Fitting Landscapes

Securing more sustainable landscapes

Strategic Environmental Assessment (SEA)
Environmental Report

Ironside Farrar Ltd on behalf of Transport Scotland
May 2013

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Introduction

In 1998, Scotland promoted a more sustainable and integrated approach to the treatment of landscape within transport corridors through the policy document – "Cost Effective Landscape: Learning from Nature" (CEL:LfN). CEL:LfN set out a new set of principles to guide new and innovative approaches to landscape design and management of the transport estate.

Transport Scotland is currently in the process of updating this policy. The updated policy will be "Fitting Landscapes – Securing more sustainable landscapes".

Fitting Landscapes

This Environmental Report has been prepared by Ironside Farrar Limited, on behalf of Transport Scotland, as part of the Strategic Environmental Assessment (SEA) process for the Fitting Landscapes Policy which promotes a more sustainable and integrated approach to the treatment of landscape within transport corridors. The updated policy will apply to all strategic road, rail and national cycleway routes in Scotland, and sets out Transport Scotland's high-level approach to landscape design and management.

Consultation Process

Statutory Consultation

In accordance with Section 15 (3) of the Environmental Assessment (Scotland) Act, Transport Scotland have agreed an 8 week consultation period with Consultation Authorities.

Public Consultation

The public consultation period will run for a period of 8 weeks. The consultation exercise commences on 27th May 2013 and runs until 22nd July 2013.

Responses to the Fitting Landscapes Policy and the supporting Environmental Report should be submitted to:

Fitting Landscapes SEA
c/o Ironside Farrar, 111 McDonald Road, Edinburgh, EH7 4NW
Tel: 0131 550 6500
mail@ironsidefarrar.com

All responses received as part of the consultation will be recorded, analysed and considered by Transport Scotland and Ironside Farrar. A Post-Adoption Statement will be prepared and published in accordance with the requirements of the Environmental Assessment (Scotland) Act 2005.

Copies of Documents

The Draft Fitting Landscapes Policy and Environmental Report are available online at www.transportscotland.gov.uk.

Copies of the Draft Fitting Landscapes Policy and Strategic Environmental Assessment Environmental Report may be inspected free of charge at:

Transport Scotland, Buchanan House, 58 Port Dundas Road, Glasgow G4 0HF

Consultation to Date

The process has been an iterative process, whereby SEA comments have been received through the SEA Gateway from statutory consultees. The consultation comments have formed an important medium, through which, environmental considerations can be assessed and integrated fully within the policy.

Purpose of the Environmental Report

Strategic Environmental Assessment

A Strategic Environmental Assessment is required, under the Environmental Assessment (Scotland) Act 2005, to assess the likely impacts of the Fitting Landscapes Policy on the environment.

The purpose of the SEA is to ensure that environmental considerations have been incorporated into Policy.

The 2005 Act requires the production of this non-technical summary outlining the process and findings of the SEA on the plan or Policy under consideration.

The SEA process and Environmental Report is structured around topic areas that reflect the range of environmental issues which should be explored through the environmental report. This includes biodiversity, flora and fauna, population and human health, water, soil, air and climate, material assets, cultural heritage and landscape.

Environmental Baseline

SEA Topic	Summary of Key Environmental Baseline
Biodiversity (Fauna and Flora)	• Scotland's has a series of priority habitats, as identified by the UK Biodiversity Action Plan Assessment in 2008. Of these priority habitats, it is considered that 31% are in decline. • Scotland's has a number of priority species, as defined by the UK BAP Assessment in 2008. Among 230 species assessed in 2008, the proportion that were stable or increasing (32%) exceeded those declining or lost (15%). • Scotland has 153 SPAs, 239 SACs, 1439 SSSIs, and there is a need to protect these sensitive sites • Land use change can lead to loss of natural/ semi natural habitats & habitat fragmentation. • Conditions of designated sites with the proportion of natural features in favourable condition stood at 78.0% in March 2010
Population and Human Health	• Scotland has a population of 5.2 million in 2010 with a population density of 67person/km^2.

SEA Topic	Summary of Key Environmental Baseline
	• The amenity value of natural landscapes is important in terms of recreational amenity and the journey experience, and can be altered by transport schemes • Scottish Economy and Society is served by 3,405 kilometres of trunk road, 2,776 kilometres of rail track, and over 1,926 miles of National Cycle Network Cycle • Active Travel routes can be located alongside the transport estate, and provide important infrastructure for pedestrians and cyclists. • Roadside concentrations of NO_2 have been below 40 µg m^{-3} for two consecutive years (as of 200) • Between 1990 and 2009, Scottish emissions of PM_{10} fell by 60%.
Geology, geomorphology and soils	• Soils are important to the productivity of ecosystems and sustain a range of flora and fauna, as well as natural processes, are a source for material assets, and may contain archaeological interest. • The loss of soil organic matter, changes in soil biodiversity, erosion and landslides and soil sealing are key threats to soil quality and stability. • In terms of geodiversity, there are currently 895 Geological Conservation Review (GCR) sites in Scotland. However, 23% have no protective Site of Special Scientific Interest (SSSI) designation status.
Water	• The water environment provides important habitat and water resource for aquatic and terrestrial species, which can be interrupted by the implementation of the transport estate. • The impacts of climate change and extreme weather events can lead to more pronounced flooding. • In 2010, 63% of Scotland's water bodies were at good, or better status (although pollution levels are significantly more concentrated in urban areas) • A total of 667 river, 120 loch, 16 transitional, 43 coastal water bodies are affected by morphological alterations • A total of 285 river, 38 loch, 18 transitional, 110 coastal and 17 groundwater water bodies are affected by point source pollution
Climate Change	• Reductions in habitats and species can result in significant impacts on ecosystem services including carbon sequestration. • Transport is one of the key contributors to green house gas emissions in 2010, while energy supply account for 37% and waste management 4%. • The impacts of climate change may increase damage to infrastructure
Material Assets	• The implementation of the transport estate can result in increases in resource consumption, clearing of earthworks, particularly in relation to site clearance • In 2010, there were 16.68 million tonnes of controlled waste generated in Scotland. • 1.4 million hectares of woodland in Scotland in 2011. • Total Material Requirements for the UK in 2010 stood at 1615 million tonnes. • Scotland's landscape and natural heritage is an important material asset (particularly in relation to tourism).
Landscape	• Scotland has a range of landscape designations and there are 372 landscape character types identified, classified along with 18 vignette settings. • There are 40 National Scenic Areas covering 13% of land area • 2 National Parks (Loch Lomond & Trossachs, Cairngorms) • The transport estate is also important in terms of perceptions of the landscape, in terms of maintaining vistas, and conserving views to improve people's journey experience.
Historic Environment	Scotland has a number of statutory and non statutory designations protecting the historical environment: • 5 World Heritage Sites • 47,672 listed buildings • 8,205 Scheduled Monuments • 645 Conservation Areas • 390 Gardens and Designed landscapes • 39 historic battlefields on the inventory

Environmental Assessment

The overall approach to the SEA for Fitting Landscapes Policy has been designed to add value to the policy making process by integrating environmental considerations, and ensuring they are identified in the early stages in the policy making process.

The Policy was assessed against the SEA topics as indentified in Schedule 3 of the Environmental Assessment (Scotland) Act 2005, as well as the potential for cumulative impacts. The assessment concludes that overall the implementation of the Policy will have a positive impact, particularly in relation to landscape design and quality, protection of natural heritage and environmental assets and promoting sustainable development at all stages within transport scheme design, development, management and monitoring.

Alternatives Considered

In relation to the Fitting Landscapes Policy, the following three alternatives have been assessed.

- Alternative 1: Continued Implementation of CEL:LfN
- Alternative 2: Optimum Design and Management of the Transport Estate – Implementation of new Fitting Landscapes Policy (Preferred Option)
- Alternative 3 - No Landscape Policy implemented – CEL:LFN discontinued

It was assessed that Alternative 1 would not provide up to date policies that would contribute to the current legislative frameworks or Scottish Policy Objectives. Alternative 2 was considered the optimum scenario as this would provide a more comprehensive and holistic approach to the design, implementation and management of the transport estate. It would reflect changing national policy frameworks, legislation and Scottish Government/ Transport Scotland objectives; therefore creating a fresh vision for all transport landscapes and their capacity and contribution to Scottish Government policy and guidance.

Alternative 3 would not provide for up to date measures that account for recent changes in the environmental baseline as reflected in current government objectives as well as national and international legislative requirements. There would not be a policy framework to promote innovation through landscape design, development, management and maintenance which would be required to address impacts on climate change (mitigation and adaptation), biodiversity, the water environment, material assets, landscape and place quality.

Mitigation

Environmental Protection is a key consideration within the policy, as its key aims and objectives seek to work towards environmental protection and enhancement in the siting, design, and management / maintenance of the transport estate. As the policy is expected to have overall positive impacts, there is no requirement for mitigation at policy level. Changes to the policy have been made in response to feedback from consultation authorities during scoping and during general policy development.

Monitoring

Monitoring of the policy is considered important to successful implementation to ensure the realisation of objectives. The Fitting Landscapes Policy encourages a process of continuous review, drawing on lessons learnt on scheme implementation and management and introduce change, where appropriate, to improve future outcomes. This will involve feedback and lessons learnt exercise undertaken by Transport Scotland.

Next Steps

Overall the proposed Policy will have a positive impact, particularly in relation to the protection of ecosystems, habitats and biodiversity, climate mitigation and adaptation, population and amenity, material assets, historic environment and the protection and enhancement of landscape. Concurrently, it is concluded that there are no likely significant adverse environmental impacts that arise from the implementation of the Fitting Landscapes Policy

Next steps are as follows:

- Responses to the Policy and Environmental Report will be reviewed
- Modifications to the Policy and Environmental Report will be produced if required.
- The Final Fitting Landscapes Policy and Final Environmental Report will be submitted to the SEA Gateway
- The Fitting Landscapes Policy will be adopted.
- SEA Post Adoption Statement will be issued and Environmental monitoring will be implemented with the Policy

1.0 INTRODUCTION

1.1 Background

In 1998, Scotland promoted a more sustainable and integrated approach to the treatment of landscape within transport corridors through the policy document – "Cost Effective Landscape: Learning from Nature" (CEL:LfN). CEL:LfN set out a new set of principles to guide new and innovative approaches to landscape design and management of the transport estate.

Transport Scotland is currently in the process of updating this policy. The updated policy will be "Fitting Landscapes – Securing more sustainable landscapes".

This Environmental Report has been prepared by Ironside Farrar Limited, on behalf of Transport Scotland, as part of the Strategic Environmental Assessment (SEA) process for the Fitting Landscapes Policy which promotes a more sustainable and integrated approach to the treatment of landscape within transport corridors. The updated policy will apply to all strategic road, rail and national cycleway routes in Scotland, and will set out Transport Scotland's high-level approach to landscape design and management.

Fitting Landscapes builds on the existing principles set out in CEL:LfN, including the lessons learnt in CEL:LfN's implementation. It reflects national policy frameworks, legislation, and Scottish Government/ Transport Scotland objectives.

1.2 Overview of SEA

The Environmental Assessment (Scotland) Act 2005 (hereafter referred to as "The Act") requires the Strategic Environmental Assessment (SEA) of Plans, Programmes and Strategies (PPS). With due regard to these requirements, Transport Scotland has undertaken a SEA as part of the review of the "Fitting Landscapes – securing more sustainable landscapes" policy.

This process is a systematic method for considering the likely significant effects on the environment and integrates environmental factors into policy preparation and decision making.

There are a number of stages of SEA as shown in Table 1 below:

Table 1: Summary of SEA Stages

SEA Stage	SEA Process
Scoping	Identification of the environmental issues to be addressed; the scope and the level of detail required for presentation within the scoping report. This report includes the proposed SEA and Fitting Landscapes Policy Objectives for comment and review.
Scoping Consultation	The Consultation Authorities (CA's) must provide a response on the scoping report via the SEA Gateway within 35 days of receipt. The CA's advise on the scope of the Environmental Report. Ironside Farrar also contacted the SEA Gateway to set the timescale for consultation on the Environmental Report following receipt of consultation responses.
Environmental Report	The Fitting Landscapes Policy is assessed against the SEA Objectives and Indicators. These objectives and indicators are refined from the

SEA Stage	SEA Process
	SEA Scoping report and have been further developed in view of the baseline information gathered.
Environmental Report Consultation	The Consultation Authorities provide a response on the Environmental Report via the SEA Gateway within 7-12 weeks of receipt. The CA's will advise on the content of the Environmental Report and the acceptability of the Fitting Landscapes Policy objectives and proposals. This consultation will include public consultation.
Adoption	The Fitting Landscapes Policy and the Environmental Report will be finalised taking into account the consultation responses. Once finalised, the Fitting Landscapes Policy will be formally adopted.
Post-Adoption SEA Statement	The SEA Statement sets out the changes made to the Fitting Landscapes Policy as a result of the environmental assessment. Recommendations for monitoring of the environment and timescales for the monitoring and the responsibilities for Transport Scotland will be presented for scrutiny to the Consultation Authorities.
Mitigation and Monitoring	Following adoption, Transport Scotland would enter into liaison with the Consultation Authorities to establish a monitoring timetable and suitable indicators to establish any impacts which may arise as a result of Fitting Landscapes Policy implementation.

The development of the Draft Fitting Landscapes Policy has gone through a number of stages to date. A timeline for SEA activities undertaken to date is set out below in Table 2 with elements still to be completed provided in Table 3.

Table 2: Summary of SEA stages for Fitting Landscapes

SEA Stage	Date Completed	SEA Process
Screening Report	September 2012	Screening report submitted to the SEA Gateway to determine the need for SEA. SEA Gateway responded to confirm that Consultation Authorities advised that SEA is required, as the policy gives rise to significant environmental effects.
Screening Determination	November 2012	Transport Scotland determined that SEA will be required and notified the SEA Gateway
Scoping Report Submission	Early March 2013	The scoping report was submitted to the SEA Gateway to set out the proposed scope and level of detail of the Environmental Report
Consultation on SEA Scoping	Mid March – mid April 2013	The Consultation Authorities (CA's) provided a response on the scoping report via the SEA Gateway. The CA's advised on the scope and level of detail of the Environmental Report. Statutory 35 day consultation period
Drafting of Environmental Report	Mid April- May 2013	The Environmental Report incorporates the comments made in relation to approach and content of the assessment raised at scoping stage
Consultation on Environmental Report and Policy	May 2013 - onward	Transport Scotland has confirmed an 8 week statutory consultation on the Environmental Report. The Fitting Landscapes Policy will also be subject to 8 weeks of Public Consultation. Feedback from consultation will be used to refine the Fitting Landscapes Policy.

The next stages in the development of the Fitting Landscapes Policy and the accompanying SEA are set out in Table 3 below.

Table 3: Next Steps

SEA Activity	Proposed Dates	Comments
Collation of responses	On completion of Statutory Consultation	All consultation responses will be reviewed and changes to the policy / Environmental Report made where required.
Adoption	On completion of Statutory Consultation	The Fitting Landscapes Policy and the Environmental Report will be finalised taking into account the consultation responses. Once finalised, the policy will be formally adopted.
Post-Adoption SEA Statement	On completion of Statutory Consultation	The Post-Adoption Statement sets out how environmental considerations have been integrated into the policy and how the environmental report and the consultation responses have been taken into account. It includes the reasons for choosing the policy as adopted, as well as details for monitoring of the environmental effects and timescales for this monitoring and review.
Mitigation and Monitoring	Implementation of Fitting Landscapes	A suitable mitigation and monitoring programme for the Policy will be agreed.

Section 9 details the next steps involved in the SEA process in relation to the Fitting Landscapes Policy.

1.3 Consultation on the Environmental Report

Statutory Consultation – with Consultation Authorities

In accordance with Section 15 (3) of the Environmental Assessment (Scotland) Act, Transport Scotland wrote to the Scottish Ministers to confirm a 6 week Statutory Consultation period on the Draft Policy and accompanying Environmental Report. A period of 8 weeks was confirmed as a more acceptable time period by the Consultation Authorities in their response to the SEA Scoping Report.

Statutory responses (Scottish Ministers/ Historic Scotland/ SEPA and SNH) should be submitted via the SEA Gateway:

SEA Gateway
Scottish Government
Area 1 J South
Victoria Quay
Edinburgh
EH6 6QQ
Email: SEA.gateway@scotland.gsi.gov.uk

Public Consultation

The public consultation period will run for the agreed period of 8 weeks. The consultation exercise commences on 27th May 2013 and will run to the 22nd July 2013

Responses to the Fitting Landscapes Policy and the supporting Environmental Report should be submitted to:

Fitting Landscapes SEA
c/o Ironside Farrar, 111 McDonald Road, Edinburgh, EH7 4NW
Tel: 0131 550 6500
mail@ironsidefarrar.com

All responses received as part of the consultation will be recorded, analysed and considered by Transport Scotland and Ironside Farrar.

Copies of Documentation

The Draft Fitting Landscapes Policy and Environmental Report are available online at www.transportscotland.gov.uk.

Hard Copies of the Draft Fitting Landscapes Policy and Strategic Environmental Assessment Environmental Report may be inspected free of charge at:

Transport Scotland,
Buchanan House,
58 Port Dundas Road,
Glasgow G4 0HF

2.0 Fitting Landscapes in Context

2.1 Study Area

Transport Scotland manages a large public estate associated with transport infrastructure across the Scottish mainland and Skye. The 'transport estate' passes through and is influenced by a diverse mix of urban, rural, lowland and highland landscapes. The 'transport estate' currently managed by Transport Scotland comprises 3,405 kilometres of trunk road (Figure 1) and 2,776 kilometres of rail track (Figure 2). In Scotland, the National Cycle Network (NCN) (Figure 3) is promoted and developed by Sustrans, in partnership with others - Transport Scotland has helped in the delivery of a number of routes where these link to the Trunk Road Network.

Figure 1 – Trunk Road Network (Source: Transport Scotland)

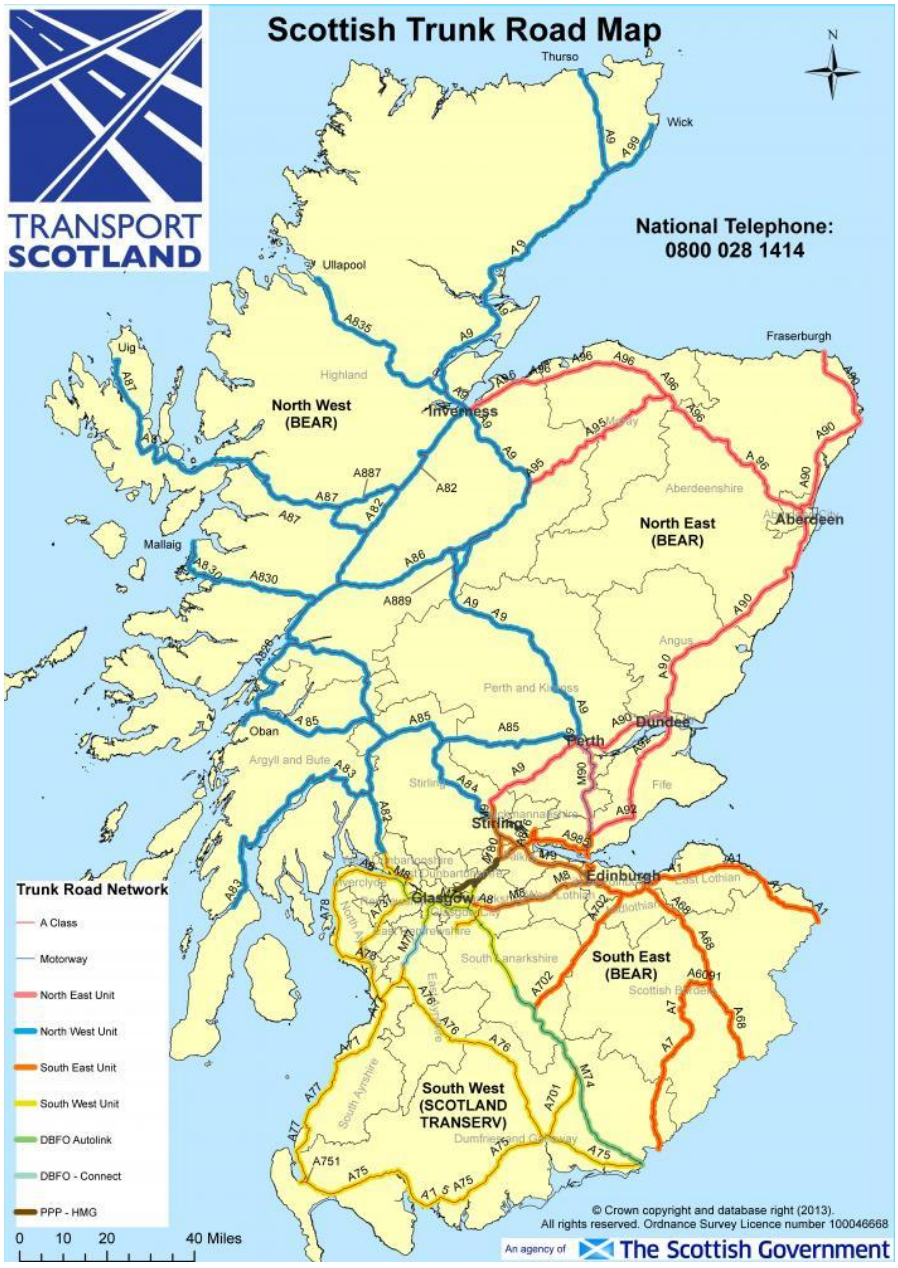


Figure 2 - Rail Network (Transport Scotland)
Note: Does not include Airdrie to Bathgate line.

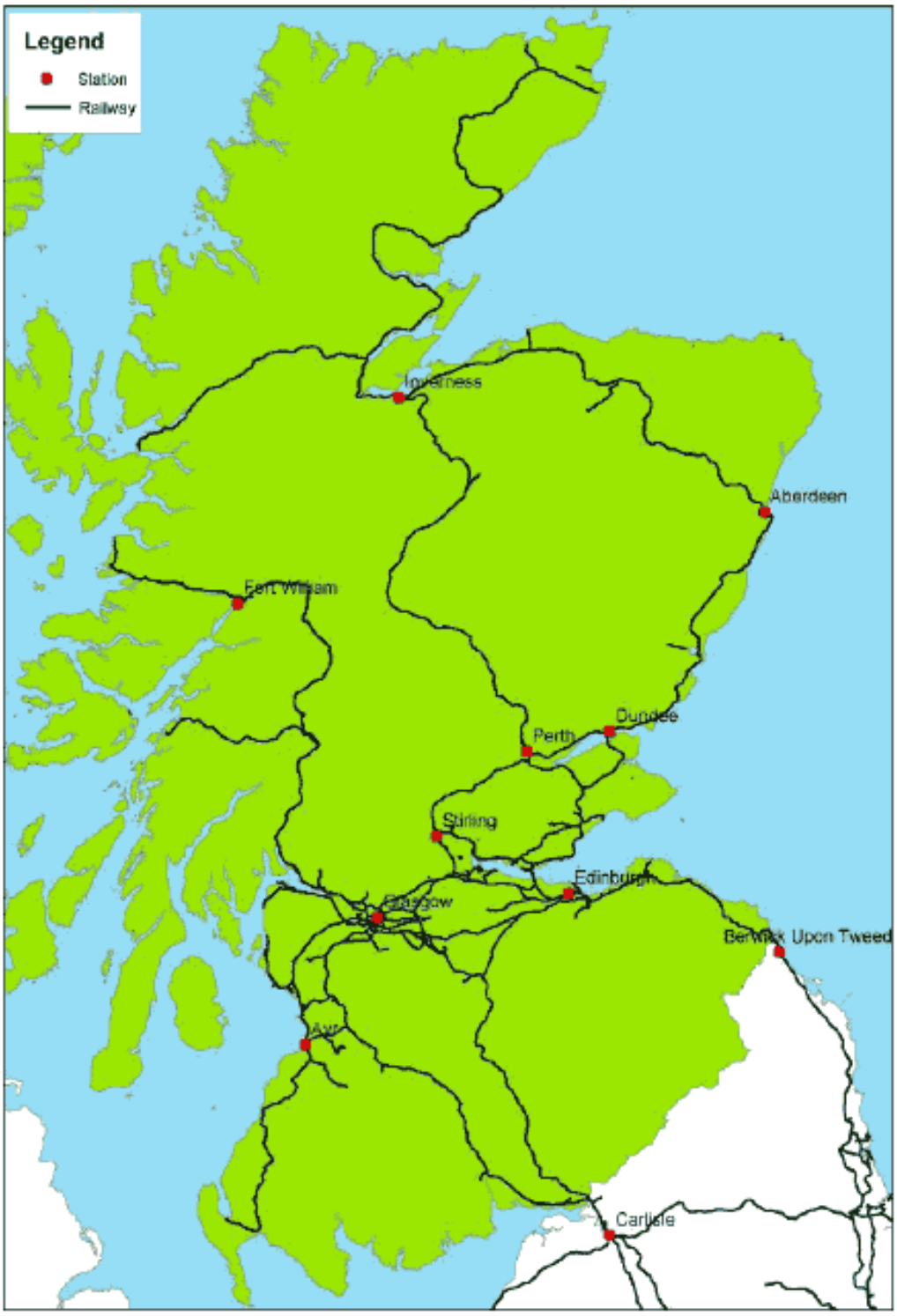
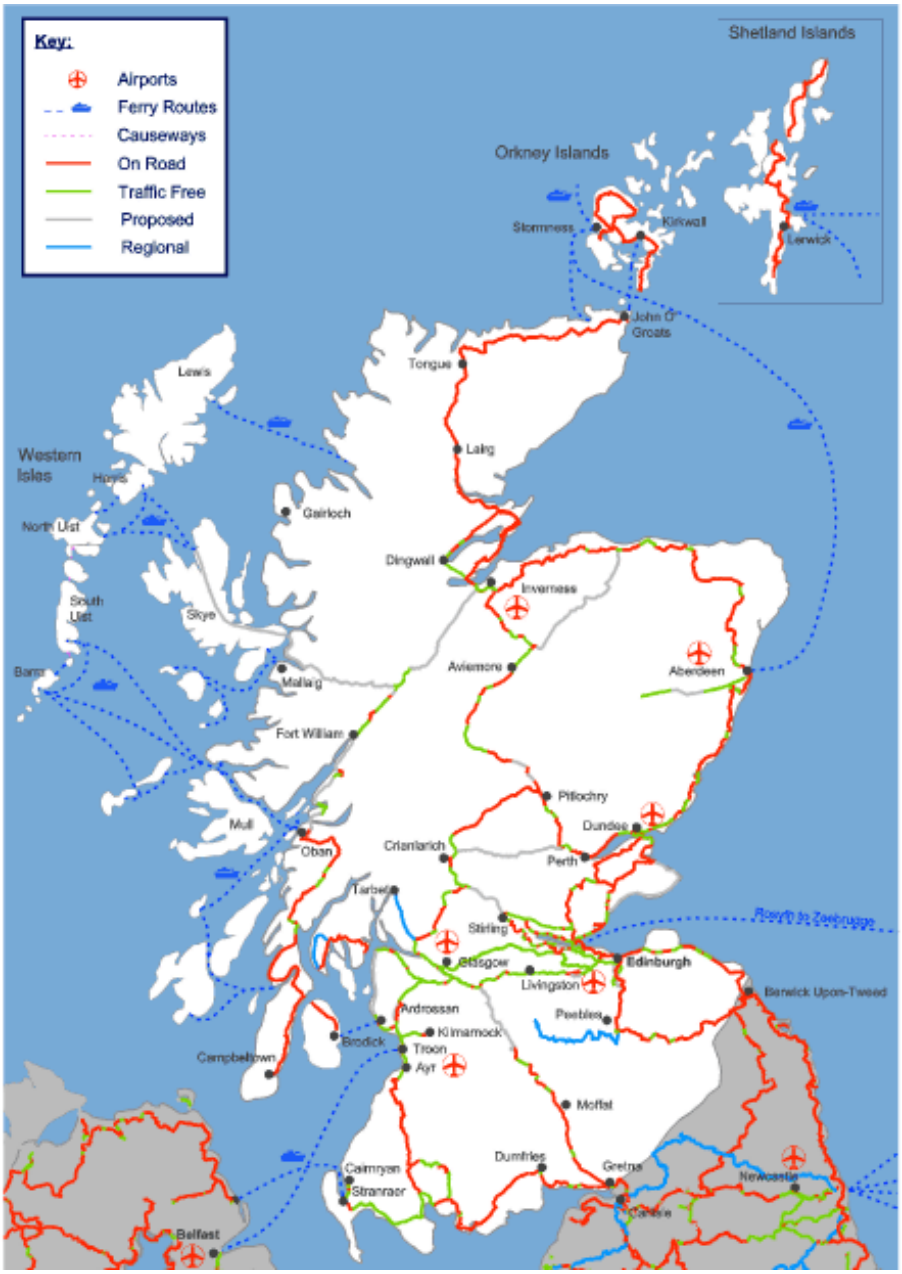


