

SEA ENVIRONMENTAL REPORT – COVER NOTE

PART 1

To:

SEA.gateway@scotland.gsi.gov.uk

or

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Scottish Executive
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PART 2

An Environmental Report is attached for [name of PPS]:

The Orkney Islands Local Transport Strategy (2007-2010)

The Responsible Authority is:

Orkney Islands Council

PART 3

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PART 4

Signature
(electronic)

Eileen Summers

Date

20th February 2007

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NOTE - There are likely to be additional appendices such as maps

NON-TECHNICAL SUMMARY

The Orkney Islands Transport Strategy

The purpose of the Orkney Islands Local Transport Strategy is to present Orkney Islands Council's objectives for managing, maintaining and developing the transport network during the period 2007-2010. It presents the roles and responsibilities, and feeds into and from the Regional and National Transport Strategies, and wider policy areas.

Strategic Environmental Assessment

This Environmental Report presents the findings of a Strategic Environmental Assessment (SEA) of the Orkney Islands Local Transport Strategy.

The purpose of SEA is to integrate environmental consideration into the Strategy, and this is achieved in two ways:

1. SEA allows the potential environmental impacts of the Strategy to be predicted and, where appropriate, these predictions can be used to inform the development of the policies in the Strategy.
2. In setting out the predicted environmental impacts in this Environmental Report, the public and other stakeholders can give their view on the Strategy and its potential impacts.

A Scoping Report was initially produced which set out the proposed method and subject matter to be considered in the SEA. The Scoping Report also set out relevant environmental problems, key aspects of the current state of the environment and relationships with other plans, programmes and strategies. This was submitted to the Scottish Executive to allow the Consultation Authorities (Scottish Natural Heritage (SNH), the Scottish Environment Protection Agency (SEPA) and Historic Scotland) to provide comments and recommendations. These comments have been taken into account in the assessment and preparation of this Environmental Report.

Alternatives

Three alternative Strategy scenarios were considered for the Orkney Islands Local Transport Strategy, and these are set out in Table 1 below:

Table 1: Alternatives to the Orkney Islands Local Transport Strategy

Alternative	Implications for the Local Transport Strategy
Do minimum scenario	Assessment of the current plan without revision. The transport system would increasingly become inefficient and ineffective.
Unrestrained service development including a substantial increase in air and ferry services and demand-led provision of road space	The Strategy would contain significant additional air and sea routes and significant road / car park building to meet the demand and desires for additional capacity
Improved efficiency and effectiveness of transport and the transportation system	Assessment of the environmental impacts against the objectives set out in this Local Transport Strategy and consideration of the best combined way to mitigate against adverse impacts while delivering positive community outcomes.

SEA of the Local Transport Strategy: Methods and Results

Assessment was carried out of both the high level objectives and the individual strategy interventions of the Transport Strategy. A small number of interventions, principally increases to air and ferry provision, are predicted to result in negative impact to certain aspects of the environment. However in other areas positive impact is predicted, e.g. through improvements to the public transport service and increased provision for active travel such as cycling and walking.

Mitigation measures have been developed to avoid, reduce or offset predicted negative effects but there is the potential for some environmental impacts to remain. The key impacts predicted and their causes are summarised below:

Climate Factors

Negative impacts on Orkney's contribution to climate change are possible as a result of any increased external air and internal ferry and air services. The Strategy does not state the likely number of increases to these services, as increases are limited within the timescales of the Strategy due to a number of factors, and therefore it is not possible at this stage to quantify the probable extent of any impacts.

Positive impacts are possible through the promotion of improvements to the public transport service and encouragement to use bus services and walking and cycling rather than the private car for all journeys.

Local Air Quality

Local air quality is generally good in the Orkney Islands, however, one of the objectives of the Strategy is to promote active travel which, in turn, should lead to reduced traffic queuing / congestion and hence reduced exhaust emissions in the towns of Kirkwall and Stromness.

Biodiversity

Aspects of the Strategy which are predicted to cause negative impact on biodiversity are any increases to air and ferry services mentioned above as mentioned above. No major infrastructure projects are anticipated in the lifetime of the Strategy, so the predicted impacts will result only from any increased operation of air and ferry services. Bird strike is an environmental impact caused by aviation and ferry movements have the potential to affect protected species, for example otters, seals and cetaceans. There is also the potential for impacts on protected sites including Natura Sites and reference has been made in the SEA to the need for Appropriate Assessment to comply with legal requirements. Mitigation measures have been identified which will aim to avoid, reduce or offset impacts on protected sites and species.

