STRATEGIC ENVIRONMENTAL ASSESSMENT OF THE HITRANS REGIONAL TRANSPORT STRATEGY

Draft Environmental Report

Report

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Background

1. The Strategic Environmental Assessment (SEA) Directive 2001/42/EC was given legal status in July 2004. The purpose of SEA is to integrate environmental considerations into the preparation and adoption of certain plans and programmes which are likely to have significant effects on the environment. The Regional Transport Strategy (RTS) qualifies as one such plan, and it could include many activities which could affect the environment in some way, perhaps by altering the landscape or lowering the air quality of an area.

2. The main requirements of the SEA Directive are to publish the findings of the assessment in an Environmental Report, which sets out the significant effects of the Highlands and Islands RTS, and to undertake consultation at relevant stages in the process.

Baseline environment and SEA objectives

3. The scoping study looked at noise, local air quality, climate change, biodiversity, landscape & townscape, heritage, material assets, soil, water and health and social impacts. Of principal importance, relevant to the transport strategy, was the large proportion of land in the region which is protected for its natural or cultural heritage. Proposals set out in the transport strategy are therefore likely to impact on these areas in some way. A summary of the environmental baseline, objectives and indicators is contained in the table below.

SEA topic	Objective	Indicator	Baseline
Noise	To ensure existing levels of annoyance from noise caused by traffic do not significantly increase.	Prediction of road traffic noise at key locations on the road network.	February: 52-64dB(A) August: 55-64dB(A)
Greenhouse gas emissions	To help tackle climate change by minimising the increase in CO_2 emissions from road, rail and air traffic during the life of the plan, and helping to meet targets to nationally reduce overall emissions of greenhouse gases by 12.5% by 2008-12 in comparison with a 1990 baseline.	Predicted emissions of CO_2 from transport.	The Scottish Executive estimates that transport accounted for 12% of Scottish CO_2 emissions in 2000.
Air quality	To keep air quality of a good standard and below National Air Quality Standards in all areas	**NO_2:** Annual mean **PM_{10}:** Annual mean Source: Local Authority Air Quality Monitoring Reports	Current monitoring levels of annual means: *Argyll and Bute*: 22*µg/m³* *Highland: 37µg/m³* *Moray:* 23 *µg/m³* *Eilean Siar*: 23 *µg/m³*

SEA topic	Objective	Indicator	Baseline
			Orkney: 20 *µg/m³*
Water	Limit water pollution from the transport network to levels that do not damage natural systems.	The quality of river, coastal and estuary waters as monitored by SEPA.	**Rivers** (% total length) 28% - Excellent 42% - Good 2% - Fair 1% - Poor 0% - Seriously polluted 26% - Unclassified **Coastal waters (% total length)** % total river length and quality 1% - Excellent 3% - Good 1% - Unsatisfactory 0% - Seriously polluted 94% - unclassified **Estuaries** Cromarty Firth at Cromarty - Excellent; Cromarty Firth at Dalmore Pier - Fair; Cromarty Firth at Evanton - Fair Cromarty Firth at Rosskeen - Fair; Dornoch Firth at Tain storm sewage - Fair; Loch Linnhe at Caol foreshore - Fair; Lossie at Lossiemouth - Excellent; and Spey at Spey Bay - Excellent.
Soils	To limit contamination of soils from the transport network and infrastructure development to levels that do not damage natural systems.	Presence of contaminated land.	98 hectares of contaminated land
Biodiversity	To minimise damage to designated wildlife / biodiversity sites and protected species.	Number of designated sites affected in RTS strategies.	Number of hectares of protected sites: 63,641,181ha[1]

[1] This values is the area of protected sites contained entirely within the Highlands and Islands Region, there are additional protected sites that cross local authority boundaries.

SEA topic	Objective	Indicator	Baseline
Landscape	Avoid effects on areas of protection designated to protect visual amenity	Area (in ha.) of such protected areas affected.	Area covered by protected sites: 63,641,181 ha[2]
Cultural heritage	To preserve historic buildings, archaeological sites and other culturally and historically important features.	Number of listed buildings, scheduled monuments, Historic Gardens, Designed Landscapes and areas within a World Heritage Site affected in RTS strategies.	Number of statutory listed buildings: 14,372 Number of scheduled monuments: 2,949 Number of World Heritage Sites: 2 Number of Historic Gardens and Designed Landscapes: 82
Health	To create conditions to improve the health of the region's population.	Air quality indicators (respiratory health) The proportion of the population feeling in 'good health'.	% of the population feeling 'in good health': 71% % of the population with a long-term limiting illness': 18%

4. More detail concerning the environmental baseline can be found in **Annex B** to this report.

5. A review of the relevant plans, policies and strategies highlighted a number of common themes that should be considered in the SEA for the RTS and in the development of the strategy itself. These are provided in **Section 2** of this report.

Alternative strategies

6. There were several alternative strategies for the HITRANS RTS, which have been outlined in **Section 4** of this report. Assessment of these against the SEA objective areas facilitated in the selection of a balanced approach to take forward. Discussion of the 'without plan' scenario highlights that traffic growth is likely to rise and that having no transport strategy for the region is not a realistic option.

How the Regional Transport Strategy might affect the environment

7. The chosen RTS strategy has been appraised for its possible impacts on the environment in **Section 5** of this report. The results show that the strategy, with the current level of detail it contains, is likely to have some negative impacts on the environment, particularly new infrastructure schemes, which in many cases may increase traffic flow on the roads, air and sea travel. However, the primary objective of the strategy is to enable the region to compete and support economic growth and to do this, accessibility and connectivity must be enhanced.

8. The strategy also contains a wide range of measures that will improve the public transport network, encouraging mode shift away from the private car and reducing

[2] This value is the area of protected sites contained entirely within the Highlands and Islands Region. There are additional protected sites that cross local authority boundaries.

congestion in built up areas. These measures will have a positive impact on the environment by improving noise, local air quality and carbon dioxide emissions, townscapes and health.

What difference has the process made?

9. The SEA process has enabled the incorporation of environmental and sustainability considerations in strategic decision making. This has been possible by commencing the SEA early in the RTS process. The SEA's scoping exercise enabled environmental information to be fed through to officers and decision makers before the RTS programme was established. Following this, the initial appraisal of the environmental implications of the draft strategy took place throughout the plan's formation. In this way, environmental implications could then be considered alongside financial, technical, political and other concerns. The SEA thus adds an additional dimension to the decision-making process.

10. Strategic Environmental Assessment has dealt with impacts which are too difficult to consider at the project level. It considers cumulative and synergistic impacts of multiple projects. It is also able to look at larger-scale environmental impacts such as those on biodiversity and climate change in a more effective way than Environmental Impact Reports (EIR).

11. The formal SEA process has included consultation with the statutory environmental bodies, enabling their valuable input into the RTS process at an early stage. This Environmental Report is distributed to an even wider audience, enabling further consultation and participation in the transport planning process, with better awareness of environmental considerations.

12. The SEA has indicated that, although some schemes may have a negative environmental impact, the HITRANS RTS will have a significantly positive impact on health and other social impacts for the population and on many aspects of the environment. At present there is a lack of detail available to calculate the full extent of potential damage, however many of the schemes will necessitate further environmental assessment at the development stage. **Section 6** of this report suggests where mitigation could protect against some of the possible adverse impacts and/or enhance the positive impacts of the strategy

1. INTRODUCTION

About this report

1.1 The Highlands and Islands Regional Transport Partnership (HITRANS) is producing a new Regional Transport Strategy with a timeframe beginning in 2007, to span the next 10 to 15 years. This sets transport objectives for the region, and contains the necessary strategy, policy & programme required to meet them.

1.2 Under the recently adopted European Directive 2001/42/EC all national, regional and local authorities must carry out a Strategic Environmental Assessment (SEA) of certain types of plans, of which transport is one. In Scotland, the Directive has been implemented via the Environmental Assessment of Plans and Programmes (Scotland) Regulations 2004 (SSI 2004 No.258).

1.3 HITRANS has commissioned consultants Steer Davies Gleave to write this report, as part of a commission to develop the RTS. Lead officers from HITRANS have also contributed to the process, supplying information and feedback on work in progress.

1.4 The SEA aims to ensure that environmental impacts are taken into account at the earliest stages and throughout plan development. Its main objectives are to;

- provide for a high level of protection of the local environment; and
- contribute to the integration of environmental considerations into the preparation and adoption of plans and programmes with a view to promoting sustainable development.

1.5 The Scottish Transport Appraisal Guidance (STAG) provides 'nationally defined' objectives and sub-objectives against which RTSs and other transport plans should be assessed. Many of the sub-objectives correspond with assessment topics highlighted in the SEA Directive which covers social topics alongside the built and natural environment.

1.6 This document forms the Environmental Report, which is the main written output of the SEA process. It seeks to predict and evaluate the effects of elements of the evolving plan, including alternatives. Where adverse impacts are seen to be likely, it considers possibilities for mitigation. The majority of the SEA process is documented, namely;

- An outline of the contents of the RTS
- Main objectives of the RTS
- The RTS's relationship with other plans and programmes
- The state of the Highlands and Islands environment
- Existing environmental problems relevant to the RTS

- Likely significant environmental effects of the RTS[3]
- Alternative options for the RTS
- Mitigation measures to prevent, reduce or offset any adverse effects of the RTS
- Description of monitoring measures

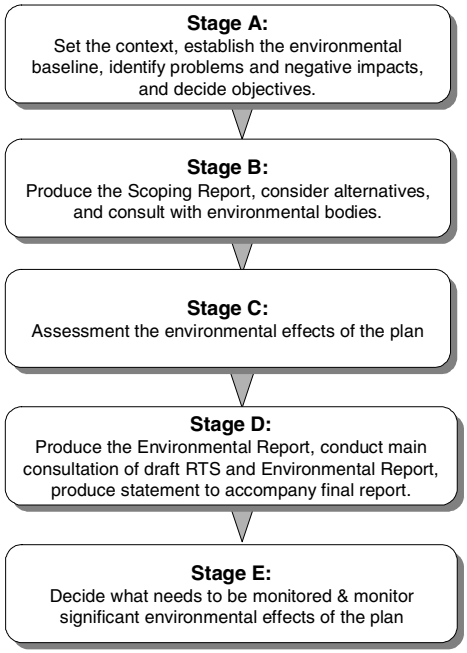
1.7 The SEA is a strategic assessment, and is therefore not required to carry out or replicate Environmental Impact Assessment (EIA) of individual schemes. It need only concentrate on the **significant** environmental impacts of the RTS, not ALL the possible impacts and environmental issues. The SEA directive stresses a **reasonable** approach to assessment, which takes into account issues such as resource and information available within the timescale allowed.