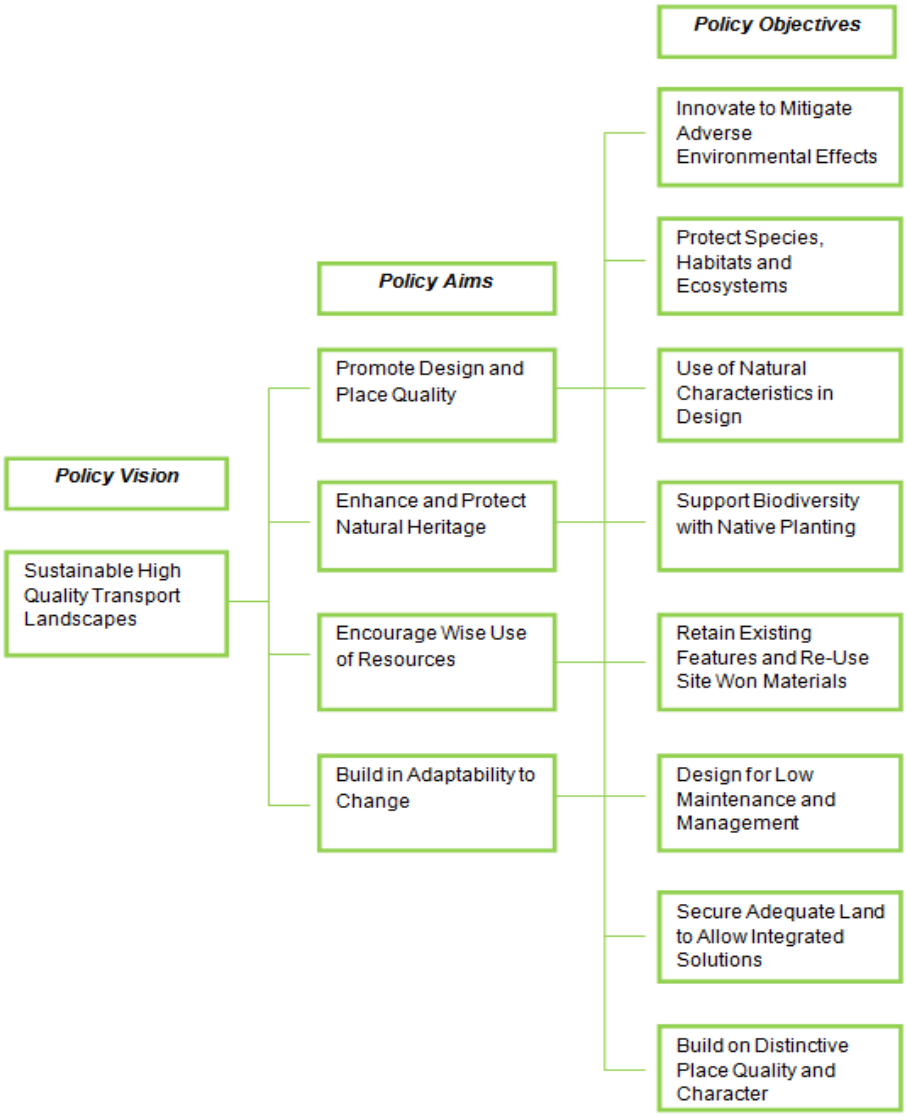
Figure 3 - National Cycle Network (Source: Transport Scotland)
Source: Transport Scotland, Cycling by Design 2010 (Revision 1, June 2011)



2.2 Components of the Fitting Landscapes Policy

The Fitting Landscapes comprises a number of component parts as shown in Figure 4.

Figure 4: Fitting Landscapes: Policy Vision, Aims and Objectives



Fitting Landscapes Vision & Policy

The draft Policy seeks to promote design quality and more sustainable outcomes for the transport estate. The Policy Vision of Fitting Landscapes is:

"To Promote the more sustainable design, implementation, maintenance, and management of the transport estate and ensure that the landscapes we create and manage are of high quality, well integrated, bio diverse, adaptable and deliver a meaningful contribution to national sustainability policies"

In addition, the draft Policy states:

- *Transport landscapes should enhance natural heritage, address quality of place, make wise use of resources and be adaptable to future change.*
- *Landscape and environmental objectives will be set to inform the planning, design, implementation and management of new transport infrastructure and the management of existing schemes.*
- *Landscape design will promote design approaches that support stronger integration of natural heritage and place quality based on a full understanding of landscape character and context.*
- *Landscape architects will actively engage with other design professionals to secure a multi-disciplinary and collaborative approach to all landscape related design and management processes affecting the transport estate.*

It is intended that the aims and objectives (See Figure 4 above) of the Fitting Landscapes Policy shall be employed in the planning, design, implementation of transport infrastructure and the management of all transport landscapes.

Fitting Landscapes - Aims

The draft Fitting Landscapes will have four key aims, each of which will address aspects of the vision.

It is a prerequisite of all Transport Scotland projects that the servicing of these aims is given full consideration at the outset of all transport projects, whether associated with constructing new infrastructure or for specifying approaches to maintenance and management. The aims are to:

- *Promote Design and Place Quality*
- *Enhance and Protect Natural Heritage*
- *Encourage Wise Use of Resources*
- *Build in Adaptability to Change*

Fitting Landscapes - Draft Project Objectives

- *Innovate to mitigate adverse environmental effects*
- *Protect species, habitats and ecosystems*
- *Use of natural characteristics in design*
- *Support Biodiversity with native planting*
- *Retain existing features and re-use site won materials*
- *Design for low maintenance and management*
- *Secure adequate land to allow integrated solutions*
- *Build on distinctive place quality and character*

The Policy provides a number of mechanisms which are tailored to help deliver those objectives detailed above.

Table 4: Objectives / Mechanisms of the Fitting Landscapes Policy

Objective	Delivery Mechanism
Objective 1: Innovated to Mitigate Adverse Environmental Effects	Design Team Collaboration
	Design Integration
	Addressing Unforeseen Opportunities
	Integrate Local Characteristics
Objective 2: Protect Species, Habitats and Ecosystems	Avoid Sensitive Species and Habitats
	Protect Ecosystems
	Protect Assets
	Buffer Habitats
	Provide for Networks
Objective 3: Use of Natural Characteristics in Design	Promote Variation
	Allow Natural Processes to Work
	Earthworks Contouring
	Rock Cut Treatments
	Natural Drainage Solutions
Objective 4: Support Biodiversity with Native Planting	Native Plants and Seeds
	Local Provenance
	Species Mix
	Collect and Grow Seeds and Cuttings
	Bespoke Solutions
Objective 5: Retain Existing Features and Re-Use Won Materials	Local Context and Route Selection
	Protect during Construction
	Balanced Earthworks
	Soil Conservation
	Translocation of Plants and Habitats
	Chipping and Composting
Objective 6: Design for Low Maintenance and Management	Right Plant for Right Place
	Appropriate Planting Densities
	Low Productivity Grasslands
	Minimise Chemical Applications
Objective 7: Secure Adequate Land to Allow Integrated Solutions	Landform integration.
	SUDS Attenuation and Treatment
	Green Networks
	Active Travel Routes
	Conserve and Create Views
	Address Boundaries

Objective	Delivery Mechanism
Objective 8: Build on Distinctive Place Quality	Respect Setting
	Continuity of Elements
	Conserve Key Features
	Use Local Materials
	Conserve and Create Key Views

3.0 Relationship with other Plans, Programmes and Strategies (PPS)

3.1 Relationship between Fitting Landscapes with other PPS

The 2005 Act requires that the Environmental Report includes an outline of the relationships between the plan, programme or Policy (PPS) under assessment, and other relevant PPS.

The position of the Fitting Landscapes Policy within the tier of transport legislation, plans, policies and strategies is illustrated in Figure 5 below.

Figure 5: Transport Policy Linkages

Table 5: Key Relationships between Fitting Landscapes and other Plans, Programmes and Strategies, Legislation and Other Guidance

Plans, Programmes and Strategies, Legislation and Other Guidance		Link to Fitting Landscapes Policy
National Planning Framework 2/ NPF 3 Main Issues Report (Published April 2013)	The National Planning Framework 2 (NPF2) 2009 is the Scottish Government's Policy for the long term development of Scotland's towns, cities and the countryside. The NPF2 details the importance of transport as a key sector in Scotland' spatial framework, accounting for approximately 19 % of Scotland's greenhouse gas emissions, and is the fastest growing contributing sector. In terms of reducing emissions, the NPF 2 aims to promote measures to encourage more active and sustainable modes of travel, concurrent with efforts to induce a shift away from private car use. Simultaneously the NPF2 emphasises the importance of maintaining Scotland's landscapes and natural heritage, including biodiversity and the cultural landscape. As identified in the Main Issues Report of the NPF3, the scenic qualities of Scotland's landscapes are placed in high priority in terms of air quality, cultural identify and the visitor economy. Key aims include the need to expand green networks, which will enhance the water environment, and will be an aid in terms of climate adaptation. Equally, other key objectives identified include reducing energy demand, as well as objectives that will seek to protect and enhance the natural and built heritage. Strengthening green infrastructure, improving water and soil quality are considered important in this regard. Sustainable Resource Management is also promoted.	The Fitting Landscapes Policy provides measures that will contribute to the policies detailed in NPF2 and objectives detailed in NPF3 MIR, particularly in terms of valuing Scotland's landscapes and its biodiversity. The policy provides for measures that mitigates against the adverse impacts of transportation infrastructure siting on the environment and works towards measures that protect, where required, landscape, biodiversity and habitats. Additionally, the policy seeks to encourage sustainable use management in the design and implementation of the transport estate, as well as encourage design measures that support the creation of green networks. It also promotes an appreciation of local context in the siting and design of the transport estate including an appreciation of the landscape for the journey experience.
Scottish Planning Policy (SPP)/ Consultation Draft (May 2013)	Scottish Planning Policy (SPP) – sets out the Scottish government's planning policy guidance on a wide range of topic areas, including transport, protection of the environment, climate change, minerals, landscape and natural heritage, flooding and drainage etc. In conjunction, the consultation on the NPF3, the Scottish Planning Policy Draft Consultation Document is currently seeking responses. The Draft SPP contains a number of principle policies such as sustainable development, addressing climate change,	The policy seeks to contribute to the policies outlined in SPP, by providing measures for the sustainable management, design and implementation of the transport estate. The policy supports measures that account for an appreciation of local context (including the historic environment) in the design and implementation of the transport estate. It also seeks to protect

Plans, Programmes and Strategies, Legislation and Other Guidance		Link to Fitting Landscapes Policy
	placemaking as well specific subject policies, which include: • Buildings (including the historic environment) • Natural Resources (including valuing the natural environment, enhancing green infrastructure, supporting responsible extraction of resources) • Movement (sustainable and active travel routes) • Utilities (including managing flood risk and drainage, reducing and managing waster)	natural heritage, biodiversity, and ecosystems as well as provide objectives that seek to enhance green networks, encourage suitable tree planting and the wiser use of resources. Additionally, the policy works towards the integration of active travel routes with main transport corridors, and provides measures that aim to attenuate and treat water runoff.
National Transport Policy	The National Transport Policy for Scotland (December 2006) sets out a number of objectives that collectively aim to deliver a world class transport system for Scotland: • Improve journey times and connections: to tackle congestion and the lack of integration and connections in transport which impact on high level objectives for economic growth; social inclusion; integration and safety; • Reduce emissions: to tackle the issues of climate change, air quality and health improvement which impact on high level objectives for protecting the environment and improving health; and • Improve quality, accessibility and affordability: to give people a choice of public transport, where availability means better quality transport services and value for money or an alternative to the car.	The Fitting Landscapes policy assists in delivering the goals of the NTS; while recognising that the development of transport infrastructure is required in certain cases. The policy seeks to ensure mitigation measures to reduce carbon emissions are progressed as well as providing overarching measures to mitigate against adverse environmental effects. In addition, the policy encourages the implementation of mechanisms that protect the natural environment in the design and implementation of the transport estate, and encourages integration of active travel modes with main transport corridors.
CEL:LfN	Transport Scotland's current landscape guidance policy is CEL:LfN which was produced in 1998. The primary aim of the CEL:LfN is to improve the quality and efficiency of road landscape design and management through the application of natural characteristics, and is specifically prepared for trunk roads. The Policy has three central themes: • Use Natural Characteristics • Explore Alternatives • Use resources wisely	Fitting Landscapes builds on the CEL.LfN while also: • reflecting changing national policy frameworks, legislation and Scottish Government objectives • creating a fresh policy vision for all transport landscapes and how this new vision has the capacity to make significant contribution to Scottish Government Policy and Guidance • building on innovation/ case studies to

Plans, Programmes and Strategies, Legislation and Other Guidance		Link to Fitting Landscapes Policy
		maximise opportunity for high quality design, bespoke solutions and the development of sustainable long term outcomes.
Scottish Landscape Policy Framework (SNH 2006)	To safeguard and enhance the distinct identity, the diverse character and the special qualities of Scotland's landscapes as a whole, so as to ensure that tomorrow's landscapes contribute positively to people's quality of life and are at least as attractive and valued as they are today.	The policy's key aims are to ensure the transport estate is designed and managed in a way that the landscapes created are well integrated with the natural environment, and protect our natural heritage and landscape value based on a full understanding of place quality, character and context.
European Landscape Convention CETS No. 176	This recognises the fundamental importance of the landscape, underpinned directly by geology and topography. Ratified by the UK in 2006, Scotland's Landscape Charter underlines the aims of the European Landscape Convention and encourages action from all sectors of society, including public authorities, to fulfil its vision to make sure that all our landscapes are places we will be proud to pass on to future generations.	Fitting Landscapes Policy seeks to ensure that best practice design should inform the siting and location of transport infrastructure which will result in landscapes that are of high value, well integrated and bio-diverse.
IUCN General Assembly (2008) Resolution 4.040 on Conservation of Geodiversity and Geological Heritage.	Recognises the wider role and relevance of geodiversity and that development often ignores or underestimates geodiversity and geological heritage.	The Fitting Landscapes Policy seeks to work towards measures that protect and enhance geodiversity in the context of the design and implementation of the transport estate. This includes specific measures that allow natural processes to work as well as earthworks and rock cut treatments that reflect natural characteristics and features.
'Designing Places' Scottish Government	The Policy identifies six qualities – identity, safe and pleasant spaces, ease of movement, a sense of welcome, adaptability and good use of resources – that are at the heart of good design for urban and rural development.	Fitting Landscapes Policy includes provision that seeks to ensure that best practice design should inform the siting and location of transport infrastructure; the policy identifies measures that works towards a design quality that creates places in harmony with natural processes i.e. through design collaboration, integration etc.
Conserving Biodiversity – the	This framework calls for cross-sector work on a variety of agreed goals and priorities for the greater good of biodiversity.	Native planting forms a key measure of the Fitting Landscapes Policy in supporting biodiversity,

Plans, Programmes and Strategies, Legislation and Other Guidance		Link to Fitting Landscapes Policy
UK Approach 2007	A key underlying principle of this new framework is the Ecosystem Approach, defined by the Convention on Biological Diversity. Some of the main points of this approach are: • The Ecosystem Approach should be undertaken at the appropriate spatial and temporal scales; The Ecosystem Approach should seek the appropriate balance between, and integration of, conservation and use of biological diversity; • The Ecosystem Approach should consider all forms of relevant information, including scientific and indigenous and local knowledge, innovations and practices; and • The Ecosystem Approach should involve all relevant sectors of society and scientific disciplines	which encourages species mix of local provenance. In addition, the policy works towards enhancement of biodiversity through the creation and management of new habitats and green networks.
Scotland's Climate Change Adaptation Framework (Currently preparing the Scottish Climate Change Adaptation Programme which will replace framework)	This policy aims to identify a framework beyond mitigation measures in terms of climate adaptation strategies. It is considered that landscape design and management has a key role in reducing the impacts of the transport network and in climate change adaptation: • Understanding the potential for landscapes as carbon sinks via the provision of green infrastructure corridors to maximise carbon storage in biomass, where appropriate in landscape terms • Promoting sustainable procurement of contractual services from organisations which demonstrate that effective measures are in place to minimise the carbon intensity of capital works and site management activities • Robust Landscape and Planting Specifications – understanding changing climatic conditions and how different species respond to these changes	Fitting Landscapes Policy works to encourage measures which take account of the future implications of climate change; this will work to ensure the design of transport corridors can respond to environmental change while securing resilient infrastructure. The policy increases awareness of the need for development to take account of future implications of climate change i.e. changes in rainfall and temperature. In addition measures in the policy seek to support biodiversity with native planting, including the promotion of local provenance, species mix.
The 2020 Challenge for Scotland's Biodiversity	The Scottish Government's policy document: *'Scotland's Biodiversity: It's in Your Hands'* has an aim to *"conserve biodiversity for the health, enjoyment and wellbeing of the people of Scotland now and in the future."* This policy has been augmented by *The 2020 Challenge*, prepared to respond to the EU Biodiversity Policy for 2020.	The Fitting Landscapes Policy encourages measures that mitigate against the adverse effects involved in the design and implementation of the transport estate, including the impacts of future transport infrastructure requirements on biodiversity, flora and fauna. Key considerations of the policy aim to protect biodiversity, species and habitats.
Central Scotland Green Network	The Central Scotland Green Network is being promoted through the National Planning Framework 2 as a national development. The aim is to create a strategic network of woodland and other habitats, active travel routes and greenspace links across the broad	Fitting Landscapes Policy provides measures that seek to work towards an integrated approach to the provision of open space and habitat

Plans, Programmes and Strategies, Legislation and Other Guidance		Link to Fitting Landscapes Policy
	area of central Scotland. Other regions are also developing green networks in their Supplementary Planning Guidance.	enhancement through green networks etc.
Scottish Historic Environment Policy (SHEP 2011)	Sets out Scottish Ministers' policies, providing direction for Historic Scotland and a policy framework that informs the work of a wide range of public sector organizations.	SHEP 2011 policy promotes the protection of Scotland's heritage; the Fitting Landscapes policy contributes to this by promoting landscape design that seeks to protect key features/ conserve key views i.e. historic environment.
The Scottish Government (2009) The Scottish Soils Framework	The framework describes key pressures on soils, particularly climate change, relevant policies to combat those threats, and identifies the future focus for soil protection, key soil outcomes, and actions across a range of sectors.	Fitting Landscapes seeks to provide measures that reduce the impacts of implementing and managing the transport estate on soil quality and stability of ground/ soil conditions.
Safeguarding Scotland's Resources (Consultation June 2012)	Building on the Zero Waste Plan's vision for Scotland, this consultation is currently seeking views on a programme of proposals to drive progress towards that vision in the broad areas of working with businesses; product design and packaging; reuse; and influencing behaviours with the view to the sustainable use of resources.	The policy includes measures that encourage the wise use of resources in the design, implementation and maintenance of the transport estate. These measures also seek to reduce use of materials/ mineral assets.
Scotland's Geodiversity Charter	Promotes the integration of geodiversity, and its sustainable management, in wider policy and decision frameworks.	The Fitting Landscapes Policy works towards measures that reduce impacts on geodiversity including measures that work to reduce the use of materials in the design, implementation and management of the transport estate including measures for earthworks contouring and rock cut treatments that conserve key features and characteristics.
River Basin Management Plans	The Scotland and Solway Tweed RBMPs were published in December 2009 and set out objectives and measures to protect and improve Scotland's water bodies.	Where appropriate, the policy provides measures that work towards the protection of the water environment while encouraging enhancement through good design, implementation and management of the transport estate.
Delivering Sustainable Flood	This Policy is underpinned by the following outcomes: 1. A reduction in the number of people, homes and properties at risk of flooding as a	The Policy provides measures that work towards alleviating the negative impacts of flooding as a

Plans, Programmes and Strategies, Legislation and Other Guidance		Link to Fitting Landscapes Policy
Risk Management (June 2011)	result of public funds being invested in actions that protect the most vulnerable and those areas at greatest risk of flooding; 2. Rural and urban landscapes with space to store and slow down the progress of floods; 3. Integrated drainage that decreases burdens on our sewer systems while also delivering reduced flood risk and an improved water environment; 4. A well-informed public who understand flood risk and adopt actions to protect themselves, their property or their businesses, and; Flood management actions undertaken that will stand the test of time and be adaptable to future changes in the climate.	result of the implementation of transport infrastructure. This includes natural drainage solutions and SUDs attenuation to treat run off. Ensuring that new transport infrastructure is resilient in the face of projected climate change is important and the design and implementation measures included in the policy provides measures that address this.
Water Framework Directive (2000/60/EC)	Represents the most substantial piece of EU water legislation to date. Central to the framework is an integrated approach through River Basin Management Planning (RBMP) which will consider the cumulative impacts of all activities within a river basin and district and the risk posed to the environment. Environmental objectives will be set for each water body, with due consideration to economic and social costs. Aims to prevent deterioration in status and to achieve "good" ecological status in all surface and ground water bodies by 2015 and limit the quantity of groundwater abstraction to that portion of overall recharge not required by ecology. The basic objectives to be achieved as set out in Article 4(1) can be summarised as follows: • prevent deterioration of the status of groundwater bodies; • protect, enhance and restore all bodies of groundwater with the aim of achieving good • groundwater status by 2015; • prevent or limit the input of pollutants to groundwater and reverse any significant and sustained • upward trend in the concentration of pollutants in groundwater; • comply with European wide measures against priority and priority hazardous substances; and • achieve compliance with any relevant standards and objectives for protected areas	The policy works to provide measures that seek to ensure that the location and setting of transport infrastructure does not adversely impact water quality or contaminate ground water. It also encourages measures that protect the water environment as a key habitat for migratory species. The policy promotes measures that work towards habitat and species protection including biodiversity. It seeks to promote efforts to build adaptability to change in terms of building resilient infrastructure to deal with changing climatic/ weather events i.e. increased rainfall therefore run off from infrastructure.
The Water	The Water Framework Directive was transposed into Scottish Law via the WEWS ACT	The policy works to protect sensitive habitats, for

Plans, Programmes and Strategies, Legislation and Other Guidance		Link to Fitting Landscapes Policy
Environment and Water Services (Scotland) Act 2003	2003 Aims include the Protection of the water environment in Scotland inclusive of: (a)preventing further deterioration of, and protecting and enhancing, the status of aquatic ecosystems and, with regard to their water needs, terrestrial ecosystems and wetlands directly depending on those aquatic ecosystems, (b)promoting sustainable water use based on the long-term protection of available water resources, (c)aiming at enhancing protection and improvement of the aquatic environment through, amongst other things, specific measures for the progressive reduction of discharges, emissions and losses of priority substances and the cessation or phasing out of discharges, emissions and losses of the priority hazardous substances, (d)ensuring the progressive reduction of pollution of groundwater and preventing further pollution of it, and (e)contributing to mitigating the effects of floods and droughts,	example through the provision of buffering habitats, inclusive of measures such as SUDs systems between transport corridors and proximate watercourses. In addition, building adaptation into transport infrastructure that takes account of future implications of climate change, including changes in rainfall and temperature, is promoted in the policy. Adaptation measures include storm drainage, green network enhancement and refuge habitats.
EU Groundwater Directive 2006/118/EC	Naturally occurring hydrogeological processes, such as water purification, offer the potential to contribute to water quality improvements for both groundwater and surface water bodies through the dispersal or removal of polluting substances. The continual exchange of water between the surface environment and the groundwater environment provides support to maintain and develop healthy and diverse water-dependent habitats and species. This Directive is designed to prevent and combat groundwater pollution. Its provisions include: • criteria for assessing the chemical status of groundwater; • criteria for identifying significant and sustained upward trends in groundwater pollution levels, and for defining starting points for reversing these trends; • Preventing and limiting indirect discharges (after percolation through soil or subsoil) of pollutants into groundwater.	The policy works towards measures that seek to protect groundwater quality in proximity to the transport estate. Measures that work towards sustainable drainage solutions that deal with runoff from transport infrastructure, as well as integrating adaptation techniques in the context of increasing incidence of extreme weather events constitutes a fundamental aspect of the policy.
Water Environment (Controlled Activities) (Scotland)	Referred to as the Controlled Activity Regulations (CAR), these regulations seek to detail the level of authorisation and licensing in respect of activities that may have impacts on the water environment including mitigating the effect on other water users. It includes a pollution control regime based on the point source pollution control and water abstraction.	The policy seeks to provide measures that reduce the impacts of the transport estate through a design, implementation and management policy that works towards protecting groundwater quality

Plans, Programmes and Strategies, Legislation and Other Guidance		Link to Fitting Landscapes Policy
Regulations 2011		from contamination.
Flood Risk Management (Scotland) Act 2009	This act seeks to ensure that sustainable flood risk strategies and plans are required to be prepared, with the aim of sustainable flood risk management. These are currently in the early stages of preparation (Flood Risk Management Planning in Scotland: Arrangements for 2012 – 2016.	The policy should provide measures that work towards alleviating the negative impacts of flooding as a result of the implementation of transport infrastructure. Ensuring that new transport infrastructure is resilient in the face of projected climate change is very important and the design and landscaping measures in the policy seeks to provide measures that address this.
EU Wild Birds Directive (92/43/EC)	Provides a framework for the conservation of wild birds in Europe. The Directive requires the identification of Special Protection Areas (SPAs) to conserve rare or vulnerable species. Aims to sustain populations of naturally occurring wild birds by sustaining areas of habitats in order to maintain populations at ecologically and scientifically sound levels.	The policy includes measures that seek to promote natural heritage and biodiversity protection SPAs and encourage the protection of populations of naturally occurring wild birds by protecting species and habitats.
EU Habitats Directive (92/43/EC)	Aims to ensure biodiversity by conserving natural habitats of wild flora and fauna. It requires Special Areas of Conservation (SACs) to be identified which form a network of protected areas called Natura 2000 along with SPAs. Projects are only permitted on such sites under exceptional circumstances. Also aims to maintain or restore in a favourable condition designated natural habitat types and habitats of designated species listed in Annex I and II of the Directive respectively.	The policy aims to promote the protection of such sites as part of infrastructure design, so that works and implementation do not adversely impact on the integrity of Natura 2000 sites (SACs, SPAs).
The Conservation (Natural Habitats, &c.) Regulations 1994 as amended	The Habitats Regulations require competent authorities to carry out appropriate assessments in certain circumstances where a plan or project affects a Natura (European) site. Habitats Regulations Appraisal (HRA) refers to the whole process, including the appropriate assessment step.	The policy should work to encourage measures that seek to prevent adverse impacts on Natura sites (SACs, SPAs).
Wildlife and Countryside Act (as amended) (1981)	Principal legislative mechanism for the protection of wildlife in Great Britain. Requires any land that is identified as being of special interest by reason of any of its flora, fauna, geological or physiographical features to be classified as a Site of Special Scientific Interest (SSSI) and afforded certain protection against damaging measures.	A key consideration of the policy is the protection of species, habitats and ecosystems by working towards mitigation measures that: • Address adverse impacts on protected species and habitats

Plans, Programmes and Strategies, Legislation and Other Guidance		Link to Fitting Landscapes Policy
		• Consider natural systems holistically to avoid unforeseen impacts to the wider environment inc. ecosystems In addition, the protection of habitats and species corridors, as well as providing buffering habitats and interconnected green networks forms a key aspect of the policy.
Wildlife and Natural Environment (Scotland) Act 2011	The act amends existing legislation relating to the protection of certain birds, species, habitats and activities, aiming to make law on wildlife and the natural environment more effective and proportionate.	The policy should work to provide measures that protect biodiversity and wildlife habitats for species.
Protection of Badgers Act 1992	The Protection of Badgers Act 1992 consolidates and improves previous legislation (including the Badgers (Further Protection) Act 1991). It seeks to protect Badgers in the UK including setts and habitats, by providing a legislative framework for enforcement and protection.	The policy should seek to provide measures that seek to reduce the impacts on badgers, and their habitats.
Climate Change (Scotland) Act 2009	A key commitment of Scottish Government to reduce greenhouse gas emissions by 80 per cent by 2050.	The policy works to include measures that reduce consumption of materials and energy, while also promoting the retention of green networks and ecosystems which allows for enhanced carbon sequestration associated with ecosystem services provide plant species.
Nature Conservation (Scotland) Act 2004	The Act sets out a series of measures which are designed to conserve biodiversity and to protect and enhance the biological and geological natural heritage of Scotland. It imposes a wide ranging duty – "biodiversity duty" on Scotland's Public Sector. In delivering this duty, public bodies and office holders must have regard to the Scottish Biodiversity Strategy and the UN Convention on Biological Diversity. Accordingly, the Act also requires that Scottish Ministers must designate as the Scottish Biodiversity Strategy one or more strategies for the conservation of biodiversity It increases the protection of Sites of Special Scientific Interest and wildlife through various legislative measures.	The Fitting Landscapes Policy takes account of the provisions of the Nature Conservation (Scotland) Act 2004, and includes measures to protect biodiversity, habitats and ecosystems, as well as provide measures that seek to mitigate against any adverse impacts on designated sites as a result of the implementation of the transport estate.
Historic Environment	Influences the extent of public control to ensure the protection of scheduled ancient monuments, listed buildings and other points of cultural heritage. It amended the following	The Fitting Landscapes policy should promote measures in the design and siting of transport

Plans, Programmes and Strategies, Legislation and Other Guidance		Link to Fitting Landscapes Policy
(Amendment) (Scotland Act 2011	three acts: – Ancient Monument Acts 1953 – Planning (Listed Buildings and Conservation Areas) (Scotland) Act 1997 – Ancient Monuments and Archaeological Areas Act 1979	infrastructure that protects the historic environment.