Water, Soils and Geology

The overall effect of the Strategy on the water, soil and geological environment is not predicted to be significant. If airport opening hours require to be extended there may be the need for increased use of runway de-icer during winter. A policy relating to SUDS in any new works is incorporated in the Strategy.

Landscape

No major infrastructure projects are anticipated during the lifetime of the Strategy so no negative impacts are predicted on the landscape character and visual amenity of the Orkney Islands.

Improvements to parking arrangements at certain viewpoints and cultural heritage sites will result in positive impact.

Cultural Heritage

No negative impacts are predicted on the cultural heritage of the Orkney Islands. Positive impact may result from improvements to public transport giving increased opportunity for access to the County's cultural heritage sites. Improvements to parking arrangements at certain viewpoints and cultural heritage sites will result in positive impact.

Human health

Impacts on human health are predicted to be positive due to the promotion of active travel, as well as improved training for example in respect to road safety.

Population

Impacts on population are predicted to be positive due to any improved service provision and accessibility.

Material Assets

Impacts on material assets are predicted to be slight, for example resulting from improvements to the cycle path network and general maintenance of the transport network.

Mitigation, monitoring and adoption

Where mitigation measures have been identified, these are set out in the following pages. The Environmental Report sets out proposed indicators which will be used to monitor the environmental effects of the Local Transport Strategy. Following adoption of the final strategy, a Post-Adoption SEA Statement will be produced which will set out the final monitoring framework. This will also include information regarding how the SEA and comments resulting from consultation have been taken into account in the final Strategy.

Consultation

Comments on this Environmental Report can be sent to the address below until 2 April 2007.

Local Transport Strategy Consultation
Transportation Service
Orkney Islands Council
School Place
Kirkwall
Orkney Islands Council KW15 1NY

A copy of this Environmental Report and the draft Local Transport Strategy are available to download from the Council's website – www.orkney.gov.uk

1. INTRODUCTION

Purpose of this Environmental Report

As part of the preparation of the Orkney Islands Local Transport Strategy, Orkney Islands Council is carrying out a Strategic Environmental Assessment (SEA) of the Strategy. SEA is a systematic method for considering the likely environmental effects of certain PPS. SEA aims to:

- integrate environmental factors into PPS preparation and decision-making;
- improve PPS and enhance environmental protection;
- increase public participation in decision making; and
- facilitate openness and transparency of decision-making.

SEA is required by the Environmental Assessment (Scotland) Act 2005. The key SEA stages are:

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

The purpose of this Environmental Report is to:

- provide information on The Orkney Islands Local Transport Strategy (LTS);
- identify, describe and evaluate the likely significant effects of the LTS and its reasonable alternatives; and
- provide an opportunity for the Consultation Authorities and the public to offer views on any aspect of this Environmental Report.

Key Facts Relating to the Orkney Islands Local Transport Strategy

The key facts relating to The Orkney Islands Local Transport Strategy are set out in **Table 1** below.

Table 1: Key Facts relating to The Orkney Islands Local Transport strategy

Name of Responsible Authority	Orkney Islands Council
Title of plan/programme	Orkney Islands Local Transport Strategy
What prompted the plan	Local Transport Strategies are prepared by local authorities in Scotland and submitted to the Scottish Executive on a voluntary basis since there is no legislative, regulatory or administrative provision requiring their provision. However, transportation authorities often incorporate their strategies for road traffic reduction into LTS, and these strategies are required under the terms of the Road Traffic Act
Plan subject	Transport and Travel
Period covered by plan	2007-2010
Frequency of updates	To be decided
Plan area	The LTS will cover the administrative area of the Orkney Islands and its links with the Shetland Isles and the Scottish Mainland.
Plan purpose and/or objectives	The LTS is a transport action plan for meeting local challenges and objectives. It will present roles and responsibilities, and feed into and from Regional and National Strategies, linking to other sectors where there are complementary and/or conflicting objectives. The LTS is guided by a set of objectives, which have emerged from an assessment of the problems, constraints and opportunities that face Orkney.
Contact point	Eileen Summers Graduate Transport Planner Transportation Dept of Development Services Council Offices School Place Kirkwall KW15 1NY Tel: 01856 873535 Email: eileen.summers@orkney.gov.uk

Table 2 summarises the SEA activities to date in relation to The Orkney Islands Local Transport Strategy.

