote responsible access to and appreciation of cultural heritage via the green network?

Strategy Objectives		Evaluation	Timeframe	Duration	Commentary	Mitigation / Enhancement
		++/+/0/-/--	Short / medium / long	Temporary / permanent		
	Enhancing local sense of place and promoting connections to the wider environment	++	Short - long	permanent	This strategy objective makes a positive contribution to improving environmental quality of areas of degraded landscape, and to ensure new woodlands enhance local townscape and landscape quality..	
ENVIRONMENT	Improve the condition and resilience of biodiversity	0			This objective includes a focus on enhancing woodland habitats, creating woodland habitat networks, conserving non-woodland habitats and species and tackling invasive species. The scale and focus of this activity will not impact directly on the quality of the wider built environment.	
	Supporting the Central Scotland Green Network	+	Medium - long	permanent	This objective supports the aims of the CSGN which focuses on creating physical and functional links between urban centres and rural habitats, derelict land and active travel. This will have a positive effect on the quality of the wider built environment.	
	Improving woodland's contribution to the conservation and management of ecosystem services and functions	+	Medium - long	permanent	This objective supports woodland creation and expansion, including a focus on derelict and contaminated sites which will have a positive effect on the quality of the wider built environment.	

## SEA THEME: Cultural heritage

### SEA Objective: Improve the quality of the wider built environment

- Does the Strategy seek to promote responsible access to and appreciation of cultural heritage via the green network?

Strategy Objectives		Evaluation	Timeframe	Duration	Commentary	Mitigation / Enhancement
		++/+/0/-/--	Short / medium / long	Temporary / permanent		
	Contributing to the conservation, enhancement and understanding of Clydeplan's valued natural heritage and historic environment	++			This objective supports the improvement of townscape and landscapes and the protection of the historic environment and will have strong positive impact on this objective.	
CLIMATE CHANGE	Reduce the forestry sector's emissions and contribute to mitigation measures	0			The strategy supports increasing tree cover within the framework of preferred and potential areas which would take place within the strategy framework and is unlikely to impact on this SEA objective.	
	Adapt to the predicted effects of climate change	+	Short - long	Permanent	The adaptation measures include expanding woodland and supporting the use of trees in urban areas which can help to improve the quality of the urban environment.	

## SEA THEME: Landscape

### SEA Objective: Avoid adverse impacts on protected landscapes

- Does the Strategy steer woodland expansion proposals to appropriate locations?

Strategy Objectives		Evaluation	Timeframe	Duration	Commentary	Mitigation / Enhancement
		+ +/+/?/0/- /--	Short / medium / long	Temporary / permanent		
EXPAND AND MANAGE	Encourage the creation of well-designed woodlands of an appropriate nature, scale and composition to deliver the CFWS's priorities	+	Short - long	permanent	Creation of woodland will be within the strategy framework of preferred and potential areas and will take protected landscapes into account.	
	Promote improved management of Clydeplan's woodland resource	0			Restructuring softwood forests will bring landscape benefits but does not directly impact on protected landscapes as these are existing areas of woodland.	
	Promote high standards of woodland design	0			Woodland creation to deliver multiple benefits will bring landscape benefits.	
	Make a sustainable contribution to national woodland expansion targets	0			Optimising woodland for carbon sequestration will be within the strategy framework of preferred and potential areas and will take protected landscapes into account, and does not impact directly on protected landscapes.	
ECONOMY	Creating an environment for investment	+	Medium - long	Permanent	The strategy objectives focus on enhancing the environmental quality of primarily proposed development sites and VDL which are unlikely to overlap with protected landscapes. It also focuses on managing trees and woodlands in historic sites to improve the landscape quality which is intended to enhance the protected historic environment.	

## SEA THEME: Landscape

### SEA Objective: Avoid adverse impacts on protected landscapes

- Does the Strategy steer woodland expansion proposals to appropriate locations?

Strategy Objectives		Evaluation	Timeframe	Duration	Commentary	Mitigation / Enhancement
		+ +/+/?/0/- /--	Short / medium / long	Temporary / permanent		
	Contributing to a healthy wood production and processing sector	0			The strategy objective focusses on expanding the area of productive forest. The planting will take place within the strategy framework of preferred and potential areas which seeks to avoid adverse impacts on protected landscapes.	
COMMUNITY	Facilitating community involvement in woodland planning, management and ownership	0			This strategy objective supports community involvement in woodland projects and is unlikely to impact on protected landscapes.	
	Supporting community enterprise and development	0			This strategy objective is unlikely to result in activities which result in adverse impacts on protected landscapes.	
	Supporting opportunities for education and lifelong learning	0			This strategy objective supports the use of woodland for outdoor education and is unlikely to result in adverse impacts on protected landscapes.	
	Contributing to physical and mental health and wellbeing	0			This strategy objective supports the use of woodland for physical health and mental well being through encouraging the use of woodlands for recreation and does not impact on protected landscapes.	

## SEA THEME: Landscape

### SEA Objective: Avoid adverse impacts on protected landscapes

- Does the Strategy steer woodland expansion proposals to appropriate locations?

Strategy Objectives		Evaluation	Timeframe	Duration	Commentary	Mitigation / Enhancement
		++/+/0/-/--	Short / medium / long	Temporary / permanent		
	Enhancing local sense of place and promoting connections to the wider environment	0	Short - long	permanent	This strategy objective makes a positive contribution to improving environmental quality of areas of degraded landscape, and to ensure new woodlands enhance local townscape and landscape quality, the locations of these are unlikely to impact on protected landscapes.	
ENVIRONMENT	Improve the condition and resilience of biodiversity	0			This objective includes a focus on enhancing woodland habitats, creating woodland habitat networks, conserving non-woodland habitats and species and tackling invasive species. The location of the creation of new woodlands will not have an adverse impact on the Loch Lomond and Trossachs National Park or Dark Skies Park.	
	Supporting the Central Scotland Green Network	0			This objective supports the aims of the CSGN which focuses on creating physical and functional links between urban centres and rural habitats, derelict land and active travel. The scale and focus of this activity will not have an adverse impact on protected landscapes.	

## SEA THEME: Landscape

### SEA Objective: Avoid adverse impacts on protected landscapes

- Does the Strategy steer woodland expansion proposals to appropriate locations?

Strategy Objectives		Evaluation	Timeframe	Duration	Commentary	Mitigation / Enhancement
		++/+/0/-/--	Short / medium / long	Temporary / permanent		
	Improving woodland's contribution to the conservation and management of ecosystem services and functions	0			This objective supports woodland creation and expansion, including a focus on regeneration of derelict and contaminated sites. This will not have an adverse impact on protected landscapes.	
	Contributing to the conservation, enhancement and understanding of Clydeplan's valued natural heritage and historic environment	0			This objective supports the improvement of townscape and landscapes and the protection of the historic environment and will not have an adverse impact on protected landscapes.	
CLIMATE CHANGE	Reduce the forestry sector's emissions and contribute to mitigation measures	0			The strategy supports increasing tree cover within the framework of preferred and potential areas which would take place within the strategy framework which takes sensitive landscapes into account.	
	Adapt to the predicted effects of climate change	0			The adaptation measures include expanding woodland within the framework of preferred and potential areas which would take place within the strategy framework which takes sensitive landscapes into account. The strategy also seeks to ensure succession planting in vulnerable gardens, designed landscapes and policy landscapes.	



## SEA THEME: Landscape

### SEA Objective: Enhance landscape quality

- Support measures to promote good woodland design and appropriate diversity?
- Encourage the use of woodland to root new development and existing settlements in the landscape?
- Woodland expansion should reflect current and future capacity to accommodate change?

Strategy Objectives		Evaluation	Timeframe	Duration	Commentary	Mitigation / Enhancement
		++/+/0/-/--	Short / medium / long	Temporary / permanent		
EXPAND AND MANAGE	Encourage the creation of well-designed woodlands of an appropriate nature, scale and composition to deliver the CFWS's priorities	+	Short to long	Permanent	Creation of woodland will be within the strategy framework of preferred and potential areas and will improve landscape quality.	
	Promote improved management of Clydeplan's woodland resource	+	Short to long	Permanent	Restructuring softwood forests will bring landscape benefits, improving landscape quality.	
	Promote high standards of woodland design	+	Short to long	Permanent	Woodland creation to deliver multiple benefits will bring landscape benefits.	
	Make a sustainable contribution to national woodland expansion targets	0			Optimising woodland for carbon sequestration does not impact directly on landscape quality.	
ECONOMY	Creating an environment for investment	++	Short - long	Permanent	The strategy objectives make a strong positive contribution to enhancing the landscape particularly in urban areas.	