1.8 SEA Regulation 13(1) requires that the Environmental Report is prepared to accompany the draft RTS, and that both the draft RTS and Environmental Report be made available for consultation with the environmental bodies and the public.

The SEA process and stages completed to date

1.9 The SEA is an iterative process as the plan is developed. The process can be broken down into five stages, as shown below.

FIGURE 1.1 SEA KEY STAGES



[3] The SEA looks at the likely environmental effects on the following; biodiversity; population; human health; fauna; flora; soil; water; air; climatic factors; material assets; cultural heritage including architectural and archaeological heritage; landscape; and the interrelationship between all these factors.

1.10 At Stage B, the three statutory consultation bodies (Scottish Natural Heritage, Scottish Environment Protection Agency and Historic Scotland) were consulted on the scoping stage. Replies were received from all three. Their comments have been noted and taken into account (see **Appendix A**). The environmental appraisal of the draft RTS then took place, and was written up in a provisional Environmental Report in August 2006. Once the consultation process is completed and comments addressed, an SEA statement will be written and published soon after the final RTS has been adopted.

Structure of the Environmental Report

1.11 After this introductory section, the remainder of this Environmental Report is structured as follows:

- **Section 2** gives a brief description of the RTS process, describes how the plan relates to other plans and programmes, and sets out some specific objectives for the SEA of the HITRANS RTS.
- **Section 3** describes the state of the existing environment in the area, based on a review of available existing information sources.
- **Section 4** discusses how alternatives to the RTS strategy have been addressed in the context of the SEA.
- **Section 5** identifies the likely environmental effects of the policies and proposals set out in the RTS, and evaluates their significance.
- **Section 6** discusses options for the mitigation of adverse environmental effects from transport in the area.
- **Section 7** sets out the programme for monitoring the environmental effects of the RTS.
- **Section 8** describes the next stages of the SEA of the HITRANS RTS, and how this will be completed.

2. THE REGIONAL TRANSPORT STRATEGY

Outline of the RTS

2.1 The Transport (Scotland) Act 2005 places a duty on the new Regional Transport Partnerships to draw up a strategy for transport in their region. The Act calls for the strategy to make provision for the following matters:

- The respects in which transport in the region needs to be provided, developed or improved having regard to, among other things:
  - Future needs including those occasioned by demographic and land use changes.
  - What can be done, taking account of cost, funding and practicability.
- Meeting the needs of all inhabited places, in particular, those which the Partnership considers different from the remainder of the region by reason of their remoteness or the sparsity of their populations.
- Meeting the need for efficient transport links between heavily populated places
- How transport in the region will be provided, developed, improved and operated so as:
  - To enhance social and economic well-being.
  - To promote public safety, including road safety and the safety of users of public transport.
  - To be consistent with the principle of sustainable development and to conserve and enhance the environment.
  - To promote social inclusion.
  - To encourage equal opportunities and, in particular, the observance of the equal opportunities requirements.
  - To facilitate access to hospitals, clinics, surgeries and other places where a health service is provided.
  - To integrate with transport elsewhere.
- The order of priority in which different elements of the provision, development and improvement of transport should be undertaken.
- How the Transport Partnership's functions will be exercised so as to fulfil its transport strategy and, if the Partnership considers that the conferring of further functions is necessary for that purpose, what those functions are.
- How the Transport Partnership, so as to enable it to fulfil its transport strategy, will seek to influence its constituent councils or council in the performance of their functions relating to transport.
- The measuring and monitoring of the achievement of the strategy.

2.2 The first stage to the development of the new Strategy is ensuring a thorough understanding of the problems faced by the region. In fitting with the Scottish Transport Appraisal Guidance, it is imperative to have a detailed and, where practicable, a quantified understanding of the transport problems, constraints and opportunities within the region. In particular it is essential to understand where established policies and objectives are not being achieved as a result of deficiencies within the transport system.

2.3 The vision for the Strategy sets out the high level direction for the Strategy and the work of the Partnership, while a series of more specific objectives is required. These objectives will steer the appraisal and prioritisation of projects and initiatives for transport in the region.

2.4 The Strategy objectives should then focus on the key ambitions of the Partnership. These, in turn, should be informed by the Partnership's vision, and by the problems, constraints and opportunities identified.

2.5 To date, following a review of the existing Regional Transport Strategy, work has focussed on the analysis of current and future problems, constraints and opportunities across the region. This analysis is the foundation of the formulation of the vision and objectives for the Strategy and for the work of the Partnership. The work undertaken to date is as follows:

- **Journey time and cost analysis:** connectivity and journey times and costs are known to be a key consideration for the development of the Strategy. A thorough understanding of these and how these might change as a result of Strategy options will be revealing for decision makers. For this reason an analysis of current private and public transport journey times and costs has been undertaken, focussing on connectivity between key origins and destinations.
- **Consultation and participation:** In the earlier review of the existing Regional Transport Strategy, consultation was carried out with a wide range of stakeholders across the region through an email survey a number of in-depth interviews. More recently, focussed consultation sessions have been facilitated as follows:
  - Key strategic stakeholders.
  - Sub-regional workshop with stakeholders in each local authority area around the region.
  - Meeting with walking and cycling forum.
  - Liaison with Transport Scotland and the Scottish Executive.
  - Stakeholder Conference held on 13th October 2006 with all stakeholders to discuss the elements of the draft strategy.
- Meetings with planning officers in each local authority.

2.6 From the scoping of challenges and opportunities for the region, the emerging Strategy will be cognisant of the needs: occasioned by demographic and land-use changes; of all inhabited places including those considered unique from the remainder of the region by virtue of their remoteness; for an efficient transport system to connect between heavily populated areas.

The RTS's relationship with other plans and programmes

2.7 The review of the relevant plans and programmes highlights environmental, health and quality of life problems and opportunities in the Highlands and Islands region. This helped to inform the setting of objectives specific to the SEA which will be used later in the assessment when analysing alternative RTS strategies.

2.8 The review for the SEA of the RTS covers relevant international, national, regional and local policies and strategies. Details of the documents reviewed are given in

Table 2.1.

TABLE 2.1 LIST OF POLICIES AND PROGRAMMES REVIEWED

International level
EC Directive on the Conservation of Wild Birds
Conservation of Natural Habitats and Wild Fauna
Directive 2000/60/EC establishing a framework for community action in the field of water policy
Directive 1966/62/EC on ambient air quality and management
The Convention on Biological Diversity, Rio de Janeiro, 1992
Kyoto Protocol to the UN framework Convention on Climate Change (1992)
The Directive on Environmental Noise
EU Biofuels Directive
European Landscape Convention
National level
The Future of Transport: The Transport White Paper
The Air Quality Strategy for England, Scotland, Wales and Northern Ireland
Scottish Executive Marine and Coastal Strategy
The UK's Shared Framework for Sustainable Development
UK Energy Policy
UK Aviation Strategy
Meeting the Needs…Priorities, Needs, Actions and Targets for Sustainable Development in Scotland.
A Partnership for a Better Scotland
SPP17 and PAN17 Planning for Transport
SPP3 Planning for Housing
NPPG5 Archaeology and Planning
NPPG6 Renewable Energy Developments
SPP7 Planning and Flooding
NPPG10 Planning and Waste Management
NPPG11 Sport, Physical Recreation and Open Space
NPPG12 Skiing Developments
NPPG13 Coastal Planning
NPPG 14 Natural Heritage
SPP15 Planning for Rural Development
SPP18 Planning and the Historic Environment
SPP21 Greenbelts
National Waste Strategy
Nature Conservation (Scotland) Act 2006

Land Reform (Scotland) Act 2003
Safe Routes to Schools
Passed to the Future
Regional level
Draft Regional Transport Strategy
Structure Plans for Highland, Moray, Argyll and Bute, Eilean Siar and Orkney
Local level
Local Transport Strategies for Highland, Moray, Argyll and Bute, Eilean Siar and Orkney.
Community Plans for Highland, Moray, Argyll and Bute, Eilean Siar and Orkney.
Biodiversity Action Plans for Highland, Moray, Argyll and Bute, Eilean Siar, Orkney and Cairngorms National Park.
Tourism Strategies

2.9 A review of the above policies and strategies highlights a number of common themes that should be considered in the SEA for the RTS and in the development of the strategy itself. These are:

- Protect and promote the identity of the region;
- Safeguard and protect designated natural heritage and conservation sites and protect archaeological sites and listed buildings.
- Prevent deterioration in status of water bodies;
- Enhance status of aquatic ecosystems;
- Improve and protect ambient air quality;
- Reduce emissions of greenhouse gases which lead to climate change;
- Conserve and enhance biological diversity;
- Encourage the maintenance and enhancement of vital air, sea and other public transport services;
- Provide an accessible, sustainable and affordable rural transport system to maintain and promote growth of the remote rural communities;
- Secure balanced and viable communities;
- Develop prosperous and vibrant local economies;
- Reduce social exclusion;
- Enhance the economic and social prospects of the geographically diverse local communities;
- Improve access to goods, services and markets;
- Provide seamless, good quality public transport services; and
- Improve the trunk road network.

3. BASELINE ENVIRONMENT

The study area

3.1 The Highlands and Islands Regional Transport Partnership (HITRANS) comprises the five local authority areas of:

- Highland;
- Moray;
- Argyll and Bute;
- Eilean Siar; and
- Orkney Isles.

3.2 These are shown in Figure 3.1. In addition, there are two National Parks located partly within the HITRANS region. These are the Cairngorms National Park and the Loch Lomond and Trossachs National Park.

FIGURE 3.1 HITRANS CONTEXT MAP

3.3 The large geographical area of the HITRANS region means that populations are sparse and providing transport that meets the needs of everyone is an expensive and difficult task. Some parts of the region are suffering from population decline resulting from a reduction in local services and employment opportunities, however other parts of the region, notably the Inner Moray Firth are experiencing population growth. The transport needs across the region are therefore very diverse.