Table 2: SEA activities to date

SEA Action/Activity	When carried out	Notes
Screening to determine whether the PPS is likely to have significant environmental effects	<i>November 2007</i>	Screening determination made in December 2006 following agreement with consultation bodies.
Scoping the consultation periods and the level of detail to be included in the	<i>November-December 2006</i>	Scoping report submitted for statutory consultation 04/12/06, responses received

SEA Action/Activity	When carried out	Notes
Environmental Report		04/01/07
Outline and objectives of the Transport Strategy	<i>November 2006 – January 2007</i>	Informed by public consultation which was carried out March-June 2006
Relationship with other PPS and environmental objectives	<i>January 2007</i>	Presented in Scoping Report, updated as Appendix A of this report
Environmental baseline established	<i>January - February 2007</i>	Additional advice obtained during meeting with Consultation Authorities on 07/02/07 and responses to Scoping Report. Presented as Appendix B of this report.
Environmental problems identified	<i>November-December 2006</i>	Presented in Section 3 of this report.
Assessment of future of area without the PPS	<i>February 2007</i>	Presented in Section 3 of this report.
Alternatives considered	<i>December 2006</i>	Presented in Section 4 of this report.
Environmental assessment methods established	<i>January 2007</i>	Proposed method set out in Scoping Report.
Selection of Strategy alternatives to be included in the environmental assessment	<i>December 2006</i>	The consideration of alternatives and assessment of those alternatives is detailed in this report
Identification of environmental problems that may persist after implementation and measures envisaged to prevent, reduce and offset any significant adverse effects	<i>February 2007</i>	Mitigation measures set out in Section 5 of this report.
Monitoring methods proposed	<i>February 2007</i>	Presented in Section 6 of this report.
Consultation timescales <ul style="list-style-type: none"> • Timescale for Consultation Authorities • Timescale for public 	<i>February 2007</i>	The Consultative Transport Strategy has a month-long consultation and the SEA Environmental Report a six week long consultation period.
Notification/publicity action	<i>February 2007</i>	The availability of the Local Transport Strategy document and the Draft SEA will be advertised in accordance with legislative requirements. Feedback from both the Consultation Authorities and other interested parties will be taken into account in the preparation of the Finalised document.

2. CONTEXT

Outline and objectives of The Orkney Islands Local Transport Strategy

The Local Transport Strategy concept was introduced in the Scottish Integrated Transport White Paper – Travel Choices for Scotland, in July 1998.¹ Orkney produced its first Local Transport Strategy in February 2001.² The Scottish Executive has subsequently produced updated guidance on how to develop the second round of Local Transport Strategies.³

The Orkney Islands Council was invited to work in Partnership with the Scottish Executive and the Regional Transport Partnership, HITRANS, and others, to prepare a Local Transport Strategy to cover the period 2007 to 2010.

In March-June 2006 the Orkney Islands Council undertook a consultation exercise on the key issues for the development of the new Local Transport Strategy. The purpose of this consultation was to gather responses to a series of key questions, which in turn informed the Council in preparing the draft Strategy. The draft Local Transport Strategy has now been produced for consultation purposes.

The document begins with chapters presenting an introduction and background to the Strategy. These are followed by chapters on Transport's Contribution to National, Regional and Local Policies and Objectives; and Context, Problems and Opportunities for Orkney. Chapter four sets out the Vision and Objectives for Orkney, then Chapter five contains the proposed interventions which make up the Local Transport Strategy for Orkney. The remainder of the document sets out plans for implementation of these interventions and for monitoring, evaluation and continuous improvement.

Orkney's Local Transport Strategy objectives have been strongly influenced by the transport objectives already set out by national and regional bodies, and by the Orkney Islands Council, particularly our Corporate Plan and the Community Plan. The vision for the local transport strategy is consistent with the vision of the Community Planning Partnership. The Local Transport Strategy outlines the ways in which transport can support the overarching vision for all of Orkney, and it is recognised here that transport is merely an enabler to achieve other things, namely:

- **Survival:** sustaining the viability of fragile communities as places where people can live and work; maintaining their population; safeguarding lifeline services and finding ways to participate in the global economy.
- **Social Inclusion:** providing opportunities for everyone to participate in the life of the community, whether in work, learning or society generally. To achieve this requires the removal of barriers to inclusion, such as poverty and inequality of access to services.
- **Sustainability:** achieving a balance between the environment, the economy and the community. For development to be sustainable, it must meet the needs of the present without compromising the ability of future generations to meet their own needs.