## SEA THEME: Landscape

### SEA Objective: Enhance landscape quality

- Support measures to promote good woodland design and appropriate diversity?
- Encourage the use of woodland to root new development and existing settlements in the landscape?
- Woodland expansion should reflect current and future capacity to accommodate change?

Strategy Objectives		Evaluation	Timeframe	Duration	Commentary	Mitigation / Enhancement
		++/+/0/-/--	Short / medium / long	Temporary / permanent		
	Contributing to a healthy wood production and processing sector	+			The strategy objective includes restructuring and redesign of existing productive forest to achieve landscape enhancement. The location of new timber processing facilities could have local adverse landscape impacts if they are not sensitively sited, however this will be addressed through the planning system.	
COMMUNITY	Facilitating community involvement in woodland planning, management and ownership	+	Short - long	Temporary	This strategy objective supports community involvement in woodland projects and local improvements which will result in local enhancement of landscape quality.	
	Supporting community enterprise and development	?			This strategy objective could result in minor benefits or adverse effects on local landscape quality depending on the nature of the social enterprise.	
	Supporting opportunities for education and lifelong learning	0			This strategy objective supports the use of woodland for outdoor education and is unlikely to result in adverse impacts on landscape quality.	

## SEA THEME: Landscape

### SEA Objective: Enhance landscape quality

- Support measures to promote good woodland design and appropriate diversity?
- Encourage the use of woodland to root new development and existing settlements in the landscape?
- Woodland expansion should reflect current and future capacity to accommodate change?

Strategy Objectives		Evaluation	Timeframe	Duration	Commentary	Mitigation / Enhancement
		++/+/0/-/--	Short / medium / long	Temporary / permanent		
	Contributing to physical and mental health and wellbeing	+	Short - long	permanent	This strategy objective supports the use of woodland for physical health and mental well being through encouraging the use of woodlands for recreation and can involve local improvements which contribute to landscape quality.	
	Enhancing local sense of place and promoting connections to the wider environment	++	Short - long	permanent	This strategy objective makes a positive contribution to improving environmental quality of areas of degraded landscape, and to ensure new woodlands enhance local townscape and landscape quality.	
ENVIRONMENT	Improve the condition and resilience of biodiversity	+	Medium - long	permanent	This objective includes a focus on enhancing woodland habitats, creating woodland habitat networks, conserving non-woodland habitats and species and tackling invasive species. The location of the creation of new woodlands will have a positive effect on enhancing landscape quality.	

## SEA THEME: Landscape

### SEA Objective: Enhance landscape quality

- Support measures to promote good woodland design and appropriate diversity?
- Encourage the use of woodland to root new development and existing settlements in the landscape?
- Woodland expansion should reflect current and future capacity to accommodate change?

Strategy Objectives		Evaluation	Timeframe	Duration	Commentary	Mitigation / Enhancement
		++/+/0/-/--	Short / medium / long	Temporary / permanent		
	Supporting the Central Scotland Green Network	+	Medium - long	permanent	This objective supports the aims of the CSGN which focuses on creating physical and functional links between urban centres and rural habitats, derelict land and active travel. The location of the creation of new woodlands will have a positive effect on enhancing landscape quality.	
	Improving woodland's contribution to the conservation and management of ecosystem services and functions	+	Medium - long	permanent	This objective supports woodland creation and expansion, including a focus on regeneration of derelict and contaminated sites. The location of the creation of new woodlands will have a positive effect on enhancing landscape quality.	
	Contributing to the conservation, enhancement and understanding of Clydeplan's valued natural heritage and historic environment	+	Medium - long	permanent	This objective supports the improvement of townscapes and landscapes and the protection of the historic environment and will have a positive impact on landscape quality.	

## SEA THEME: Landscape

### SEA Objective: Enhance landscape quality

- Support measures to promote good woodland design and appropriate diversity?
- Encourage the use of woodland to root new development and existing settlements in the landscape?
- Woodland expansion should reflect current and future capacity to accommodate change?

Strategy Objectives		Evaluation	Timeframe	Duration	Commentary	Mitigation / Enhancement
		++/+/0/-/--	Short / medium / long	Temporary / permanent		
CLIMATE CHANGE	Reduce the forestry sector's emissions and contribute to mitigation measures	0			The strategy supports increasing tree cover within the framework of preferred and potential areas which would take place within the strategy framework which takes sensitive landscapes into account.	
	Adapt to the predicted effects of climate change	+	Medium - long	Permanent	The adaptation measures include expanding woodland, protecting the quality of urban environments, succession planting in vulnerable gardens, designed landscapes and policy landscapes and promoting continuous cover forestry techniques, which all contribute to enhancing landscape quality.	

**Table A1 Assessment of Alternatives**

SEA objective		Notional capacity		Scenario 1		Scenario 2		Scenario 3	
1 Avoid adverse effects on protected habitats and species	Farmland	No expansion within sensitive areas.	+	No expansion within sensitive area. Minor positive effect.	+	Small scale expansion within sensitive area. Uncertainty over which sensitive resources affected by expansion, therefore negative effects possible. Positive effects are likely from the overall expansion and management aims and objectives which support biodiversity enhancement.	?	There is a greater proportion of woodland expansion within the sensitive area, with uncertainty over possible negative effects on proximity to protected habitats and species. Positive effects are likely from the overall expansion and management aims and objectives which support biodiversity enhancement, and the higher level of woodland expansion within this scenario.	?
	Foothills								
	Incised river valleys	Small scale expansion within sensitive area supports Clyde Valley Woods SAC	+						
	Lowland Valley	No expansion within sensitive areas.	+						
	Moorland hills								
	Plateau moorland								
	Southern uplands								
	Upland farmland								
	Upland valley								
	Urban and urban greenspaces								
2 Enhance biodiversity	<b>Farmland</b>	Overall positive and strong positive effects resulting from targeted woodland expansion to enhance the existing biodiversity resource.	++	Positive effects are likely from the overall expansion and management aims and objectives which support biodiversity enhancement, however overall expansion levels are relatively low, with	+	Positive effects are likely from the overall expansion and management aims and objectives which support biodiversity enhancement.	+	Positive effects are likely from the overall expansion and management aims and objectives which support biodiversity enhancement, and the higher level of woodland expansion within this scenario.	+
	Foothills		+						
	Incised river valleys		++						
	Lowland Valley		++						
	Moorland		++						

SEA objective		Notional capacity		Scenario 1		Scenario 2		Scenario 3	
	hills			minor positive effects.					
	Plateau moorland		+						
	Southern uplands		+						
	Upland farmland		+						
	Upland valley		+						
	Urban and urban greenspaces		++						
3 Avoid adverse effects on health, health inequalities and quality of life/well-being	<b>Farmland</b>	Strong positive effect from addressing poor quality and degraded landscapes	++	Contributes positively to woodland expansion, supporting enhancement of environmental quality.	+	Contributes positively to woodland expansion, including some expansion within the built up area and improvements to environmental quality.	+	Higher levels of woodland expansion under this scenario are likely to contribute more positively to this objective, securing benefits from flood management.	+
	Foothills	Sparsely populated, and therefore limited impact.	0	Sparsely populated, and therefore limited impact.	0	Sparsely populated, and therefore limited impact.	0	Sparsely populated, and therefore limited impact.	0
	Incised river valleys	Improving landscape quality, expanding riparian networks.	+	Woodland management contributes to environmental regulation with benefits for health.	+	Woodland expansion contributes to environmental regulation with benefits for health.	+	Woodland expansion contributes to environmental regulation with benefits for health.	+
	Lowland Valley	Enhancing landscape quality and improving climate change resilience	+	Woodland expansion contributes to environmental regulation with benefits for health.	+				
	Moorland hills	Delivering multi benefit woodland	+						
	Plateau moorland	Sparsely populated, and therefore limited impact.	0	Very limited expansion, sparsely populated, and therefore limited	0	Sparsely populated, and therefore limited impact.	0	Sparsely populated, and therefore limited impact.	0