4.0 Environmental Baseline

4.1 Relevant Environmental Baseline Information

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, policy or programme", and "the environmental characteristics of areas likely to be significantly affected".

A summary of the key environmental baseline relevant to the Fitting Landscapes Policy have been identified in Table 6 below. A more detailed review of environmental baseline, including key considerations for the Fitting Landscapes Policy, is provided as Appendix 3.

Table 6: Key Environmental Baseline

SEA Topic	Summary of Key Environmental Baseline
Biodiversity (Fauna and Flora)	• Scotland's has a series of priority habitats, as identified by the UK BAP Assessment in 2008. Of these priority habitats, it is considered that 31% are in decline. • Scotland's has a number of priority species, as defined by the UK BAP Assessment in 2008. Among 230 species assessed in 2008, the proportion that were stable or increasing (32%) exceeded those declining or lost (15%). • Scotland has 153 SPAs, 239 SACs, 1439 SSSIs, and there is a need to protect these sensitive sites • Land use change can lead to loss of natural/ semi natural habitats & habitat fragmentation. • Conditions of designated sites with the proportion of natural features in favourable condition stood at 78.0% in March 2010
Population and Human Health	• Scotland has a population of 5.2 million in 2010 with a population density of 67person/km^2. • The amenity value of natural landscapes is important in terms of recreational amenity and the journey experience, and can be altered by transport schemes • Scottish Economy and Society is served by 3,405 kilometres of trunk road, 2,776 kilometres of rail track, and over 1,926 miles of National Cycle Network Cycle • Active Travel routes can be located alongside the transport estate, and provide important infrastructure for pedestrians and cyclists. • Roadside concentrations of NO_2 have been below 40 µg m^{-3} for two consecutive years (as of 200) • Between 1990 and 2009, Scottish emissions of PM_{10} fell by 60%.
Geology, geomorphology and soils	• Soils are important to the productivity of ecosystems and sustain a range of flora and fauna, as well as natural processes, are a source for material assets, and may contain archaeological interest. • The loss of soil organic matter, changes in soil biodiversity, erosion and landslides and soil sealing are key threats to soil quality and stability. • In terms of geodiversity, there are currently 895 Geological Conservation Review (GCR) sites in Scotland. However, 23% have no protective Site of Special Scientific Interest (SSSI) designation status.
Water	• The water environment provides important habitat and water resource for aquatic and terrestrial species, which can be interrupted by the implementation of the transport estate. • The impacts of climate change and extreme weather events can lead to more pronounced flooding. • In 2010, 63% of Scotland's water bodies were at good, or better status (although pollution levels are significantly more concentrated in urban areas)

SEA Topic	Summary of Key Environmental Baseline
	• A total of 667 river, 120 loch, 16 transitional, 43 coastal water bodies are affected by morphological alterations • A total of 285 river, 38 loch, 18 transitional, 110 coastal and 17 groundwater water bodies are affected by point source pollution
Climate Change	• Reductions in habitats and species can result in significant impacts on ecosystem services including carbon sequestration. • Transport is one of the key contributors to green house gas emissions in 2010, while energy supply account for 37% and waste management 4%. • The impacts of climate change may increase damage to infrastructure
Material Assets	• The implementation of the transport estate can result in increases in resource consumption, clearing of earthworks, particularly in relation to site clearance • In 2010, there were 16.68 million tonnes of controlled waste generated in Scotland. • 1.4 million hectares of woodland in Scotland in 2011. • Total Material Requirements for the UK in 2010 stood at 1615 million tonnes. • Scotland's landscape and natural heritage is an important material asset (particularly in relation to tourism).
Landscape	• Scotland has a range of landscape designations and there are 372 landscape character types identified, classified along with 18 vignette settings. • There are 40 National Scenic Areas covering 13% of land area • 2 National Parks (Loch Lomond & Trossachs, Cairngorms) • The transport estate is also important in terms of perceptions of the landscape, in terms of maintaining vistas, and conserving views to improve people's journey experience.
Historic Environment	Scotland has a number of statutory and non statutory designations protecting the historical environment: • 5 World Heritage Sites • 47,672 listed buildings • 8,205 Scheduled Monuments • 645 Conservation Areas • 390 Gardens and Designed landscapes • 39 historic battlefields on the inventory

5.0 Assessment Methodology

The Environmental Assessment (Scotland) Act 2005 sets out the requirements for the production of the Environmental Report in Section 14 and Schedule 3 but does not set specific methodology for undertaking the assessment. This section of the environmental report describes how the assessment of the policy has been conducted. The results of the assessment are set out in Chapter 6 and Appendix 2.

5.1 Approaches to SEA

The SEA need to positively address and demonstrate an awareness of the balance of protecting, managing and directing change in a way that recognises the dynamic relationship that connect people, place and environment.

Environmental assessment adds value to the policy making process through the following:

- Integrating environmental considerations leads to better policy making i.e. can improve the policy making process
- Ensuring environmental impacts are identified early in the policy making process and enabling policy modifications
- Identifying opportunities for promotion of environment through enjoyment of the outdoors and natural places and spaces
- Recognition of the benefits of the policy through assessment against environmental objectives and indicators
- Monitoring of the policy implementation

5.2 SEA Guidance

The proposed methodology follows the guidance from the Scottish Government on undertaking SEA in addition to other available information sources:

- Environmental Assessment (Scotland) Act 2005
- Scottish Executive SEA Toolkit, September 2006
- Scottish Government SEA Database – examples of recent SEA

5.3 Scoping of the Environmental Report

The report will take the form advised in the Scottish Executive SEA Templates. It is recommended within the SEA guidance that the following areas of potential impacts are assessed:

- Biodiversity, Flora and Fauna,
- Population & Human Health
- Geology, Geomorphology and Soils / Land Use
- Water
- Air Quality;
- Climatic Factors
- Material Assets
- Landscape
- Historic Environment

The SEA also needs to consider the potential for secondary, cumulative or synergistic impacts associated with the Fitting Landscapes Policy and the inter-relationships between factors such as landscape, climate change as well as the links between the management and maintenance of the transport estate with resource use.

5.4 SEA Topics Scoped In/ Out

In accordance with Schedule 2 of the Environmental Assessment (Scotland) Act 2005, Transport Scotland has considered whether the environmental effects (both positive and adverse) of the Policy are likely to be significant. Those SEA issues not thought to be affected by the Fitting Landscapes Policy have been scoped out, whilst those where environmental impacts are likely have been scoped in.

Figure 6: Fitting Landscapes PPS topic areas as Scoped In

Table 7: Scoping Matrix

SEA Topic	Scoped In or Out?	Comments	Are Consultation Authorities in Agreement?
Biodiversity, Flora and Fauna	✓	The policy aims to mitigate against the adverse environmental effects of existing and new transport corridors, particularly in relation to the protection of habitats, species and ecosystems. The policy seeks to avoid sensitive species and habitats i.e. through early route planning, providing buffer habitats, green networks and habitat connections. Benefits to biodiversity will also be pursued through native planting and securing bespoke solutions to local context. The policy is intended to avoid and/or reduce adverse effects where possible, and to encourage enhancement, where appropriate, of biodiversity and habitats. It is therefore likely to have benefits overall for biodiversity flora and fauna.	Yes
Population &	✓	The policy will work to avoid negative effects	Yes

SEA Topic	Scoped In or Out?	Comments	Are Consultation Authorities in Agreement?
Human Health		on population and provide improvements were appropriate, particularly in relation to the likely benefits relative to enhanced transport landscapes in making journeys more enjoyable and connecting transport routes with the landscape. This includes measures to conserve and create views, and key landscape features by respecting the unique local setting. Equally, measures that actively maintain active travel routes are encouraged.	
Geology etc	✓	The policy will promote a road and landscape design that considers impacts of construction, management and maintenance including rock cut, earthworks and soil conservation. In addition the policy works to ensure efforts that work towards soil conservation including measures to minimise chemical applications.	Yes
Water	✓	The policy will encourage a landscape design that should be integrated with drainage design as well as mitigation measures to address the adverse impacts of transport infrastructure on the water environment. In addition, building in adaptation that takes account of future implications of climate change, including changes in rainfall and temperature should be placed in due consideration. Adaptation measures include storm drainage, green network enhancement and providing for refuge habitats.	Yes
Air Quality	×	The policy will not have significant effects on air quality.	SEPA recommended air quality should be scoped in
Noise and Vibration	×	The policy will not have significant effects on noise and vibration.	SEPA recommended noise should be scoped in
Climatic factors	✓	The policy includes aims/ objectives that encourage the reduced consumption of materials and energy through the wise use of resources. Concurrently, the policy will work to build adaptation to climate change through the promotion of innovative and integrative design measures, maintenance and management techniques. In this respect, measures that promote ecosystem protection including habitats and species protection is included in the policy, which allows	Yes

SEA Topic	Scoped In or Out?	Comments	Are Consultation Authorities in Agreement?
		ecosystems to provide vital services i.e. carbon sequestration.	
Material Assets	✓	The policy promotes the successful integration with the surrounding landscape which may require permanent or temporary land acquisition beyond the immediate construction corridor. The Policy encourages wise use of resources including efforts to re use materials locally. The policy works to achieving dynamic equilibrium through the minimum consumption of energy and materials as well as encouraging native planting and minimising impacts on woodland.	Yes
Landscape and Visual	✓	Fitting Landscapes is a high level policy which seeks to set an agenda for policymakers, planners, designers, contractors, operational managers and maintenance teams involved in the planning, design, implementation and management of the transport estate. The aim is to ensure a 'best fit' with local landscape character but also take account of inter-related elements such as biodiversity/ water environment etc.	Yes
Historic Environment	✓	The policy promotes a landscape design that integrates place quality in the design process based on a full understanding of landscape character and context. To achieve this, the policy encourages the implementation of bespoke and locally appropriate solutions taking cognisance of the historical environmental context and which consider potential impacts on the historic environment.	Yes

The Consultation Authorities were in agreement that the scope proposed for the environmental report was acceptable. SEPA recommended that air quality and noise be scoped in due to contribution that landscape policy can make to mitigating noise and air impacts – we note that as the primary policy role is to improve landscape quality and any mitigation for noise and air impacts would be secondary and therefore these topics have been scoped out in the Environmental Report. The Fitting Landscapes policy is aimed at landscape design, management and maintenance, wise use of resources etc. Air and noise impacts relate to traffic volumes - these issues will be considered as part of transport design and assessment under Design Manual for Roads and Bridges (DMRB Volume 11).

Only those environmental SEA topics 'Scoped In' are considered further within this report.

5.5 SEA Objectives

The SEA objectives for those SEA Topics that have been 'scoped-in' are shown in Table 8 below.

Table 8: SEA Objectives

SEA Topic	SEA Objectives	Assessment Questions - Does the Policy....
Biodiversity & Nature Conservation (Flora & Fauna)	– To protect ecosystems and biodiversity networks and Habitats. – Adhere to the protection of internationally, nationally and regionally designated areas. – Enhance habitat connectivity – Contribute to implementing Scotland's Biodiversity Policy	• Work to improve nature conservation and/ or the health of biologically diverse areas? • Consider mitigation measures against adverse impacts on ecosystems? • Include measures that adversely affect on the health of national, regional or internationally designated sites including Natura 2000 designated sites? • Protect species and habitats (flora & fauna) including provisions in relevant Biodiversity Action Plans? • Help to reduce habitat fragmentation?
Population & Human Health	– Protect amenity value of the landscape – Increase human health including healthy lifestyles	• Include measures that would adversely impact on cyclist and pedestrian access? • Provide measures that enhance amenity value of landscape? • Promote opportunities for enhanced experience of Scotland's landscapes and enhance journey quality.
Geology, Geomorphology, Soils & Land Use	– To ensure the protection of soil quality – To enhance, maintain and prevent damage to geodiversity interests – To help maximise the value of the geodiversity resource	• Result in increases in chemicals i.e. herbicides etc? • Include measures that adversely impact on soil quality • Work to avoid impacts that have a negative effect on geodiversity features of national importance, including those outside designated sites or will there be measures to enhance these features? • Work to avoid impacts that negatively effect on people's access and experience of geodiversity.
Water	– To protect surface water and groundwater – Protect the water environment as a key habitat for species	• Adversely impact on water quality including groundwater contamination / water habitats/environments • Include measures that enhance

SEA Topic	SEA Objectives	Assessment Questions - Does the Policy....
		natural watercourses and water habitats (including measures that mitigate against habitat fragmentation)?
Climatic Factors	– Contribute to national obligations to reduce carbon emissions – Ensure adaptable and resilient infrastructure that is responsive to climate change – Protect vital ecosystem services	• Result in measures that will increase carbon emissions? • Work towards reducing energy consumption? • Provide measures that protect natural heritage and ecosystems which allows ecosystems to provide vital services i.e. carbon sinks • Exacerbate risk of flooding? • Include measures that increase wise use of resources?
Material Assets	– Minimise waste and energy consumption – Promote energy and resource efficiency – Reduce the consumption of material assets	• Result in measures that result in an increase in the consumption of materials including important resources? • Does the Policy promote measures to reduce waste, increase resource efficiency, and encourage re use of materials?
Landscape & Visual	– Enhance natural heritage and place quality – Protect the quality of Scotland's landscape – Enhance visual amenity of Scotland's landscape	• Does the Policy adversely impact on Scotland's natural heritage and landscape character? • Protect or detract from the visual amenity of the landscape / natural heritage? • Contain measures / guidance that will reduce the impacts on the distinctiveness and place quality of landscapes? • Protect naturally scenic areas designated at national, regional, and international level?
Historic Environment	– Protect and, where appropriate, enhance the historic environment.	• Result in negative impacts on points of cultural or archaeological interest? • Seek to protect, enhance or detract from Scotland's historical environmental assets?

5.6 Use of Assessment Matrix

Assessment of the components of the Policy is based on a matrix approach.

Table 9: Example Assessment Matrix

Aim 1 Promote Design and Place Quality					
Explanation of the Aim - (Description)					
Discussion of Environmental Issues and Opportunities associated with the Aim - (Description)					
Summary of Assessment Results - (Description)					
SEA Topic	**Key Issues for Consideration**	**Important Elements to Consider**	**Assessment**	**Duration of effects**	**Comments**
Biodiversity, Flora and Fauna;			+ve	Short / Medium / Long Term	
Population & Human Health					
Geology etc					
Water					
Climatic Factors					
Material Assets					
Historic Environment					
Landscape					

-ve	Negative Effects	0	No Effect		Mixed Effects	+ve	Positive Effects

5.7 Reasonable Alternatives to the Fitting Landscapes Policy

Section 14(2) of the Environmental Assessment (Scotland) Act 2005 states that 'the report shall identify, describe and evaluate the likely significant effects on the environment of implementing …b) reasonable alternatives to the plan or programme taking into account the objectives and the geographical scope of the plan or programme'.

The Fitting Landscapes Policy will replace the current CEL:LFN and therefore a 'do-nothing scenario' is based on continued implementation of this existing policy.

Alternative 1: Continued Implementation of CEL:LfN

- The CEL:LfN would not provide consistency with recent changes in policy direction at both national and European level including new legislative requirements, and Scottish Government objectives.
- The CEL:LfN does not explicitly identify the important role for design team collaboration including the role of the Landscape Architect.
- Does not provide a fresh vision for all transport landscapes and how they contribute to national objectives
- CEL:LfN promotes the sensitive siting and design of the transport estate but does not address linkages to wider sustainability, climate change or adaptation.
- No integration of solutions that contribute to building adaptation into the transport estate's infrastructure and no upgrade of infrastructure to deal adequately with surface drainage, run off, as a result of flooding (potentially due to increased number of extreme events as a result of climatic variability).

Alternative 2: Optimum Design and Management of the Transport Estate – Implementation of new Fitting Landscapes Policy (Preferred Option)

- Seeks to provide measures that encourage high quality landscapes, created or enhanced by the layout out of transport corridors, which are of high amenity value, biologically diverse.
- Seeks to provide measures that lead to the improved function of the transport estate in terms of adaptation building against adverse impacts of climate change.
- Inclusion of measures that adhere to aims and objectives of other policies, plans and programmes in terms of landscape enhancement, climate change mitigation and adaptation, biodiversity etc.
- Reflects changing national policy frameworks, legislation and Scottish Government/ Transport Scotland objectives, and therefore creates a fresh vision for all transport landscapes and their capacity and contribution to Scottish Government policy and guidance;
- Builds on lessons learnt and innovation to maximise opportunity for high quality design and the development of sustainable long term outcomes.
- An overarching and comprehensive policy that deals holistically with the design, implementation and management of the transport estate that has due regard to biodiversity, amenity and landscape, ecosystems and water environment, geology. This is not provided for by other policies.

Alternative 3: No Landscape Policy – CEL:LfN discontinued

- Alternative 3 would not provide measures that encourage the quality design and implementation of the transport estate. No policy measures would be available to neither guide transport schemes nor provide for sustainable management and resource use during the implementation and maintenance of the transport estate. This would potentially result in negative impacts due to the implementation of the transport estate on landscape quality, ecosystems, natural heritage and climate change. This alternative would not be in line with Scottish Government objectives or changing policy frameworks at European Level.

6.0 Assessment Methodology Framework

6.1 Introduction

The purpose of the SEA assessment is to highlight any parts of the Policy which have the potential for significant environmental impacts (both positive and negative). The SEA then proposes mitigation to reduce any negative impacts (See Section 7). This process ensures that environment is a key consideration within the plan/ policy making process.

The Policy has been assessed against the SEA Objectives, and the SEA Topics that have been 'scoped in'. The detailed assessment matrix is provided as Appendix B.

Table 10: Impact Assessment Key

Symbol	Description of Impact
-, --, ---	Negative Effects
0	No Effect / Negligible Effect
+/-	Mixed Effects
+, ++, +++	Positive Effects

6.2 Summary Assessment

Table 11: Summary of Effects on SEA Topic Areas

Component of Fitting Landscapes Policy	Description	Biodiversity	Population Health	Geology & Soils	Water	Climate Factors	Material Assets	Landscape	Historic Environment	Summary
Vision	"*To promote the more sustainable design, implementation, maintenance and management of the transport estate and ensure that the landscapes we create and manage are of a high quality, well integrated, bio-diverse, adaptable and deliver a meaningful contribution to national sustainability policies"*	**++**	**++**	**+**	**+**	**+**	**+**	**+++**	**+**	Overall positive environmental effects - the Policy promotes an approach where landscape and environmental objectives will inform the planning, design, implementation and management of new transport infrastructure and the management of existing networks.
Aims	Promote Design and Place Quality	**++**	**++**	**+**	**+**	**+**	**+**	**+++**	**+**	Overall positive environmental effects - the Aim promotes Place Quality and high quality design and promotes understanding of landscape context and environmental considerations.
	Enhance and Protect Natural Heritage	**+++**	**+**	**+**	**+**	**+**	**0**	**+**	**0**	Overall positive environmental effects - the Aim promotes an approach where protection and enhancement of natural heritage will inform the planning, design, implementation and management of new transport infrastructure and also the management of existing networks.

Component of Fitting Landscapes Policy	Description	Biodiversity	Population Health	Geology & Soils	Water	Climate Factors	Material Assets	Landscape	Historic Environment	Summary
	Encourage Wise Use of Resources	+	0	+	+	+	+++	++	0	Overall positive environmental effects - the Policy promotes wise use of site won material, earthworks, appropriate landscape and habitat protection and enhancement as part of the planning, design, implementation and management of new transport infrastructure and management of existing networks.
	Build Adaptability to Change	+++	++	+++	+++	+++	++	+++	0	Overall positive environmental effects - The policy promotes flexibility and with it the capacity of transport landscapes to allow adaptation to future change in climate and other parameters and addresses need for transport network to be resilient to these changes.
Objectives	To innovate to mitigate adverse environmental effects	+++	++	+	++	+	+	+++	0	The Objective promotes innovation to address potential adverse environmental effects on people; the landscape, habitats and water are an inevitable consequence of existing and new transport corridors.
	To protect species habitats and ecosystems	+++	+	+	+	+	0	++	0	Early consideration to be given to these potential constraints to allow route planning and mitigation which minimises adverse effects and potentially capitalises on these natural assets. Early consideration to be given to these potential constraints to allow route planning and mitigation which minimises adverse effects and potentially capitalises on these natural assets.

Component of Fitting Landscapes Policy	Description	Biodiversity	Population Health	Geology & Soils	Water	Climate Factors	Material Assets	Landscape	Historic Environment	Summary
	To use natural characteristics in design	+++	0	+++	+	+	+	+++	0	Designing of transport landscapes encouraged by a full understanding of context, materials and processes will have a significant positive effect relative to biodiversity, landscape and landform.
	To support biodiversity with native species planting	+++	+	+++	+	+	+	+++	+	Designing of transport landscapes based on use of native planting will have a significant positive effect relative to biodiversity, landscape and soil quality.
	To retain existing features and re use site won materials	+	+	+++	+	+	+	+++	0	Designing of transport landscapes based on maximising the use of existing features and assets in the design, construction and operation of transport schemes has overall positive benefits to landscape quality.
	To design for low maintenance and management	+++	+	+++	0	0	+	++	+	Designing of transport landscapes based on maximising the use of existing features and assets in the design, construction and operation of transport schemes has overall positive benefits to landscape quality.
	To secure adequate land to allow integrated solutions	++	++	+	+	0	0	+++	+	Designing of transport landscapes based on maximising the use of existing features and assets in the design, construction and operation of transport schemes has overall positive benefits to landscape quality.

Component of Fitting Landscapes Policy	Description	Biodiversity	Population Health	Geology & Soils	Water	Climate Factors	Material Assets	Landscape	Historic Environment	Summary
	To build on distinctive place character and quality	+	+	+	+	0	+	+++	+	Designing of transport landscapes based on maximising the use of existing features and assets in the design, construction and operation of transport schemes has overall positive benefits to landscape quality.

6.3 Assessment of Alternatives

This Section sets out the environmental effects of the Policy. It also considers the effects of the reasonable alternatives to the Policy, to maximise transparency and aid comparison. As described in Section 3.6, three alternative approaches were considered and assessed:

Alternative 1: Continued Implementation of CEL:LfN

With this scenario, the policy would not be aligned with the most recent policy changes at national and European level including new legislative requirements and Scottish Government objectives. Climate change particularly adaptation is not adequately covered in the existing policy and is a key issue for Scottish Government and Transport Scotland. There is not sufficient measures that promotes resilience building for climate change nor measures that encourage the protection of ecosystems services

There would not be adequate attention given to specific role of design team collaboration including the role of the Landscape Architect. In addition, a fully holistic approach that covers all aspects of planning and high quality transport landscapes would not be adequately promoted, particularly in terms of implementation.

Measures would be included in this scenario that promotes sustainable design and management of the transport estate that would result account for landscape and place quality. Such measures would take account of place context and distinctiveness and allow for more sustainable design and maintenance outcomes, however, more recent lessons learnt and innovation for high quality outcomes would not be included.

Alternative 2: Optimum Design and Management of the Transport Estate – Implementation of new Fitting Landscapes Policy (Preferred Option)

This would be the optimum/ most preferred option as it would allow for a more holistic and combined policy that promotes the sustainable design, implementation, maintenance and management of the transport estate, and ensure the landscapes created remain of high quality. There would be more overarching aims and more comprehensive structure of objectives that seek innovation and best practice design quality, based on the most recent challenges and policy direction.