The planning objective of the Strategy is:

To promote, encourage and deliver an effective and efficient transportation network that supports the economic vitality, community well-being and environmental integrity of all of Orkney.

¹ Scottish Executive, June 2004: Scotland's Transport Future: Transport White Paper.

² Orkney Islands Council, Local Transport Strategy 2000-2003.

³ Scotland's Transport Future: Guidance on Local Transport Strategies – February 2005. Scottish Executive, Edinburgh.

The Strategy sets out the framework for the development of the transportation network in Orkney, and this development is framed around six key delivery objectives which have been developed to shape and test prospective Strategy actions.

The six delivery objectives are to:

- Ø Ensure travel opportunities meet the needs of the whole community.
- Ø Integrate various means of travel around Orkney.
- Ø Promote accessibility for all.
- Ø Increase levels of active travel.
- Ø Make travel safer.
- Ø Reduce traffic in sensitive areas.

A range of policy interventions have been considered to address the travel constraints and problems. These interventions have emerged from ongoing projects and research, from consultation with stakeholders and from drawing upon good practice from within and outwith Orkney.

The Strategy consists of a series of eleven sub-strategies, each with a set of strategy interventions:

- **Active travel:**
 1. Improve, extend and maintain the walking and cycling network
 2. Ensure that all new developments are planned and developed to be optimally accessible on foot and by cycle
 3. Encourage active travel from an early age through the provision of safe access to schools and other facilities, including educational resources and facilities for the storage of bicycles
 4. Provide accessible information on the facilities that are available and encouragement and promotion of taking advantage of the facilities
 5. Support outdoor access for all through the Core Paths network
- **Air services:**
 1. encourage network development of direct links to key national gateways
 2. ensure the services meet the social and economic needs of the isles in association with the service level provided by the inter-isles ferry services
 3. improve information and ticketing systems for air services
- **Bus services and community and voluntary transport:**
 1. review the Council's existing allocation of public transport subsidy
 2. ensure the availability of concessionary travel opportunities for those who are entitled
 3. encourage and support applications to the Rural Community Transport Initiative
 4. Kirkwall Travel Centre
 5. investigate the opportunities of developing a Transport to Employment scheme and/or a car sharing scheme

- **Ferry services, ports and harbours:**
 1. improve information and booking and ticketing systems for ferry services
 2. rationalise tariff structures
 3. improve accessibility and connectivity to/from the mainland
 4. secure the ongoing provision of lifeline services to the isles
 5. sustainable port development
- **Freight transport:**
 1. liaise with neighbouring authorities and regional transport partnerships to provide a consistent approach to freight transport, thereby maintaining and improving the accessibility of Orkney to and from its markets
 2. consult with representatives of the freight transport industry to ensure that their views are represented when considering changes to the transport network that may impact upon freight movements
 3. improve livestock shipping
- **Land use planning and development control:**
 1. encourage development in areas that are close to local services and amenities and/or are in areas that are served by public transport
 2. ensure that all significant developments are accompanied by a Transport Assessment and a Travel Plan, and seek opportunities to obtain developer contributions to the travel network
 3. ensure that the access of pedestrians, cyclists and people with mobility difficulties are prioritised in the design of new developments and existing significant car-based developments
- **Local roads and road maintenance:**
 1. ensure and up to date inventory is kept of the road network
 2. ensure that the road network is inspected
- **Smarter choices and information:**
 1. the Council commits to preparing and implementing a Travel Plan during the lifetime of this local transport strategy, and will then support others in following suit
 2. review the means by which we communicate public transport information to the public and visitors to Orkney, then subsequently develop and deliver an information improvement strategy
 3. promote and provide multi-modal information at key sites, including the new Kirkwall Travel Centre, Kirkwall Airport and Stromness Travel Centre
- **Taxis and private hire vehicles:**
 1. consider the development of a taxi-sharing scheme
 2. consider progress towards an accessible fleet for the County