SEA objective		Notional capacity		Scenario 1		Scenario 2		Scenario 3	
				impact.					
	Southern uplands	Sparsely populated, and therefore limited impact.	0	Sparsely populated, and therefore limited impact.	0	Sparsely populated, and therefore limited impact.	0	Sparsely populated, and therefore limited impact.	0
	Upland farmland	Reduce impacts of flooding and enhance landscape.	+	Woodland expansion levels will contribute positively to reducing impacts of flooding, although to a lesser extent than the higher levels of expansion.	+	Woodland expansion levels will contribute positively to reducing impacts of flooding.	+	Higher levels of woodland expansion under this scenario are likely to contribute more positively to this objective.	+
	Upland valley	Reduce adverse effects of flooding.	+	Woodland expansion levels will contribute positively to reducing impacts of flooding although to a lesser extent than the higher levels of expansion.	+	Woodland expansion levels will contribute positively to reducing impacts of flooding.	+	Higher levels of woodland expansion under this scenario are likely to contribute more positively to this objective.	+
	Urban and urban greenspaces	Improving environmental quality	++	Includes expansion within the built up area, with positive effects on human health.	++	Includes expansion within the built up area, with positive effects on human health	++	Includes the highest level of expansion within the built up area, with positive effects on human health.	++
4: Improve the health and living environment of people and communities	<b>Farmland</b>	Landscape enhancement with associated benefits for improving health and quality of life.	++	Contributes positively to woodland expansion, supporting enhancement of environmental quality.	+	Contributes positively to woodland expansion, including some expansion within the built up area and improvements to environmental quality.	+	Higher levels of woodland expansion under this scenario are likely to contribute more positively to this objective, securing benefits from new woodland which enhance landscape quality and secure ecosystem service benefits.	+
	Foothills	Sparsely populated, and therefore limited impact.	0	Sparsely populated, and therefore limited impact.	0	Sparsely populated, and therefore limited impact.	0	Sparsely populated, and therefore limited impact.	0
	Incised river valleys	Improving landscape quality	+	Woodland management contributes to environmental regulation with benefits for health.	+	Woodland expansion contributes to environmental regulation with health benefits.	+	Woodland expansion contributes to environmental regulation with health benefits.	+

SEA objective		Notional capacity		Scenario 1		Scenario 2		Scenario 3	
	Lowland Valley	Improving landscape quality and flood management	+	Woodland expansion contributes to environmental regulation with health benefits.	+			Higher levels of woodland expansion increase benefits of .environmental regulation.	+
	Moorland hills	Delivering multi benefit woodland	+					Higher levels of woodland expansion contributes to environmental regulation with benefits for health.	+
	Plateau moorland	Improving recreational value of softwoods	+	Limited expansion, and sparsely populated area, therefore limited impact.	0	Woodland expansion contributes to environmental regulation.	+	Higher levels of woodland expansion increase benefits of .environmental regulation.	+
	Southern uplands	Restructuring and enhancing landscape value.	+	Sparsely populated, and therefore limited impact.	0	Woodland expansion contributes to environmental regulation.	+	Higher levels of woodland expansion increase benefits of .environmental regulation.	+
	Upland farmland	Flood management and improvements to landscape quality.	+	Woodland expansion contributes to environmental regulation.	+	Woodland expansion contributes to environmental regulation.	+	Higher levels of woodland expansion increase benefits of .environmental regulation.	+
	Upland valley	Restructuring softwoods and flood management	+	Woodland expansion contributes to environmental regulation.	+	Woodland expansion contributes to environmental regulation.	+	Higher levels of woodland expansion increase benefits of environmental regulation.	+
	Urban and urban greenspaces	Improvements to landscape quality and community involvement.	++	Includes expansion within the built up area, with positive effects on human health.	++	Includes expansion within the built up area, with positive effects on human health	++	Includes the highest level of expansion within the built up area, with positive effects on human health.	++
5 Avoid adverse impacts on soil	<b>Farmland</b>	Avoidance of sensitive soil resources.	0	No expansion within sensitive area. Minor positive effect.	+	Low level expansion within sensitive area, with potential adverse impacts on soil resources.	?	Higher levels of woodland expansion within sensitive area, with potential adverse effects.	?
	Foothills	Avoidance of sensitive soil resources.	0						
	Incised river valleys	Avoidance of sensitive soil resources.	0						
	Lowland	Avoidance of	0						

SEA objective		Notional capacity		Scenario 1		Scenario 2		Scenario 3	
	Valley	sensitive soil resources.							
	Moorland hills	Avoidance of high carbon soils	+			Low level expansion within sensitive area, in areas with higher levels of high carbon soil with potential adverse impacts on soil resources.	?	Higher levels of woodland expansion within sensitive area, in areas with higher levels of high carbon soil, with potential adverse effects.	?
	Plateau moorland	Avoidance of high carbon soils	+						
	Southern uplands	Avoidance of high carbon soils	+						
	Upland farmland	Avoidance of high carbon soils	+						
	Upland valley	Supports agriculture on better quality land.	+						
	Urban and urban greenspaces	Planting on vacant and derelict land has positive effect.	+			Low level expansion within sensitive area, with potential adverse impacts on soil resources.	?	Higher levels of woodland expansion within sensitive area, with potential adverse effects.	?
6 Avoid adverse impacts on valuable soil resources e.g. prime agricultural land, carbon rich soils	<b>Farmland</b>	No significant sensitive soil resources within this zone.	0	No expansion within sensitive area. Minor positive effect.	+	Low level expansion within sensitive area, with potential adverse impacts on soil resources.	?	Higher levels of woodland expansion within sensitive area, with potential adverse effects.	?
	Foothills								
	Incised river valleys								
	Lowland Valley								
	Moorland hills	Sensitive soil resources are recognised within the strategy with a minor positive effect on this objective	+			Low level expansion within sensitive area, with potential adverse impacts on soil resources.	?	Higher levels of woodland expansion within sensitive area, with potential adverse effects.	?
	Plateau moorland								
	Southern uplands								
	Upland farmland								

SEA objective		Notional capacity		Scenario 1		Scenario 2		Scenario 3	
	Upland valley			No significant valuable soil resources within this zone.	0	No significant valuable soil resources within this zone.	0	No significant valuable soil resources within this zone..	0
	Urban and urban greenspaces	No significant sensitive soil resources within this zone.	0						
7 Reduce vacant and derelict land	<b>Farmland</b>	Strategy recognises issues of land degradation and abandonment	+	Some areas of VDL, and proposed woodland planting on potential areas.	+	Some areas of VDL, and proposed woodland planting on potential areas.	+	Some areas of VDL, and proposed woodland planting on potential areas.	+
	Foothills	No significant VDL within this area.	0	No significant VDL within this area.	0	No significant VDL within this area.	0	No significant VDL within this area.	0
	Incised river valleys								
	Lowland Valley	Strategy objectives do not explicitly address issues of VDL within this area, with minor negative effects.	-	Some expansion within the potential area, which includes VDL, therefore minor positive effect likely..	+	Some expansion within the potential area, which includes VDL, therefore minor positive effect likely.	+	Some expansion within the potential area, which includes VDL, therefore minor positive effect likely.	+
	Moorland hills	No significant VDL within this area.	0	No significant VDL within this area.	0	No significant VDL within this area.	0	No significant VDL within this area.	0
	Plateau moorland	Strategy objectives do not explicitly address issues of VDL within this area, with minor negative effects.	-						
	Southern uplands	No significant VDL within this area.	0						
	Upland farmland	The Strategy recognises the areas of VDL within the area	+	This area includes part of the ROF site which is being redeveloped, therefore a minor positive effect is identified.	+	This area includes part of the ROF site which is being redeveloped, therefore a minor positive effect is identified.	+	This area includes part of the ROF site which is being redeveloped, therefore a minor positive effect is identified.	+
	Upland valley	No significant VDL within this area.	0	No significant VDL within this area.	0	No significant VDL within this area.	0	No significant VDL within this area.	0
	Urban and urban	The strategy actively supports	+	This area includes fairly significant VDL	+	This area includes fairly significant VDL resources,	+	This area includes fairly significant VDL resources, and	+