This would be done by the promotion of measures that work towards sustainable construction/ implementation of the transport estate. This scenario would also seek measures allowing ecosystems to provide carbon sequestration services, as well as building capacity for future adaption and resilience.

In general, it would reflect changing national policy frameworks, legislation and Scottish Government/ Transport Scotland objectives; therefore creating a fresh vision for all transport landscapes and their capacity and contribution to Scottish Government policy and guidance.

Alternative 3 - No Landscape Policy - CEL:LfN discontinued

This scenario would not provide for measures that account for recent changes in the environmental baseline and therefore not accord with current Scottish Government Objectives. The discontinuation of the CEL:LfN as an alternative would not provide measures that encourage innovation through landscape design, development, management and maintenance which address impacts on climate change (mitigation and adaptation), biodiversity, the water environment, the consumption of material assets, as well as landscape quality and the historic environment, as a result of the implementation of the transport estate.

6.4 Cumulative Assessment

Cumulative impacts result where several individual effects of the PPS have a combined effect

Individual impacts arising from policy vision, aims and objectives whilst not significant when assessed alone, may become significant, when combined.

During implementation, the Policy will promote high quality landscape design, management and maintenance of transport estate whilst promoting measures which strengthen protection of natural heritage, environment and sustainable development. The Policy is therefore expected to have cumulatively positive impacts overall. The Policy will compliment other Plans, Programmes and Strategies which promote high quality design, landscape and environmental protection. Table 12 below provides a summary of the cumulative impacts for each SEA topic across the Vision, Aims and Objectives.

Table 12: Cumulative Assessment

SEA Topic	Part of Policy													Potential cumulative impact of Policy
	Vision	Aim 1	Aim 2	Aim 3	Aim 4	Obj 1	Obj 2	Obj 3	Obj 4	Obj 5	Obj 6	Obj 7	Obj 8	
Biodiversity	++	++	+++	+	+++	+++	+++	+++	+++	+	+++	++	+	Positive overall impact. The Policy promotes bio-diverse landscapes and through aims, objectives and delivery mechanisms, the Policy commits to the protection of ecosystems and ecology.
Population Health	++	++	0	0	++	++	+	0	+	+	+++	+	+	Positive overall impact. The Policy promotes integration of high quality transport estate into the landscape with wider policy aims and objectives recognising the importance of this as an asset in terms of tourism, recreation and amenity.
Geology & Soils	+	+	0	+	+++	+	+	+++	+++	+++	+++	+	+	Positive overall impact. The Policy promotes measures to protect geology and soils, retain and re-use site won materials and promote sustainable design, implementation, maintenance and management.
Water	+	+	+	+	+++	++	+	+	+	+	0	+	+	Positive overall impact. The Policy promotes sustainable design and management approach that seeks to work with natural systems and processes including the water

SEA Topic	Part of Policy													Potential cumulative impact of Policy
	Vision	Aim 1	Aim 2	Aim 3	Aim 4	Obj 1	Obj 2	Obj 3	Obj 4	Obj 5	Obj 6	Obj 7	Obj 8	
														environment.
Climate Factors	+	+	+	+	+++	+	+	+	+	+	0	0	0	Positive overall impact. The Policy promotes adaptation measures that mitigate against the adverse impacts of climate change on transportation infrastructure.
Material Assets	+	+	0	+++	++	+	0	+	+	+	+	0	+	Positive overall impact. Policy promotes sustainable design and includes wider policy measures to protect, retain and re-use site won materials and promote sustainable design, implementation, maintenance and management.
Landscape	+++	+++	+	++	+++	+++	++	+++	+++	+++	+++	+++	+++	Fitting Landscapes Policy seeks to maximise opportunity for high quality design, bespoke solutions and the development of sustainable transport landscapes.
Historic Environment	+	+	0	0	0	0	0	0	+	0	+	+	++	The Policy promotes an understanding of landscape character and context including historical context to design and maintain schemes which respect valued historical environment features.

7.0 Mitigation

7.1 Introduction

Schedule 3 (8) of the Environmental Assessment (Scotland) Act 2005 requires that mitigation measures are integrated into the policy making process.

The Fitting Landscapes Policy comprises a framework that requires a design and management approach that works with natural systems for the implementation and management of the transport estate insofar that the landscapes we create and manage are of high quality, well integrated, bio-diverse, adaptable and deliver a meaningful contribution to national sustainability policies.

Environmental protection is a key consideration within the Policy's vision, aims and objectives and this assessment has concluded that there are likely to be mostly positive, with some neutral impacts, arising from adoption of the Policy, as the key aims seek to work towards mitigation in the siting, design and management of the transport estate, in terms of reducing environmental effects. As the effects of the Policy are expected to be positive, there is no requirement for mitigation at policy level. Mitigation at project level will be identified through Environmental Impact Assessment and Habitat Regulations Appraisal to inform Appropriate Assessment, where required.

Discovering unexpected issues and overcoming practical problems during implementation can be used as an opportunity to maximise landscape and natural heritage benefits through the development of alternative solutions. Contractual and regulatory/ legal obligations will require to be met and may prove to be a constraint but the potential for alternative, creative solutions should be promoted wherever possible.

8.0 Monitoring

8.1 Introduction

Monitoring of the Policy is considered important to successful implementation to ensure the realisation of aims and objectives.

The Fitting Landscapes policy encourages a process of continuous review. The review process should draw lessons from scheme implementation and management and introduce change where appropriate to improve future outcomes. The review process will be led by Transport Scotland and include consultation and engagement with key stakeholders as appropriate.

The Fitting Landscapes policy will be monitored by Transport Scotland to secure feedback and adopt lessons learnt. The policy will support the raising of standards in design and management and the creation of long term outcomes such as:

- Improved public perceptions of transport landscapes;
- Enhanced capacity for transport schemes to contribute to national environmental policy
- Secure added value through statutory consultee / stakeholder involvement;
- Facilitate knowledge transfer relating to best practice.

9.0 Next Steps

9.1 Overall Environmental Impacts

The Fitting Landscapes Policy comprises a framework that requires a design and management approach that works with natural systems for the implementation and management of the transport estate insofar that the landscapes we create and manage are of high quality, well integrated, bio-diverse, adaptable and deliver a meaningful contribution to national sustainability policies.

Overall, the proposed Policy will have a positive impact, particularly in relation to the protection of ecosystems, habitats and biodiversity, climate mitigation and adaptation, population and amenity, material assets, historic environment and the unique and distinctive natural landscape. The aims and objectives of the Fitting Landscapes Policy, designed to mitigate against adverse environmental effects that potentially may arise as a result of the implementation of the transport estate, will have positive effects on the environment. Concurrently, it is concluded that there are no likely significant adverse environmental impacts that arise from the implementation of the Fitting Landscapes Policy

9.2 Next Steps

The SEA is being undertaken in parallel with the preparation of the Fitting Landscapes Policy. The Environmental Report documents the assessment and consultation process and is being published in conjunction with the draft Fitting Landscapes Policy, both of which are subject to consultation. This allows for a full and meaningful consultation on its content and enable consultee comments to influence the policy where key points are raised.

Consultation responses and how these have been addressed within the policy will be detailed within the Consultation Response Report (on behalf of Scottish Government) and SEA Post Adoption Statement.

Appendix 1 - Environmental Baseline

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 areas likely to be significantly affected".

In this section, the environmental considerations that are relevant to the Fitting Landscapes Policy are identified. The baseline information, seeks to identify the key issues relevant for the Fitting Landscapes Policy and how the policy may potentially impact on current environmental objectives or conditions.

The environmental baseline information focuses on the SEA topics scoped in for the purposes of the assessment.

1.0 Biodiversity, Flora & Fauna

Scotland's rich and varied natural heritage has an abundant mix of ecosystems of varying biodiversity and this is reflected in designations for their protection. Biodiversity designations in Scotland include:

- 153 Special Protection Areas (SPAs),
- 239 Special Areas of Conservation (SACs),
- 1439 SSSIs covering 12.7% of land area.

In addition, there are 51 Ramsar sites in Scotland, reflecting important wetlands with biodiversity value.

Scotland's habitats range from Mountains and Uplands to Farmlands and Lowlands, and condition of designated sites is monitored by SNH with the proportion of natural features in favourable condition at 78.0% in March 2010[1]:

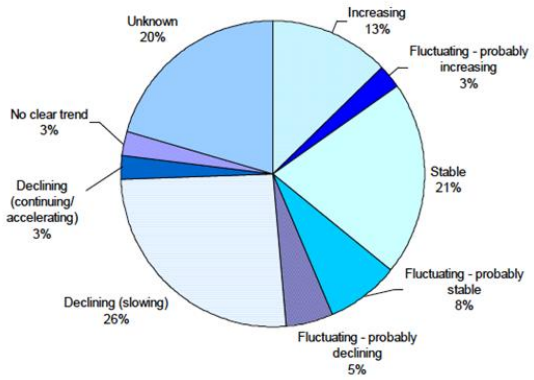
- Farmland and Lowland - around two-thirds of habitats and species assessed by SNH were found to be in a favourable or recovering condition by October 2010
- Mountains and Upland - A range of monitoring studies reveals that many of the upland habitats and associated wildlife are declining in extent or condition
- Wetlands - most wetlands within protected sites are in favourable condition, with the exception of lowland raised bogs

Scotland has also 65 out of the total 159 conservation priority habitats listed in the European Habitats Directive.

Figure 1 illustrates the current status of UK BAP priority habitats[2]. In Scotland, among 41 habitats assessed in 2008, the proportion that were stable or increasing (41%) exceeded those declining (31%).

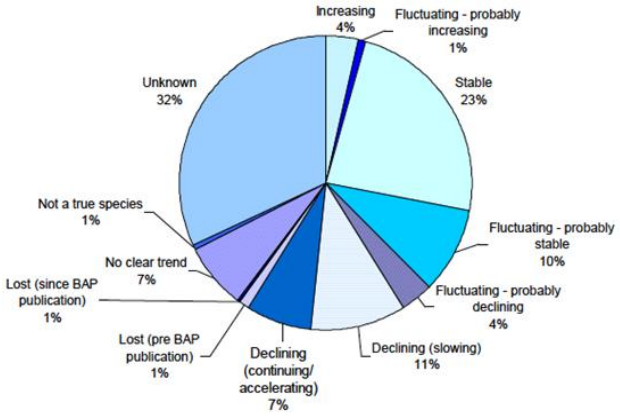
[1] Scotland's Environment (http://www.environment.scotland.gov.uk/),
SNHi : http://www.snh.gov.uk/publications-data-and-research/snhi-information-service/ SNH Site Condition Monitoring: http://www.snh.gov.uk/protecting-scotlands-nature/protected-areas/site-condition-monitoring/

Figure 1 Status of UK BAP Priority Habitats



In terms of species, 197 of the 391 priority species (as defined by the UK BAP Assessment 2008) in the UK are in Scotland. Among 230 species assessed in 2008, the proportion that were stable or increasing (32%) exceeded those declining or lost (15%).

Figure 2: Status of Priority Species



Source: Biodiversity Action Reporting System (BARS)

Relevant Environmental Issues for Fitting Landscapes Policy	Key Considerations for Fitting Landscapes Policy
Transport schemes have direct impacts on flora and fauna species including species designated for protection at European Level.	The Policy should aim to promote measures that seek to prevent loss of sensitive species by promoting and integrating ecological considerations into the design and management of the transport estate.
Potential for direct / indirect impacts on designated areas, including local nature conservation sites and landscapes of high ecological value.	The Policy should seek to promote the design and implementation of transport infrastructure so that it does not result in adverse impacts on designated sites

[2] Mackey, E.C. and Mudge, G.P. (2010) *Scotland's Wildlife: An assessment of biodiversity in 2010*. Habitats and species that are strongly in decline or especially vulnerable have been identified for targeted action and are referred to as biodiversity 'priority' habitats and species.(Also identified under UK BAP Assessment 2008)

Relevant Environmental Issues for Fitting Landscapes Policy	Key Considerations for Fitting Landscapes Policy
	including protected areas, SPAs, SACs etc.
Transport corridors, linear in nature, traverse numerous habitats including woodland and water habitats and can act as a barrier to movement of animals (i.e. habitat fragmentation).	Include policy measures that promote the design and management of the transport estate which seeks to prevent habitat disruption and severance and conversely include policy measures that encourage increased connectivity, and the continuation of natural processes.
Land use change is a key factor in relation to loss of natural/ semi natural habitats in Scotland which results in numerous threats to ecosystems and biodiversity.	Seek to encourage measures to prevent further habitat loss and ecosystem deterioration by considering the use of natural features in transport infrastructure construction.

2.0 Population and Human Health

Scotland has a relatively low population density compared to the rest of the UK (67 people per square kilometre), with a total population of 5.2 million in mid-2010. More than 81% of the population live in urban areas. Most are located in the Central Belt, as well as significant concentrations of population in Dundee, Aberdeen and Inverness.

There is an extensive road and rail network that connects the various settlements of Scotland which includes approximately 3,405 kilometres of trunk road and 2,776 kilometres of rail track. The transport estate is also a key tourism asset, forming part of the landscape which characterises the natural environment (worth £1.4 billion)[3], which also includes cycle networks. Scotland has over 1,926 miles of the National Cycle Network.

In terms of the design, and management of the transport estate, key considerations should include issues of landscape quality particularly visual amenity value, and greater experience of the journey.

In addition, as of 2009, Roadside concentrations of NO_2 have now been below 40 µg m^{-3} for two consecutive years, part of a long term decline in ambient concentrations of nitrogen dioxide. Furthermore, between 1990 and 2009, Scottish emissions of PM_{10} fell by 60%.

[3] Nature-based tourism makes a significant contribution to economy £1.4 billion per year– 39,000 jobs (Source: Visit Scotland)

Relevant Environmental Issues for Fitting Landscapes Policy	Key Considerations for Fitting Landscapes Policy
Transport schemes can impact, influence and change natural environments and valued landscape areas.	The Policy should seek to provide measures that aim to protect access to, and the amenity of, high value natural heritage and quality landscape areas by accounting for local context and setting in terms of the design of transport corridors.
Transport networks can interrupt connectivity and community access including cycle networks.	Provide measures that seek to mitigate against adverse impacts of transport infrastructure on active travel modes i.e. cycling.
Transport generates considerable noise and air pollution, which can negatively impact on human health.	The Policy should seek to encourage a design and management of the transport estate that considers the potential impacts of noise and air pollution on human health.

3.0 Geology, Geomorphology, Soils and Land Use

Soil and geology form an integral component of Scotland's natural heritage and landscape value. Natural processes including carbon storage and the groundwater component of the water cycle are highly dependent on suitable soil and geological conditions. Soils play an important role in carbon sequestration and form an important part of the carbon cycle and climate change.

They are also important material assets including, soil quality, sand and gravel fundamental to the health and productivity of ecosystems that sustain biologically diverse flora and fauna species which also contribute to the landscape resource The Scottish soil resource contains a number of internationally important soil types:

- Podzols are the most common soil type (occupy18,480 km^2 (24% of land area)
- Peats occupy 16,940 km^2 or 22%
- Brown earths 9,240 km^2 or 12%
- Gleys occupy 10,780 km^2 or 14%
- Montane soils 3,850 km^2 or 5 %

Key threats to soil quality include waste generated from industry and construction. Over 90% of the waste produced is disposed of to landfill[4]. In addition, a 2011 level study[5] has evaluated the key threats the soil quality as:

- Loss of Organic Matter
- Sealing
- Contamination

[4] State of the Environment: Soil Quality Report (SEPA 2001)
[5] State of Scotland's Soil Report 2011

- Change is soil biodiversity
- Erosion and landslides
- Compaction
- Emerging Issues

It was concluded that loss of soil organic matter, changes in soil biodiversity, erosion and landslides, and soil sealing are the key threats.

In terms of geodiversity, there are currently 895 Geological Conservation Review (GCR) sites in Scotland. However, not all GCRs have received protection status although a percentage is accounted for through other designations[6]:

- National Parks (15% of Cairngorms National Park & 1.5% of Loch Lomond and Trossachs contain internationally important geodiversity)
- National Nature Reserves (39% (524km2) of area having GCR site status)
- Sites of Special Scientific Interest (656 notified Earth Science features in SSSIs in Scotland).
- Local Nature Conservation Sites and Regionally Important Geomorphological Sites are local and regional designations.

Relevant Environmental Issues for Fitting Landscapes Policy	Key Considerations for Fitting Landscapes Policy
The siting and design of transport corridors can result in negative impacts on soil and ground conditions, resulting in erosion, disturbance and subsequent landslips.	The Policy should encourage the implementation and design of the transport estate insofar that it has due regard to the potential impacts of transport infrastructure on the stability of ground conditions.
Stable geology and soil conditions are essential for natural process including carbons storage, water flows as well as serving as a depository for material assets; however such functions can be adversely altered by poor design and management of transport corridors.	Does the Policy consider measures in terms of developing design and management objectives for the transport estate that seeks to reduce adverse impacts on soil conditions in terms of their importance for natural processes and material deposits?
Waste generated by development is predominantly sent to landfill.	Include measures that seek to reduce consumption of materials and resources, therefore reducing waste generated.
Geodiversity is a key natural asset both for tourism and natural processes; GCRs receive protection under a number of designates however not all have received protection status.	The policy should work towards providing measures that does not result in negative impacts/ alterations to geodiversity, or sites designated as a result geomorphological quality.

4.0 Water

[6] SNH Data – Protecting our Geodiversity

Scotland has 2,005 rivers, 309 lochs, 40 transitional, 449 coastal and 106 groundwater water bodies in the Scotland river basin district[7]. It has a diverse network of rivers and lakes, as well as 18,588km (including islands) of coastline. SEPA has indicated that, in 2010, 63% of Scotland's water bodies were at good or better status (this includes rivers, lochs, coastal waters and estuaries).

Pollution levels are significantly more concentrated around urban areas, whereas rural areas are of generally better quality, however potential impacts of climate change may alter current conditions as a result of increased susceptibility of groundwater etc to pollution i.e. impacts of flooding increase in terms run off of pollutants and pathogens into groundwater as well as issues relating to diffuse pollution runoff into surface water bodies. This can occur where drainage systems are overwhelmed resulting in foul drainage systems flowing into watercourses. According to SEPA's Scotland River Basin District Summary Report the key facts are:

- A total of 667 river, 120 loch, 16 transitional and 43 coastal water bodies are affected by morphological alterations
- A total of 285 river, 38 loch, 18 transitional, 110 coastal and 17 groundwater water bodies are affected by point source pollution pressures

Relevant Environmental Issues for Fitting Landscapes Policy	Key Considerations for Fitting Landscapes Policy
The provision of new transport infrastructure can interrupt natural processes including drainage, natural water flow which impacts on ecological health of the water environment including important habitats.	The Policy needs to develop measures that consider impacts of run-off from transport infrastructure and its impacts on the water environment as well as impacts on the wider natural water environment as a result of construction of transport infrastructure.
Transport infrastructure can exacerbate causes of flooding, due to the interruption of natural courses, poor run off, drainage etc.	The Policy should have due regard to the impacts of transport schemes on the potential for flooding, as well as the need to build resilience and adaptability to changes in the climate i.e. increases in rainfall etc., therefore providing measures that seek to mitigate against the adverse impacts of such.

5.0 Climatic Factors

Total carbon emissions in Scotland in 2010 stood at approximately 55 million tonnes (Carbon Dioxide Equivalent). Transport is one of the key contributors to green house gas emissions in Scotland, accounting for approximately 19% of all greenhouse gas emissions in 2010, while energy supply accounted for 37% and waste management 4%[8]. This is important in terms of transport infrastructure roll out relative to energy use and waste management in the construction process of the transport estate.

[7] Scotland's River Basin District Summary Report (SEPA 2005)
[8] Scottish Greenhouse Gas emissions 2010 (Scottish Government 2012)

The negative impacts of transport infrastructure can be reduced by maintaining green networks and habitats, therefore allowing ecosystems to conduct the services they provide i.e. carbon sequestration.

Equally important is ensuring adaptability of transport infrastructure in order to mitigate against future adverse impacts of climate change. Resilient infrastructure and climate proofing adaptation techniques in the design and management of the transport infrastructure is essential in enabling developments to be adaptable to change.

Relevant Environmental Issues for Fitting Landscapes Policy	**Key Considerations for Fitting Landscapes Policy**
Transport generates significant CO_2 emissions as a result of increase in traffic generation.	Does the policy encourage measures and objectives that seek to provide appropriate landscape design and management of the transport estate in terms of reducing the impacts of the transport network relative to CO_2 emissions i.e. by providing for habitats and green networks and allowing for ecosystem services namely carbon sequestration.
The provision of new transport infrastructure can potentially result in the clearing of green networks including hedgerows, trees etc which act as valuable carbon sinks.	Does the policy take account of issues relating to the impacts of transport infrastructure on its immediate surroundings including natural heritage and relevant landscape character, and therefore, where appropriate, promote measures that secure the retention / creation of green networks.
The construction of new transport infrastructure can use significant energy and material resources.	Does the Policy take account of issues relating to the impacts of energy use and material resources, and therefore seek measures that reduce the consumption of both.
Future impacts of climate change may result in adverse weather conditions including flooding and extreme temperature events which impacts on vital transportation infrastructure and surfaces.	Does the Policy account for potential changes as a result of climate change and works to provide measures that promote adaptation building techniques as an integral aspect of fitting transport in landscapes. This can include buffer habitats, SUDs etc.

6.0 Material Assets

Material Assets is a broad topic area and can be defined to include various environmental aspects including minerals, infrastructure, waste etc.

This is important with regard to transport, where there has been significant investment in transport infrastructure in Scotland over the past 20 years which has included expansion of both road and rail corridors. The 'transport estate' currently managed by Transport Scotland comprises 3,405 kilometres of trunk road and 2,776 kilometres of rail track.

In 2010, there were 16.86 million tonnes of controlled waste generated in Scotland from which the industrial construction and demolition sector accounted for 44 percent at approximately 7.5 million tonnes[9].

Data on materials used with Scotland is still being developed, and in this case data on material flows will be based on UK Environmental Accounts 2011 (ONS):

- UK oil reserves are estimated at 2.5 billion tonnes in 2010
- 1.4 million hectares of woodland in Scotland in 2011
- Total Material Requirement for the UK in 2010 stood 1615 million tonnes[10]

Material assets also include the consideration of tourism – Scotland's landscape, scenery and natural heritage are considered an important asset. Landscape and scenery was cited as the primary factor people gave for visiting Scotland in the 2011-2012 Visit Scotland Visitor Survey[11].

Relevant Environmental Issues for Fitting Landscapes Policy	Key Considerations for Fitting Landscapes Policy
The construction of transport infrastructure results in significant increase in energy and material resource consumption.	The Policy should work towards including measures that reduces the impacts of transport infrastructure provision on the consumption of energy and material resources.
Significant changes to landscape through site clearance and earthworks excavation requires intensive resource use.	The Policy should have due regard to mitigating against increases in resource consumption during construction and therefore provide measures that seeks to secure wiser and more sustainable use of resources.
Significant changes in woodland through clearing and earthworks in respect of transport corridors.	Does the policy promote measures that work towards the protection of habitats including woodland through planting, and the provision of green networks.
Need to recognise potential impacts that transport infrastructure has on landscape quality and scenery	Need for the Policy to provide measures that promotes sensitive design and maintain "distinctive place quality", whereby transport can form part of the landscape, reducing adverse impacts (including cumulative effects) on distinctive landscape quality including visual amenity value, journey experience

[9] SEPA Waste Data Digest 12 (2012) SEPA
[10] UK Environmental Accounts 2012 (Office of National Statistics)
[11] Visit Scotland 'Scotland Visitor Survey 2011 and 2012'

Relevant Environmental Issues for Fitting Landscapes Policy	Key Considerations for Fitting Landscapes Policy
	etc.

7.0 Landscape

Characterised by a varied and diverse number of landscape types, the protection and enhancement of Scotland's landscape is a key consideration in transport infrastructure planning and design. Scotland has a range of landscape designations and there are 372 landscape character types identified, classified along 18 vignette settings[12]. However due to the rich and distinctive nature of Scotland's natural landscape, this list is not exhaustive.
Key features of Scotland's landscape include:

- 40 National Scenic Areas (NSAs) covering 13% of land area.
- 2 National Parks (Loch Lomond & Trossachs, Cairngorms)
- Locally designated landscapes (SLA's, AGLVs etc)

The Transport estate also is important in terms of perceptions of the landscape, as it traverses wide expanses of the natural environment and efforts to maintain vistas and views to improve people's journey experience is important in terms of this policy.

Relevant Environmental Issues for Fitting Landscapes Policy	Key Considerations for Fitting Landscapes Policy
Transport infrastructure can have direct as well as cumulative impacts on landscape character. There is also potential for the layout of transport to enhance the visual amenity of the landscape i.e. tourism & journey experience.	Need for policy to promote sensitive design measures while maintaining "distinctive place quality", where transport can form part of the landscape, reducing adverse impacts (including cumulative effects) on distinctive landscape quality, while encouraging measures to provide for landscape enhancement.
The distinctiveness of place, landscape quality and visual amenity can be altered significantly by the provision of rail, road, and marine connections and associated noise, vibration and lighting impacts.	Need for the policy to promote management and design measures that encourage the implementation of the transport estate so that it takes account of its surroundings including context relating natural heritage and relevant landscape character and visual issues, and provide mitigation measures as appropriate.
Transport infrastructure can directly or indirectly impact on sites of national, regional and local landscape value	In terms of design and management of the transport estate, the Policy should be developed to take account and

[12] Scottish Natural Heritage – Landscape Character Assessments - http://www.snh.gov.uk/publications-data-and-research/

Relevant Environmental Issues for Fitting Landscapes Policy	Key Considerations for Fitting Landscapes Policy
including NSAs, AGLVs.	appreciate local landscape character and context by providing measures that seek to reduce adverse impacts on local, regional, and national landscapes of high value.

8.0 Historic Environment

Scotland possesses a wealth of historical heritage[13] and cultural sites, both designated and undesignated:

- 5 World Heritage Sites
- 47,672 listed buildings
- 8,205 scheduled monuments
- 645 conservation areas
- 390 gardens and designed landscapes
- 39 historic battlefields on the Inventory
- 8 protected wrecks and 7 scheduled wrecks
- 2 National Parks

Relevant Environmental Issues for Fitting Landscapes Policy	Key Considerations for Fitting Landscapes Policy
The construction and operation of transport infrastructure can directly impact on historic environment features, including Listed Buildings, and Scheduled Monuments, Designated Gardens and Landscapes, Conservation Areas and Historic Battlefields.	Does the Policy recognise the importance of historical context and cultural heritage interest and therefore establish aims that seek to promote measures that mitigate against adverse impacts on cultural heritage sites and their setting as a result of the implementation of the transport estate.