3. promote the inclusion of Disability Awareness Training as part of the licensing process
- **Travelling safely:**
 1. review and update the Winter Maintenance Policy and Plan annually
 2. improve the safety of travel through a continued combination of road user education, engineering solutions and enforcement
 - **Traffic and parking:**
 1. manage traffic in and around Kirkwall
 2. manage traffic in rural areas, including at tourist attractions and viewpoints
 3. review and develop a parking strategy for Orkney

The Final Local Transport Strategy will also provide the following information in respect of the above actions:

- Estimated timescales for delivery.
- Outline estimated cost.
- Where the funding will be sourced from.
- Who is responsible for delivery, any delivery partners and any further appraisal work that needs to be undertaken.
- A link to the objectives that each measure contributes to.

The implementation plan will be reviewed on an annual basis during the lifetime of the Strategy.

The Draft Orkney Islands Local Transport Strategy can be viewed on the Council's website at http://www.orkney.gov.uk/nqcontent.cfm?a_id=6593&tt=orkneyv2

Relationship with other Plans, Programmes and Strategies and environmental protection objectives

Schedule 3 of the Environmental Assessment (Scotland) Act 2005 requires that the Environmental Report includes an outline of the PPS relationships with other relevant PPS, and how environmental protection objectives have been taken into account in the PPS preparation. This section covers these issues and describes the policy context within which the PPS operates, and the constraints and targets that this context imposes on the PPS.

This information is summarised in **Table 3: Relevant plans, programmes and strategies (PPS) and environmental protective objectives, and their relationship with The Orkney Islands Council Local Transport Strategy** which is presented as **Appendix A**.

Key points arising from this analysis include the need to:

- promote more sustainable forms of transport to help achieve the national target for reducing CO₂ emissions;
- encourage and enable active travel, e.g. cycling and walking, to improve the health of the community and to reduce harmful atmospheric emissions;
- ensure that transport is not responsible for deterioration in water, soil or groundwater quality;