3.4 The region is renowned both nationally and internationally for its high landscape and natural heritage value and its cultural heritage and historic environment and a high proportion of the area is covered by international, national or local conservation designations. Tourism is a key sector of the regional economy and this relies heavily on the natural heritage of the region.

3.5 A range of baseline data has been collected to enable the current state of the environment in the region to be assessed, and for problems to be identified. This also provides the benchmark against which the forecast and monitored levels of environmental effects will be evaluated. The following aspects of the environment have been examined:

- Noise;
- Greenhouse gas emissions;
- Local air quality;
- Water, geology and soils;
- Biodiversity;
- Landscape and visual amenity;
- Cultural heritage; and
- Health and other social impacts.

3.6 The key environmental issues relating to each issue are summarised in the table below. Full detail of the environmental baseline is provided in Annex B.

TABLE 3.1 ENVIRONMENTAL ISSUES IN THE HIGHLANDS AND ISLANDS WITH RELEVANCE TO THE RTS

Environmental topic	Issue	Indicator	Baseline
Noise	Although road noise may cause community annoyance in built up areas, they do not exceed levels that are harmful to human health and well-being.	Predictions of road traffic noise at key locations on the road network where noise is likely to impact upon human health.	February: 52-64dB(A) August: 55-64dB(A)
Greenhouse gas emissions	Transport significantly contributes to increasing concentrations of greenhouse gases which are contributing to climate change	Predicted levels of CO_2 emissions.	The Scottish Executive estimates that transport accounted for 12% of Scottish CO_2 emissions in 2000.
Local air quality	Air quality in the region is	Levels of NO_2	Current monitoring

Environmental topic	Issue	Indicator	Baseline
	generally very good and no Air Quality Management Areas have been declared. There are however some areas, where air quality could deteriorate and exceed targets in the future due to increases in road traffic.	Particulates, particularly in regional centres / growth areas	levels of annual means: *Argyll and Bute*: 22µg/m³ *Highland: 37µg/m³* *Moray:* 23 µg/m³ *Eilean Siar*: 23 µg/m³ *Orkney*: 20 µg/m³
Water, geology and soils	Only 1% of the region's rivers are in 'poor' condition and only 1% of coastal waters are 'unsatisfactory'. There is a diverse variety of soil types around the region.	Presence of designated Groundwater Source Protection Zones and River and Coastal Water affected by RTS proposals Contaminated land	**Rivers** (% total length) 28% - Excellent 42% - Good 2% - Fair 1% - Poor 0% - Seriously polluted 26% - Unclassified **Coastal waters (% total length)** % total river length and quality 1% - Excellent 3% - Good 1% - Unsatisfactory 0% - Seriously polluted 94% - unclassified **Estuaries** Cromarty Firth at Cromarty - Excellent; Cromarty Firth at Dalmore Pier - Fair; Cromarty Firth at Evanton - Fair Cromarty Firth at Rosskeen - Fair; Dornoch Firth at Tain storm sewage - Fair; Loch Linnhe at Caol foreshore - Fair; Lossie at Lossiemouth - Excellent; and Spey at Spey Bay - Excellent. **Soils** 98 hectares of contaminated land

Environmental topic	Issue	Indicator	Baseline
Biodiversity	Due to the extent of the region that is covered by protected areas, many of the options developed in the strategy are likely to have some impact on a protected area or species.	Number of designated sites affected by RTS proposals	Number of hectares of protected sites: 63,641,181ha[4]
Landscape and visual amenity	Landscape and townscape is at risk from change of character by new developments	Number of conservation areas affected by RTS proposals.	Area covered by protected sites: 63,641,181 ha[5]
Cultural heritage	Potential risk of damage to or loss of heritage resources and sites of archaeological importance	Number of protected sites and buildings affected by RTS proposals.	Number of statutory listed buildings: 14,372 Number of scheduled monuments: 2,949 Number of World Heritage Sites: 2 Number of Historic Gardens and Designed Landscapes: 82
Health and other social impacts	Although the health of the region is generally good, there are low levels of physical activity among the population.	General health (National Census)	% of the population feeling 'in good health': 71% % of the population with a long-term limiting illness': 18%

SEA objectives and indicators

3.7 The Regulations do not specifically require the use of objectives and indicators in SEA, but it is a useful way to describe, analyse and compare the environmental effects and can form the basis for future monitoring over the period in which the RTS is implemented.

3.8 The SEA Regulations state that the objectives must cover the following areas: biodiversity, population, human health, fauna, flora, soil, water, air, climatic factors, material assets, cultural heritage, landscape, and the interrelationships between them.

3.9 The SEA objectives were not only identified from the review of the relevant plans and programmes, but also from the issues arising from the baseline data and professional judgement.

[4] This values is the area of protected sites contained entirely within the Highlands and Islands Region, there are additional protected sites that cross local authority boundaries.

[5] This value is the area of protected sites contained entirely within the Highlands and Islands Region. There are additional protected sites that cross local authority boundaries.

TABLE 3.2 SEA OBJECTIVES AND INDICATORS

SEA topic	Objective	Indicator
Noise	To ensure existing levels of annoyance from noise caused by traffic do not significantly increase.	Prediction of road traffic noise at key locations on the road network.
Greenhouse gas emissions	To help tackle climate change by minimising the increase in CO_2 emissions from road, rail and air traffic during the life of the plan, and helping to meet targets to nationally reduce overall emissions of greenhouse gases by 12.5% by 2008-12 in comparison with a 1990 baseline.	Predicted emissions of CO_2 from transport.
Air quality	To keep air quality of a good standard and below National Air Quality Standards in all areas	**NO_2:** Annual mean **PM_{10}:** Annual mean Source: Local Authority Air Quality Monitoring Reports
Water	Limit water pollution from the transport network to levels that do not damage natural systems.	The quality of river, coastal and estuary waters as monitored by SEPA.
Soils	To limit contamination of soils from the transport network and infrastructure development to levels that do not damage natural systems.	Presence of contaminated land.
Biodiversity	To minimise damage to designated wildlife / biodiversity sites and protected species.	Number of designated sites affected in RTS strategies.
Landscape	Avoid effects on areas of protection designated to protect visual amenity	Area (in ha.) of such protected areas affected.
Cultural heritage	To preserve historic buildings, archaeological sites and other culturally and historically important features.	Number of listed buildings, scheduled monuments, Historic Gardens, Designed Landscapes and areas within a World Heritage Site affected in RTS strategies.
Health	To create conditions to improve the health of the regions population.	Air quality indicators (respiratory health) The proportion of the population feeling in 'good health'.

3.10 These objectives have been used in the development of the RTS to assess whether the options being developed are likely to have significant environmental impacts. Each option was tested against the strategy's environment objective, within which, the SEA environmental objectives were used to determine what would constitute a significant environmental impact.

4. ALTERNATIVE OPTIONS

Need for alternative options

4.1 Alternatives are the range of rational choices open to the plan and programme-makers for delivering plan objectives. The SEA Regulations do not create a specific requirement to put forward alternatives, but it is common practice when developing a plan or programme to propose different ways of fulfilling its objectives[6]. Where this is the case, the SEA regulations do require that the environmental effects of such alternatives be considered. As part of the standard SEA process, the alternatives can be tested against the SEA objectives, to identify if they are relatively better or worse for the environment.

Developing the alternatives

Regional Transport Strategy objectives

4.2 The vision and objectives presented below for the emerging strategy are founded on the existing strategy combined with a clear understanding of the current and future problems, constraints and opportunities that are intrinsic to, and faced by the communities of the region. The Transport Act also requires the Strategy to enhance social and economic well-being and public health; safety; the environment; social inclusion and equal opportunities; transport integration; and access to health service locations.

4.3 The development of planning objectives have also been steered by the overall vision of the Partnership and are congruous with the Scottish Executive's five key transport objectives and other national and local policies and strategies:

- Scotland's Transport Future: The Transport White Paper.
- Partnership for a Better Scotland.
- A Smart Successful Scotland.
- SPP17 – Planning for Transport.
- SPP2 – Economic Development.
- Local Authority Development Plans:
- National Park Local Plans.
- Community Plans.
- (Emerging) Local Transport Strategies.
- Local Authority Corporate Plans.
- Local Economic Strategies / Plans.
- Tourism Framework for Change – Scottish Tourism: the next decade.
- A Smart, Successful Highlands and Islands: An enterprise strategy for the Highlands and Islands of Scotland.

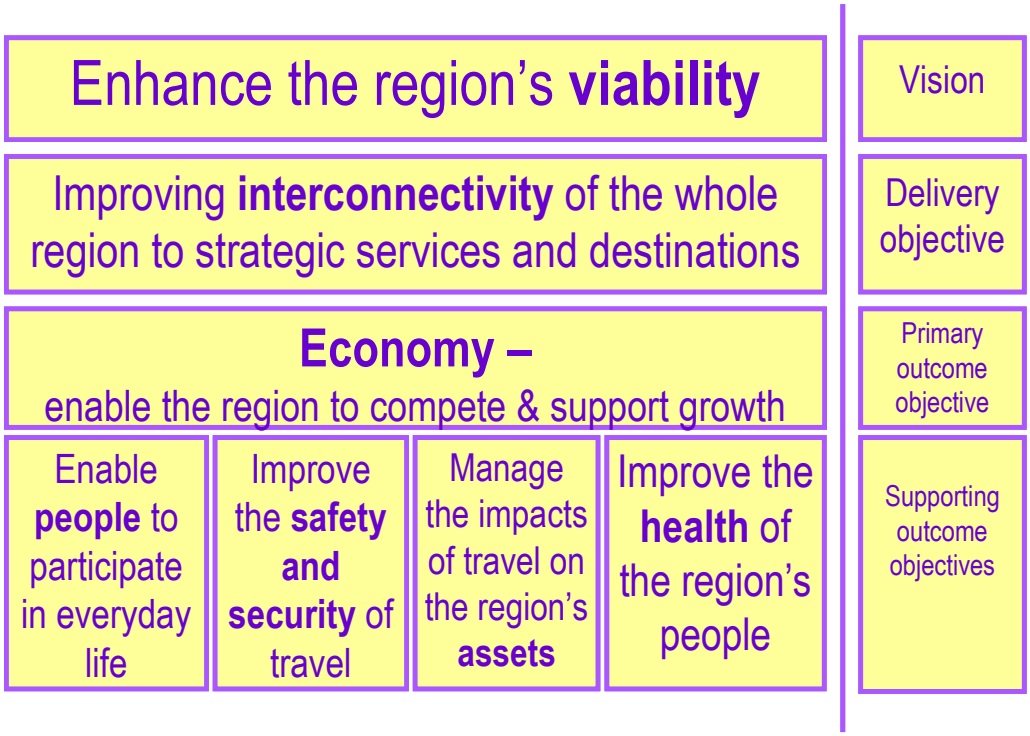
4.4 The strategy vision and objectives have been formulated through an understanding of

[6] ODPM, 2004, A Practical Guide to the SEA Directive

the problems, constraints and opportunities for the region. These have been presented, discussed and refined in consultation with regional stakeholders.