SEA objective		Notional capacity		Scenario 1		Scenario 2		Scenario 3	
	greenspaces	remediation of VDL within this area.		resources, and development within the potential zone has a minor positive effect.		and development within the potential zone has a minor positive effect.		development within the potential zone has a minor positive effect.	
8 Avoid adverse impacts on the ecological status of water bodies	<b>Farmland</b>	Poor water quality is an issue within this area. Recognised by strategy	++	Low level expansion does not make a positive contribution to water quality.	-	Medium level expansion makes a minor positive contribution to water quality	+	High level expansion makes a positive contribution to water quality	+
	Foothills	Some issues with poor water quality addressed by strategy	+						
	Incised river valleys	No adverse impact identified	0	No key issues with water quality in this area.	0	No adverse impact identified	0	No adverse impact identified	0
	Lowland Valley	Poor water quality in this area addressed by strategy	+	Low level expansion does not make a significant contribution to reducing water quality issues.	-	Medium level expansion makes a minor positive contribution to water quality	+	High level expansion makes a positive contribution to water quality	+
	Moorland hills	Area plays important role in flood risk and water management	+	Low level expansion does not make a significant contribution to reducing water quality issues.	-	Medium level expansion makes a minor positive contribution to water quality	+	High level expansion makes a positive contribution to water quality	+
	Plateau moorland	No significant water quality issues identified	0	No significant water quality issues and very low level expansion.	0	No significant water quality issues identified	0	No significant water quality issues identified	0
	Southern uplands	No significant water quality issues identified	0	Low level expansion does not make a significant contribution to reducing water quality issues.	0	No significant water quality issues identified	0	No significant water quality issues identified	0
	Upland farmland	No significant water quality issues identified, minor contribution to addressing flooding.	0	Low level expansion and no significant water quality issues.	0	Medium level expansion makes a positive contribution to managing flood risk	+	High level expansion makes a positive contribution to managing flood risk	+

SEA objective		Notional capacity		Scenario 1		Scenario 2		Scenario 3	
	Upland valley	No significant water quality issues, but strategy supports measures to ensure flood risk management	+	Low level expansion and no significant water quality issues.	0				
	Urban and urban greenspaces	Flood risk is a major issue in these areas which is addressed through strategy	+	Low levels of woodland expansion contribute positively to flood risk management	+	Medium levels of woodland expansion contribute positively to flood risk management	+	High levels of woodland expansion contribute positively to flood management	++
9 Avoid adverse impacts on sensitive coastal areas and marine environment	<b>Farmland</b>	Issues with poor water quality in this zone, improved by increased woodland planting.	+	Issues with poor water quality in this zone, improved by increased woodland planting.	+	Issues with poor water quality in this zone, improved by increased woodland planting.	+	High levels of increased woodland planting make a positive contribution to improved water quality	+
	Foothills	No significant impacts identified	0	No significant impacts identified	0	No significant impacts identified	0	No significant impacts identified	0
	Incised river valleys	No significant impacts identified	0						
	Lowland Valley	General improvement to water quality	+	General improvement to water quality	+	General improvement to water quality	+	General improvement to water quality	+
	Moorland hills	No significant impacts identified	0	No significant impacts identified	0	No significant impacts identified	0	No significant impacts identified	0
	Plateau moorland	No significant impacts identified	0						
	Southern uplands	No significant impacts identified	0						
	Upland farmland	No significant impacts identified	0						
	Upland valley	No significant impacts identified	0						
	Urban and urban greenspaces	Close proximity to sensitive coastal environments	+	Issues with poor water quality in this zone, improved by increased woodland planting.	+	Issues with poor water quality in this zone, improved by increased woodland planting.	+	High levels of woodland expansion make a positive contribution to improved water quality	+

SEA objective		Notional capacity		Scenario 1		Scenario 2		Scenario 3	
10 Improve the water environment	<b>Farmland</b>	Issues with poor water quality in this zone, improved by increased woodland planting.	+	Issues with poor water quality in this zone, improved by increased woodland planting.	+	Issues with poor water quality in this zone, improved by increased woodland planting.	+	Issues with poor water quality in this zone, improved by high levels of increased woodland planting.	+
	Foothills	Issues with poor water quality, and proposals make a positive contribution to water quality.	+	Issues with poor water quality in this zone, improved by increased woodland planting.	+	Issues with poor water quality in this zone, improved by increased woodland planting.	+	Issues with poor water quality in this zone, improved by increased woodland planting.	+
	Incised river valleys	Focus on management not expansion therefore not impact identified	0	Minor reduction in total area.	0	Small scale expansion, no significant effect	0	Small scale expansion, no significant effect	0
	Lowland Valley	Priorities for expansion and management make a positive contribution to water quality.	+	Small scale expansion contributes positively to water quality	+	Small scale expansion contributes positively to water quality	+	Small scale expansion contributes positively to water quality	+
	Moorland hills			Minimal expansion	0	Expansion contributes positively to water quality	+	Expansion contributes positively to water quality	+
	Plateau moorland								
	Southern uplands								
	Upland farmland								
	Upland valley								
	Urban and urban greenspaces			Small scale expansion contributes positively to water quality	+	Small scale expansion contributes positively to water quality	+	Small scale expansion contributes positively to water quality	+
11 Avoid increasing greenhouse gas emissions	<b>Farmland</b>	Support for biomass production	+	No direct impact on avoiding increases to greenhouse gas emissions	0	No direct impact on avoiding increases to greenhouse gas emissions	0	No direct impact on avoiding increases to greenhouse gas emissions	0
	Foothills	No direct impact on avoiding increases to greenhouse gas	0						
	Incised river								



SEA objective		Notional capacity		Scenario 1		Scenario 2		Scenario 3	
	valleys	emissions							
	Lowland Valley								
	Moorland hills	Positive effect as strategy recognises high carbon soils within this area	+						
	Plateau moorland	No direct impact on avoiding increases to greenhouse gas emissions	0						
	Southern uplands								
	Upland farmland								
	Upland valley								
	Urban and urban greenspaces	Support for biomass production	+						
12 Support adaptation to climate change	<b>Farmland</b>	New woodland planting within the Strategy framework supports climate change adaptation	+	New woodland planting within the Strategy framework supports climate change adaptation	+	New woodland planting within the Strategy framework supports climate change adaptation	+	New woodland planting within the Strategy framework supports climate change adaptation	+
	Foothills								
	Incised river valleys								
	Lowland Valley								
	Moorland hills								
	Plateau moorland								
	Southern uplands								
	Upland farmland								
	Upland								

SEA objective		Notional capacity		Scenario 1		Scenario 2		Scenario 3	
	valley								
	Urban and urban greenspaces	New woodland planting within the strategy framework supports climate change adaptation	++	New woodland planting within the Strategy framework supports climate change adaptation	++	New woodland planting within the Strategy framework supports climate change adaptation	++	New woodland planting within the Strategy framework supports climate change adaptation	++
13 Avoid adverse effects on air quality where air quality is a known issue through AQMA	<b>Farmland</b>	Woodland expansion contributes to improved air quality	+	Woodland expansion contributes to improved air quality	+	Woodland expansion contributes to improved air quality	+	Woodland expansion contributes to improved air quality	+
	Foothills								
	Incised river valleys								
	Lowland Valley								
	Moorland hills	No key issues with air quality in these zones	0	No key issues with air quality in these zones	0	No key issues with air quality in these zones	0	No key issues with air quality in these zones	0
	Plateau moorland								
	Southern uplands								
	Upland farmland	Woodland expansion contributes to improved air quality	+	Woodland expansion contributes to improved air quality	+	Woodland expansion contributes to improved air quality	+	Woodland expansion contributes to improved air quality	+
	Upland valley		+		+		+		+
	Urban and urban greenspaces		++		++		++		++
14 Improve air quality	<b>Farmland</b>	Woodland expansion contributes to improved air quality	+	Woodland expansion contributes to improved air quality	+	Woodland expansion contributes to improved air quality	+	Woodland expansion contributes to improved air quality	+
	Foothills								
	Incised river valleys								

SEA objective		Notional capacity		Scenario 1		Scenario 2		Scenario 3	
	Lowland Valley								
	Moorland hills	No key issues with air quality in these zones	0	No key issues with air quality in these zones	0	No key issues with air quality in these zones	0	No key issues with air quality in these zones	0
	Plateau moorland								
	Southern uplands								
	Upland farmland	Woodland expansion contributes to improved air quality	+	Woodland expansion contributes to improved air quality	+	Woodland expansion contributes to improved air quality	+	Woodland expansion contributes to improved air quality	+
	Upland valley								
	Urban and urban greenspaces								
15 Avoid adversely impacting on material assets (infrastructure etc.)	<b>Farmland</b>	No impacts on material assets within Strategy framework	0	No impacts on material assets	0	No impacts on material assets	0	No impacts on material assets	0
	Foothills								
	Incised river valleys								
	Lowland Valley								
	Moorland hills								
	Plateau moorland	Delivering new softwood forests to support the forestry asset	+	Delivering new softwood forests to support the forestry asset	+	Delivering new softwood forests to support the forestry asset	+	Delivering new softwood forests to support the forestry asset	++
	Southern uplands	No impacts on material assets within Strategy framework	0	No impacts on material assets within Strategy framework	0	No impacts on material assets within Strategy framework	0	No impacts on material assets within Strategy framework	0