[13] Scotland's Historic Environment Audit (SHEA 2012) – Historic Scotland

Appendix 2 – Assessment Matrices

Key

Symbol	Description of Impact
-, --, ---	Negative Effects
0	No Effect / Negligible Effect
+/-	Mixed Effects
+, ++, +++	Positive Effects

Vision

Vision: To promote the more sustainable design, implementation, maintenance and management of the transport estate and ensure that the landscapes we create and manage are of high quality, well integrated, bio-diverse, adaptable and deliver a meaningful contribution to national sustainability policies.					
Explanation of the Vision: Promoting design and management approach that seeks to work with natural systems and processes					
Discussion of Environmental Issues and Opportunities associated with the Vision: The Policy promotes a more sustainable design, implementation, maintenance and management of the transport estate.					
SEA Topic	**Key Issues for Consideration**	**Assessment of the Policy, does the policy . . .**	**Type of effect**	**Duration of effect**	**Comments**
Biodiversity, Flora and Fauna;	• Health of Ecosystems • Species Habitats • Health of designated sites	• Work to improve nature conservation and/ or the health of biologically diverse areas? • Consider mitigation measures against adverse impacts on ecosystems? • Include measures that adversely affect on the health of national, regional or internationally designated sites including Natura 2000 designated sites? • Protect species and habitats (flora & fauna) including provisions in relevant Biodiversity Action Plans? • Help to reduce habitat fragmentation?	++	Short /Med / Long	The Vision promotes bio-diverse landscapes and through aims, objectives and delivery mechanisms, the Policy commits to the protection of ecosystems and ecology.
Population, Human Health	• Community effects and access • Amenity value of landscape	• Include measures that would adversely impact on cyclist and pedestrian access? • Provide measures that enhance amenity value of landscape? Promote opportunities for enhanced experience of Scotland's landscapes and enhance journey quality.	++	Short /Med / Long	The Vision promotes integration of high quality transport estate into the landscape with wider policy aims and objectives recognising the importance of this as an asset in terms of tourism, recreation and amenity.
Geology, geo, soils and land use	• Chemical use • Soil quality	• Include measures that would result in increases in chemicals i.e. herbicides, salt etc? • Include measures that adversely impact on soil quality or, conversely, act to conserve soil quality?	+	Short /Med / Long	The Vision promotes sustainable design and wider policy contains measures to protect, retain and re-use site won materials and promote sustainable design, implementation, maintenance and management.
Water	• Water habits • Groundwater	• Include measures that prevent adverse effects on water quality including groundwater contamination / water habitats/environments? • Include measures that enhance natural watercourses	+	Short /Med / Long	The Vision promotes a sustainable design and management approach that seeks to work with natural systems and processes including the water environment. This approach is carried

Vision: To promote the more sustainable design, implementation, maintenance and management of the transport estate and ensure that the landscapes we create and manage are of high quality, well integrated, bio-diverse, adaptable and deliver a meaningful contribution to national sustainability policies.					
Explanation of the Vision: Promoting design and management approach that seeks to work with natural systems and processes					
Discussion of Environmental Issues and Opportunities associated with the Vision: The Policy promotes a more sustainable design, implementation, maintenance and management of the transport estate.					
SEA Topic	**Key Issues for Consideration**	**Assessment of the Policy, does the policy . . .**	**Type of effect**	**Duration of effect**	**Comments**
		and water habitats (including measures that mitigate against habitat fragmentation)?			through to the wider policy aims, objectives and mechanisms.
Climatic Factors	• Carbon emissions • Carbon adaptation • Ecosystems services	• Result in measures that will increase carbon emissions? • Work towards reducing energy consumption? • Provide measures that protect natural heritage and ecosystems which allows ecosystems to provide vital services i.e. carbon sinks • Exacerbate risk of flooding? • Include measures that increase wise use of resources?	+	Short /Med / Long	The Vision promotes sustainable design and wider policy aims promotes adaptation measures that mitigates against the adverse impacts of climate change on transportation infrastructure.
Material Assets	• Material consumption • Energy use	• Include measures that result in an increase in the consumption of materials including important resources? • Promote measures to reduce waste, increase resource efficiency, and encourage re use of materials?	+	Short /Med / Long	The Vision promotes sustainable design and includes wider policy measures to protect, retain and re-use site won materials and promote sustainable design, implementation, maintenance and management.
Landscape	• Landscape quality and character • Visual amenity value • Sensitive landscapes	• Does the Policy adversely impact on Scotland's natural heritage and landscape character? • Protect or detract from the visual amenity of the landscape / natural heritage? • Contain measures / guidance that will reduce the impacts on the distinctiveness and place quality of landscapes? • Protect naturally scenic areas designated at national, regional, and international level?	+++	Short /Med / Long	Fitting Landscapes vision has the capacity to make significant contribution to Scottish Government Policy and Guidance building on innovation/ case studies to maximise opportunity for high quality design, bespoke solutions and the development of sustainable transport landscapes.

Vision: To promote the more sustainable design, implementation, maintenance and management of the transport estate and ensure that the landscapes we create and manage are of high quality, well integrated, bio-diverse, adaptable and deliver a meaningful contribution to national sustainability policies.					
Explanation of the Vision: Promoting design and management approach that seeks to work with natural systems and processes					
Discussion of Environmental Issues and Opportunities associated with the Vision: The Policy promotes a more sustainable design, implementation, maintenance and management of the transport estate.					
SEA Topic	**Key Issues for Consideration**	**Assessment of the Policy, does the policy . . .**	**Type of effect**	**Duration of effect**	**Comments**
Historic Environment	• Cultural and archaeological heritage	• Include measures that would result in negative impacts on points of cultural or archaeological interest? • Seek to protect, enhance or detract from Scotland's historical environmental assets?	+	Short /Med / Long	The Vision promotes sustainable design which is integrated into landscapes – the wider policy promotes high quality design and siting of transport infrastructure that accounts for local landscape setting and context which includes historical environment.
Summary of Assessment Results: Overall positive environmental effects - the Policy promotes an approach where landscape and environmental objectives will inform the planning, design, implementation and management of new transport infrastructure and the management of existing networks.					

Aims

Aim 1: Promote Design and Place Quality					
Explanation of the Aim: Integration with surrounding landscapes, while enhancing and creating new landscapes.					
Discussion of Environmental Issues and Opportunities associated with the Aim: Encourages the design of transport corridors to take account of landscape character and context; promotes understanding of place-making; encourages cooperation and collaboration by all sections of design and management teams; retains valued features and addresses landscape/ habitat fragmentation; use of local and site won materials, including use of planting species and mixes of local provenance; strike an effective balance between landscape, visual mitigation and amenity of route users, and offer bespoke solutions.					
SEA Topic	**Key Issues for Consideration**	**Assessment of the Policy, does the policy . . .**	**Type of effect**	**Duration of effect**	**Comments**
Biodiversity, Flora and Fauna;	• Health of Ecosystems • Species Habitats • Health of designated sites	• Work to improve nature conservation and/ or the health of biologically diverse areas? • Consider mitigation measures against adverse impacts on ecosystems? • Include measures that adversely affect on the health of national, regional or internationally designated sites including Natura 2000 designated sites? • Protect species and habitats (flora & fauna) including provisions in relevant Biodiversity Action Plans? • Help to reduce habitat fragmentation?	++	Long	The Aim seeks to mitigate against the adverse environmental effects of existing and new transport corridors, particularly in relation to the protection of habitats, species and ecosystems. The policy seeks to avoid sensitive species and habitats i.e. through early route planning, providing buffer habitats, green networks and habitat connections
Population, Human Health	• Community effects and access • Amenity value of landscape	• Include measures that would adversely impact on cyclist and pedestrian access? • Provide measures that enhance amenity value of landscape? Promote opportunities for enhanced experience of Scotland's landscapes and enhance journey quality.	++	Med / Long	The Aim promotes an effective balance between landscape, visual mitigation and amenity of route users at all stages from design to management with bespoke solutions for retaining valued features.
Geology, geo, soils and land use	• Chemical use • Soil quality	• Include measures that would result in increases in chemicals i.e. herbicides, salt etc? • Include measures that adversely impact on soil quality or, conversely, act to conserve soil quality?	+	Short / Medium	The Aim recognises that landscape design can minimise impacts of construction, management and maintenance including rock cut, earthworks and soil conservation. Place Quality is addressed through use of appropriate planting mixes that are suited to soil conditions and minimise the

Aim 1: Promote Design and Place Quality					
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Discussion of Environmental Issues and Opportunities associated with the Aim: Encourages the design of transport corridors to take account of landscape character and context; promotes understanding of place-making; encourages cooperation and collaboration by all sections of design and management teams; retains valued features and addresses landscape/ habitat fragmentation; use of local and site won materials, including use of planting species and mixes of local provenance; strike an effective balance between landscape, visual mitigation and amenity of route users, and offer bespoke solutions.					
SEA Topic	**Key Issues for Consideration**	**Assessment of the Policy, does the policy . . .**	**Type of effect**	**Duration of effect**	**Comments**
					need for chemical application as part of management and maintenance.
Water	• Water habits • Groundwater	• Include measures that prevent adverse effects on water quality including groundwater contamination / water habitats/environments? • Include measures that enhance natural watercourses and water habitats (including measures that mitigate against habitat fragmentation)?	+	Med / Long	The Aim promotes early integrated working across design and maintenance teams which will ensure drainage and SUDS design is considered as part of landscape design.
Climatic Factors	• Carbon emissions • Carbon adaptation • Ecosystems services	• Result in measures that will increase carbon emissions? • Work towards reducing energy consumption? • Provide measures that protect natural heritage and ecosystems which allows ecosystems to provide vital services i.e. carbon sinks • Exacerbate risk of flooding? • Include measures that increase wise use of resources?	+	Med / Long	The Aim promotes design which works with landscape e.g. minimising rock cut and earthworks. Drainage design forms an important part of the landscape features of transport corridors and will address flooding and climate adaptation e.g. increased rainfall.
Material Assets	• Material consumption • Energy use	• Include measures that result in an increase in the consumption of materials including important resources? • Promote measures to reduce waste, increase resource efficiency, and encourage re use of materials?	+	Short / Medium	The retention of features is an important consideration for place quality and design of transport estate landscapes and centres on the re-use of materials and fitting of transport corridors in balance with landscape e.g. cut and fill balances.
Landscape	• Landscape quality and character • Visual amenity	• Does the Policy adversely impact on Scotland's natural heritage and landscape character? • Protect or detract from the visual amenity of the	+++	Long	Fitting Landscapes is a high level policy which seeks to set an agenda for policymakers, planners, designers, contractors, operational

Aim 1: Promote Design and Place Quality					
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SEA Topic	**Key Issues for Consideration**	**Assessment of the Policy, does the policy . . .**	**Type of effect**	**Duration of effect**	**Comments**
	value • Sensitive landscapes	landscape / natural heritage? • Contain measures / guidance that will reduce the impacts on the distinctiveness and place quality of landscapes? • Protect naturally scenic areas designated at national, regional, and international level?			managers and maintenance teams involved in the planning, design, implementation and management of the transport estate. The Aim seeks to ensure a 'best fit' with local landscape character but also take account of inter-related elements such as biodiversity/ water environment etc
Historic Environment	• Cultural and archaeological heritage	• Include measures that would result in negative impacts on points of cultural or archaeological interest? • Seek to protect, enhance or detract from Scotland's historical environmental assets?	+	Med / Long	The Aim promotes an understanding of landscape character and context including historical context to design and maintain schemes which respect valued historical environment features.
Summary of Assessment Results: Overall positive environmental effects - the Aim promotes Place Quality and high quality design and promotes understanding of landscape context and environmental considerations.					

Aim 2: Enhance and Protect Natural Heritage					
Explanation of the Aim: Mitigation of adverse effects of transport corridors on ecosystems and natural heritage including the positive enhancement of biodiversity, where appropriate					
Discussion of Environmental Issues and Opportunities associated with the Aim: The creation and management of green networks and habitats is an important aspect of this aim and includes measures that fully understand ecological and natural processes; conservation requirements of protect species and priority habitats in terms of route selection and design. A thorough understanding of site context in terms of capacity to support enhancement of new habitats, while supporting local Biodiversity Action Plan priorities and encouraging the retention of natural assets and habitats is required. Effective mitigation of residual impacts, and where appropriate identifying opportunities for habitat creation as well as establishing linkages with integrated habitat networks (reducing habitat fragmentation) are key aspirations of this aim.					
SEA Topic	**Key Issues for Consideration**	**Assessment of the Policy, does the policy . . .**	**Type of effect**	**Duration of effect**	**Comments**
Biodiversity, Flora and Fauna;	• Health of Ecosystems • Species Habitats • Health of designated sites	• Work to improve nature conservation and/ or the health of biologically diverse areas? • Consider mitigation measures against adverse impacts on ecosystems? • Include measures that adversely affect on the health of national, regional or internationally designated sites including Natura 2000 designated sites? • Protect species and habitats (flora & fauna) including provisions in relevant Biodiversity Action Plans? • Help to reduce habitat fragmentation?	+++	Short / Medium	This Aim is likely to have a significant positive impact on conserving and enhancing habitat networks along with creation of high quality bio-diverse landscapes for new transport infrastructure. Early route planning and design will address constraints and opportunities for mitigation e.g. via EIA process.
Population, Human Health	• Community effects and access • Amenity value of landscape	• Include measures that would adversely impact on cyclist and pedestrian access? • Provide measures that enhance amenity value of landscape? Promote opportunities for enhanced experience of Scotland's landscapes and enhance journey quality.	+	Med / Long	The policy promotes integration of high quality transport estate into the landscape and with natural heritage recognising the importance of this as an asset in terms of tourism, recreation and amenity.
Geology, geo, soils and land use	• Chemical use • Soil quality	• Include measures that would result in increases in chemicals i.e. herbicides, salt etc? • Include measures that adversely impact on soil quality or, conversely, act to conserve soil quality?	+	Med / Long	The use of native plant species and mixes and local provenance plants and seeds will reduce / negate the need for chemical use and will also improve soils quality.
Water	• Water habits • Groundwater	• Include measures that prevent adverse effects on water quality including groundwater contamination / water habitats/environments?	+	Med / Long	The Aim promotes enhancement/creation of new habitats which will include SUDS and drainage design.

Aim 2: Enhance and Protect Natural Heritage					
Explanation of the Aim: Mitigation of adverse effects of transport corridors on ecosystems and natural heritage including the positive enhancement of biodiversity, where appropriate					
Discussion of Environmental Issues and Opportunities associated with the Aim: The creation and management of green networks and habitats is an important aspect of this aim and includes measures that fully understand ecological and natural processes; conservation requirements of protect species and priority habitats in terms of route selection and design. A thorough understanding of site context in terms of capacity to support enhancement of new habitats, while supporting local Biodiversity Action Plan priorities and encouraging the retention of natural assets and habitats is required. Effective mitigation of residual impacts, and where appropriate identifying opportunities for habitat creation as well as establishing linkages with integrated habitat networks (reducing habitat fragmentation) are key aspirations of this aim.					
SEA Topic	**Key Issues for Consideration**	**Assessment of the Policy, does the policy . . .**	**Type of effect**	**Duration of effect**	**Comments**
		• Include measures that enhance natural watercourses and water habitats (including measures that mitigate against habitat fragmentation)?			
Climatic Factors	• Carbon emissions • Carbon adaptation • Ecosystems services	• Result in measures that will increase carbon emissions? • Work towards reducing energy consumption? • Provide measures that protect natural heritage and ecosystems which allows ecosystems to provide vital services i.e. carbon sinks • Exacerbate risk of flooding? • Include measures that increase wise use of resources?	+	Short / Medium	The protection and enhancement of ecosystems and biodiversity, (flora and fauna will be encouraged, allowing the creation of green networks, where appropriate. Good landscape management practices and integrated habitats networks will protect valued habitats and ecosystems which act as carbon sinks. New planting also contributes to carbon capture.
Material Assets	• Material consumption • Energy use	• Include measures that result in an increase in the consumption of materials including important resources? • Promote measures to reduce waste, increase resource efficiency, and encourage re use of materials?	0		The aim does not address material assets – the wider policy includes a range of objectives and mechanisms which promote wise use of resources etc.
Landscape	• Landscape quality and character • Visual amenity value • Sensitive landscapes	• Does the Policy adversely impact on Scotland's natural heritage and landscape character? • Protect or detract from the visual amenity of the landscape / natural heritage? • Contain measures / guidance that will reduce the impacts on the distinctiveness and place quality of landscapes?	+	Med / Long	Landscape and ecology are closely linked – protection of natural heritage across the transport estate will positively influence the landscape design response through enhancement of native woodland, watercourses etc. Policy encourages measures that promote high quality landscapes, created or enhanced by the layout of transport

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Discussion of Environmental Issues and Opportunities associated with the Aim: The creation and management of green networks and habitats is an important aspect of this aim and includes measures that fully understand ecological and natural processes; conservation requirements of protect species and priority habitats in terms of route selection and design. A thorough understanding of site context in terms of capacity to support enhancement of new habitats, while supporting local Biodiversity Action Plan priorities and encouraging the retention of natural assets and habitats is required. Effective mitigation of residual impacts, and where appropriate identifying opportunities for habitat creation as well as establishing linkages with integrated habitat networks (reducing habitat fragmentation) are key aspirations of this aim.					
SEA Topic	**Key Issues for Consideration**	**Assessment of the Policy, does the policy . . .**	**Type of effect**	**Duration of effect**	**Comments**
		• Protect naturally scenic areas designated at national, regional, and international level?			corridors, which are of high amenity value and biologically diverse.
Historic Environment	• Cultural and archaeological heritage	• Include measures that would result in negative impacts on points of cultural or archaeological interest? • Seek to protect, enhance or detract from Scotland's historical environmental assets?	**0**		The aim does not specifically address historical environment – the wider policy includes a range of objectives and mechanisms which promote understanding of historical context.
Summary of Assessment Results: Overall positive environmental effects - the Aim promotes an approach where protection and enhancement of natural heritage will inform the planning, design, implementation and management of new transport infrastructure and also the management of existing networks.					

Aim 3 Encourage Wise Use of Resources					
Explanation of the Aim: Reducing consumption of materials and energy, minimising waste and retaining valuable assets.					
Discussion of Environmental Issues and Opportunities associated with the Aim: Landscape change should be slow and self regulating by creating systems in dynamic equilibrium that can over time conserve natural assets by ensuring a clear understanding of site assets regarding issues of setting i.e. character, unique features, materials and habitats. This creates a landscape that is fit for purpose and gives early consideration to management and maintenance objectives including integration of active travel routes; the employment of natural characteristics/ processes in the design of earthworks; design of schemes to reduce maintenance requirements; minimise use of chemicals, energy and materials (including construction processes) while reusing site won materials.					
SEA Topic	**Key Issues for Consideration**	**Assessment of the Policy, does the policy . . .**	**Type of effect**	**Duration of effect**	**Comments**
Biodiversity, Flora and Fauna;	• Health of Ecosystems • Species Habitats • Health of designated sites	• Work to improve nature conservation and/ or the health of biologically diverse areas? • Consider mitigation measures against adverse impacts on ecosystems? • Include measures that adversely affect on the health of national, regional or internationally designated sites including Natura 2000 designated sites? • Protect species and habitats (flora & fauna) including provisions in relevant Biodiversity Action Plans? • Help to reduce habitat fragmentation?	+	Short / Medium	The protection and enhancement of ecosystems and biodiversity, (flora and fauna will be encouraged, allowing the creation of green networks, where appropriate. Good landscape and resource management practices benefit integrated habitats networks.
Population, Human Health	• Community effects and access • Amenity value of landscape	• Include measures that would adversely impact on cyclist and pedestrian access? • Provide measures that enhance amenity value of landscape? Promote opportunities for enhanced experience of Scotland's landscapes and enhance journey quality.	+	Short / Long	The Aim promotes early consideration of integrating active travel routes within transport corridors.
Geology, geo, soils and land use	• Chemical use • Soil quality	• Include measures that would result in increases in chemicals i.e. herbicides, salt etc? • Include measures that adversely impact on soil quality or, conversely, act to conserve soil quality?	+	Short / Medium	Designing transport landscapes which suit the soil types and growing conditions will minimise the level of management and maintenance of planting regimes and the use of long term chemical applications.
Water	• Water habits • Groundwater	• Include measures that prevent adverse effects on water quality including groundwater contamination /	+	Short /	SUDS features that are integrated into the landform whilst providing adequate drainage

Aim 3 Encourage Wise Use of Resources					
Explanation of the Aim: Reducing consumption of materials and energy, minimising waste and retaining valuable assets.					
Discussion of Environmental Issues and Opportunities associated with the Aim: Landscape change should be slow and self regulating by creating systems in dynamic equilibrium that can over time conserve natural assets by ensuring a clear understanding of site assets regarding issues of setting i.e. character, unique features, materials and habitats. This creates a landscape that is fit for purpose and gives early consideration to management and maintenance objectives including integration of active travel routes; the employment of natural characteristics/ processes in the design of earthworks; design of schemes to reduce maintenance requirements; minimise use of chemicals, energy and materials (including construction processes) while reusing site won materials.					
SEA Topic	**Key Issues for Consideration**	**Assessment of the Policy, does the policy . . .**	**Type of effect**	**Duration of effect**	**Comments**
		water habitats/environments? • Include measures that enhance natural watercourses and water habitats (including measures that mitigate against habitat fragmentation)?		Medium	treatment and storage and are designed to address habitat and biodiversity quality are promoted. Good SUDS design will require minimal management and maintenance.
Climatic Factors	• Carbon emissions • Carbon adaptation • Ecosystems services	• Result in measures that will increase carbon emissions? • Work towards reducing energy consumption? • Provide measures that protect natural heritage and ecosystems which allows ecosystems to provide vital services i.e. carbon sinks • Exacerbate risk of flooding? • Include measures that increase wise use of resources?	+	Med / Long	Creation of transport landscapes that reduce consumption of materials and energy, minimise waste and retain and protect assets is a core element of the policy and will be a key driver for all works undertaken under the Policy. Flooding is addressed through design of integrated drainage solutions to promote resilience to climate change.
Material Assets	• Material consumption • Energy use	• Include measures that result in an increase in the consumption of materials including important resources? • Promote measures to reduce waste, increase resource efficiency, and encourage re use of materials?	+++	Long	Creation of transport landscapes that reduce consumption of materials and energy, minimise waste and retain and protect assets is a core element of the policy and will be a key driver for all works undertaken under the Policy. The Aim promotes minimisation of waste during construction and re-use of site won materials and maximising benefits of any opportunities to reduced resource use.
Landscape	• Landscape quality and character • Visual amenity	• Does the Policy adversely impact on Scotland's natural heritage and landscape character? • Protect or detract from the visual amenity of the	++	Long	The Aim seeks to ensure that designers and managers of the transport estate understand landscape features and employ natural

Aim 3 Encourage Wise Use of Resources					
Explanation of the Aim: Reducing consumption of materials and energy, minimising waste and retaining valuable assets.					
Discussion of Environmental Issues and Opportunities associated with the Aim: Landscape change should be slow and self regulating by creating systems in dynamic equilibrium that can over time conserve natural assets by ensuring a clear understanding of site assets regarding issues of setting i.e. character, unique features, materials and habitats. This creates a landscape that is fit for purpose and gives early consideration to management and maintenance objectives including integration of active travel routes; the employment of natural characteristics/ processes in the design of earthworks; design of schemes to reduce maintenance requirements; minimise use of chemicals, energy and materials (including construction processes) while reusing site won materials.					
SEA Topic	**Key Issues for Consideration**	**Assessment of the Policy, does the policy . . .**	**Type of effect**	**Duration of effect**	**Comments**
	value • Sensitive landscapes	landscape / natural heritage? • Contain measures / guidance that will reduce the impacts on the distinctiveness and place quality of landscapes? • Protect naturally scenic areas designated at national, regional, and international level?			characteristics in design of earthworks, drainage and road geometry. This aim is supported by wider policy objectives and mechanisms.
Historic Environment	• Cultural and archaeological heritage	• Include measures that would result in negative impacts on points of cultural or archaeological interest? • Seek to protect, enhance or detract from Scotland's historical environmental assets?	**0**		The aim does not specifically address historical environment – the wider policy includes a range of objectives and mechanisms which promote understanding of historical context.
Summary of Assessment Results: Overall positive environmental effects - the Policy promotes wise use of site won material, earthworks, appropriate landscape and habitat protection and enhancement as part of the planning, design, implementation and management of new transport infrastructure and management of existing networks.					

Aim 4: Build in Adaptability to Change					
Explanation of the Aim: An appreciation that all developments need to take account of future implications of climate change, as well as other environmental and operational needs.					
Discussion of Environmental Issues and Opportunities associated with the Aim: In recognising that change is inevitable, this aim seeks to promote innovation and natural heritage resilience; build capacity for future adaptation through design including options for using suitable planting stock and species mixes; manage landscapes to establish early effectiveness; building sustainable drainage solutions capable of meeting future weather events as well as encouraging a flexible maintenance and management regimes that respond to changing climate, habitats and soil conditions.					
SEA Topic	**Key Issues for Consideration**	**Assessment of the Policy, does the policy . . .**	**Type of effect**	**Duration of effect**	**Comments**
Biodiversity, Flora and Fauna;	• Health of Ecosystems • Species Habitats • Health of designated sites	• Work to improve nature conservation and/ or the health of biologically diverse areas? • Consider mitigation measures against adverse impacts on ecosystems? • Include measures that adversely affect on the health of national, regional or internationally designated sites including Natura 2000 designated sites? • Protect species and habitats (flora & fauna) including provisions in relevant Biodiversity Action Plans? • Help to reduce habitat fragmentation?	+++	Med / Long	Promoting the development of integrated transport corridors and associated landscapes that link to wider habitat networks e.g. road/rail corridors and green space / open space corridors, woodland etc will provide refuge habitats and increase species ability to adapt to climate change is likely to have significant positive benefits.
Population, Human Health	• Community effects and access • Amenity value of landscape	• Include measures that would adversely impact on cyclist and pedestrian access? • Provide measures that enhance amenity value of landscape? Promote opportunities for enhanced experience of Scotland's landscapes and enhance journey quality.	++	Long	Flooding is addressed through design of integrated drainage solutions to promote resilience to climate change and protect road users and transport routes from flooding events.
Geology, geo, soils and land use	• Chemical use • Soil quality	• Include measures that would result in increases in chemicals i.e. herbicides, salt etc? • Include measures that adversely impact on soil quality or, conversely, act to conserve soil quality?	+++	Long	Design which works with landscape e.g. minimising rock cut and earthworks is promoted. Drainage design forms an important part of the landscape features of transport corridors and will address flooding and climate adaptation e.g. increased rainfall.
Water	• Water habits • Groundwater	• Include measures that prevent adverse effects on water quality including groundwater contamination / water habitats/environments?	+++	Long	The Aim promotes development of drainage solutions which can accommodate changes in rainfall and flooding events and landscape

Aim 4: Build in Adaptability to Change					
Explanation of the Aim: An appreciation that all developments need to take account of future implications of climate change, as well as other environmental and operational needs.					
Discussion of Environmental Issues and Opportunities associated with the Aim: In recognising that change is inevitable, this aim seeks to promote innovation and natural heritage resilience; build capacity for future adaptation through design including options for using suitable planting stock and species mixes; manage landscapes to establish early effectiveness; building sustainable drainage solutions capable of meeting future weather events as well as encouraging a flexible maintenance and management regimes that respond to changing climate, habitats and soil conditions.					
SEA Topic	**Key Issues for Consideration**	**Assessment of the Policy, does the policy . . .**	**Type of effect**	**Duration of effect**	**Comments**
		• Include measures that enhance natural watercourses and water habitats (including measures that mitigate against habitat fragmentation)?			buffers which can act as storage particularly where transport estate runs adjacent to watercourses. The development of new riparian and flood plain woodland is likely to contribute to sustainable water management objectives.
Climatic Factors	• Carbon emissions • Carbon adaptation • Ecosystems services	• Result in measures that will increase carbon emissions? • Work towards reducing energy consumption? • Provide measures that protect natural heritage and ecosystems which allows ecosystems to provide vital services i.e. carbon sinks • Exacerbate risk of flooding? • Include measures that increase wise use of resources?	**+++**	Long	The Aim promotes resilience and recognition of the need to plan for change. Creation of transport landscapes that reduce consumption of materials and energy, minimise waste and retain and protect assets is a core element of the policy and will be a key driver for all works undertaken under the Policy. Design which works with landscape e.g. minimising rock cut and earthworks is promoted. Drainage design forms an important part of the landscape features of transport corridors and will address flooding and climate adaptation e.g. increased rainfall. Rock cut, earthworks and landscape design will address potential for landslips.
Material Assets	• Material consumption • Energy use	• Include measures that result in an increase in the consumption of materials including important resources? • Promote measures to reduce waste, increase resource efficiency, and encourage re use of materials?	**++**	Med / Long	The Aim seeks to promote flexible maintenance regimes that adapts to changing conditions. Landscape design plays a key role in reducing impacts of the transport network including sustainable procurement of materials and management.
Landscape	• Landscape quality and character	• Does the Policy adversely impact on Scotland's natural heritage and landscape character?	**+++**	Med / Long	Transport landscapes will be subject to the effects of climate whilst transport corridors can

Aim 4: Build in Adaptability to Change					
Explanation of the Aim: An appreciation that all developments need to take account of future implications of climate change, as well as other environmental and operational needs.					
Discussion of Environmental Issues and Opportunities associated with the Aim: In recognising that change is inevitable, this aim seeks to promote innovation and natural heritage resilience; build capacity for future adaptation through design including options for using suitable planting stock and species mixes; manage landscapes to establish early effectiveness; building sustainable drainage solutions capable of meeting future weather events as well as encouraging a flexible maintenance and management regimes that respond to changing climate, habitats and soil conditions.					
SEA Topic	**Key Issues for Consideration**	**Assessment of the Policy, does the policy . . .**	**Type of effect**	**Duration of effect**	**Comments**
	• Visual amenity value • Sensitive landscapes	• Protect or detract from the visual amenity of the landscape / natural heritage? • Contain measures / guidance that will reduce the impacts on the distinctiveness and place quality of landscapes? • Protect naturally scenic areas designated at national, regional, and international level?			address climate change adaptation through providing storm drainage, providing refuge habitats and forming linkages to wider green networks.
Historic Environment	• Cultural and archaeological heritage	• Include measures that would result in negative impacts on points of cultural or archaeological interest? • Seek to protect, enhance or detract from Scotland's historical environmental assets?	**0**		The aim does not specifically address historical environment – the wider policy includes a range of objectives and mechanisms which promote understanding of historical context.
Summary of Assessment Results: Overall positive environmental effects - The policy promotes flexibility and with it the capacity of transport landscapes to allow adaptation to future change in climate and other parameters and addresses need for transport network to be resilient to these changes.					