4.5 The Strategy vision and objectives are presented in Figure 4.1. At the centre of this figure is the vision for the region, that is to ***enhance the region's viability,*** enhancing the region's place competitiveness and thereby attracting and retaining people in the region and making the Highlands and Islands a more attractive place in which to live, to work, to conduct business and to visit.

FIGURE 4.1 STRATEGY, VISION AND OBJECTIVES



4.6 From the vision emerges a common theme, or need, to improve the interconnectivity of the region to strategic services and destinations. Improving connectivity is central to all the problems and constraints that have been identified through analysis of the issues and during consultation with stakeholders around the region.

4.7 From improved connectivity comes the focus on the desirable outcomes for the region, or in other words the more specific planning objectives that will shape the Strategy and be the first level of sifting for the generated transport options and interventions. The planning objectives while being focussed on the identified issues are also designed to be congruous with Governments five main objectives for transport – economy, safety, accessibility, integration and environment. The planning objectives for the regional strategy are as follows, to:

- Enable the region to compete and to support growth – this is the primary planning objective, or desirable outcome. This fits with regional and national priorities.

For example, in the Partnership Agreement[7], *"Growing the economy is our top priority."*

- Enable the people of the region to participate in everyday life.
- Improve the safety and security of transport.
- Manage the impacts of transport on the region's environmental assets.
- Improve the health of the region's people.

4.8 As the Strategy progresses, these objectives will be complemented by *SMART* policies, that are *Specific, Measurable, Achievable, Realistic* and *Time-bound.*

RTS alternatives

4.9 The RTS alternatives can be defined as the range of rational choices open to HITRANS for delivering the objectives of the RTS. The alternatives should be compared with each other, where possible, and with a 'do-nothing' scenario, which is an alternative in itself. A comparison with the current environmental conditions (environmental baseline) will show which alternatives would improve or worsen present conditions/

4.10 The draft alternatives are identified here, however a full assessment of each plan alternative will be undertaken as part of the SEA and will be reported in the Environmental Report. The draft alternatives and methods that could be used for this assessment are described below along with possible mitigation options.

4.11 The Scottish Transport Appraisal Guidance calls for an objective-led approach that considers all the options for a given set of problems and/or constraints. The Strategy therefore needs to demonstrate that it has considered alternative broad options for progressing the Strategy as a whole. It is important that broad Strategy scenarios are tested strategically in order that the Partnership and stakeholders can have confidence in the final Strategy.

4.12 The strategic scenarios (described below) emerged from an appreciation of the Scottish Transport Appraisal Guidance requirement to consider the full range of options. Seven scenarios have been tested ranging from a 'do nothing' / 'do minimum' scenario, through to a scenario comprising a 'do all', highest investment scenario. Also considered are scenarios focussing on passenger transport, economic competitiveness and environmental protections.

4.13 Salient points from the scenario testing exercise are:

- 'Do nothing' / 'do minimum' is not an option, intervention is required.
- 'Do all' is the preferential investment package, yet comprises a high-risk strategy.
- The desired outcomes for the region will necessitate additional travel around the region and so a scenario to focus on minimising environmental impact is unworkable.

[7] A Partnership agreement for a better Scotland: Partnership Agreement. http://www.scotland.gov.uk/Publications/2003/05/17150/21952

- A mix of scenarios to focus on passenger transport, underpin economic competitiveness and improve accessibility for the socially excluded will provide a good fit against the Strategy objectives.

4.14 Therefore then, the next stage, and an initial element of the prioritisation framework for the Strategy, will be testing and concluding the appropriate mix of these scenario elements for the region.

Scenario testing

4.15 The strategic scenarios (described below) emerged from an appreciation of the Scottish Transport Appraisal Guidance requirement to consider the full range of options, from do minimum through to all possible interventions, and an understanding of the key issues identified for the region, and represented in the Strategy objectives. These are:

- Economic development / growth.
- Accessibility.
- Environmental impacts and health.
- Safety and security.

4.16 The strategic scenarios tested were:

- **Do nothing / do minimum:** whereby current programmes and investment would be ongoing, yet there would be no further or targeted intervention in the transport system for the Highlands and Islands.
- **Passenger transport focus:** whereby public transport, community transport and active travel modes are the focus, thereby securing capital and revenue support for these means of travel, with targets to reduce the reliance on the car and to reduce the amount of travel undertaken in the region.
- **Underpin economic competitiveness for peripheral areas**: whereby connectivity improvements to peripheral areas would be targeted, thereby securing support for ongoing revenue subsidy of thin routes, with targets to reduce costs and improve journey time, integration and reliability.
- **Underpin economic growth for focussed development areas**: whereby the focus would be on the key growth areas, especially around the Inner Moray Firth.
- **Improve accessibility for the socially excluded:** focussing on access to key services, with a concentration on access for the socially excluded (those on low wages, the young, the elderly and those without access to a car). This would also include tackling road safety implications of disadvantage.
- **Minimise environmental impact:** by focussing on measures to reduce greenhouse gases, reduce vehicular mileage, increasing walking and cycling, achieving modal shift and minimising aviation requirements. This would thus include a focus on improving the health outcomes of the region's people, by increasing active travel and reducing environmental emissions.
- **Do all**: addressing the five preceding scenarios, which will constitute a high investment scenario.

Environmental appraisal of alternatives

4.17 The table on the following page sets out the appraisal of the likely environmental effects of the alternative strategy options for the RTS as described above. These are assessed in relative terms, compared with the 'without the plan' scenario.

TABLE 4.1 ASSESSMENT OF DRAFT ALTERNATIVES

Alternative	Noise	Greenhouse gas emissions	Local air quality	Water, geology and soils	Biodiversity	Landscape and visual amenity	Cultural heritage	Health and other social impacts	Comments
Do nothing / Do minimum	-	-	-	-	-	-	-	-	Degradation of environmental condition, however this would be focused on built up areas
Passenger transport focus	++	++	++	?	+	+	+	++	Focus on improving the public transport network and encouraging a shift away from the private car.
Underpin economic competitiveness for peripheral areas	-	-	-	-	-	?	?	?	Some negative impact, however this will focus on areas where the baseline environmental condition is already very good.
Underpin economic growth for focussed development areas	++	+	++	?	?	?	+	++	A focus on built up areas which would necessitate dealing with congestion.
Improve accessibility for the socially excluded	?	?	?	?	?	?	?	+	Focus on providing improved access to those who currently do not have access to a car.
Minimise environmental impact	++	+	++	+	++	++	++	++	Would involve much overlap with alternative 3 to underpin economic growth
Do all	++	+	+	+	+	++	++	++	This alternative would have to manage and balance all potential alternatives including some of the negative environmental impacts of alternative 2 (focussing on peripheral areas) and the positive impacts of alternatives 3 and 5.

Key: ***++*** *Significant positive impact;* ***+*** *No or minimal positive impact;* ***?*** *Neutral or unknown impact;* ***-*** *No or minimal negative impact;* ***--*** *Significant negative impact*

4.18 From the analysis in the table above, the do all scenario clearly shows the greatest benefit to the various aspects of the environment as defined by the SEA topic headings. A passenger transport focus would also deliver environmental benefits, whilst underpinning economic growth for focussed development areas would also provide positive or neutral environmental impacts.

4.19 These scenarios are presented below in matrix format. It is useful to test each of the scenarios against the objectives that have been generated for the Strategy. This testing is presented in Table 4.2. This testing has been undertaken at a qualitative and strategic level.

TABLE 4.2 SCENARIOS VERSUS STRATEGY OBJECTIVES

	1	2	3	4	5	6	7
	Do nothing / do minimum	Passenger transport focus	Underpin economic competitiveness for peripheral areas Underpin economic growth for focussed development areas		Improve accessibility for the socially excluded	Minimise environmental impact	Do all
Enable the region to compete and to support growth	×××	××	✓✓	✓✓✓	✓	××	✓✓✓
Enable the people of the region to participate in everyday life	×××	✓✓✓	✓✓	✓	✓✓	✓	✓✓
Improve the safety and security of transport	××	✓✓✓	✓	✓✓	✓	✓	✓✓✓
Manage the impacts of transport on the region's environmental assets	×	✓	×	✓✓	✓	✓✓✓	✓
Improve the health of the region's people	×××	✓✓	✓	✓	✓✓	✓✓	✓✓✓

✓✓✓ - strongly supports objective; ✓✓ - moderately supports; ✓ - slightly supports

⦿ - Neutral

××× - strongly conflicts objective; ×× - moderately conflicts; × - slightly conflicts

4.20 From the results of the scenario testing exercise, it is concluded that doing nothing is not an option and so that some action is required, and that there is a need for this action to consider both the needs of peripheral and focussed development areas, thus improving economic competitiveness and removing barriers to economic growth across the region. A "do all" scenario is preferable, as it clearly best fits the objectives that have been conceived for the Strategy. However, as this represents a high investment scenario, it is appropriate to reflect upon a next best scenario in an arena of limited resources. In addition to risks associated with availability of funding, it is also likely that this scenario would encounter further risks in respect to feasibility risks and achieving extensive policy fit[8].

4.21 The matrix assessment shows then that scenarios two, three, four, five best meet the

[8] Refer to Policies listed from Para 4.3.