SEA objective		Notional capacity		Scenario 1		Scenario 2		Scenario 3																
	Upland farmland	New woodland to supporting flood management	+	New woodland to supporting flood management	+	New woodland to supporting flood management	+	Delivering high levels of new woodland to support flood management	++															
	Upland valley																							
	Urban and urban greenspaces	No adverse impacts on material assets within Strategy framework	0	No adverse impacts on material assets within Strategy framework	0	No adverse impacts on material assets within Strategy framework	0	No adverse impacts on material assets within Strategy framework	0															
16 Enhance material assets	Farmland	Woodland planting to address land degradation and abandonment	+	Some increase in woodland cover minor, positive effect	+	Some increase in woodland cover minor, positive effect	+	Higher levels of woodland expansion contribute positively to woodland resource.	++															
	Foothills	No impact on this objective	0					No impact on this objective		0	Some increase in woodland cover minor, positive effect	+												
	Incised river valleys	Supports the restoration of relict orchards	+										No impact on this objective	0	Some increase in woodland cover minor, positive effect	+								
	Lowland Valley	No impact on this objective	0														No impact on this objective	0	Some increase in woodland cover minor, positive effect	+				
	Moorland hills	No impact on this objective	0																		No impact on this objective	0	Some increase in woodland cover minor, positive effect	+
	Plateau moorland																							
	Southern uplands	Supports maintenance of the softwood resource	+	Supports maintenance of the softwood resource	+	Supports maintenance of the softwood resource	+	Some increase in woodland cover minor, positive effect	+															
	Upland farmland	Supports management of historic assets	+	Some increase in woodland cover minor, positive effect	+	Some increase in woodland cover minor, positive effect	+	Higher levels of woodland expansion contribute positively to woodland resource.	++															
	Upland valley	Supports actions which contribute to flood management	+							Higher levels of woodland expansion contribute positively to woodland resource.	++													
	Urban and urban greenspaces	Supports actions to enhance the urban environment.	+																					

SEA objective		Notional capacity		Scenario 1		Scenario 2		Scenario 3	
17 Avoid adverse impacts on the protected historic environment and its setting	<b>Farmland</b>	Strategy recognises sensitivities of this area	++	No expansion within sensitive areas.	++	Some expansion within sensitive areas, therefore potential uncertain effects.	?	Woodland expansion in sensitive areas, therefore potential uncertain effects.	?
	Foothills	Strategy recognises sensitivities of this area	+						
	Incised river valleys	Woodland planting supports maintenance and enhancement of historic assets	+						
	Lowland Valley	Strategy recognises sensitivities of this area	++						
	Moorland hills	No significant heritage assets	+						
	Plateau moorland	Strategy supports Wilsontown ironworks scheduled monument	+						
	Southern uplands	Recognises heritage assets	+						
	Upland farmland	Recognises heritage assets	+						
	Upland valley	Recognises historical significance of the area	+						
	Urban and urban greenspaces	Supports management of woodland in parks and gardens	+						
18 Enhance, where appropriate, the historic environment	<b>Farmland</b>	Proposals support enhancement of heritage assets	+	No expansion within sensitive area. Minor positive effect.	+	Some expansion within sensitive areas, therefore potential uncertain effects.	-	Woodland expansion in sensitive areas, therefore potential uncertain effects.	-

SEA objective		Notional capacity		Scenario 1		Scenario 2		Scenario 3	
	Foothills	Strategy recognises the sensitivities of the area	+						
	Incised river valleys	Strategy recognises the sensitivities of the area	+						
	Lowland Valley	Strategy recognises the sensitivities of the area	+						
	Moorland hills	Area is not noted for significant historic assets	0						
	Plateau moorland	Strategy recognises the sensitivities of the area	+						
	Southern uplands	Strategy recognises the sensitivities of the area but does not propose enhancement	0						
	Upland farmland	Strategy supports positive management of historic environment assets	+						
	Upland valley	Strategy recognises the sensitivities of the area but does not propose enhancement	0						
	Urban and urban greenspaces	Strategy focuses on improving trees and woodland within parks and gardens.	+						
19 Improve the quality of the wider built environment	<b>Farmland</b>	Improved management of urban fringe landscapes and woodland expansion	++						

SEA objective		Notional capacity		Scenario 1		Scenario 2		Scenario 3	
	Foothills	Largely rural, limited impact on built environment	0						
	Incised river valleys	Supports restoration of relict orchards	+						
	Lowland Valley	Landscape enhancement with a focus on the historic environment	+						
	Moorland hills	Upland area, limited impact on built environment	0						
	Plateau moorland								
	Southern uplands								
	Upland farmland	Positive management of historic assets and delivery of new woodland in new housing	+						
	Upland valley	No link between strategy and enhancement of landscape quality of built environment	0						
	Urban and urban greenspaces	Strong focus on enhancing the urban environment	++						
20 Avoid adverse impacts on protected landscapes	<b>Farmland</b>	Recognises sensitivities of SLA within the area	+	No expansion within sensitive areas.	+	Some expansion within sensitive areas, therefore potential uncertain effects.	?	Some woodland expansion in sensitive areas, therefore potential uncertain effects.	?
	Foothills	Recognises sensitivities of SLA within the area, but not explicitly in how to support the	+						



SEA objective		Notional capacity		Scenario 1		Scenario 2		Scenario 3	
		landscape qualities of the special landscape areas.							
	Incised river valleys	The Strategy recognises the sensitivities of the New Lanark WHS and Chatelherault designed landscape.	+						
	Lowland Valley	The Strategy seeks to enhance the historic environment and recognises the sensitivities of the special landscape areas.	+						
	Moorland hills	The Strategy supports increases in softwood forest, and the zone includes an SLA and regional park, with potential mixed effects on landscape quality.	+/-						
	Plateau moorland	The Strategy supports increases in softwood forest, and the zone includes an SLA with potential mixed effects on landscape quality.	+/-						
	Southern uplands	The zone is widely covered by SLA and the Strategy recognises the need for new woodland to reflect these.	+						
	Upland	The Strategy recognises the need	+						

SEA objective		Notional capacity		Scenario 1		Scenario 2		Scenario 3	
	farmland	for management of historic landscape resources.							
	Upland valley	The area includes SLA, but is not explicitly recognised in the Strategy, with potential minor adverse effects.	-						
	Urban and urban greenspaces	The Strategy recognises the sensitivities of designated landscapes within urban areas, with minor positive effects.	+						
21 Enhance landscape quality	<b>Farmland</b>	Supports landscape enhancement	+	Supports woodland expansion within the framework of good design and enhancing degraded landscapes	+	Supports woodland expansion within the framework of good design and enhancing degraded landscapes, some expansion within sensitive areas could result in mixed effects on landscapes.	+/-	Higher levels of woodland expansion, including within sensitive areas could result in mixed effects on landscape	+/-
	Foothills								
	Incised river valleys								
	Lowland Valley	Strong contribution to landscape enhancement	++						
	Moorland hills	Supports landscape enhancement	+						
	Plateau moorland								
	Southern uplands								
	Upland farmland								
	Upland valley								
	Urban and urban	Strong contribution to landscape enhancement in	++						

SEA objective		Notional capacity		Scenario 1		Scenario 2		Scenario 3	
	greenspaces	urban areas.							