Objectives

Objective 1: Innovate to Mitigate Adverse Environmental Effects					
Explanation of Objective – Potential adverse environmental effects on people, the landscape, habitats and water are an inevitable consequence of existing and new transport corridors. The requirement to mitigate impacts provides a basis on which to innovate and seize opportunities, not just to mitigate but also to create features and habitats which serve environmental aims and objectives.					
Key Mechanisms of the aim: Design Team Collaboration, Design Integration, Addressing unforeseen opportunities, Integrate local characteristics					
SEA Topic	**Key Issues for Consideration**	**Assessment of the Policy, does the policy . . .**	**Type of effect**	**Duration of effect**	**Comments**
Biodiversity, Flora and Fauna;	• Health of Ecosystems • Species Habitats • Health of designated sites	• Work to improve nature conservation and/ or the health of biologically diverse areas? • Consider mitigation measures against adverse impacts on ecosystems? • Include measures that adversely affect on the health of national, regional or internationally designated sites including Natura 2000 designated sites? • Protect species and habitats (flora & fauna) including provisions in relevant Biodiversity Action Plans? • Help to reduce habitat fragmentation?	+++	Short / Medium	The Objective promotes protection of sensitive habitats and species creating or maintaining buffering habitats and features along the route corridor. Features will include SUDs drainage systems between transport corridors and rivers but may also include groundwater barriers, physical screening or intervening intermediate habitats. Promotes linkages with Green Networks.
Population, Human Health	• Community effects and access • Amenity value of landscape	• Include measures that would adversely impact on cyclist and pedestrian access? • Provide measures that enhance amenity value of landscape? Promote opportunities for enhanced experience of Scotland's landscapes and enhance journey quality.	++	Short / Medium	The transport corridors also cross and sometimes include other transport modes such as footpaths and cycleways. This connectivity provides opportunities for connection between habitats, landscape and differing transport modes leading to the creation of Green Networks.
Geology, geo, soils and land use	• Chemical use • Soil quality	• Include measures that would result in increases in chemicals i.e. herbicides, salt etc? • Include measures that adversely impact on soil quality or, conversely, act to conserve soil quality?	+	Short / Medium	The Objective and wider policy promotes integrated solutions which link engineering and landscape solutions such as sustainable drainage and earthworks.
Water	• Water habits • Groundwater	• Include measures that prevent adverse effects on water quality including groundwater contamination / water habitats/environments? • Include measures that enhance natural watercourses	++	Short / Medium	SUDS and drainage facilities associated with roads offer significant opportunity to introduce new habitat and support biodiversity. Specification of SUDS features will be developed

Objective 1: Innovate to Mitigate Adverse Environmental Effects					
Explanation of Objective – Potential adverse environmental effects on people, the landscape, habitats and water are an inevitable consequence of existing and new transport corridors. The requirement to mitigate impacts provides a basis on which to innovate and seize opportunities, not just to mitigate but also to create features and habitats which serve environmental aims and objectives.					
Key Mechanisms of the aim: Design Team Collaboration, Design Integration, Addressing unforeseen opportunities, Integrate local characteristics					
SEA Topic	**Key Issues for Consideration**	**Assessment of the Policy, does the policy . . .**	**Type of effect**	**Duration of effect**	**Comments**
		and water habitats (including measures that mitigate against habitat fragmentation)?			by the design engineers and collaborative working on design detail, bank profiling and planting offer opportunity for innovation.
Climatic Factors	• Carbon emissions • Carbon adaptation • Ecosystems services	• Result in measures that will increase carbon emissions? • Work towards reducing energy consumption? • Provide measures that protect natural heritage and ecosystems which allows ecosystems to provide vital services i.e. carbon sinks • Exacerbate risk of flooding? • Include measures that increase wise use of resources?	+	Short / Medium	Specification of SUDS features will offer opportunity for innovation and building in of resilience and adaptation. Recycled materials may be increasingly used in road construction projects.
Material Assets	• Material consumption • Energy use	• Include measures that result in an increase in the consumption of materials including important resources? • Promote measures to reduce waste, increase resource efficiency, and encourage re use of materials?	+	Short / Medium	The Objective promotes bespoke transport project / corridor specific approaches to design, construction and management including use of recycled materials, low maintenance planting specifications etc.
Landscape	• Landscape quality and character • Visual amenity value • Sensitive landscapes	• Does the Policy adversely impact on Scotland's natural heritage and landscape character? • Protect or detract from the visual amenity of the landscape / natural heritage? • Contain measures / guidance that will reduce the impacts on the distinctiveness and place quality of landscapes? • Protect naturally scenic areas designated at national, regional, and international level?	+++	Medium / Long	Innovative landscape design is promoted in response to local characteristics. Appreciation of local elements, features and landscape character and their integration into the transport landscape should have a high priority in design.

Objective 1: Innovate to Mitigate Adverse Environmental Effects					
Explanation of Objective – Potential adverse environmental effects on people, the landscape, habitats and water are an inevitable consequence of existing and new transport corridors. The requirement to mitigate impacts provides a basis on which to innovate and seize opportunities, not just to mitigate but also to create features and habitats which serve environmental aims and objectives.					
Key Mechanisms of the aim: Design Team Collaboration, Design Integration, Addressing unforeseen opportunities, Integrate local characteristics					
SEA Topic	**Key Issues for Consideration**	**Assessment of the Policy, does the policy . . .**	**Type of effect**	**Duration of effect**	**Comments**
Historic Environment	• Cultural and archaeological heritage	• Include measures that would result in negative impacts on points of cultural or archaeological interest? • Seek to protect, enhance or detract from Scotland's historical environmental assets?	**0**		The Objective promotes an understanding of landscape character and context including historical context to design and maintain schemes which respect valued historical environment features.
Summary of Assessment Results: The Objective promotes innovation to address potential adverse environmental effects on people; the landscape, habitats and water are an inevitable consequence of existing and new transport corridors.					

Objective 2: Protect Species, Habitats and Ecosystems					
Explanation of Objective – Transport schemes can affect species and habitats, both directly and indirectly. A number of animal and plant species as well as certain habitats are protected under European and national legislation. It is a legal duty to ensure that these are not adversely affected by planned development, operational activities or maintenance requirements. Some areas are also designated as nature reserves or local areas of nature conservation interest and some habitats are long standing features of ecological and landscape value. Early consideration to be given to these potential constraints to allow route planning and mitigation which minimises adverse effects and potentially capitalises on these natural assets					
Key Mechanisms of the aim: Avoid Sensitive Species and Habitats, Protect Ecosystems, Protect Assets, Buffer Habitats, Provide For Networks					
SEA Topic	**Key Issues for Consideration**	**Assessment of the Policy, does the policy . . .**	**Type of effect**	**Duration of effects**	**Comments**
Biodiversity, Flora and Fauna;	• Health of Ecosystems • Species Habitats • Health of designated sites	• Work to improve nature conservation and/ or the health of biologically diverse areas? • Consider mitigation measures against adverse impacts on ecosystems? • Include measures that adversely affect on the health of national, regional or internationally designated sites including Natura 2000 designated sites? • Protect species and habitats (flora & fauna) including provisions in relevant Biodiversity Action Plans? • Help to reduce habitat fragmentation?	+++	Short / Medium	This objective is likely to have a significant positive impact on conserving and enhancing habitat networks along with creation of high quality bio-diverse landscapes for new transport infrastructure. Early route planning and design will address constraints and opportunities for mitigation e.g. via EIA process.
Population, Human Health	• Community effects and access • Amenity value of landscape	• Include measures that would adversely impact on cyclist and pedestrian access? • Provide measures that enhance amenity value of landscape? Promote opportunities for enhanced experience of Scotland's landscapes and enhance journey quality.	+	Short / Medium	Protecting and enhancing the natural environment has a positive effect on landscapes and perception of quality of transport corridors during journeys.
Geology, geo, soils and land use	• Chemical use • Soil quality	• Include measures that would result in increases in chemicals i.e. herbicides, salt etc? • Include measures that adversely impact on soil quality or, conversely, act to conserve soil quality?	+	Short / Medium	Use of buffers and appropriate planting to minimise use of chemicals and management and maintenance will ensure no impacts on soils.
Water	• Water habits • Groundwater	• Include measures that prevent adverse effects on water quality including groundwater contamination / water habitats/environments?	+	Short /	This objective is likely to have a positive impact on the water environment through design and management of SUDS which support high quality

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Key Mechanisms of the aim: Avoid Sensitive Species and Habitats, Protect Ecosystems, Protect Assets, Buffer Habitats, Provide For Networks					
SEA Topic	**Key Issues for Consideration**	**Assessment of the Policy, does the policy . . .**	**Type of effect**	**Duration of effects**	**Comments**
		• Include measures that enhance natural watercourses and water habitats (including measures that mitigate against habitat fragmentation)?		Medium	bio-diverse landscapes for new transport infrastructure.
Climatic Factors	• Carbon emissions • Carbon adaptation • Ecosystems services	• Result in measures that will increase carbon emissions? • Work towards reducing energy consumption? • Provide measures that protect natural heritage and ecosystems which allows ecosystems to provide vital services i.e. carbon sinks • Exacerbate risk of flooding? • Include measures that increase wise use of resources?	+	Long	Protection of functioning ecosystem can provide a range of natural benefits called ecosystem services. These include physical benefits such as flood and climate regulation
Material Assets	• Material consumption • Energy use	• Include measures that result in an increase in the consumption of materials including important resources? • Promote measures to reduce waste, increase resource efficiency, and encourage re use of materials?	0		The Objective does not specifically address material assets – the wider policy includes a range of objectives and mechanisms which promote wise use of resources etc.
Landscape	• Landscape quality and character • Visual amenity value • Sensitive landscapes	• Does the Policy adversely impact on Scotland's natural heritage and landscape character? • Protect or detract from the visual amenity of the landscape / natural heritage? • Contain measures / guidance that will reduce the impacts on the distinctiveness and place quality of	++	Short / Medium	Shaping earthworks to reflect local natural and/or characteristic landforms addresses landscape integration with the surroundings and protects natural heritage and landscape character.

Objective 2: Protect Species, Habitats and Ecosystems					
Explanation of Objective – Transport schemes can affect species and habitats, both directly and indirectly. A number of animal and plant species as well as certain habitats are protected under European and national legislation. It is a legal duty to ensure that these are not adversely affected by planned development, operational activities or maintenance requirements. Some areas are also designated as nature reserves or local areas of nature conservation interest and some habitats are long standing features of ecological and landscape value. Early consideration to be given to these potential constraints to allow route planning and mitigation which minimises adverse effects and potentially capitalises on these natural assets					
Key Mechanisms of the aim: Avoid Sensitive Species and Habitats, Protect Ecosystems, Protect Assets, Buffer Habitats, Provide For Networks					
SEA Topic	**Key Issues for Consideration**	**Assessment of the Policy, does the policy . . .**	**Type of effect**	**Duration of effects**	**Comments**
		landscapes? • Protect naturally scenic areas designated at national, regional, and international level?			
Historic Environment	• Cultural and archaeological heritage	• Include measures that would result in negative impacts on points of cultural or archaeological interest? • Seek to protect, enhance or detract from Scotland's historical environmental assets?	**0**		Early route planning of transport corridors and 'fit' with landscape will also protect cultural heritage sensitivity in terms of setting.
Summary of Assessment Results: Early consideration to be given to these potential constraints to allow route planning and mitigation which minimises adverse effects and potentially capitalises on these natural assets. Early consideration to be given to these potential constraints to allow route planning and mitigation which minimises adverse effects and potentially capitalises on these natural assets.					

Objective 3: Use of Natural Characteristics in Design					
Explanation of Objective – Natural characteristics reflect the qualities of natural features and processes, which respond to their environment by achieving states of dynamic equilibrium through the minimum consumption of energy and materials. Wherever possible, design and management of landscapes should exploit natural characteristics and processes to reduce resource consumption and long term maintenance requirements as well as encouraging natural heritage and landscape integration. Successfully achieving this objective requires a thorough understanding of context, materials and processes					
Key Mechanisms of the aim: Promotion Variation, Allow Natural Processes to Work, Earthworks Contouring, Rock Cut Treatments, Natural Drainage Solutions					
SEA Topic	**Key Issues for Consideration**	**Assessment of the Policy, does the policy . . .**	**Type of effect**		**Comments**
Biodiversity, Flora and Fauna;	• Health of Ecosystems • Species Habitats • Health of designated sites	• Work to improve nature conservation and/ or the health of biologically diverse areas? • Consider mitigation measures against adverse impacts on ecosystems? • Include measures that adversely affect on the health of national, regional or internationally designated sites including Natura 2000 designated sites? • Protect species and habitats (flora & fauna) including provisions in relevant Biodiversity Action Plans? • Help to reduce habitat fragmentation?	**+++**	Medium / Long	This objective is likely to have a significant positive impact on conserving and enhancing habitat networks along with creation of high quality bio-diverse landscapes for new transport infrastructure based on bespoke solutions and species mixes of local provenance. Early route planning and design will address constraints and opportunities for mitigation e.g. via EIA process.
Population, Human Health	• Community effects and access • Amenity value of landscape	• Include measures that would adversely impact on cyclist and pedestrian access? • Provide measures that enhance amenity value of landscape? Promote opportunities for enhanced experience of Scotland's landscapes and enhance journey quality.	**0**		
Geology, geo, soils and land use	• Chemical use • Soil quality	• Include measures that would result in increases in chemicals i.e. herbicides, salt etc? • Include measures that adversely impact on soil quality or, conversely, act to conserve soil quality?	**+++**	Medium / Long	This objective is likely to have a significant positive impact through promoting designers to take inspiration from natural processes to capitalise on natural variations in the environment and landform.
Water	• Water habits • Groundwater	• Include measures that prevent adverse effects on water quality including groundwater contamination / water habitats/environments?	**+**	Medium /	This objective is likely to have a positive impact through promoting SUDS which are integrated with natural variations in the environment and

Objective 3: Use of Natural Characteristics in Design					
Explanation of Objective – Natural characteristics reflect the qualities of natural features and processes, which respond to their environment by achieving states of dynamic equilibrium through the minimum consumption of energy and materials. Wherever possible, design and management of landscapes should exploit natural characteristics and processes to reduce resource consumption and long term maintenance requirements as well as encouraging natural heritage and landscape integration. Successfully achieving this objective requires a thorough understanding of context, materials and processes					
Key Mechanisms of the aim: Promotion Variation, Allow Natural Processes to Work, Earthworks Contouring, Rock Cut Treatments, Natural Drainage Solutions					
SEA Topic	**Key Issues for Consideration**	**Assessment of the Policy, does the policy . . .**	**Type of effect**		**Comments**
		• Include measures that enhance natural watercourses and water habitats (including measures that mitigate against habitat fragmentation)?		Long	landform.
Climatic Factors	• Carbon emissions • Carbon adaptation • Ecosystems services	• Result in measures that will increase carbon emissions? • Work towards reducing energy consumption? • Provide measures that protect natural heritage and ecosystems which allows ecosystems to provide vital services i.e. carbon sinks • Exacerbate risk of flooding? • Include measures that increase wise use of resources?	+	Long	This objective is likely to have a positive impact on conserving and enhancing habitat networks and natural processes which will include protection of soils and water environment.
Material Assets	• Material consumption • Energy use	• Include measures that result in an increase in the consumption of materials including important resources? • Promote measures to reduce waste, increase resource efficiency, and encourage re use of materials?	+	Long	Use of species mixes with local provenance will minimise management and maintenance.

Objective 3: Use of Natural Characteristics in Design					
Explanation of Objective – Natural characteristics reflect the qualities of natural features and processes, which respond to their environment by achieving states of dynamic equilibrium through the minimum consumption of energy and materials. Wherever possible, design and management of landscapes should exploit natural characteristics and processes to reduce resource consumption and long term maintenance requirements as well as encouraging natural heritage and landscape integration. Successfully achieving this objective requires a thorough understanding of context, materials and processes					
Key Mechanisms of the aim: Promotion Variation, Allow Natural Processes to Work, Earthworks Contouring, Rock Cut Treatments, Natural Drainage Solutions					
SEA Topic	**Key Issues for Consideration**	**Assessment of the Policy, does the policy . . .**	**Type of effect**		**Comments**
Landscape	• Landscape quality and character • Visual amenity value • Sensitive landscapes	• Does the Policy adversely impact on Scotland's natural heritage and landscape character? • Protect or detract from the visual amenity of the landscape / natural heritage? • Contain measures / guidance that will reduce the impacts on the distinctiveness and place quality of landscapes? • Protect naturally scenic areas designated at national, regional, and international level?	**+++**	Long	This objective is likely to have a significant positive impact in the integration of the transport estate (existing and proposed) through design which protects and fits with the landscape character and natural heritage. It also will promote management and maintenance that reflects natural processes.
Historic Environment	• Cultural and archaeological heritage	• Include measures that would result in negative impacts on points of cultural or archaeological interest? • Seek to protect, enhance or detract from Scotland's historical environmental assets?	**0**		Early route planning of transport corridors and 'fit' with landscape will also protect cultural heritage sensitivity in terms of setting.
Summary of Assessment Results: Designing of transport landscapes encouraged by a full understanding of context, materials and processes will have a significant positive effect relative to biodiversity, landscape and landform.					

Objective 4: Support Biodiversity with Native Planting					
Explanation of Objective – Native plant species have been the longest established in the British Isles, forming associations of species that have developed in geographical regions and in specific habitats, responding to local soil, water and microclimatic conditions. As such native plants, particularly those of local provenance, are most likely to successfully establish and develop in balanced plant assemblages and create naturalistic habitats in which other native plant and animal species are encouraged. Some species such as Scots pine, birch and rowan are highly characteristic of Scottish habitats and landscapes, forming the key species in widely distributed plant assemblages.					
Key Mechanisms of the aim: Native Plants and Seeds; Local Provenance, Species Mixes; Collect and Grow Seeds and Cuttings; Bespoke Solutions					
SEA Topic	**Key Issues for Consideration**	**Assessment of the Policy, does the policy . . .**	**Type of effect**	**Duration of effect**	**Comments**
Biodiversity, Flora and Fauna;	• Health of Ecosystems • Species Habitats • Health of designated sites	• Work to improve nature conservation and/ or the health of biologically diverse areas? • Consider mitigation measures against adverse impacts on ecosystems? • Include measures that adversely affect on the health of national, regional or internationally designated sites including Natura 2000 designated sites? • Protect species and habitats (flora & fauna) including provisions in relevant Biodiversity Action Plans? • Help to reduce habitat fragmentation?	+++	Medium / Long	This objective is likely to have a significant positive impact as native plants are most likely to successfully establish and develop in balanced plant assemblages and create naturalistic habitats in which other native plant and animal species are encouraged
Population, Human Health	• Community effects and access • Amenity value of landscape	• Include measures that would adversely impact on cyclist and pedestrian access? • Provide measures that enhance amenity value of landscape? Promote opportunities for enhanced experience of Scotland's landscapes and enhance journey quality.	+	Medium / Long	This objective is likely to have a positive impact in the integration of the transport estate (existing and proposed) through design which protects and fits with the landscape character and natural heritage. It also will promote management and maintenance that reflects natural processes.
Geology, geo, soils and land use	• Chemical use • Soil quality	• Include measures that would result in increases in chemicals i.e. herbicides, salt etc? • Include measures that adversely impact on soil quality or, conversely, act to conserve soil quality?	+++	Short / Medium	Native planting is suited to local conditions and soil types and therefore required minimal maintenance and management.
Water	• Water habits • Groundwater	• Include measures that prevent adverse effects on water quality including groundwater contamination / water habitats/environments? • Include measures that enhance natural watercourses	+	Medium / Long	Use of native planting around SUDS ponds will develop high quality natural habitats. Promoting planting and species mixes which require less water and are more resilient to climate change

Objective 4: Support Biodiversity with Native Planting					
Explanation of Objective – Native plant species have been the longest established in the British Isles, forming associations of species that have developed in geographical regions and in specific habitats, responding to local soil, water and microclimatic conditions. As such native plants, particularly those of local provenance, are most likely to successfully establish and develop in balanced plant assemblages and create naturalistic habitats in which other native plant and animal species are encouraged. Some species such as Scots pine, birch and rowan are highly characteristic of Scottish habitats and landscapes, forming the key species in widely distributed plant assemblages.					
Key Mechanisms of the aim: Native Plants and Seeds; Local Provenance, Species Mixes; Collect and Grow Seeds and Cuttings; Bespoke Solutions					
SEA Topic	**Key Issues for Consideration**	**Assessment of the Policy, does the policy . . .**	**Type of effect**	**Duration of effect**	**Comments**
		and water habitats (including measures that mitigate against habitat fragmentation)?			will reduce resource use and maintenance.
Climatic Factors	• Carbon emissions • Carbon adaptation • Ecosystems services	• Result in measures that will increase carbon emissions? • Work towards reducing energy consumption? • Provide measures that protect natural heritage and ecosystems which allows ecosystems to provide vital services i.e. carbon sinks • Exacerbate risk of flooding? • Include measures that increase wise use of resources?	+	Medium / Long	Use of species which are native and therefore characteristic of Scottish landscapes and soils will enhance soil quality and benefit local biodiversity and protected species.
Material Assets	• Material consumption • Energy use	• Include measures that result in an increase in the consumption of materials including important resources? • Promote measures to reduce waste, increase resource efficiency, and encourage re use of materials?	+	Medium / Long	In promoting planting mixes which are best suited to local conditions, maintenance and long term management including use of chemicals will be reduced.
Landscape	• Landscape quality and character • Visual amenity value • Sensitive landscapes	• Does the Policy adversely impact on Scotland's natural heritage and landscape character? • Protect or detract from the visual amenity of the landscape / natural heritage? • Contain measures / guidance that will reduce the impacts on the distinctiveness and place quality of landscapes? • Protect naturally scenic areas designated at national,	+++	Medium / Long	Use of species which are native and therefore characteristic of Scottish landscapes will maximise fit of transport estate with existing landscape and are more likely to successfully establish and develop.

Objective 4: Support Biodiversity with Native Planting					
Explanation of Objective – Native plant species have been the longest established in the British Isles, forming associations of species that have developed in geographical regions and in specific habitats, responding to local soil, water and microclimatic conditions. As such native plants, particularly those of local provenance, are most likely to successfully establish and develop in balanced plant assemblages and create naturalistic habitats in which other native plant and animal species are encouraged. Some species such as Scots pine, birch and rowan are highly characteristic of Scottish habitats and landscapes, forming the key species in widely distributed plant assemblages.					
Key Mechanisms of the aim: Native Plants and Seeds; Local Provenance, Species Mixes; Collect and Grow Seeds and Cuttings; Bespoke Solutions					
SEA Topic	**Key Issues for Consideration**	**Assessment of the Policy, does the policy . . .**	**Type of effect**	**Duration of effect**	**Comments**
		regional, and international level?			
Historic Environment	• Cultural and archaeological heritage	• Include measures that would result in negative impacts on points of cultural or archaeological interest? • Seek to protect, enhance or detract from Scotland's historical environmental assets?	+	Medium / Long	Use of native planting secures a 'best fit' with landscape character and context which will also 'fit' with historic environment and setting – avoiding inappropriate planting. There is a need to ensure that guidance includes the avoidance of planting on historic environment features
Summary of Assessment Results: Designing of transport landscapes based on use of native planting will have a significant positive effect relative to biodiversity, landscape and soil quality.					