Strategy objectives, and so it is appropriate that the Strategy focuses on these scenarios. While there is a desire to improve accessibility for the most deprived, this can only be achieved in part by the Strategy. Contributions are also required by the constituent local authorities and other stakeholders across the region in order to provide for, and promote, local accessibility, for example under the requirements of the Land Reform Act. While there is also a desire to minimise the environmental impact of the Strategy, it is also recognised that economic development is at the heart of the needed outcomes for the region, and so it is brought to the fore that the outcome in this case will likely necessitate additional travel around the region. That said, the strategy also has at its centre the desire to manage such impacts in order that they do not unduly deteriorate the region's environmental assets.

4.22 Given that the strategy will likely consist a combination of scenario two, three, four and five, it is useful to appraise each scenario against one another, as it is important to appreciate at a strategic level, the interaction between each. This assessment is presented in Table 4.3.

TABLE 4.3 SCENARIO MATRIX

	2	3	4	5
	Passenger transport focus	**Underpin economic competitiveness for peripheral areas**	**Underpin economic growth for focussed development areas**	**Improve accessibility for the socially excluded**
Passenger transport focus		✓	✓✓	✓✓✓
Underpin economic competitiveness for peripheral areas	✓		⦿	✓✓
Underpin economic growth for focussed development areas	✓✓	⦿		✓
Improve accessibility for the socially excluded	✓✓✓	✓✓	✓	

✓✓✓ - strongly supports objective; ✓✓ - moderately supports; ✓ - slightly supports

⦿ - Neutral

××× - strongly conflicts objective; ×× - moderately conflicts; × - slightly conflicts

4.23 From the matrix in Table 4.3 it is evident that scenarios two, three, four and five at worst have a neutral impact upon one another and at best are strongly complimentary. Given that these scenarios have been shown to be appropriate to contribute to the strategy objectives and that no conflicts have been revealed, it is concluded that the strategy will consist a complimentary mix of these scenarios.

The 'without plan scenario'

4.24 Without the strategy, the region is likely to suffer from population and community decline in remote and rural areas. In contrast, urban areas (predominantly surrounding the Inner Moray Firth) are expected to continue to experience population growth. This growth in population will be matched by continuing growth in traffic levels. Between 1994 and 2004, traffic in Inverness grew by 75% and this growth is expected to continue if left unchecked.

4.25 The primary objective of the RTS is to enable the region to compete economically and to support economic growth. Without transport intervention, this will not happen.

5. ASSESSMENT OF ENVIRONMENTAL EFFECTS

Methodology

5.1 The SEA examines the proposed RTS programme and attempts to ascertain, where possible, the predicted extent and magnitude of environmental impacts. The following factors are taken into consideration for this; the time period over which measures within the strategy will occur, whether they are permanent or temporary, positive or negative, probable or improbable, frequent or rare, and whether there are cumulative and/or synergistic effects.

5.2 The 'significance' of environmental effects of the strategies considered in the SEA was established by reference to:

- the characteristics of the plan, including the environmental problems identified as relevant, infrastructure projects and other activities it proposes, and their relevance to compliance with environmental legislation (e.g. air quality standards); and
- the nature of the predicted effects and the area likely to be affected (e.g. extensive magnitude and spatial extent of the effects, or effects on designated areas of environmental protection).

5.3 The approach adopted for the appraisal, while often qualitative because of the constraints imposed by availability of information, focuses on the quantification of effects as far as possible, and evaluates the significance of these explicitly. In this way, the implications of the proposals and the alternative (no plan) can be clearly understood by decision-makers, as well as being transparent to the public through the medium of the Environmental Report.

5.4 Considering the low level of detail the strategic plan entails, an appropriate appraisal technique was chosen. Expert judgement, and consultation with stakeholders and relevant HITRANS officers was used to assess the effects of the RTS programme.

Assessment of RTS elements against SEA topic areas

5.5 The impacts of each of the RTS measures contained in the implementation plan must be appraised for their possible impact on the environment, for this SEA. This has been done in Table 5.1 to Table 5.3, using the ten SEA topic areas. The full assessment tables, containing comments on each scheme is contained within Annex C.

5.6 The following scale has been used in the assessment tables below:

- ++ = significant positive impact;
- + = slight positive impact
- ? = unknown impact
- - = slight negative impact
- -- = significant negative impact

TABLE 5.1 ASSESSMENT OF RTS COMPONENTS: STRATEGIC NETWORK

Strategy element / Action		Noise	Greenhouse gas emissions	Local air quality	Water, geology and soils	Biodiversity	Cultural heritage	Landscape and visual amenity	Health and other social impacts
A82 Corridor	*Western bypass at Crianlarich and Pulpit Rock Tunnel*	-	-	+/-		?	+	+/-	+
	Ballachulish to Fort William route enhancements	-	-	-		?			+
	Tarbet to Ballachulish strategy (road improvement Tarbet to Inverarnan & route enhancement Tyndrum to Ballachulish	-	-	-		?			+
	Pinch points / junction improvements Fort William to Inverness	-	-	-					+
	A82 to A9 / A96 Inverness link road	-	-	+/-	-	?	+	+/-	+
	Modern 2-track standard Inverness - Glasgow	--	--	--		?			+
Highland mainline	*Journey time and frequency improvements (hrly departure)*	+/-	+	+					+
A9 Inverness to Edinburgh (Road)	*Dual carriageway options between Inverness and Perth*	--	--	--		?		-	+
	Variants of the above option include schemes to provide dual carriageway sections; and/or wide 2+1; and full dualling of route.	--	--	--		?		-	+
Inverness airport and flights	*Surface Access Strategy to deliver integration*		+	+				+	+
	Terminal building and runway extension	--	--	--	?	?	?	-	+
Inverness – Aberdeen rail line (A96)	*Commuter services Elgin – Inverness*	+/-	+	+				+	+
	Dalcross Station at Inverness airport	+/-	+	+	?	?	?	-	+
	Journey time improvements and hourly Inverness to Aberdeen	+	+	+					+
A96 Corridor (road)	*Dual carriageway Inverness – Airport*	-	-	-	-	?	?	-	

Strategy element / Action		Noise	Greenhouse gas emissions	Local air quality	Water, geology and soils	Biodiversity	Cultural heritage	Landscape and visual amenity	Health and other social impacts
	Fochabers bypass with demand management and provision of road space for passenger transport / cycling through Fochabers plus bus priority on approaches and park and ride	+	-	+	-	?	+/?	+/-	++
	Elgin bypass with demand management and provision of road space for passenger transport / cycling through Elgin plus bus priority on approaches and park and ride.	+	-	+	-	?	+/?	+/-	++
	Other bypasses on route with demand management and provision of road space for passenger transport / cycling through settlements, plus bus priority on approaches and park and ride	+	-	+	-	?	+/?	+/-	++
	Dual carriageway options on A96.	-	-	-	-	?	?	-	
	Variants of the above option would include providing dual carriageway sections	-	-	-	-	?	?	-	
A83 Argyll & Bute Sea Crossings to A82 for Glasgow	*Modern 2-track standard Campbeltown to A82*	-	-	-		?			+
	Address pinch points on route	-	-	-		-	?	-	+
Far North Line	*New station at Conon Bridge*	+/-	+	+	?	?	?	-	+
A9 north (road)	*Berriedale Braes crossing*		-		-	?	?	-	+
	Bypass settlements on route	+	-	+	-	?	+/?	+/-	++
	Provision of road space for passenger transport / cycling to the north of Inverness and P&R facilities and services	+	+	+				+	++
	Route Action Plan to provide climbing lanes	-	-	-		?	?		+
Oban A85 connections to Glasgow (A820	*Oban Development Road and demand management measures in Oban*	+	-	+	-	?	+/?	+/-	++
	Oban and Fort William Rail Line rail service enhancement / frequency increase	+/-	+	+					+

Strategy element / Action		Noise	Greenhouse gas emissions	Local air quality	Water, geology and soils	Biodiversity	Cultural heritage	Landscape and visual amenity	Health and other social impacts
Western Isles & Skye connections to Glasgow (A82)	*Skye air service to the Central Belt.*	--	-	-	?	?		-	++
Kyle rail line	*Commuter service to Inverness*	+/-	+	+	?	?	?	-	+
Moray connections to Edinburgh (A9)	*Elgin to Craigellachie A941 road improvements*	-	-	-		?		-	++
	A95 road improvements	-	-	-		?			++
Barra flights	*Fixed landing strip and surface access strategy to deliver better integration.*				?	?	?	-	

TABLE 5.2 ASSESSMENT OF RTS COMPONENTS: REGIONAL NETWORK

Strategy element	Action	Noise	Greenhouse gas emissions	Local air quality	Water, geology and soils	Biodiversity	Cultural heritage	Landscape and visual amenity	Health and other social impacts
Orkney internal connectivity	*Inter-isle ferry and air service connectivity enhancements*		+		+ / -	-	?	-	+
Easdale, Lismore, Luing and Islay – Jura ferry services	*Replacement vessels and / or infrastructure*		+		+/-	-	?	-	+
Raasay Ferry Terminal	*New terminal*				-	-	?	-	+
Western Isles spinal route	*Fixed links on the sounds*		-	-	-	-	-	--	+
	Faster, more frequent ferry crossings		-	-					+
	Road improvement options	-	-	-		-	?	-	+
A816 Oban to Lochgilphead	*Road improvement options*	-	-	-		-	?	-	+
A848 & A849 Tobermory to Fionnphort and Iona Ferry	*Route enhancement*	-	-	-		-	?	-	+
A941 Dufftown to A95	*Road improvement including addressing pinch points and providing overtaking opportunities*	-	-	-		-	?	-	+
A838 Kinlochbervie to Lairg	*Removal of single track section at Laxford Bridge*	-	-	-		-	?	-	+
	Route enhancement	-	-	-		-	?	-	+
A890 Lochcarron to A832	*Route enhancement including single track sections and visibility improvements in vicinity of Achnashellach*	-	-	-		-	?	-	+
A939 Tomintoul to A95	*Road improvement options*	-	-	-		-	?	-	+
A98 from Elgin to Fraserburgh and A950 to Peterhead	*Road improvement options*	-	-	-		-	?	-	+