## Appendix 4

### Analysis of SEA Scoping Report Comments

**Table A4.1 Analysis of SEA Scoping Report Comments**

Consultee	Comments	Actions and Relevant Section of ER
<b>GENERAL COMMENTS</b>		
<b>Historic Scotland</b>	<p>The scoping report provides a clear description of the approach to the assessment and we are content with the scope and level of detail proposed for the SEA. We note and welcome that the historic environment is to be scoped into the assessment.</p> <p>We note that a two-tiered approach to the assessment is proposed with an objective based assessment of over-arching priorities and map-based assessment of spatially-specific policy. This approach reflects the content of the strategy and is to be welcomed. We can also confirm that we are content with the objective and sub-criteria for the historic environment to be utilised within the assessment.</p> <p>We note that it is proposed that the strategy and its environmental report be out for a consultation of 6 weeks. We can confirm that we are content with the consultation period proposed</p>	
<b>SNH</b>	<p>Note that both a 'traditional' matrix-based approach will be used and map-based assessment we welcome this approach.</p> <p>Note that the Environmental Report will be issued around July 2015, and are content with the proposed 6 week consultation period</p>	
<b>SEPA</b>	<p><b>Alternatives</b></p> <p>We are satisfied with the alternatives outlined. These should be assessed as part of the SEA process and the findings of the assessment should inform the choice of the preferred option. This should be documented in the Environmental Report.</p> <p><b>Scope and assessment methodology</b></p> <p>We agree that in this instance all environmental topics should be scoped into the assessment.</p> <p>It is noted that a two tier assessment will be undertaken, a spatially based assessment to consider significant effects for lower-tier forestry policy and scenario planning to test various scenarios for woodland expansion at the authority-wide scale. We consider this to be an appropriate assessment methodology for this type of plan.</p> <p>We are content with the proposed detailed assessment matrix and particularly welcome the commentary box to fully explain the rationale behind the assessment results.</p> <p><b>Mitigation</b></p> <p>We would encourage you to be very clear in the Environmental Report about mitigation measures which are proposed as a result of the assessment. These should follow the mitigation hierarchy (avoid, reduce, remedy or compensate).</p> <p><b>Consultation period</b></p> <p>We are satisfied with a 6 week consultation period for the proposed plan.</p>	<p>Draw out mitigation measures clearly in assessment tables</p>

# Appendix 5 Alternative scenarios

**Table 0.1: Scenario 1 conversion rates and assumptions**

Land category	Conversion rate	Area (ha)		
<b>Farmland</b>			% change in area	20.39%
Built Up	1%	6.0	% cover	15%
Existing	95%	8346.2	ha change	1791.2
Potential	3%	405.6		
Preferred	5%	1818.8		
Sensitive	0%	0.0		
Unsuitable	0%	0.0		
<b>Foothills</b>			% change in area	9.72%
Built Up	1%	0.1	% cover	19%
Existing	95%	3994.3	ha change	408.9
Potential	3%	323.4		
Preferred	5%	295.6		
Sensitive	0%	0.0		
Unsuitable	0%	0.0		
<b>Incised River Valleys</b>			% change in area	-0.03%
Built Up	1%	0.3	% cover	31%
Existing	95%	2444.3	ha change	-0.9
Potential	3%	92.4		
Preferred	5%	35.1		
Sensitive	0%	0.0		
Unsuitable	0%	0.0		
<b>Lowland Valley</b>			% change in area	13.14%
Built Up	1%	0.2	% cover	11%
Existing	95%	803.5	ha change	111.1
Potential	3%	45.5		
Preferred	5%	107.7		
Sensitive	0%	0.0		
Unsuitable	0%	0.0		
<b>Moorland Hills</b>			% change in area	3.46%
Built Up	1%	0.2	% cover	18%
Existing	95%	5666.9	ha change	206.5
Potential	3%	383.3		
Preferred	5%	121.3		
Sensitive	0%	0.0		
Unsuitable	0%	0.0		
<b>Plateau Moorland</b>			% change in area	0.04%
Built Up	1%	0.2	% cover	32%



Land category	Conversion rate	Area (ha)		
Existing	95%	17280.7	ha change	8.1
Potential	3%	313.4		
Preferred	5%	604.0		
Sensitive	0%	0.0		
Unsuitable	0%	0.0		
<b>Southern Uplands</b>			% change in area	5.48%
Built Up	1%	0.0	% cover	19%
Existing	95%	5428.6	ha change	313.3
Potential	3%	435.5		
Preferred	5%	163.5		
Sensitive	0%	0.0		
Unsuitable	0%	0.0		
<b>Upland Farmland</b>			% change in area	15.28%
Built Up	1%	0.4	% cover	18%
Existing	95%	2452.1	ha change	394.3
Potential	3%	71.8		
Preferred	5%	451.1		
Sensitive	0%	0.0		
Unsuitable	0%	0.0		
<b>Upland Valley</b>			% change in area	18.87%
Built Up	1%	0.6	% cover	13%
Existing	95%	2401.8	ha change	477.0
Potential	3%	308.6		
Preferred	5%	294.3		
Sensitive	0%	0.0		
Unsuitable	0%	0.0		
<b>Urban</b>			% change in area	6.41%
Built Up	1%	448.5	% cover	9%
Existing	95%	4282.0	ha change	288.7
Potential	3%	6.2		
Preferred	5%	59.5		
Sensitive	0%	0.0		
Unsuitable	0%	0.0		
<b>Urban Greenspaces</b>			% change in area	1.58%
Built Up	1%	1.0	% cover	26%
Existing	95%	509.3	ha change	8.5
Potential	3%	6.9		
Preferred	5%	27.4		
Sensitive	0%	0.0		

Land category	Conversion rate	Area (ha)		
Unsuitable	0%	0.0		
<b>Grand Total</b>		60,438.10		<b>18%</b>

**Table 0.2: Scenario 2 conversion rates and assumptions**

Land category	Conversion rate	Area (ha)		
Farmland		11661.8	% change in area	32.74%
Built Up	1%	6.0	% cover	17%
Existing	95%	8346.2	ha change	2876.3
Potential	5%	676.0		
Preferred	7%	2546.4		
Sensitive	1%	87.2		
Unsuitable	0%	0.0		
Foothills		4977.5	% change in area	18.39%
Built Up	1%	0.1	% cover	20%
Existing	95%	3994.3	ha change	773.0
Potential	5%	539.0		
Preferred	7%	413.9		
Sensitive	1%	30.3		
Unsuitable	0%	0.0		
Incised River Valleys		2663.8	% change in area	3.53%
Built Up	1%	0.3	% cover	32%
Existing	95%	2444.3	ha change	90.8
Potential	5%	154.0		
Preferred	7%	49.1		
Sensitive	1%	16.1		
Unsuitable	0%	0.0		
Lowland Valley		1066.3	% change in area	26.07%
Built Up	1%	0.2	% cover	13%
Existing	95%	803.5	ha change	220.5
Potential	5%	75.9		
Preferred	7%	150.7		
Sensitive	1%	36.0		
Unsuitable	0%	0.0		
Moorland Hills		6560.6	% change in area	9.98%
Built Up	1%	0.2	% cover	19%
Existing	95%	5666.9	ha change	595.4
Potential	5%	638.8		

Land category	Conversion rate	Area (ha)		
Preferred	7%	169.8		
Sensitive	1%	84.9		
Unsuitable	0%	0.0		
Plateau Moorland		18797.3	% change in area	3.34%
Built Up	1%	0.2	% cover	33%
Existing	95%	17280.7	ha change	607.1
Potential	5%	522.4		
Preferred	7%	845.6		
Sensitive	1%	148.5		
Unsuitable	0%	0.0		
Southern Uplands		6412.7	% change in area	12.22%
Built Up	1%	0.0	% cover	20%
Existing	95%	5428.6	ha change	698.4
Potential	5%	725.9		
Preferred	7%	228.9		
Sensitive	1%	29.3		
Unsuitable	0%	0.0		
Upland Farmland		3226.3	% change in area	24.99%
Built Up	1%	0.4	% cover	19%
Existing	95%	2452.1	ha change	645.1
Potential	5%	119.7		
Preferred	7%	631.6		
Sensitive	1%	22.4		
Unsuitable	0%	0.0		
Upland Valley		3371.6	% change in area	33.36%
Built Up	1%	0.6	% cover	14%
Existing	95%	2401.8	ha change	843.3
Potential	5%	514.3		
Preferred	7%	412.0		
Sensitive	1%	42.9		
Unsuitable	0%	0.0		
Urban		4872.2	% change in area	8.09%
Built Up	1%	448.5	% cover	9%
Existing	95%	4282.0	ha change	364.8
Potential	5%	10.3		
Preferred	7%	83.2		
Sensitive	1%	48.1		
Unsuitable	0%	0.0		
Urban Greenspaces		565.2	% change	5.44%

Land category	Conversion rate	Area (ha)		
			in area	
Built Up	1%	1.0	% cover	27%
Existing	95%	509.3	ha change	29.1
Potential	5%	11.5		
Preferred	7%	38.4		
Sensitive	1%	5.1		
Unsuitable	0%	0.0		
Grand Total		64,175.34		19%