Objective 5: Retain Existing Features and re-use site won materials					
Explanation of Objective – Successful integration of transport corridors with their surrounding landscape and habitats requires local characteristics to be taken into account. Early and ongoing consideration should be given to the potential for retaining and integrating with local landscape features and elements and for re-using local materials generated by site clearance and earthworks excavation.					
Key Mechanisms of the aim: Local Context and Route Selection; Protect during Construction; Balanced Earthworks; Soil Conservation; Translocation of Plants and Habitats; Chipping and Composting					
SEA Topic	**Key Issues for Consideration**	**Assessment of the Policy, does the policy . . .**	**Type of effect**	**Duration of effect**	**Comments**
Biodiversity, Flora and Fauna;	• Health of Ecosystems • Species Habitats • Health of designated sites	• Work to improve nature conservation and/ or the health of biologically diverse areas? • Consider mitigation measures against adverse impacts on ecosystems? • Include measures that adversely affect on the health of national, regional or internationally designated sites including Natura 2000 designated sites? • Protect species and habitats (flora & fauna) including provisions in relevant Biodiversity Action Plans? • Help to reduce habitat fragmentation?	+	Short / Medium / Long	Early route planning and design will address constraints and opportunities for mitigation e.g. via EIA process. Protection of habitats and soils within transport corridors and ensuring there are available areas to act as buffers and integrate the transport estate into the surrounding landscape.
Population, Human Health	• Community effects and access • Amenity value of landscape	• Include measures that would adversely impact on cyclist and pedestrian access? • Provide measures that enhance amenity value of landscape? Promote opportunities for enhanced experience of Scotland's landscapes and enhance journey quality.	+	Short / Medium / Long	Opportunities for positive impact in the integration of the transport estate (existing and proposed) through design which protects and fits with the landscape character and natural heritage whilst promoting landscape schemes that need minimal management and maintenance.
Geology, geo, soils and land use	• Chemical use • Soil quality	• Include measures that would result in increases in chemicals i.e. herbicides, salt etc? • Include measures that adversely impact on soil quality or, conversely, act to conserve soil quality?	+++	Short / Medium	This objective is likely to have a significant positive impact relative to promoting design which seeks to understand local context, balance earthworks, conserve site won topsoil for re-planting and to minimise management and maintenance regimes.
Water	• Water habits • Groundwater	• Include measures that prevent adverse effects on water quality including groundwater contamination / water habitats/environments?	+	Short / Medium	Minimising chemical application during establishment and thereafter maintenance of landscape planting will minimise any potential

Objective 5: Retain Existing Features and re-use site won materials					
Explanation of Objective – Successful integration of transport corridors with their surrounding landscape and habitats requires local characteristics to be taken into account. Early and ongoing consideration should be given to the potential for retaining and integrating with local landscape features and elements and for re-using local materials generated by site clearance and earthworks excavation.					
Key Mechanisms of the aim: Local Context and Route Selection; Protect during Construction; Balanced Earthworks; Soil Conservation; Translocation of Plants and Habitats; Chipping and Composting					
SEA Topic	**Key Issues for Consideration**	**Assessment of the Policy, does the policy . . .**	**Type of effect**	**Duration of effect**	**Comments**
		• Include measures that enhance natural watercourses and water habitats (including measures that mitigate against habitat fragmentation)?			impacts on the water environment, Balancing earthworks and re-use of topsoil/transplanting of turves etc will minimise erosion and runoff therefore loss of nutrients.
Climatic Factors	• Carbon emissions • Carbon adaptation • Ecosystems services	• Result in measures that will increase carbon emissions? • Work towards reducing energy consumption? • Provide measures that protect natural heritage and ecosystems which allows ecosystems to provide vital services i.e. carbon sinks • Exacerbate risk of flooding? • Include measures that increase wise use of resources?	+	Medium / Long	Retention, protection and re-use of site materials e.g. turves, plant material and topsoil all reduce need for raw materials and resources of a scheme. Balancing earthworks and re-use of topsoil/ transplanting of turves etc will minimise erosion and runoff.
Material Assets	• Material consumption • Energy use	• Include measures that result in an increase in the consumption of materials including important resources? • Promote measures to reduce waste, increase resource efficiency, and encourage re use of materials?	+	Short / Medium / Long	Retention, protection and re-use of site materials e.g. turves, plant material and topsoil all reduce need for raw materials and resources of a scheme and is an important part of sustainable procurement.
Landscape	• Landscape quality and character • Visual amenity value • Sensitive landscapes	• Does the Policy adversely impact on Scotland's natural heritage and landscape character? • Protect or detract from the visual amenity of the landscape / natural heritage? • Contain measures / guidance that will reduce the impacts on the distinctiveness and place quality of landscapes?	+++	Short / Medium / Long	This objective is likely to have a significant positive impact relative to landscape design which seeks to understand local context, balance earthworks, conserve site won topsoil for re-planting and to minimise management and maintenance regimes. Objective promotes low productivity native grass and/ or wildflower mixes

Objective 5: Retain Existing Features and re-use site won materials					
Explanation of Objective – Successful integration of transport corridors with their surrounding landscape and habitats requires local characteristics to be taken into account. Early and ongoing consideration should be given to the potential for retaining and integrating with local landscape features and elements and for re-using local materials generated by site clearance and earthworks excavation.					
Key Mechanisms of the aim: Local Context and Route Selection; Protect during Construction; Balanced Earthworks; Soil Conservation; Translocation of Plants and Habitats; Chipping and Composting					
SEA Topic	**Key Issues for Consideration**	**Assessment of the Policy, does the policy . . .**	**Type of effect**	**Duration of effect**	**Comments**
		• Protect naturally scenic areas designated at national, regional, and international level?			which contribute to biodiversity and landscape quality.
Historic Environment	• Cultural and archaeological heritage	• Include measures that would result in negative impacts on points of cultural or archaeological interest? • Seek to protect, enhance or detract from Scotland's historical environmental assets?	**0**		Use of native planting secures a 'best fit' with landscape character and context which will also 'fit' with historic environment and setting – avoiding inappropriate planting. There is a need to ensure that guidance includes the avoidance of planting on historic environment features
Summary of Assessment Results: Designing of transport landscapes based on maximising the use of existing features and assets in the design, construction and operation of transport schemes has overall positive benefits to landscape quality.					

Objective 6: Design for Low Maintenance and Management					
Explanation of Objective – Most planting and seeding in transport corridors requires some maintenance and management. This may be early inputs to promote successful establishment or later inputs to control effects on operational and safety aspects. This requires the commitment of materials, labour and energy. The need for intensive or frequent management is a sign that habitats are not in equilibrium. Project planning and landscape design should ensure that the potential for intensive, frequent or long term management inputs is minimised. Consultation with maintenance managers will be important.					
Key Mechanisms of the aim: Right Plant for Right Place; Appropriate Planting Densities; Low Productivity Grasslands; Minimise Chemical Applications.					
SEA Topic	**Key Issues for Consideration**	**Assessment of the Policy, does the policy . . .**	**Type of effect**	**Duration of effect**	**Comments**
Biodiversity, Flora and Fauna;	• Health of Ecosystems • Species Habitats • Health of designated sites	• Work to improve nature conservation and/ or the health of biologically diverse areas? • Consider mitigation measures against adverse impacts on ecosystems? • Include measures that adversely affect on the health of national, regional or internationally designated sites including Natura 2000 designated sites? • Protect species and habitats (flora & fauna) including provisions in relevant Biodiversity Action Plans? • Help to reduce habitat fragmentation?	+++	Medium / Long	Use of species which are native and therefore characteristic of Scottish landscapes and soils will enhance soil quality and benefit local biodiversity and protected species.
Population, Human Health	• Community effects and access • Amenity value of landscape	• Include measures that would adversely impact on cyclist and pedestrian access? • Provide measures that enhance amenity value of landscape? Promote opportunities for enhanced experience of Scotland's landscapes and enhance journey quality.	+	Medium / Long	Opportunities for positive impact in the integration of the transport estate (existing and proposed) through design which protects and fits with the landscape character and natural heritage whilst promoting landscape schemes that need minimal management and maintenance.
Geology, geo, soils and land use	• Chemical use • Soil quality	• Include measures that would result in increases in chemicals i.e. herbicides, salt etc? • Include measures that adversely impact on soil quality or, conversely, act to conserve soil quality?	+++	Medium / Long	Use of planting that is suited to local conditions and soil types require minimal maintenance and management.
Water	• Water habits • Groundwater	• Include measures that prevent adverse effects on water quality including groundwater contamination / water habitats/environments? • Include measures that enhance natural watercourses	0		Use of native planting around SUDS ponds will develop high quality natural habitats.

Objective 6: Design for Low Maintenance and Management					
Explanation of Objective – Most planting and seeding in transport corridors requires some maintenance and management. This may be early inputs to promote successful establishment or later inputs to control effects on operational and safety aspects. This requires the commitment of materials, labour and energy. The need for intensive or frequent management is a sign that habitats are not in equilibrium. Project planning and landscape design should ensure that the potential for intensive, frequent or long term management inputs is minimised. Consultation with maintenance managers will be important.					
Key Mechanisms of the aim: Right Plant for Right Place; Appropriate Planting Densities; Low Productivity Grasslands; Minimise Chemical Applications.					
SEA Topic	**Key Issues for Consideration**	**Assessment of the Policy, does the policy . . .**	**Type of effect**	**Duration of effect**	**Comments**
		and water habitats (including measures that mitigate against habitat fragmentation)?			
Climatic Factors	• Carbon emissions • Carbon adaptation • Ecosystems services	• Result in measures that will increase carbon emissions? • Work towards reducing energy consumption? • Provide measures that protect natural heritage and ecosystems which allows ecosystems to provide vital services i.e. carbon sinks • Exacerbate risk of flooding? • Include measures that increase wise use of resources?	**0**		Use of species which are native and therefore characteristic of Scottish landscapes and soils will enhance soil quality as they do not require additional chemical management, treatment or fertiliser and will also benefit local biodiversity and protected species.
Material Assets	• Material consumption • Energy use	• Include measures that result in an increase in the consumption of materials including important resources? • Promote measures to reduce waste, increase resource efficiency, and encourage re use of materials?	**+**	Medium / Long	In promoting planting mixes which are best suited to local conditions, maintenance and long term management including use of chemicals will be reduced.
Landscape	• Landscape quality and character • Visual amenity value • Sensitive landscapes	• Does the Policy adversely impact on Scotland's natural heritage and landscape character? • Protect or detract from the visual amenity of the landscape / natural heritage? • Contain measures / guidance that will reduce the impacts on the distinctiveness and place quality of landscapes? • Protect naturally scenic areas designated at national,	**++**	Medium / Long	This objective is likely to have a significant positive impact relative to landscape design that 'fits' with landscape character.

Objective 6: Design for Low Maintenance and Management					
Explanation of Objective – Most planting and seeding in transport corridors requires some maintenance and management. This may be early inputs to promote successful establishment or later inputs to control effects on operational and safety aspects. This requires the commitment of materials, labour and energy. The need for intensive or frequent management is a sign that habitats are not in equilibrium. Project planning and landscape design should ensure that the potential for intensive, frequent or long term management inputs is minimised. Consultation with maintenance managers will be important.					
Key Mechanisms of the aim: Right Plant for Right Place; Appropriate Planting Densities; Low Productivity Grasslands; Minimise Chemical Applications.					
SEA Topic	**Key Issues for Consideration**	**Assessment of the Policy, does the policy . . .**	**Type of effect**	**Duration of effect**	**Comments**
		regional, and international level?			
Historic Environment	• Cultural and archaeological heritage	• Include measures that would result in negative impacts on points of cultural or archaeological interest? • Seek to protect, enhance or detract from Scotland's historical environmental assets?	+	Medium / Long	Use of native planting secures a 'best fit' with landscape character and context which will also 'fit' with historic environment and setting – avoiding inappropriate planting. There is a need to ensure that guidance includes the avoidance of planting on historic environment features
Summary of Assessment Results: Designing of transport landscapes based on maximising the use of existing features and assets in the design, construction and operation of transport schemes has overall positive benefits to landscape quality.					

Objective 7: Secure Adequate Land to Allow Integrated Solutions					
Explanation of Objective – Successful integration of transport routes with their surroundings is a desirable environmental objective and contributes to mitigation of effects. This may require additional land beyond the immediate corridor needed to accommodate construction of the route. This not only addresses landform integration but also allows for natural drainage solutions and future adaptation to changing circumstances, including climate change.					
Key Mechanisms of the aim: Land Integration; SUDs Attenuation and Treatment; Green Networks; Active Travel Routes; Conserve and Create Views; Address Boundaries					
SEA Topic	**Key Issues for Consideration**	**Assessment of the Policy, does the policy . . .**	**Type of effect**	**Duration of effect**	**Comments**
Biodiversity, Flora and Fauna;	• Health of Ecosystems • Species Habitats • Health of designated sites	• Work to improve nature conservation and/ or the health of biologically diverse areas? • Consider mitigation measures against adverse impacts on ecosystems? • Include measures that adversely affect on the health of national, regional or internationally designated sites including Natura 2000 designated sites? • Protect species and habitats (flora & fauna) including provisions in relevant Biodiversity Action Plans? • Help to reduce habitat fragmentation?	++	Medium / Long	This objective is likely to have a significant positive impact as native plants are most likely to successfully establish and develop in balanced plant assemblages and create naturalistic habitats in which other native plant and animal species are encouraged
Population, Human Health	• Community effects and access • Amenity value of landscape	• Include measures that would adversely impact on cyclist and pedestrian access? • Provide measures that enhance amenity value of landscape? Promote opportunities for enhanced experience of Scotland's landscapes and enhance journey quality.	++	Medium / Long	This objective is likely to have a positive impact in the development of active travel routes with access and connectivity promoted as an early action to ensure existing and proposed routes are designed as part of schemes.
Geology, geo, soils and land use	• Chemical use • Soil quality	• Include measures that would result in increases in chemicals i.e. herbicides, salt etc? • Include measures that adversely impact on soil quality or, conversely, act to conserve soil quality?	+	Short / Medium / Long	Landscape design that reflects local landforms and is better integrated will reduce level of construction work e.g. rock cutting / earthworks.
Water	• Water habits • Groundwater	• Include measures that prevent adverse effects on water quality including groundwater contamination / water habitats/environments? • Include measures that enhance natural watercourses	+	Medium / Long	This objective is likely to have a positive impact through promoting SUDS which are integrated with natural variations in the environment and landform.

Objective 7: Secure Adequate Land to Allow Integrated Solutions					
Explanation of Objective – Successful integration of transport routes with their surroundings is a desirable environmental objective and contributes to mitigation of effects. This may require additional land beyond the immediate corridor needed to accommodate construction of the route. This not only addresses landform integration but also allows for natural drainage solutions and future adaptation to changing circumstances, including climate change.					
Key Mechanisms of the aim: Land Integration; SUDs Attenuation and Treatment; Green Networks; Active Travel Routes; Conserve and Create Views; Address Boundaries					
SEA Topic	**Key Issues for Consideration**	**Assessment of the Policy, does the policy . . .**	**Type of effect**	**Duration of effect**	**Comments**
		and water habitats (including measures that mitigate against habitat fragmentation)?			
Climatic Factors	• Carbon emissions • Carbon adaptation • Ecosystems services	• Result in measures that will increase carbon emissions? • Work towards reducing energy consumption? • Provide measures that protect natural heritage and ecosystems which allows ecosystems to provide vital services i.e. carbon sinks • Exacerbate risk of flooding? • Include measures that increase wise use of resources?	**0**		Balancing earthworks and integration of transport schemes within the landform will reduce impacts on soils and reduce construction materials.
Material Assets	• Material consumption • Energy use	• Include measures that result in an increase in the consumption of materials including important resources? • Promote measures to reduce waste, increase resource efficiency, and encourage re use of materials?	**0**		Balancing earthworks and integration of transport schemes within the landform will reduce impacts on soils and reduce construction materials.
Landscape	• Landscape quality and character • Visual amenity value • Sensitive landscapes	• Does the Policy adversely impact on Scotland's natural heritage and landscape character? • Protect or detract from the visual amenity of the landscape / natural heritage? • Contain measures / guidance that will reduce the impacts on the distinctiveness and place quality of landscapes? • Protect naturally scenic areas designated at national, regional, and international level?	**+++**	Medium / Long	The objective seeks to protect existing views, create new viewpoints within transport corridors and promote framing of views with appropriate landscape treatments and with available lay-bys / rest areas.

Objective 7: Secure Adequate Land to Allow Integrated Solutions					
Explanation of Objective – Successful integration of transport routes with their surroundings is a desirable environmental objective and contributes to mitigation of effects. This may require additional land beyond the immediate corridor needed to accommodate construction of the route. This not only addresses landform integration but also allows for natural drainage solutions and future adaptation to changing circumstances, including climate change.					
Key Mechanisms of the aim: Land Integration; SUDs Attenuation and Treatment; Green Networks; Active Travel Routes; Conserve and Create Views; Address Boundaries					
SEA Topic	**Key Issues for Consideration**	**Assessment of the Policy, does the policy . . .**	**Type of effect**	**Duration of effect**	**Comments**
Historic Environment	• Cultural and archaeological heritage	• Include measures that would result in negative impacts on points of cultural or archaeological interest? • Seek to protect, enhance or detract from Scotland's historical environmental assets?	+	Medium / Long	Use of native planting secures a 'best fit' with landscape character and context which will also 'fit' with historic environment and setting – avoiding inappropriate planting. There is a need to ensure that guidance includes the avoidance of planting on historic environment features.
Summary of Assessment Results: Designing of transport landscapes based on maximising the use of existing features and assets in the design, construction and operation of transport schemes has overall positive benefits to landscape quality.					

Objective 8: Build on Distinctive Place Quality and Character					
Explanation of Objective – Landscapes by their combinations and patterns of elements and features create areas of distinctive character. Sense of place arises from the character and special qualities of location and the connections people make with it. A positive sense of place and strengthening of distinctive place qualities is fundamental to how we perceive our environment. Transport corridors can provide access to and experience of landscapes as well as affect them positively or adversely. Policy and scheme objectives should support the conservation and creation of distinctive character and experience of landscape.					
Key Mechanisms of the aim: Respect setting, Continuity of Elements; Conserve Key Features; Use Local Materials; Conserve and Create Key Views					
SEA Topic	**Key Issues for Consideration**	**Assessment of the Policy, does the policy . . .**	**Type of effect**	**Duration of effect**	**Comments**
Biodiversity, Flora and Fauna;	• Health of Ecosystems • Species Habitats • Health of designated sites	• Work to improve nature conservation and/ or the health of biologically diverse areas? • Consider mitigation measures against adverse impacts on ecosystems? • Include measures that adversely affect on the health of national, regional or internationally designated sites including Natura 2000 designated sites? • Protect species and habitats (flora & fauna) including provisions in relevant Biodiversity Action Plans? • Help to reduce habitat fragmentation?	+	Medium / Long	This objective is likely to have a significant positive impact on conserving and enhancing habitat networks along with creation of high quality bio-diverse landscapes for new transport infrastructure based on bespoke solutions and species mixes of local provenance. Early route planning and design will address constraints and opportunities for mitigation e.g. via EIA process.
Population, Human Health	• Community effects and access • Amenity value of landscape	• Include measures that would adversely impact on cyclist and pedestrian access? • Provide measures that enhance amenity value of landscape? Promote opportunities for enhanced experience of Scotland's landscapes and enhance journey quality.	+	Medium / Long	Retention of features which are locally distinctive will protect amenity value of the landscape.
Geology, geo, soils and land use	• Chemical use • Soil quality	• Include measures that would result in increases in chemicals i.e. herbicides, salt etc? • Include measures that adversely impact on soil quality or, conversely, act to conserve soil quality?	+	Short / Medium / Long	This objective is likely to have a significant positive impact through promoting designers to take inspiration from natural processes to create natural variations in the environment and landform.
Water	• Water habits • Groundwater	• Include measures that prevent adverse effects on water quality including groundwater contamination / water habitats/environments?	+	Medium /	This objective is likely to have a positive impact through promoting SUDS which are integrated with natural variations in the environment and

Objective 8: Build on Distinctive Place Quality and Character					
Explanation of Objective – Landscapes by their combinations and patterns of elements and features create areas of distinctive character. Sense of place arises from the character and special qualities of location and the connections people make with it. A positive sense of place and strengthening of distinctive place qualities is fundamental to how we perceive our environment. Transport corridors can provide access to and experience of landscapes as well as affect them positively or adversely. Policy and scheme objectives should support the conservation and creation of distinctive character and experience of landscape.					
Key Mechanisms of the aim: Respect setting, Continuity of Elements; Conserve Key Features; Use Local Materials; Conserve and Create Key Views					
SEA Topic	**Key Issues for Consideration**	**Assessment of the Policy, does the policy . . .**	**Type of effect**	**Duration of effect**	**Comments**
		• Include measures that enhance natural watercourses and water habitats (including measures that mitigate against habitat fragmentation)?		Long	landform.
Climatic Factors	• Carbon emissions • Carbon adaptation • Ecosystems services	• Result in measures that will increase carbon emissions? • Work towards reducing energy consumption? • Provide measures that protect natural heritage and ecosystems which allows ecosystems to provide vital services i.e. carbon sinks • Exacerbate risk of flooding? • Include measures that increase wise use of resources?	**0**		
Material Assets	• Material consumption • Energy use	• Include measures that result in an increase in the consumption of materials including important resources? • Promote measures to reduce waste, increase resource efficiency, and encourage re use of materials?	**+**	Short / Medium / Long	Use of species mixes with local provenance will minimise management and maintenance.
Landscape	• Landscape quality and character • Visual amenity value • Sensitive landscapes	• Does the Policy adversely impact on Scotland's natural heritage and landscape character? • Protect or detract from the visual amenity of the landscape / natural heritage? • Contain measures / guidance that will reduce the impacts on the distinctiveness and place quality of landscapes?	**+++**	Short / Medium / Long	This objective is likely to have a significant positive impact in the integration of the transport estate (existing and proposed) through design which protects and fits with the landscape character and natural heritage. It also will promote management and maintenance that reflects natural processes.

Objective 8: Build on Distinctive Place Quality and Character					
Explanation of Objective – Landscapes by their combinations and patterns of elements and features create areas of distinctive character. Sense of place arises from the character and special qualities of location and the connections people make with it. A positive sense of place and strengthening of distinctive place qualities is fundamental to how we perceive our environment. Transport corridors can provide access to and experience of landscapes as well as affect them positively or adversely. Policy and scheme objectives should support the conservation and creation of distinctive character and experience of landscape.					
Key Mechanisms of the aim: Respect setting, Continuity of Elements; Conserve Key Features; Use Local Materials; Conserve and Create Key Views					
SEA Topic	**Key Issues for Consideration**	**Assessment of the Policy, does the policy . . .**	**Type of effect**	**Duration of effect**	**Comments**
		• Protect naturally scenic areas designated at national, regional, and international level?			
Historic Environment	• Cultural and archaeological heritage	• Include measures that would result in negative impacts on points of cultural or archaeological interest? • Seek to protect, enhance or detract from Scotland's historical environmental assets?	+	Short / Medium / Long	Use of native planting and local materials secures a 'best fit' with landscape character and context which will also 'fit' with historic environment and setting. There is a need to ensure that guidance includes the avoidance of planting on historic environment features
Summary of Assessment Results: Designing of transport landscapes based on maximising the use of existing features and assets in the design, construction and operation of transport schemes has overall positive benefits to landscape quality.					

Appendix 3 – Scoping Responses

Directorate for Local Government and Communities
SEA Gateway, 2-J (South), Victoria Quay,
Edinburgh, EH6 6QQ

T: 0131-244 7650
E: Johnathan.whittlestone@scotland.gsi.gov.uk

The Scottish Government

Kim McLaren
Technical Director
IronsideFarrar
111 McDonald Road
Edinburgh
EH7 4NW

LEGACY 2014
XX COMMONWEALTH GAMES
SCOTLAND

Date:26 April 2013

00738 SCOPING - TRANSPORT SCOTLAND - FITTING LANDSCAPES

Dear Kim,

With reference to the Scoping report you submitted to the SEA Gateway on 25 March 2013.

In accordance with Section 15(2) of the **Environmental Assessment (Scotland) Act 2005** the Consultation Authorities have now considered the Scoping report you submitted. The individual responses from the Consultation Authorities to your report are attached to this letter.

As the Consultation Authorities have now expressed their views on the proposed scope and level of detail of the report, you should refer to the Act to consider what your next step should be. You should of course take into account the opinions offered by the Consultation Authorities.

Note, in accordance with Section 15(3) of the **Environmental Assessment (Scotland) Act 2005,** (when agreed) you are required to formally write to advise the Scottish Ministers of the period of consultation you intend to specify, both for the public and the Consultation Authorities.

If you have any queries or would like me to clarify any points, please call me on 0131 244 7650.

Yours sincerely

Johnathan Whittlestone
SEA Gateway Officer

HISTORIC SCOTLAND
ALBA AOSMHOR

Longmore House
Salisbury Place
Edinburgh
EH9 1SH

Direct Line: 0131 668 8704
Virginia.Sharp@scotland.gsi.gov.uk

Our ref: AMN/23/572
Our Case ID: 201208222

24 April 2013

Mr Angus Corby
Transport Scotland
Buchanan House
58 Port Dundas Road
GLASGOW
G4 0HF

Dear Mr Corby

ENVIRONMENTAL ASSESSMENT (SCOTLAND) ACT 2005
Transport Scotland – Fitting Landscapes

Thank you for consulting Historic Scotland on the Scoping Report for Transport Scotland's Fitting Landscapes policy statement, received by the Scottish Government's SEA Gateway on 25 March. As this is a Scottish Government strategy I am providing this view on a voluntary basis. This letter contains our views on the scope and level of detail of the information to be included in the Environmental Report and the duration of the proposed consultation period . An Annex contains detailed comments on the Scoping Report. Please note that our view is based on our main area of interest for the historic environment.

I understand the Fitting Landscapes Policy Statement (FLPS) will refresh Transport Scotland's policy on landscape design and management within transport corridors, and will apply to all strategic road, rail and national cycleway routes with the goal of achieving sustainable, high quality transport landscapes. I note that the historic environment has been scoped into the assessment; in view of the information provided, I am content with this approach. The Scoping Report provides a clear outline of the proposed approach to the environmental assessment of the framework, and subject to the specific comments set out in the annex, I am content with the scope and level of detail proposed for the SEA.

Please note that none of the comments contained in this letter should be construed as constituting a legal interpretation of the requirements of the Act. Instead they are intended as helpful advice, as part of our commitment to capacity building in Strategic Environmental Assessment (SEA). I hope this letter is helpful to you; if you wish to discuss any of its contents in more detail, please do not hesitate to contact me.

Yours sincerely

Virginia Sharp
Senior Heritage Management Officer, SEA

Annex: Detailed Comments on the Scoping Report

Question 1: Is the background and purpose of this report clear?
I am content that section 1 of the scoping report sets out the background and purpose of the report clearly.

Question 2: Is there agreement on the consultation period timeframe?
I note that a consultation period of six week for the draft Environmental Report is proposed. I am content with this timescale. Please note that, for administrative purposes, Historic Scotland consider that the consultation period commences on receipt of the relevant documents by the SEA Gateway.

Question 3: Is the scope and study area of the Fitting Landscapes Policy adequately described in terms of visions, aims and objectives, for the purpose of this SEA scoping report?
Yes.

Question 4: Are there any other plans, programmes or strategies, not listed above, which should be included in the assessment for review?
I note that the Ancient Monuments and Archaeological Areas Act (1979) has been included in this section. For information, the key components of the legislation which governs the management and protection of Scotland's historic environment are the Historic Buildings and Ancient Monuments Act 1953, the Ancient Monuments and Archaeological Areas Act 1979, and the Planning (Listed Buildings and Conversation Areas) (Scotland) Act 1997. These three Acts were all amended by the Historic Environment (Amendment) (Scotland) Act 2011, a tightly-focused, technical piece of legislation that addressed specific gaps and weaknesses in the existing heritage legislation framework.

You should also consider including the Scottish Planning Policy (a statement of Scottish Government policy on nationally important land use matters, including subject specific policies on the historic environment).