Strategy element	Action	Noise	Greenhouse gas emissions	Local air quality	Water, geology and soils	Biodiversity	Cultural heritage	Landscape and visual amenity	Health and other social impacts
A832 Gairloch to Garve	*Road improvement options*	-	-	-		-	?	-	+

TABLE 5.3 ASSESSMENT OF RTS COMPONENTS: HORIZONTAL THEMES

Strategy element / Action		Noise	Greenhouse gas emissions	Local air quality	Water, geology and soils	Biodiversity	Cultural heritage	Landscape and visual amenity	Health and other social impacts
Mainstream passenger transport	*Multi-modal/operator ticketing*	+	+	+			+	+	+
	Comprehensive and user-friendly information and mapping	+	+	+			+	+	+
	Consistent standard for supporting infrastructure	+	+	+			+	+	+
	Integrated timetabling across the region	+	+	+			+	+	+
	Hub and spoke interchange network, including infrastructure	+	+	+			+	+	+
	Targeted support for socially excluded groups to improve access opportunities. This could include tackling any aspect of accessibility – physical, awareness, affordability, acceptability and availability								++
	Development of Taxi sector as part of passenger transport network								+

Strategy element / Action		Noise	Greenhouse gas emissions	Local air quality	Water, geology and soils	Biodiversity	Cultural heritage	Landscape and visual amenity	Health and other social impacts
	Bus Quality Partnerships / Contracts	+	+	+			+	+	+
	Invest in poor quality transport terminals and vehicles (including continued investment in accessible vehicle fleet)	+	+	+			+	+	+
	Strategic Park & Ride facilities and service	-	-	-	?	?	?	-	+
	Rail service enhancement / frequency increase – incremental improvements to the region's rail network	+/-	+	+				+	+
Community and health transport	*Baseline review including gap analysis*								+
	Demonstration project of a good practice example of joined up working								+
	Consistent monitoring and evaluation framework for region								+
	Securing additional funding including alternative funding mechanisms to current								+
	Training and mentoring programme for sector								+
	Common standards to guide decision making on procurement of local transport services								+
	Sharing of resources (e.g. vehicles) and knowledge (e.g. good practice)								+
	Integration of services & with maintstream passenger transport (including interchange facilities)								+
	Car sharing (lifts)	+	+	+			+	+	+
	Car sharing (community)	+	+	+			+	+	+
Freight	*Freight Quality Partnership*	-	-	-				-	-
	Addressing inefficiencies / constraints in the transport network	-	-	-				-	-

Strategy element / Action		Noise	Greenhouse gas emissions	Local air quality	Water, geology and soils	Biodiversity	Cultural heritage	Landscape and visual amenity	Health and other social impacts
	Review of grant funding to better fit with market needs	-	-	-				-	-
	Evaluation of programme to reduce the cost of moving goods	-	-	-				-	-
Ports, ferries, and waterways transport	*Understand origin and destination patterns for passengers and freight*								
	Rationalise the waterborne transport network	-	-	-	-	-			+
	Enhance ferry services and develop fit for purpose timetables	-	-	-	-	-	?		+
	Evaluate alternative pricing mechanisms	-	-	-	-	-			+
	Regional investment strategy	-	-	-	-	-			+
Aviation and the region's air network	*Evaluate economic and social opportunities of providing other / enhancing existing air connections around the region*	--	--	--					+
	Evaluate the impacts and outcomes of Air Discount Scheme. Assess options for further development.	--	--	--					+
	Development of direct rail services between Inverness and Edinburgh airport.	+	-	+				+	+
	Passenger transport access to Wick airport	+	-	+				+	+
Locally significant network and the region's road maintenance	*Attract additional funding*				+			+	
Active Travel	*Clearer policy to promote in land use planning and development control process across the region*	+	+	+			+	+	++

Strategy element / Action		Noise	Greenhouse gas emissions	Local air quality	Water, geology and soils	Biodiversity	Cultural heritage	Landscape and visual amenity	Health and other social impacts
	Active travel infrastructure audits in Regional Centres and other localities around the region	+	+	+			+	+	++
	Longer-term investment programme in response to audits	+	+	+			+	+	++
	Travel behaviour change programme	+	+	+			+	+	++
	Bespoke travel plan elements and support	+	+	+			+	+	++
Congestion and urban issues	*Improve transport infrastructure*	+	+	+			+	+	++
	Travel demand management package	+	+	+			+	+	++
	Package to increase the appeal of active travel and public transport	+	+	+			+	+	++
	Strategic Park & Ride sites and services	+/-	-	+/-	?	?	?	-	+
	Evaluate options for parking / pricing strategy for urban centres	+	+	+			+	+	+
	Enhance connectivity between Inverness Retail Park and the city centre	+		+			+	+	+

5.7 The assessments made in the tables above are explained in further detail for each form of transport in the sections below. Full assessment tables, complete with comments on each scheme, are contained in Annex C.

Road network

Infrastructure

5.8 A number of new bypasses and road enhancement schemes are identified in the tables above, the majority of which relate to a whole route or corridor, rather than specific locations. There are potential negative environmental impacts in relation to these schemes for noise, greenhouse gas emissions and local air quality, primarily due to increases in traffic levels as a result of journeys becoming more reliable and consistent. In terms of bypasses, there will also be some redistribution of impacts away from the town centres, thus improving noise levels, local air quality and general townscape in the populated areas but moving this to less populated areas (resulting in both positive and negative impacts).

5.9 New road schemes will also have a negative impact on landscape through construction of a new feature in the landscape. Landscape impacts can also arise from lighting associated with new transport routes, particularly in remote rural settings.

5.10 A number of the proposed schemes are located in the vicinity of areas protected for their natural or cultural heritage and there is the potential for some negative impact on flora and fauna and cultural heritage. However, as the alignments of these schemes have not yet been identified, there is scope to ensure that, where possible, such areas are avoided. Mitigation measures can also be introduced to minimise the impact on these aspects of the environment and these are discussed in chapter 6.

Services

5.11 Measures to enhance the use of public transport, cycling and walking are primarily focussed on the more built up areas of the region and will contribute to reducing congestion and the resulting noise and local air pollution in these areas. A positive impact on general townscape will result through a reduction in road traffic, however care will have to be taken to ensure that any road space freed up by modal shift is not filled by additional vehicular traffic. Such measures will also have positive impacts on the health of the population by encouraging physical activity. There have been no estimations as to how many people will use public transport, walk or cycle as a result of the measures contained within the RTS, so the assessment has to make the broad generalisation that more activity will occur.

5.12 Measure to promote sustainable travel choices ('soft measures') have been reported to reduce peak period urban traffic by about 21% (off peak 13%)[9]. Depending on the extent of these initiatives, the soft measures contained in the 'Horizontal' package of measures could have positive local air quality and social impacts.

[9] Cairns S, et all (2004) – **Smarter Choices: Changing The Way We Travel –** Department for Transport, London.

5.13 There are a number of park and ride measures proposed, however there is not enough detail available on the route, the frequency, the demand for, or the types of vehicles for an accurate assessment of the environmental impact to be made. Overall there is evidence to suggest that P&R may actually generate additional net vehicle kilometres. The key benefit from P&R schemes is in reduction of congestion, and potentially local air quality benefits as a consequence, in built up areas. However, the road network surrounding the site may see an increase in vehicles, attracted by the new facility. There also would be the direct land take and physical impact of the P&R facility itself, which can be considerable depending on its location and care should be taken to ensure they do not encroach on environmentally sensitive designated areas or areas of cultural importance. A more detailed environmental impact assessment would be required for any such schemes.

5.14 Proposals for freight could result in negative environmental impacts as, in the main, they are focussed on facilitating the movement of freight both within the region and to elsewhere. Much of this freight will be on the road network (opportunities for shifting it to other modes are limited) and, if volumes of freight increase, this could have negative impacts on road safety, noise and local air quality.

Demand management

5.15 Demand management measures have the potential to improve carbon emissions and air quality by reducing overall traffic volumes. They would also help to maximise the potential environmental benefits arising from mode shift, through effective management of the additional capacity released on the road network. Such measures would ensure that spare capacity created by mode shift does not encourage an overall growth in traffic. In the HITRANS region, demand management measures will be centred on the built up and more congested areas of the network.

Rail

Infrastructure

5.16 Two new rail stations are proposed in the region, at Dalcross (to serve Inverness airport) and at Conon Bridge. In both cases this will involve construction of a small platform. Negative impacts could result on biodiversity, water, geology and soils, cultural heritage and on landscape, however further research on the specific location of the stations would be required in order to determine the impacts in more detail. The addition of these stations to the network will also result in increased noise, created through the stopping and starting of trains. However, a new station will also contribute to reducing car traffic to the airport and into Inverness, thus having a positive impact on noise and local air quality on the local road network. There is no information available at present to determine the exact level of mode shift from road to rail as a result of these schemes.

Services

5.17 The impacts of encouraging longer and more frequent trains could be negative for the environmental category of noise. This is particularly important if there are people living in close proximity to the relevant stations. However, improvements to rail

services on commuter and regional services will make rail a more attractive option, encouraging mode shift and providing positive health and social impacts by improving the accessibility of the region as a whole.

Water

Infrastructure

5.18 The introduction of new vessels is likely to have both positive and negative impacts on the environment. New vessels will be cleaner and less polluting of the marine environment, therefore having a positive impact on marine biodiversity. However, the replacement of existing vessels with new larger vessels, that meet current safety and environmental standards, will require construction of new harbour facilities to cater for these bigger vessels.

5.19 The construction and operation of new ferry infrastructure has the potential to have significant environmental effects on the marine environment. This can include impacts on marine hydrology and the potential for changes in deposition of sediments, with knock on effects on biodiversity and sometimes fisheries. There is will also be environmental impacts if increased dredging to keep navigational channels clear is required. As construction within the water will be required for proposals such as new harbours or breakwaters, a detailed environmental impact assessment will be required in order to fully understand the potential impact on marine biodiversity and marine archaeology. The construction of new harbour infrastructure could also have a negative impact on landscape if not done sensitively.

5.20 The enhancement of ferry infrastructure will however have a positive impact on health and the population through the maintenance of appropriate lifeline links for remote island communities. Many of the existing vessels will need to be replaced within the lifetime of the strategy, and if they are not, these communities will lose these essential links.