**Table 0.3 Scenario 3 conversion rates and assumptions**

Land category	Conversion rate	Area (ha)		
Farmland		12981.5	% change in area	47.76%
Built Up	2%	12.1	% cover	19%
Existing	95%	8346.2	ha change	4196.1
Potential	6%	811.2		
Preferred	10%	3637.7		
Sensitive	2%	174.4		
Unsuitable	0%	0.0		
Foothills		5293.1	% change in area	25.89%
Built Up	2%	0.2	% cover	22%
Existing	95%	3994.3	ha change	1088.6
Potential	6%	646.8		
Preferred	10%	591.2		
Sensitive	2%	60.7		
Unsuitable	0%	0.0		
Incised River Valleys		2732.0	% change in area	6.18%
Built Up	2%	0.6	% cover	33%
Existing	95%	2444.3	ha change	159.0
Potential	6%	184.7		
Preferred	10%	70.1		
Sensitive	2%	32.1		
Unsuitable	0%	0.0		
Lowland Valley		1182.3	% change in area	39.78%
Built Up	2%	0.4	% cover	14%
Existing	95%	803.5	ha change	336.5
Potential	6%	91.1		
Preferred	10%	215.3		
Sensitive	2%	72.0		

Land category	Conversion rate	Area (ha)		
Unsuitable	0%	0.0		
Moorland Hills		6846.2	% change in area	14.77%
Built Up	2%	0.4	% cover	20%
Existing	95%	5666.9	ha change	881.1
Potential	6%	766.5		
Preferred	10%	242.5		
Sensitive	2%	169.8		
Unsuitable	0%	0.0		
Plateau Moorland		19412.9	% change in area	6.72%
Built Up	2%	0.3	% cover	34%
Existing	95%	17280.7	ha change	1222.7
Potential	6%	626.8		
Preferred	10%	1208.0		
Sensitive	2%	297.1		
Unsuitable	0%	0.0		
Southern Uplands		6685.3	% change in area	16.99%
Built Up	2%	0.0	% cover	21%
Existing	95%	5428.6	ha change	971.0
Potential	6%	871.0		
Preferred	10%	327.0		
Sensitive	2%	58.6		
Unsuitable	0%	0.0		
Upland Farmland		3543.8	% change in area	37.29%
Built Up	2%	0.9	% cover	21%
Existing	95%	2452.1	ha change	962.6
Potential	6%	143.6		
Preferred	10%	902.3		
Sensitive	2%	44.8		
Unsuitable	0%	0.0		
Upland Valley		3694.4	% change in area	46.13%
Built Up	2%	1.1	% cover	16%
Existing	95%	2401.8	ha change	1166.2
Potential	6%	617.2		
Preferred	10%	588.6		
Sensitive	2%	85.7		
Unsuitable	0%	0.0		
Urban		5406.5	% change in area	19.95%
Built Up	2%	896.9	% cover	10%

Land category	Conversion rate	Area (ha)		
Existing	95%	4282.0	ha change	899.1
Potential	6%	12.4		
Preferred	10%	118.9		
Sensitive	2%	96.3		
Unsuitable	0%	0.0		
Urban Greenspaces		590.1	% change in area	10.07%
Built Up	2%	2.0	% cover	28%
Existing	95%	509.3	ha change	54.0
Potential	6%	13.8		
Preferred	10%	54.8		
Sensitive	2%	10.2		
Unsuitable	0%	0.0		
Grand Total		68,368.14		21%

**Table 0.4: Scenario 4 conversion rates and assumptions**

Land category	Conversion rate	Area (ha)			Assumptions
Farmland		11969.1	% change in area	36.24%	
Built Up	0%	0.0	% cover	17%	n/a
Existing	98%	8609.8	ha change	3183.6	Small-scale loss of area due to restructuring
Potential	3%	405.6			Small-scale expansion of farm woodland on Pentland foothills and better quality land
Preferred	8.0%	2910.1			New farm woodlands and expanding existing softwood forests
Sensitive	0.5%	43.6			Very small scale expansion of existing native woodlands to build connectivity with Clyde Valley SAC
Unsuitable	0%	0.0			n/a
Foothills		4888.0	% change in area	16.26%	
Built Up	0%	0.0	% cover	20%	n/a
Existing	98%	4120.4	ha change	683.5	Small-scale losses due to restructuring of softwood forests
Potential	3%	323.4			Small-scale expansion on lower slopes of Pentlands to reinforce existing landscape structure;
Preferred	7%	413.9			Expansion of existing softwood forests in S. sections; connecting to native networks in the Clyde Valley; new native networks in Campsie foothills
Sensitive	1%	30.3			Supporting agriculture on better quality land
Unsuitable	0%	0.0			n/a
Incised River Valleys		2701.1	% change in area	4.98%	
Built Up	0%	0.0	% cover	33%	n/a
Existing	100%	2573.0	ha change	128.1	No loss of existing woodland
Potential	3%	77.0			Reinforcing native network connections to Clyde Valley woodlands
Preferred	5%	35.1			Reinforcing native network connections to