Question 5: Which specific plans, programmes and strategies are more relevant to your organisation's specific interest in relation to the Fitting Landscapes Policy?
Those PPS listed above at Question 4, in addition to the Scottish Historic Environment Policy (2011).

Question 6: Will the environmental baseline allow for a comprehensive assessment of how implementation of the policy would affect the current state of the environment / Question 7: Is the level of detail proportionate to the scope of the Fitting Landscapes Policy, in terms of how environmental pressures / problems could be altered by the policy? / Question 8: Can you identify any

further environmental issues at national level that may be affected by, or influence, the Fitting Landscapes Policy?
I am content that the environmental baseline provided for the historic environment is sufficient. The potential for indirect (setting) impacts from the construction and operation of transport infrastructure should be explicitly recognised under relevant environmental issues. There may also be opportunities for the Fitting Landscapes Policy to promote measures that enhance (where appropriate) the historic environment.

For information, the number of Inventory battlefield sites now stands at 39. The total numbers of designations can fluctuate due to the dynamic nature of the designation process; current data on scheduled monuments, listed buildings and properties in the care of Scottish Ministers, Gardens and Designed Landscapes and Inventory Battlefield sites can also be downloaded from Historic Scotland's Data Services Website at http://data.historic-scotland.gov.uk/pls/htmldb/f?p=2000:10:0: For any further information on those data sets please contact hsgimanager@scotland.gsi.gov.uk.

Question 9: Do you agree with the assessment that air quality, and noise and vibration be scoped out in terms of the impacts of the Fitting Landscapes Policy on SEA topics?
I have no view on this issue.

Question 10: Do you agree that the proposed SEA objectives suit the methodology proposed for this assessment and are proportionate to the scope of the Fitting Landscapes Policy?
I am content with the proposed SEA objectives relating to the historic environment. In terms of the reporting methodology, it is not clear how mitigation measures will be reported. You may wish to consider incorporating the identification of mitigation measures into the assessment matrices.

Mitigation is an essential aspect of strategic assessment. It can be achieved by making changes to the policy itself, by identifying more detailed measures to be taken forward into lower levels of the PPS hierarchy, or by identifying where other PPS can provide mitigation. The Environmental Report should clearly set out how the Fitting Landscapes Policy has changed as a result of the assessment, and should ideally identify when and by whom mitigation measures will be carried out.

Historic Scotland
April 2013

Our ref: PCS/125769
SG ref: 00738sco

Mr Angus Corby
Transport Scotland
Buchanan House
58 Port Dundas Road
Glasgow. G4 0HF

If telephoning ask for:
Neil Deasley

26th April 2013

By email only to: sea.gateway@scotland.gsi.gov.uk

Dear Mr Corby

Environmental Assessment (Scotland) Act 2005
Fitting landscapes - Scoping consultation

Thank you for your scoping consultation submitted under the above Act in respect of the *Fitting Landscapes* policy. This was received by SEPA via the Scottish Government SEA Gateway on 27 March 2013.

As required under Section 15(2) of the Act, we have considered the document submitted and comment as follows in respect of the scope and level of detail to be included in the Environmental Report (ER). The Scottish SEA Toolkit (available for download at: www.scotland.gov.uk/Publications/2006/09/13104943/0) provides guidance to Responsible Authorities about the type of information that is expected to be provided at each SEA stage. We have used the toolkit to inform our detailed scoping response which is attached as Annex 1.

Generally, the scoping report provides sufficient information for us to be able to provide comment on the scope and level of detail proposed. We have identified a number of additional policy documents and data sources, particularly to better understand resilience, which we recommend you include in your assessment process. Additionally, we have suggested that it would be helpful to retain air and noise as part of the assessment's focus given the potential role that landscape policy can have in mitigating the air quality and noise impacts of transport infrastructure.
On completion, the Environmental Report and the policy to which it relates should be submitted to the Scottish Government SEA Gateway (sea.gateway@scotland.gsi.gov.uk) which will forward it to the Consultation Authorities.

Should you wish to discuss this scoping consultation, please do not hesitate to contact me on 01738 458832 or via our SEA Gateway at sea.gateway@sepa.org.uk

Yours sincerely

Neil Deasley
Principal Policy Officer and Planning Support Unit Manager
Planning Service

Ecopy: hssea.gateway@scotland.gsi.gov.uk ; sea_gateway@snh.gov.uk

Appendix 1: Comments on the Scoping consultation

Set out below are SEPA's comments on the scoping report. For ease of reference, these are generally structured around the consultation questions posed in the report.

General comments

Generally, the scoping report provides clear and detailed information on the proposed scope and level of detail of the assessment and covers most of the aspects that we would wish to see addressed at this stage. Subject to the comments below, we are generally content with the scope and level of detail proposed for the ER.

We have identified a number of additional policy documents and data sources, particularly to better understand resilience, which we recommend you include in your assessment process. Additionally, we have suggested that it would be helpful to retain air and noise as part of the assessment's focus given the potential role that landscape policy can have in mitigating the air quality and noise impacts of transport infrastructure.

Detailed Comments

Question 1 – Is the background and purpose of this report clear?

The scoping report provides sufficient information to enable us to provide our view on the scope and level of detail of information to be included in the Environmental Report. The background and purpose are clear.

Question 2 – Is there agreement on the consultation period timescale?

We note the proposed consultation period of six weeks on the draft policy statement and accompanying Environmental Report. We confirm that we are content with this proposed timescale.

Question 3 – Is the scope and study area of the *Fitting Landscapes* policy adequately described in terms of visions, aims and objectives, for the purpose of the SEA scoping report?

Yes, the report is clear on the visions, aims and objectives of the *Fitting Landscapes* policy. We strongly support them in general terms, though we suggest some small amendments to them. While this is a matter for consideration in developing the policy, rather than the SEA, we would suggest you consider the following amendments to your draft aims and project objectives:

- Replace "Encourage wise use..." with "Ensure the most efficient use..."
- Replace "Build in adaptability..." with "Ensure resilience and adaptability..."
- Include as a further objective: "Resilient landscape solutions which are able to adapt to projected climate change"

Question 4 – Are there any other plans, programmes and strategies, not listed above, which should be included in the assessment for review?

We consider that you should also review the following:

Scottish Planning Policy (SPP) – SPP sets out the Scottish government's planning policy on a wide

range of issues, including transport infrastructure and protection of the environment. SPP is currently being reviewed and a revised consultation draft is expected very soon.

Flood Risk Management Planning – Under the Flood Risk Management (Scotland) Act 2009, new Flood Risk Management Strategies and Plans are required to be prepared, with the aim of sustainable flood risk management. While these are currently in the early stages of preparation (for details see: Flood Risk Management Planning in Scotland: Arrangements for 2012 -2016), the objectives that they are designed to secure have been set out by the Scottish Government in *Delivering Sustainable Flood Risk Management* (June 2011). These 5 outcomes underpin the new approach to Flood Risk Management and are:

1. A reduction in the number of people, homes and properties at risk of flooding as a result of public funds being invested in actions that protect the most vulnerable and those areas at greatest risk of flooding;
2. Rural and urban landscapes with space to store and slow down the progress of floods;
3. Integrated drainage that decreases burdens on our sewer systems while also delivering reduced flood risk and an improved water environment;
4. A well-informed public who understand flood risk and adopt actions to protect themselves, their property or their businesses, and;
5. Flood management actions undertaken that will stand the test of time and be adaptable to future changes in the climate.

Ensuring that new transport infrastructure is resilient in the face of projected climate change is very important and the design and landscape policies that shape how new schemes come forward has a significant role in ensuring this resilience. Appropriate consideration of flood risk is therefore something we consider you should assess. This is supported by data sources which are described and hyper-linked below.

River Basin Management Plans (RBMPs) – The Scotland and Solway Tweed RBMPs were published in December 2009 (for details see: www.sepa.org.uk/water/river_basin_planning.aspx). These set out objectives and measures to protect and improve Scotland's waterbodies. There is an opportunity for the *Fitting Landscapes* policy to act as a catalyst for enabling waterbody enhancements through good design of new transport infrastructure or management of the transport estate. It may also offer opportunities to promote restoration where transport infrastructure is contributing to the downgrading of waterbody status (eg through culverting, embankment or other morphological changes to waterbodies).

Climate Change Adaptation Programme - You will be aware that the Scottish Government is currently preparing the Scottish Climate Change Adaptation Programme which will replace the Adaptation Framework. This is a requirement under the Climate Change (Scotland) Act 2009. As and when this becomes available, this should be factored into the assessment. The recently published *Report on Policies and Proposals 2* (RPP2) also contains policies and proposals relevant to transport infrastructure. Similarly, the *UK Climate Change Risk Assessment* published in 2012 may provide some further evidence of risk with respect to transport infrastructure resilience.
See: www.gov.uk/government/uploads/system/uploads/attachment_data/file/69487/pb13698-climate-risk-assessment.pdf.

The recent Scottish Government consultation (June 2012) on *Safeguarding Scotland's Resources* may also prove helpful for review given the focus on efficient resource use. See: www.scotland.gov.uk/Publications/2012/06/4215.

Further, as we have suggested that *air quality* and *noise* are scoped into your assessment, we would suggest that you also review the relevant policy frameworks for these. Further information is available on SEPA's website or from the Scottish government. Relevant datasets for these topics are set out below.

Question 5 – Which specific plans, programmes and strategies are most relevant to your organisation's specific interest in relation to the Fitting Landscapes policy?

See above. We have only referred to those plans, programmes and strategies which are relevant to SEPA's interests.

Question 6 – Will the environmental baseline allow for comprehensive assessment of how implementation of the policy would affect the current state of the environment?

Generally, we are content that the environmental baseline will enable an assessment at an appropriate scale to the Fitting Landscapes policy. We would however suggest consideration of the following datasets in addition.

Scotland's Environment Website (SEWeb)

The Scotland's Environment website (www.environment.scotland.gov.uk) brings together a wide range of information about Scotland's environment. We would encourage you to review the data set out on this strategic resource to identify further information that could be useful. For each environmental topic, the following information is provided:

- a description of the topic;
- a summary of the pressures upon it, including trends information;
- the consequences of those pressures for that topic, and
- a summary of current responses to those pressures.

The information provided on SEWeb also includes links to a wide range of datasets. We would encourage you to review SEWeb as a way of ensuring that all relevant information is available to the assessment.

Resilience - Flood Risk / Landslides

In December 2011 SEPA published its National Flood Risk Assessment. The NFRA is a comprehensive analysis of information on the sources and impacts of flooding in Scotland. It provides a valuable national summary of the causes and consequences of flooding and can be used to identify areas in Scotland where the impacts from flooding are greatest. The NFRA can be downloaded here: National Flood Risk Assessment. In addition, the NFRA is supported by maps highlighting the designated Potentially Vulnerable Areas (PVAs). As noted elsewhere in this response, we consider that the policy could play a significant role in ensuring that Scotland's transport estate is resilient to future changes in climate, including flood risk. For more detailed flood risk information, SEPA's Flood Extent Map (see: www.sepa.org.uk/flooding/flood_extent_maps.aspx) shows the possible extent of flooding primarily focusing on the 200 year flood event (an event with a 0.5% chance of occurring any year) in line with Scottish Planning Policy (SPP). This information could help to support local application of *Fitting Landscapes* to particular transport schemes.

We would also encourage you to include consideration of data in relation to landslides and how *Fitting Landscapes* may be able to mitigate the effects landslides. Landslides are already a feature

of how Scotland's transport estate is managed and projected climate change indicates that their frequency and severity may increase as a result of stormier weather.

Material Assets

SEPA also holds data on construction and demolition waste to 2009, which may be helpful for your consideration of resource efficiency. See:
www.sepa.org.uk/waste/waste_data/commercial__industrial_waste/construction__demolition.aspx

Air Quality

We have suggested that air quality is scoped into the assessment (see question 9) due to the potential for the *Fitting Landscapes* policy to contribute to the mitigation of air quality impacts arising from the transport estate. Information on air quality in Scotland is available on SEWeb (www.environment.scotland.gov.uk/our_environment/air_and_climate/air_quality.aspx) and also on the Scottish air quality website (www.scottishairquality.co.uk/)

Noise

We have suggested that noise is scoped into the assessment (see question 9) due to the potential for the *Fitting Landscape*s policy to contribute to the mitigation of noise impacts arising from the transport estate. Information on noise in Scotland is available on SEWeb: (www.environment.scotland.gov.uk/our_environment/air_and_climate/noise__light_and_odour.aspx) while details of the noise mapping undertaken in Scotland is available at: www.scottishnoisemapping.org/

Question 7 – Is the level of detail proportionate to the scope of the *Fitting Landscapes* Policy, in terms of how environmental pressures/ problems could be altered by the policy?

We are content that the level of detail proposed is proportionate to the scope of the *Fitting Landscapes* policy.

Question 8: Can you identify any further environmental issues at national level that may be affected by, or influence the, *Fitting Landscapes* policy?

See above.

Question 9 – Do you agree with the assessment that air quality and noise and vibration be scoped out in terms of the *Fitting Landscapes* policy on SEA topics?

With respect to air quality, our view is that the policy in itself will not lead to significant environmental effects on air quality. However, the policy has the potential to play a significant mitigation role in using landscaping and design to reduce the air quality impacts of the transport estate. For example, securing sufficient land to be able to design and construct new roads or road improvements in a way that allows landscaping to enhance the dispersal of air pollutants can play an important role in mitigating impacts on those living or working nearby. While Scotland overall has high air quality, there are pockets of very poor air urban quality which has led to the designation of around 30 Air Quality Management Areas, the majority of which are declared due to emissions from traffic on strategic road transport corridors / junctions. We therefore consider that it would be good practice to include air within the scope of the assessment in order to maximise the potential for the *Fitting Landscapes* policy to play a mitigating role when implementing new roads schemes or other management of the transport estate.

With respect to noise, our view is similar; that the policy per se will not lead to significant environmental effects on noise, but that it has the potential to play a significant mitigating role for those potentially affected by noise resulting from the transport estate. Work to plot noise in Scotland (see data sources, above) shows the impact that strategic transport corridors have on noise levels experienced by those living and work nearby. Designing landscape frameworks for new transport infrastructure in such a way to maximise the mitigation against noise, could play a key role in reducing the overall effects of new schemes. Accordingly, we are of the view that it would be good practice to include noise within the scope of the assessment in order to maximise the potential for the *Fitting Landscapes* policy to play a mitigating role when implementing new roads schemes or other management of the transport estate.

We welcome the inclusion of other topics within the scope of the assessment. We consider that under climatic factors, greater consideration needs to be given to ensuring that the landscapes policy helps to ensure that both the existing transport estate and strategic investments in new transport infrastructure are resilient in the context of projected climate change. For example, along with increased risk of fluvial flooding from changed patterns of rainfall, projections also point to an increase in storm events which in turn may also increase risk of pluvial flooding and landslips. As we have seen many times in recent years, the effect of landslips in particular can have a significant effect where this results in closure of strategic routes for considerable periods. The *Fitting Landscapes* policy has a role in ensuring that design and landscaping decisions are taken in such a way that maximised the resilience of the infrastructure from these projected changes during their lifetime.

Question 10 – Do you agree that the proposed SEA objectives suit the methodology proposed for this assessment and are proportionate to the scope of the Fitting Landscapes policy.

Broadly, we are content with the proposed approach to the assessment, subject to the following comments.

Objectives

Objectives in relation to air and noise should be included if you intend to scope these into the assessment having considered our advice.

For water, we consider that the objectives should read “Protect *and enhance*...”
For soil, we consider that the objectives should read “Protect *and enhance*...”

Assessment Questions

For climatic factors, the flood risk question should state “include measures that would *reduce* flood risk”. Further, we feel that this should also include a question to cover resilience to other climate change risks such as landslips.

Assessment

Generally, we are content with the proposed assessment process and method. As we discuss elsewhere in this response, it would be useful if the assessment was able to identify opportunities where the design and landscape of new transport infrastructure schemes could result in improved environmental outcomes – such as reducing air quality impacts through improved design, reducing noise impacts through design and enhancing the resilience of infrastructure by taking into account the need to.

In addition, we would like the ER to be very clear how carrying out SEA informed the policy. This will enable us to appreciate in the ER how opportunities to improve the policy have been taken.

It would also be useful if you could identify mitigation measures in such a way that clearly identifies: (1) the measures required, (2) when they would be required and (3) who will be required to implement them

Scottish Natural Heritage
All of nature for all of Scotland

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24 April 2013

Ref: 00738 Scoping / A905989

Dear Angus

00738: Transport Scotland – Fitting Landscapes
Environmental Assessment (Scotland) Act 2005: SEA Scoping Report
Comments from Scottish Natural Heritage

I refer to your scoping report, sent to the Scottish Executive SEA Gateway on 25 March 2013. In accordance with Section 15(2) of the Environmental Assessment (Scotland) Act 2005, I have reviewed the report on behalf of Scottish Natural Heritage in its role as a Consultation Authority under the above Act. Our comments on the scope of the issues to be covered in the Environmental Report are set out below. We have answered each question briefly here – and provided supplementary information in annexes for some of the questions.

Comments on consultation questions

Q1: Is the background and purpose of this report clear?

- Yes – the background to and purpose of the report is clear and well laid-out.

Q2: Is there agreement on the consultation period timeframe?

- The proposed consultation period is six weeks. While it should be possible to respond within this timeframe, it will depend on when the consultation is issued. The SNH staff involved are all likely to be involved in preparing our response to the Scottish Government's consultations on National Planning Framework 3 and a revised Scottish Planning Policy. If the consultation is likely to be over the summer, it would be helpful to have an eight-week consultation period.

Q3: Is the scope and study area of the Fitting Landscapes Policy adequately described in terms of visions, aims and objectives, for the purpose of this SEA Scoping Report?

- Yes – the vision, aims and objectives describe the scope of the Fitting Landscapes Policy.

Q4: Are there any other plans, programmes and strategies, not listed above, which should be included in the assessment for review?

Q5: Which specific plans, programmes and strategies are most relevant to your organisation's specific interest in relation to the Fitting Landscapes Policy?

- We suggest that the relevant Scottish legislation should be listed instead of, or in addition to, the European Directives mentioned.

- In addition, there are some EU and Scottish geodiversity-related documents which should be added to the list of plans, programmes and strategies in Table 2. We provide a list of these in Annex 1.

- The legislation section of Table 2 should also include the Protection of Badgers Act 1992.

Q6: Will the environmental baseline allow for a comprehensive assessment of how implementation of the policy would affect the current state of the environment?

- In Annex 2 we have suggested some additional sources of information which may be useful – they don't all need to be referred to, but it is helpful to be aware of them.

Q7: Is the level of detail proportionate to the scope of the Fitting Landscapes Policy, in terms of how environmental pressures/problems could be altered by the policy?

- Yes – we agree that the level of detail is proportionate.

Q8: Can you identify any further environmental issues at national level that may be affected by, or influence the, Fitting Landscapes policy?

- As outlined in our responses to earlier questions, we have identified geodiversity as an issue which may be affected by or influence the policy.

- In addition, SNH is developing guidance on biodiversity and geodiversity considerations in Strategic Environmental Assessment. This will be published shortly and we will send a copy as soon as the published version is available.

Q9: Do you agree with the assessment that air quality, and noise and vibration be scoped out in terms of the impacts of the Fitting Landscapes Policy on SEA topics?

- Yes – we agree that the assessment on air quality, and noise and vibration being scoped out.

Q10: Do you agree that the proposed SEA objectives suit the methodology proposed for this assessment and are proportionate to the scope of the Fitting Landscapes Policy?

- We suggest the addition of two geodiversity-related objectives, as listed in Annex 3. Other than, this we agree with the objectives and methodology proposed.

Other issues

It would be useful for the report to suggest indicators which can then be used to help assess progress on the key questions proposed in Table 5.

On mitigation, there are some mitigation-related questions in Table 5. However, in the final Environmental Report it would be useful to have a section which pulls together all the policy and advice on effective mitigation of potential impacts. This should indicate at what stage in the planning and design process the need for mitigation should be identified and who should be responsible for it being implemented and for the long-term management of mitigation works.

There is only brief mention of monitoring. We would expect that a monitoring programme detailed in the Environmental Report which will allow future assessment of whether the plan is achieving its aims and objectives. If consideration of monitoring is left to the post-adoption statement, there will be no opportunity for Consultation Authorities and others to comment on this.

We have a number of detailed comments on the text and diagrams, which are set out in Annex 4.

Should you wish to discuss this scoping response, please do not hesitate to contact me on 0131 316 2674 or via SNH's SEA Gateway at sea.gateway@snh.gov.uk

Yours sincerely

Daniel Gotts
Policy & Advice Manager – Sustainable Development

Annex 1

Additional geodiversity-related documents to be included in Table 2 in the Scoping Report

EU Groundwater Directive 2006/118/EC

- http://ec.europa.eu/environment/water/water-framework/groundwater/policy/current_framework/new_directive_en.htm

- **Commentary:** Naturally occurring hydrogeological processes, such as water purification, offer the potential to contribute to water quality improvements for both groundwater and surface water bodies through the dispersal or removal of polluting substances. The continual exchange of water between the surface environment and the groundwater environment provides support to maintain and develop healthy and diverse water-dependent habitats and species.

European Landscape Convention CETS No. 176

- http://conventions.coe.int/Treaty/Commun/QueVoulezVous.asp?NT=176&CL=ENG

- **Commentary:** The fundamental importance of the landscape, underpinned directly by geology and topography, is recognised.

IUCN General Assembly (2008) Resolution 4.040 on Conservation of geodiversity and geological heritage

- http://intranet.iucn.org/webfiles/doc/IUCNPolicy/Resolutions/2008_WCC_4/English/RES/res_4_040_conservation_of_geodiversity_and_geological_heritage.pdf

- **Commentary:** Recognises the wider role and relevance of geodiversity and that development often ignores or underestimates geodiversity and geological heritage.

The Conservation (Natural Habitats, &c.) Regulations 1994 as amended

- **Commentary:** The Habitats Regulations require competent authorities to carry out appropriate assessments in certain circumstances where a plan or project affects a Natura (European) site. **Habitats Regulations Appraisal** (HRA) refers to the whole process, including the **appropriate assessment** step.

Wildlife and Natural Environment (Scotland) Act 2011

- http://www.legislation.gov.uk/asp/2011/6/contents/enacted

- **Commentary:** The act amends existing legislation relating to the protection of certain birds, species, habitats and activities, aiming to make law on wildlife and the natural environment more effective and proportionate.

The Scottish Government (2009) The Scottish Soils Framework

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

- **Commentary:** The framework describes key pressures on soils, particularly climate change, relevant policies to combat those threats, and identifies the future focus for soil protection, key soil outcomes, and actions across a range of sectors.

Scotland's Geodiversity Charter

- http://scottishgeodiversityforum.org/charter/

- **Commentary:** Promotes the integration of geodiversity and its sustainable management in wider policy and decision frameworks.

Annex 2

Additional sources of baseline information to be included in Table 3 in the Scoping Report

For inclusion in the Biodiversity, Flora and Fauna row:

Scotland's Environment Website

- http://www.environment.scotland.gov.uk/
- The site provides straight-forward descriptions of the state of Scotland's environment and key messages that highlight Scottish Government's progress in protecting it plus it provides the ability to view a wide range of environmental spatial data sets.

SNHi

- http://www.snh.gov.uk/publications-data-and-research/snhi-information-service/
- Data and information on many aspects of Scotland's environment including protected areas

Scottish Biodiversity List

- http://www.biodiversityscotland.gov.uk/advice-and-resources/scottish-biodiversity-list/
- List of habitats and species of principal importance for biodiversity conservation in Scotland (incorporating UKBAP)

For inclusion in the Geology, Geomorphology, Soils and Land Use row:

Geological Conservation Review

- http://jncc.defra.gov.uk/page-2947
- Assessment of nationally and internationally important sites for geology and geomorphology – Geological Conservation Review Site boundaries available through SNHi (see Biodiversity and Geodiversity Site boundaries below)

Biodiversity and geodiversity site boundaries

- https://gateway.snh.gov.uk/pls/apex_ddtdb2/f?p=101:1:3189400183172004
- Identify areas of international, and national importance (and some areas of local importance) for biodiversity and geodiversity (e.g. SSSIs, GCR sites, LNRs)

Soil Indicators for Scottish Soils

- http://sifss.hutton.ac.uk/
- This provides information on Scotland's soils amassed since the 1940s

State of Scotland's Soil Report 2011

- http://www.sepa.org.uk/land/idoc.ashx?docid=f200543f-cb74-426f-bbf8-6e72f8fc0555&version=-1

- Assessment of pressures and trends in Scottish soil up to 2011. Includes the first soil biodiversity species list for Scotland.

NERC soil portal

- http://www.bgs.ac.uk/nercsoilportal/home.html

- The NERC Soil Portal currently provides access to soil information from the Centre for Ecology & Hydrology (CEH) and British Geological Survey (BGS)

SEA soil guidance

- http://www.seaguidance.org.uk/1/Homepage.aspx

- SNIFFER online SEA guidance publication

Annex 3

Additional geodiversity-related objectives and methodology to be included in Table 5 in the Scoping Report

For inclusion in the Geology, Geomorphology, Soils and Land Use topic row

Proposed SEA Objective	**Key Questions for the 'Fitting Landscapes' Policy – Does it....**	**Possible indicators**
To enhance, maintain and prevent damage to geodiversity interests.	…have a significant effect on geodiversity features of national importance or local importance, including those outside designated sites? Will it enhance these features where possible?	Improvement or maintenance in condition of geological features on designated sites and in the wider countryside (where known).
To help maximise the value of the goediversity resource.	…have an effect on people's access and experience of geodiversity?	Degree to which Geodiversity is integrated within relevant plans and policies.

Annex 4

Additional detailed comments on the text, diagrams and tables in the Scoping Report

- Figure 2, on page 6, should include the Airdrie-Bathgate rail link

- Figure 6, on page 11, is an effective illustration of the inter-relationship of the topic areas with Fitting Landscapes. However, it would be useful here to include a brief explanation that this shows topics which are scoped-in, as per detail in Table 4. This explanation does not have to be detailed, but it would help show how things fit together.

- Figure 7 omits mention of the National Planning Framework, but NPF2 and NPF3 are then discussed in Table 2 immediately following. Conversely, Scottish Planning Policy is identified in Figure 7, but omitted from the first section of Table 2. In addition to cross-cutting issues in SPP, paragraphs 165 to 181 of the current SPP apply, as will the relevant sections of the forthcoming revised SPP.

- In Table 5, on page 6, the first row lists objectives for biodiversity, flora and fauna. The second bullet-point in the list of proposed SEA objectives should include the word 'internationally' – it is included in the corresponding Key Question in the right-hand column.

- Appendix A at section 4.1 refers to designated sites, but only discusses status of UK BAP Priority Habitats. The consideration and discussion of designated sites needs to consider the condition status of these sites as well, which can be accessed via SNHi.

- In Appendix A at section 4.3 there is no reference to the role soils have in carbon sequestration (all soils, not just peat-based soils).

- In Appendix B we suggest that the Assessment column is revised. Firstly, as well as positive or negative effects, there should be an option to mention neutral effects. In addition, it would be better to sub-divide this column so that short-, medium- and long-term effects are individual sub-columns in which the effect is noted. Examples are available in the SG's SEA toolkit – http://www.scotland.gov.uk/Publications/2006/09/13104943/15