Services

5.21 Enhancement of the ferry service network will have a positive impact on health and population as a result of an increased accessibility to key services and increased movement / availability of goods on remote islands. However, by enhancing ferry services and making them more attractive, it is likely that demand to travel will increase.

5.22 Enhancing ferry services by increasing the number and frequency of sailings and routes available will have a slight negative impact on noise, greenhouse gas emissions and local air quality through an increased number of ferry trips using diesel fuelled vessels. There is also likely to be slight negative impacts on water quality and marine biodiversity as a result of this increased movement of vessels in the sea. Transport by sea carries an associated contamination risk from accidental spills, leakage of fuel and lubricants, anti-foulant paint and refuse. Such impacts would have possible knock-on effects on biodiversity and fisheries and may also affect bathing waters.

Aviation

Infrastructure and services

5.23 The strategy proposes the development of aviation infrastructure in the region to support an expanding air service network. Proposed schemes include the development of Inverness airport, an airstrip at Broadford in Skye, a fixed landing strip at Barra, other new airstrips / helipads across the region and the development of new air routes.

5.24 There are significant negative environmental impacts associated with expanding the air network and providing the infrastructure to cater for an increased volume of flights. These impacts will primarily result in increased carbon dioxide emissions, resulting from an increased volume of aircraft movements and a decrease in local air quality from the resulting increase in emissions. Construction of new airstrips and terminal buildings could also have a potentially negative environmental impact on biodiversity, water, geology and soils, cultural heritage and landscape, however detailed environmental impact assessments would be a requirement of any such proposals.

5.25 The expansion of the air service network in the region will have a positive impact on the population of the Highlands and Islands through increasing accessibility to key services and markets, particularly for remote island communities who rely on air services as lifeline links.

Summary

5.26 The assessment shows that the strategy, with the current level of detail it contains, is likely to have some negative impacts on the environment, particularly new infrastructure schemes, which in many cases may increase traffic flow on the roads, air and sea travel. However, the primary objective of the strategy is to enable the region to compete and support economic growth and to do this, accessibility and connectivity must be enhanced.

5.27 The strategy also contains a wide range of measures that will improve the public transport network, encouraging mode shift away from the private car and reducing congestion in built up areas. These measures will have a positive impact on the environment by improving noise, local air quality and carbon dioxide emissions, townscapes and health.

6. MITIGATION

Role of mitigation in SEA

6.1 One of the key purposes of the SEA process is to ensure environmental protection is an integral part of the plan making process. A principal way of achieving this is by incorporating mitigation measures into the policies and proposals of the plan as it develops.

6.2 The SEA Regulations specify the Environmental Report must contain a description of:

> *'The measures envisaged to prevent, reduce and as fully as possible offset any significant adverse effects on the environment of implementing the plan or programme.'*

6.3 The analysis in **Section 5** highlights that there may be some environmental impacts as a result of the measures proposed in the RTS, however the lack of detail regarding the extent and location of many of the measures meant it was not possible to identify this impact in significant detail.

6.4 It is an important part of the SEA process to consider ways in which the policies and proposals that may be put forward in the RTS could be changed in order to lessen any adverse environmental effects that they might have, or indeed help to secure environmental improvements. This can be done in three main ways:

- **Avoidance or prevention:** This involves modifying the alternative options for the RTS. One or more elements of an alternative can be refined further in order to avoid particular environmental effects.
- **Reduction:** When all alternative options or approaches to avoiding an effect have been examined, ways of reducing the extent or magnitude of the effect need to be considered. This could focus on timing or phasing of RTS measures to reduce adverse effects. An example would be re-timing of all maintenance works outside of peak periods, to reduce carbon dioxide emissions associated with congestion.
- **Offsetting or compensation:** If no opportunities are available to either avoid or reduce adverse effects, remedial measures can be taken. This could be financial compensation for the loss of, or damage to, environmental resources, although the scope for this might be limited in the context of an RTS. However, it can also include replacing the resource. This could be by providing a comparable or similar resource somewhere else, although this may not be an appropriate response if resources are unique or irreplaceable.

6.5 Promoting policies and proposals that enhance the environment may also become an end in itself. For example, a program of street works might be extended to include the removal of unnecessary street railings and obstacles to enhance the setting of historic buildings or areas.

6.6 Specific measures that might be applied to reduce the environmental effects of transport and that may be appropriate to incorporate into the RTS policies and proposals are considered in the following paragraphs under specific topic headings.

Recommendations for mitigation

Noise

6.7 Reducing noise effects from existing traffic flows is quite difficult. Traffic management can help, but traffic flows have to be reduced by more than 50% to have any real effect on noise levels. Reducing speed limits in residential areas is another, perhaps more effective, option. Noise barriers or mounds can be provided to protect homes and schools, but these can only be provided where there is space to do so. Secondary glazing can be provided for homes and other sensitive buildings, but neither HITRANS nor individual Councils have legal powers to do this to resolve noise problems that already exist.

6.8 A practical measure that can be effective is the use of low-noise road surfaces, such as porous asphalt or 'whisper' concrete. The use of these can be considered as replacement materials for an on-going maintenance programme. However, there are budget implications for this, as these materials tend to be less durable than those that they replace.

6.9 For new highways and railway schemes, noise impacts will be assessed specifically as part of the Environmental Impact Assessment (EIA) process that is part of consent requirements. Noise barriers/mounds and/or secondary glazing have to be provided to mitigate effects if noise levels are predicted to exceed specified levels in nearby residential buildings under the provisions of the Land Compensation (Scotland) Act 1973. Alternatively, alignments can be adjusted to reduce noise to acceptable levels for people living nearby.

Climate change

6.10 Measures to reduce the level of greenhouse gas emissions from transport essentially focus on reducing the amount of travel, or improving the fuel efficiency of vehicles. Consequently, most of the measures listed in paragraph 6.14 below in relation to the improvement of local air quality may also provide benefits in terms of reducing greenhouse gas emissions.

6.11 In addition, longer term measures to reduce the need to travel through better integration of transport and land use planning, and a focus on access to facilities rather than mobility as an end in itself, are available to help reduce greenhouse gas emissions overall.

Local air quality

6.12 In order to make a 'significant' difference in air quality, traffic flows would need to drop at least 10% (unless the road has particularly high flows, or there are particular sensitivities, such as traffic congestion, change to the speed limit or the presence of an Air Quality Management Area). It should be noted that the HITRANS region currently does not have any Air Quality Management Areas, although this does not suggest HITRANS will be any less vigilant in ensuring its policies minimise negative impacts on local air quality.

6.13 The key ways in which local air pollution may be tackled through transport policy

measures are:

- Reducing emissions at source, through use of fuel-efficiency, filtering technologies or use of alternative fuels;
- Reducing levels of traffic overall, or at specific locations where air quality is an identified problem; or
- Reducing congestion and high traffic speeds, again focusing on areas where air quality is particularly poor.

6.14 In the context of the RTS, there are a myriad of measures that may be considered to achieve one or other of these ends. Some will have already been considered and then rejected on the basis of the transport outcomes they would have or other adverse effects on accessibility or economic development, for example. However, the full range of measures which the Scottish Executive recommends should be considered in the context of air quality and transport at a local level are as follows[10]:

- Measures developed under the provisions of the Road Traffic Reduction Act 1997 and other traffic regulations to reduce traffic;
- Promoting the use of cleaner fuels, as advised by the Scottish Executive's 'PowerShift', *autogas* + and 'CleanUp Scotland' programmes[11];
- Road user charging;
- Declaring 'Low Emission Zones', where only vehicles meeting stringent emission standards are allowed to enter;
- Declaring 'Home Zones', where road space is shared between motor vehicles and other road users with the needs of pedestrians and cyclists made a priority, and "Clear Zones" which tackle town centres;
- Access restrictions to certain areas to discourage car access, provided there are alternative routes available;
- Traffic calming measures to reduce traffic speeds and aggressive driving;
- Reallocation of road space to favour pedestrians and cyclists, with results similar to 'Home Zones' and traffic calming;
- High occupancy vehicle lanes, which only cars carrying 2 or more people are permitted to use, to encourage car sharing;
- Vehicle restricted areas, banning all (or specific classes of) vehicles from entering;
- Parking controls, as a means of general trip-end restraint, or to remove the problem of vehicles 'cruising' slowly when searching for spaces;
- Adjusting automated traffic control systems to avoid congestion, particularly in areas where air quality is poor;

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10 Scottish Executive (2003) - **Part IV of the Environment Act 1995 Local Air Quality Management: Revised Policy Guidance,** February 2003, http://www.scotland.gov.uk/Resource/Doc/1052/0002252.doc.

11 The Scottish Executive funds these programmes to promote cleaner fuels. CleanUp Scotland provides grants towards the cost of fitting vehicles with emission reducing equipment, and is managed by the Energy Savings Trust; PowerShift offers a grant of up to 75% of the additional cost of converting a vehicle to run on liquid petroleum gas (LPG) for a vehicle on the PowerShift Register. autogas+, which only operates in Scotland, complements the main PowerShift Programme and provides a grant of £800 to convert petrol vehicles not on the PowerShift Register to run on LPG

- Speed limits on roads where traffic speeds are very high and air quality is poor as a consequence;
- Promoting the use of public transport generally to effect a modal shift and reduce road traffic levels overall;
- Testing cars at the roadside to ensure compliance with emission standards; and
- Mode-specific measures such as rail Park and Ride; bus priority, information and interchange; Park and Ride; freight quality partnerships to encourage action to reduce emissions; promoting walking and cycling; safe routes to schools; and providing secure parking for motorcycles.

6.15 Measures can also be adopted to avoid stationary vehicles with engines running, e.g. reducing congestion, or requiring taxis and buses have engines turned off at ranks or stands.

6.16 Significant reductions in traffic flows are usually necessary to provide any significant effect on air quality, and on this basis individual measures are not likely to be particularly effective. However, a range of measures developed as part of a coherent and targeted strategy may together achieve the required improvements.

Water, geology and soils

6.17 It is anticipated that the physical impacts on water and soil from RTS policies and proposals will be taken into account during the planning and detailed design stages. Clearly, geotechnical, hydro-geological and hydro-technical studies will be undertaken for any schemes that involve civil engineering works, and will identify any specific potential problems that may arise. More generally, avoiding watercourses and areas designated for the protection of aquifers will be prudent, as will taking account of the potential to affect sites with historic contamination due to previous land uses.