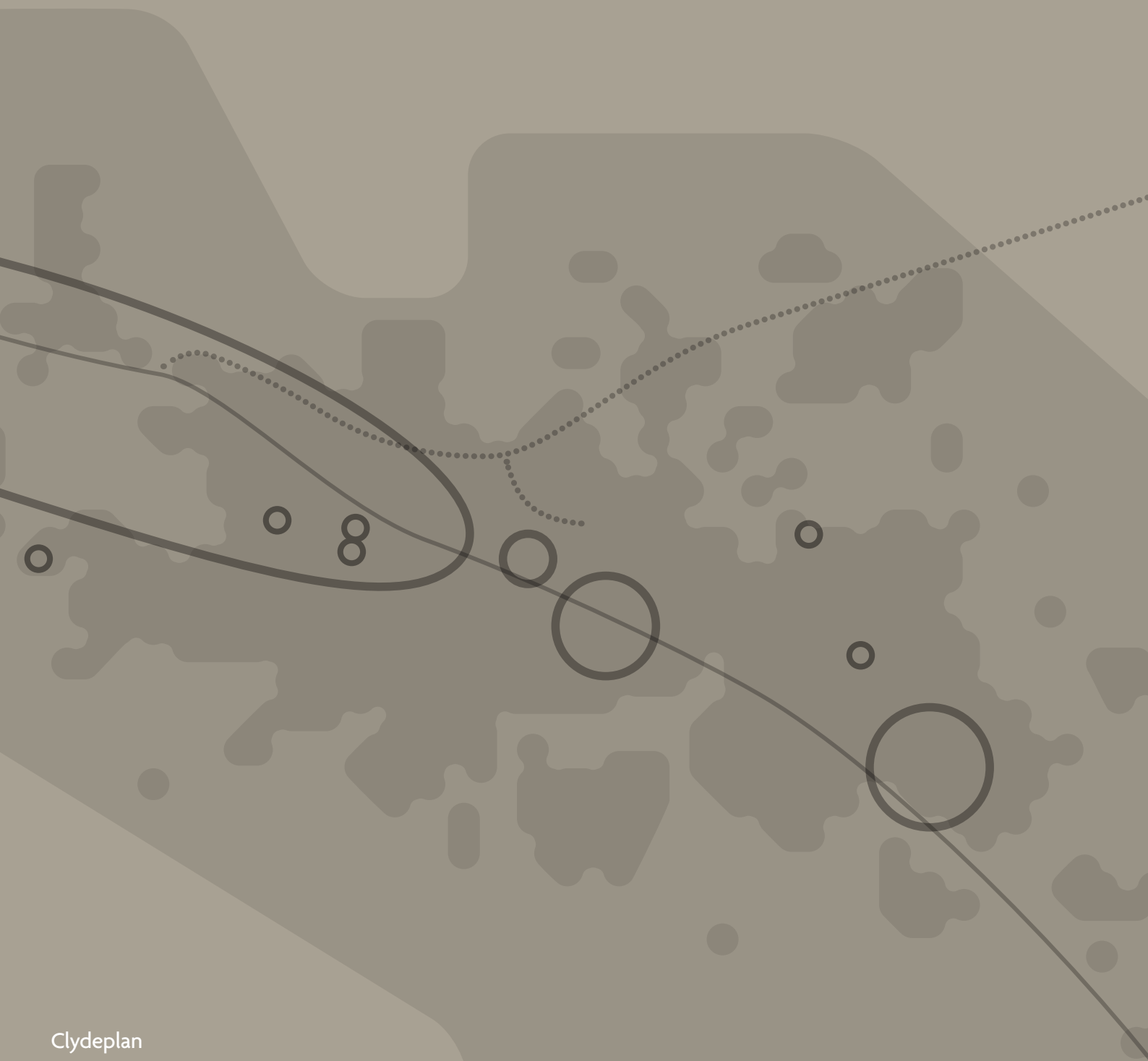


Land category	Conversion rate	Area (ha)			Assumptions
					Clyde Valley woodlands
Sensitive	1%	16.1			very small scale enhancement within Clyde Valley Woods SAC, Chatelherault CP
Unsuitable	0%	0.0			n/a
Lowland Valley		1009.4	% change in area	19.34%	
Built Up	0%	0.0	% cover	12%	n/a
Existing	100%	845.8	ha change	163.6	No loss of existing woodland
Potential	2.5%	38.0			Minor expansion of small riparian networks on edges of Clyde Muirshiel RP; wet woodland expansion around Barr Loch
Preferred	5%	107.7			Expanding riparian networks in Black Cart valley; new farm woodlands in Lochwinnoch Gap; restoring landscape structure around Castle Semple;
Sensitive	0.5%	18.0			Minor expansion to restore landscape structure, enhance habitat connectivity in AW WHS buffer zone and conserve its setting
Unsuitable	0%	0.0			n/a
Moorland Hills		6299.2	% change in area	5.60%	
Built Up	0%	0.0	% cover	18%	n/a
Existing	95%	5666.9	ha change	334.0	Limited losses due to restructuring of softwood forests
Potential	4%	511.0			Further expansion of multi-benefit woodland in Kilpatrick Hills and fringes of Renfrewshire Heights; expanding riparian networks on fringes of Kilsyth Hills
Preferred	5%	121.3			Urban fringe expansion around Port Glasgow, Inverkip, Vale of Leven;
Sensitive	0%	0.0			No expansion in Renfrewshire Heights SPA or Antonine Wall BZ
Unsuitable	0%	0.0			n/a
Plateau Moorland		17982.1	% change	-1.14%	

Land category	Conversion rate	Area (ha)			Assumptions
			in area		
Built Up	0%	0.0	% cover	32%	
Existing	92%	16735.0	ha change	-208.1	Additional losses of woodland likely to Kype Muir wind farm; further losses as a consequence of restructuring
Potential	5%	522.4			Expansion of existing woodlands on upland edges
Preferred	6%	724.8			Local compensatory planting for losses; expansion of productive woodlands
Sensitive	0%	0.0			No planting in SPAs, SACs or deep peat areas
Unsuitable	0%	0.0			n/a
Southern Uplands		6117.5	% change in area	7.06%	
Built Up	0%	0.0	% cover	19%	n/a
Existing	96%	5485.8	ha change	403.2	Minor losses to restructuring
Potential	3%	435.5			Well-designed and located new softwoods, conserving landscape character
Preferred	6%	196.2			Expansion around edges of existing woodlands
Sensitive	0.0%	0.0			
Unsuitable	0%	0.0			
Upland Farmland		3113.5	% change in area	20.62%	
Built Up	0%	0.0	% cover	19%	
Existing	99%	2555.4	ha change	532.3	Very minor losses through restructuring of existing softwood forests
Potential	4%	95.8			Peri-urban woodland, improving the setting of existing settlement
Preferred	5%	451.1			New farm woodlands; new smaller-scale softwood forests to accord with landscape character and complex landform; enhancing degrading landscape structure around historic designed landscapes
Sensitive	0.5%	11.2			New planting to contribute to restoration of under-managed designed landscapes

Land category	Conversion rate	Area (ha)			Assumptions
Unsuitable	0%	0.0			n/a
Upland Valley		3004.6		18.84%	
Built Up	0%	0.0		13%	
Existing	98%	2477.7		476.3	Minor losses to restructuring
Potential	2%	205.7			New shelter-woods and habitat networks
Preferred	4%	235.4			Expansion of productive woodlands
Sensitive	2%	85.7			Supporting agriculture on better quality land
Unsuitable	0%	0.0			
Urban		4781.4	% change in area	6.08%	
Built Up	0.5%	224.2	% cover	9%	Conversion of vacant and derelict sites; expansion of woodland in parks and gardens; planting in transport corridors
Existing	100%	4507.4	ha change	274.0	Maintenance of existing cover
Potential	1%	2.1			Modest conversion to woodland in urban fringe areas
Preferred	3%	35.7			Expanding cover and habitat networks on urban golf courses and in industrial estates
Sensitive	0.25%	12.0			Contributing to the character of Conservation Areas (e.g. Kelvingrove Park); contributing to regeneration of major development sites (e.g. Western General site)
Unsuitable	0%	0.0			n/a
Urban Greenspaces		583.0	% change in area	8.76%	
Built Up	0%	0.0	% cover	28%	n/a
Existing	100%	536.1	ha change	46.9	Maintenance of existing cover
Potential	5%	11.5			Planting on vacant and derelict land
Preferred	6%	32.9			Planting on vacant and derelict land
Sensitive	0.5%	2.6			Enhancement of HGDL-designated parks
Unsuitable	0%	0.0			
<b>Grand Total</b>		<b>62,448.90</b>		<b>19%</b>	

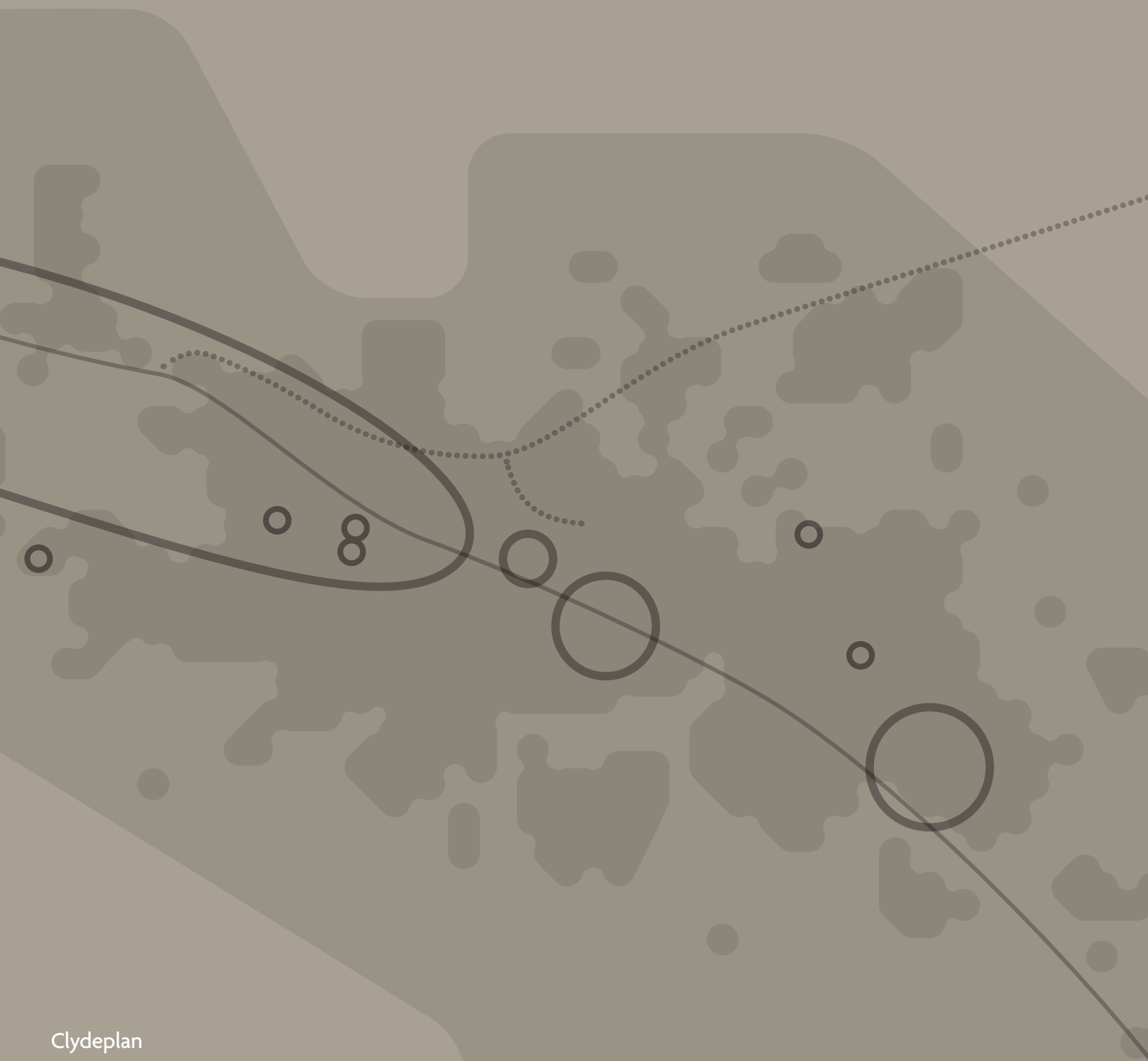




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