6.18 A particular concern is flood risk, and any works that are proposed should not increase the risk of flooding. The Scottish Environment Protection Agency (SEPA) is now likely to require that a flood risk assessment is undertaken as part of the planning process for any major scheme.

6.19 Maintenance programmes within the RTS should also take account of the handling and treatment of contaminated run-off from road surfaces. Drainage systems should be sufficient to cope with the volume of run-off, and include features such as traps or balancing ponds to ensure contaminated water does not cause ground or water pollution. Maintenance regimes should also include routine inspection and cleaning of these features to make sure that they remain effective.

Biodiversity

6.20 The key principles for mitigating adverse effects on biodiversity are to control the sources of impacts, or the exposure of ecological receptors to them. This can take a wide range of forms, but due to the limited effectiveness of many ecological restoration measures, every effort should be made to avoid significant adverse impacts on biodiversity before resorting to other measures. Some adverse effects might be avoided through changes to the RTS, such as adding, deleting or refining specific policies or proposals, or by bringing forward new alternatives. Where impacts cannot

be avoided, it may be possible to limit damage. In some cases biodiversity may recover spontaneously if affected by policies or proposals of the strategy, and no "mitigation" other than time is required. In other cases, mitigation could be put into effect through provisions in later plans, requirements to carry out EIA for specific types of projects, etc…

6.21 Landscape works, including habitat creation and restoration are often promoted to mitigate adverse ecological impacts. However, they are often ineffective or take a long time for satisfactory results to be achieved. Therefore, the guiding principal here should be that compensation should only be used as a last resort, if loss of habitats or species is unavoidable. Mitigation banking can also be considered, where equivalent replacement habitat (in terms of both quantity and quality) is created to compensate for the loss or damage to any natural or semi-natural habitat.

6.22 In general terms, the most important consideration for developing the RTS will be to ensure, as far as is reasonably practical, that policies and proposals do not directly effect protected areas that have been designated on biodiversity grounds (e.g. Wetland areas or Sites of Special Scientific Interest) or habitats where protected species of flora or fauna have been identified.

6.23 If such effects are unavoidable, commitments should be made to developing appropriate assessment and management procedures to minimise the loss or damage to biodiversity resources, and to re-instate or replace these as appropriate. This would be achieved through the EIA process that forms part of consent processes for major schemes, or through management commitments on smaller proposals.

6.24 Taking account of biodiversity issues in developing traffic management and maintenance programmes in the RTS is particularly important. Measures to reduce noise and air pollution from traffic, as discussed above, can help reduce effects on biodiversity also. In addition, care must be taken over specifying the use of herbicides and pesticides in maintenance work, as also should be the case in the use of de-icing salts and other chemicals. In all cases, the potential toxic effects on flora and fauna should be considered, and measures taken to ensure that no important or protected species are likely to be damaged as a result of their use.

Landscape and visual amenity

6.25 In built-up areas, care should be taken to avoid effects on designated areas such as Conservation Areas, or direct effects on buildings/structures listed for their architectural significance, or the setting of these.

6.26 Similarly, the best mitigation for effects on the natural landscape features is to ensure, as far as is reasonably practical, that the policies and proposals of the RTS do not directly affect protected areas or resources that have been designated on the basis of the quality of the landscape.

6.27 Where such effects are unavoidable, it is important that the design of measures respects and takes account of their setting. For major schemes, this will be addressed through the EIA process.

Cultural heritage

6.28 All efforts should be taken to make sure that the policies and proposals of the RTS should not adversely affect heritage resources, such as Conservation Areas, buildings/structures listed for their historical interest, historic landscapes, or archaeological resources.

6.29 If such effects are unavoidable, the advice set out in NPPG5 'Planning and Archaeology'[12] should be followed to devise appropriate mitigation. The general preference is for historic and archaeological resources to be recorded and preserved in situ, although excavation and removal may be an option if there is a risk that the resource may be lost or destroyed otherwise.

Material assets

6.30 Another important aspect that can mitigate against the environmental impact of transport schemes, is the use of recycled materials in road maintenance work. This is an area where HITRANS could make positive improvements to the efficiency of its use of resources. It is recommended that a policy to require the use of a minimum percentage of recycled materials in construction and maintenance be produced. This should also cover the recycling of materials no longer required when undertaking maintenance works.

[12] NPPG5 Archaeology and Planning, 1998, http://www.scotland.gov.uk/Publications/1998/10/nppg5

7. MONITORING

Indicators

7.1 At the scoping stage of this SEA, objectives and indicators were selected and presented to HITRANS and the statutory environmental bodies. The indicators (one for each of the previously established SEA objectives) are listed in Table 7.1 below.

TABLE 7.1 SEA OBJECTIVES AND INDICATORS

SEA topic	Objective	Indicator	Baseline
Noise	To ensure existing levels of annoyance from noise caused by traffic do not significantly increase.	Prediction of road traffic noise at key locations on the road network.	February: 52-64dB(A) August: 55-64dB(A)
Greenhouse gas emissions	To help tackle climate change by minimising the increase in CO_2 emissions from road, rail and air traffic during the life of the plan, and helping to meet targets to nationally reduce overall emissions of greenhouse gases by 12.5% by 2008-12 in comparison with a 1990 baseline.	Predicted emissions of CO_2 from transport.	The Scottish Executive estimates that transport accounted for 12% of Scottish CO_2 emissions in 2000.
Air quality	To keep air quality of a good standard and below National Air Quality Standards in all areas	**NO_2:** Annual mean **PM_{10}:** Annual mean Source: Local Authority Air Quality Monitoring Reports	Current monitoring levels of annual means: *Argyll and Bute*: 22*µg/m³* *Highland: 37µg/m³* *Moray:* 23 *µg/m³* *Eilean Siar*: 23 *µg/m³* *Orkney*: 20 *µg/m³*
Water	Limit water pollution from the transport network to levels that do not damage natural systems.	The quality of river, coastal and estuary waters as monitored by SEPA.	**Rivers** (% total length) 28% - Excellent 42% - Good 2% - Fair 1% - Poor 0% - Seriously polluted 26% - Unclassified **Coastal waters (% total length)** % total river length and quality 1% - Excellent 3% - Good 1% - Unsatisfactory 0% - Seriously polluted 94% - unclassified

SEA topic	Objective	Indicator	Baseline
			Estuaries Cromarty Firth at Cromarty - Excellent; Cromarty Firth at Dalmore Pier - Fair; Cromarty Firth at Evanton - Fair Cromarty Firth at Rosskeen - Fair; Dornoch Firth at Tain storm sewage - Fair; Loch Linnhe at Caol foreshore - Fair; Lossie at Lossiemouth - Excellent; and Spey at Spey Bay - Excellent.
Soils	To limit contamination of soils from the transport network and infrastructure development to levels that do not damage natural systems.	Presence of contaminated land.	98 hectares of contaminated land
Biodiversity	To minimise damage to designated wildlife / biodiversity sites and protected species.	Number of designated sites affected in RTS strategies.	Number of hectares of protected sites: 63,641,181ha[13]
Landscape	Avoid effects on areas of protection designated to protect visual amenity	Area (in ha.) of such protected areas affected.	Area covered by protected sites: 63,641,181 ha[14]
Cultural heritage	To preserve historic buildings, archaeological sites and other culturally and historically important features.	Number of listed buildings, scheduled monuments, Historic Gardens, Designed Landscapes and areas within a World Heritage Site affected in RTS strategies.	Number of statutory listed buildings: 14,372 Number of scheduled monuments: 2,949 Number of World Heritage Sites: 2 Number of Historic Gardens and Designed Landscapes: 82
Health	To create conditions to improve the health of the region's population.	Air quality indicators (respiratory health) The proportion of the population feeling in 'good health'.	% of the population feeling 'in good health': 71% % of the population with a long-term limiting illness': 18%

[13] This values is the area of protected sites contained entirely within the Highlands and Islands Region, there are additional protected sites that cross local authority boundaries.

[14] This value is the area of protected sites contained entirely within the Highlands and Islands Region. There are additional protected sites that cross local authority boundaries.

8. NEXT STEPS

8.1 The draft RTS along with this Environmental Report has been made available to the general public as well as the statutory consultation bodies (SEPA, Scottish Natural Heritage and Historic Scotland), in accordance with the SEA guidance.

8.2 The final RTS will be submitted to Scottish Ministers by 31st March 2007. Comments and responses to this Environmental Report will be considered in January / February 2007, so that revisions can be made before the RTS is finalised.

Consultation

8.3 The purpose of consultation is to allow effective engagement and input into the strategy and the environmental assessment. It also helps ensure that the RTS and its assessment are as comprehensive as possible.

8.4 When examining the report, consultees may wish to consider the following:

- Do you agree with the general findings of the SEA that although the RTS will have some negative impacts on the environment, they will contribute to the increased accessibility and connectivity of the region and that significant effects will be effectively managed by the mitigation proposals?
- Are there any additional mitigation techniques for addressing the environmental impact of the RTS which have been overlooked?
- Is there any significant environmental data missing or misrepresented?
- In terms of environmental impact, are there any alternative RTS policies and plans which should have been considered?

8.5 Any responses to the SEA Environmental Report will be assessed in terms of environmental significance and likelihood of a negative environmental impact resulting if the response was not dealt with through the SEA process. This assessment will be taken using the expert judgement of the SEA consultant to HITRANS (Steer Davies Gleave) and HITRANS Officers.

Adoption of full strategy and SEA statement

8.6 As previously stated, the full RTS will be submitted to Scottish Minsters by 31st March 2007. The SEA Environmental Statement will be produced as soon as possible after the adoption of the strategy. The Statement must show how environmental considerations have been integrated into the RTS, how the findings of the Environmental Report have been taken into account, and how the consultation responses have been addressed.

8.7 Finally, the Statement must also give the reasons for finally selecting the RTS measures and strategies adopted rather than the alternatives considered, and the accompanying monitoring measures.

8.8 This should demonstrate the action taken by HITRANS during the development of the SEA and RTS to produce a better outcome. It shows how the environment has been considered at every step, and relevant information has been reviewed and considered to influence the final shape of the strategy.

CONTROL SHEET

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