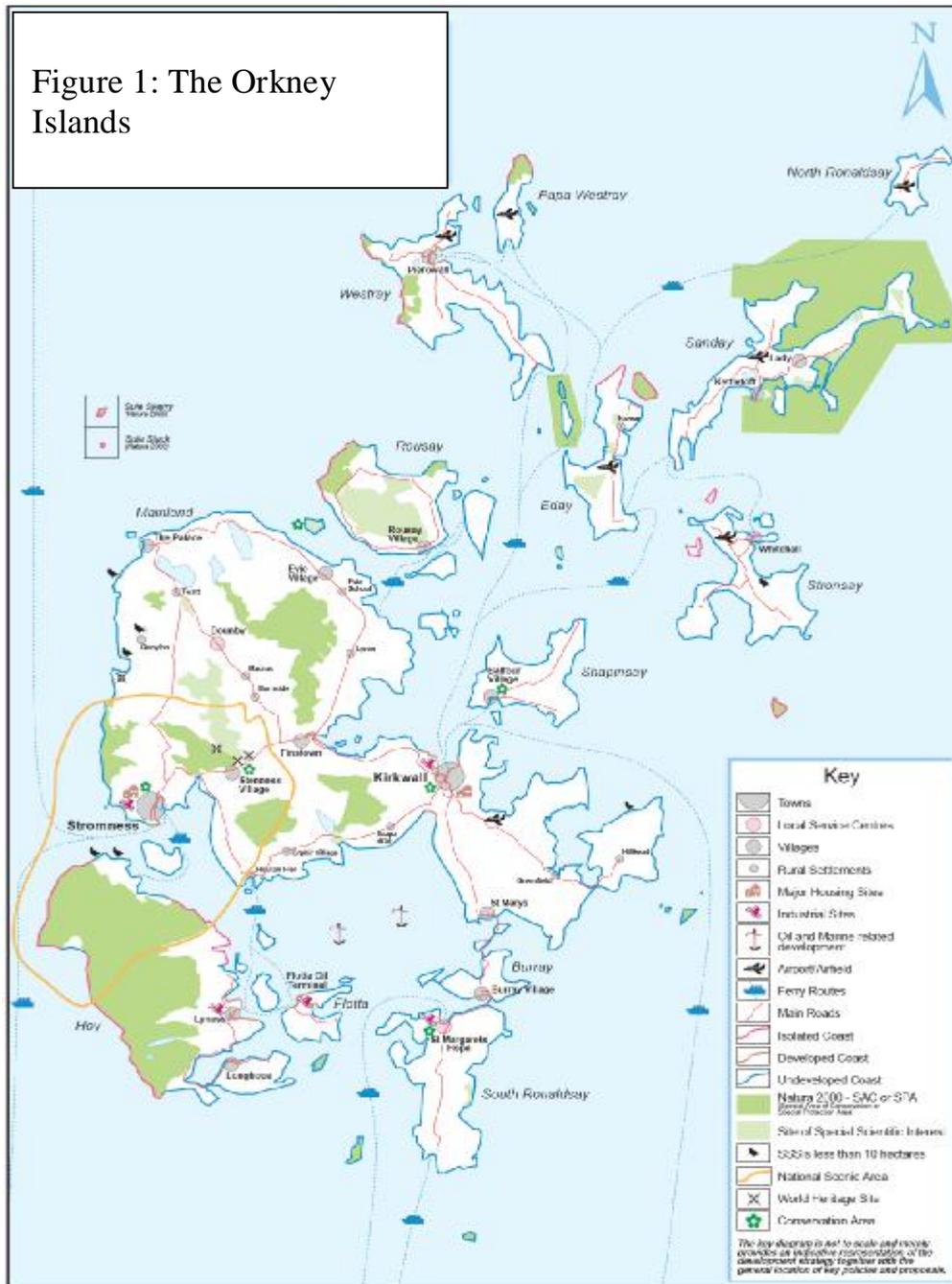
- where possible incorporate Sustainable Urban Drainage systems into any new construction works;
- consider SEPA’s policy on culverting of watercourses when planning any construction works
- maintain or improve the present standard of local air quality;
- incorporate and implement appropriate biodiversity targets and ensure that biodiversity is taken into account in fulfilling the LTS objectives, in particular species and habitats which are afforded special protection, e.g. under Natura 2000 and European Protected Species;
- assist in the promotion of development which is sustainable in the long term;
- maintain or improve the present low levels of noise due to transport;
- reduce, reuse and recycle waste;
- follow the guiding principles underpinning the National Transport Strategy and the HITRANS Regional Transport Strategy;
- reduce levels of road traffic;
- ensure travel opportunities meet the needs of the whole community;
- ensure that transport policies protect and, where possible, enhance the historic environment and encourage appropriate traffic management in a manner which is sensitive to the natural heritage and historic environment;
- contribute towards the effective management of green belt areas;
- plan for the future use of biofuels where possible;
- maintain a clean, healthy, safe and productive and biologically diverse marine and coastal environment;
- promote the transport communications of the Highlands and Islands and play an active role in the development of regional policy within the European Union;
- support the overarching vision for Orkney which is set out in Orkney’s Community Plan, 2020;
- continue development of an integrated transport infrastructure which is economically, socially and environmentally sustainable;
- promote access for everyone to a range of services and facilities; and
- provide a more sustainable and integrated transport network which contributes to a better environment

Relevant aspects of the current state of the environment

Schedule 3 of the Environmental Assessment (Scotland) Act 2005 requires that the Environmental Report includes a description of “the relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan or programme”, and “the environmental characteristics of areas likely to be significantly affected”. This section aims to describe the environmental context within which the PPS operates and the constraints and targets that this context imposes on the PPS.

An Environmental Baseline of the Orkney Islands has been compiled and is presented as **Appendix B**.

A map of the Orkney Islands showing major roads, ferry routes, settlements and sites which have been designated on account of their natural or cultural heritage importance is shown in Figure 1 below⁴.



⁴ Orkney Islands Council Structure Plan 2001

A summary of the data collected and the relevant sources are presented in Table 4 below.

Table 4: Summary of data collected in compiling an environmental baseline of the Orkney Islands

DATA	SOURCE
Information on climate change	SNIFFER, 'A handbook of climate trends across Scotland', 2006
Information on carbon dioxide emissions and contribution by transport	Defra e-Digest Environment Statistics, Global Atmosphere Scottish Executive, Key Scottish Environmental Statistics, 2006 Energy Savings Trust website. A Study into the Environmental Impact of Aviation in the Highlands and Islands Orkney Islands Council, Carbon Management Programme, 2006
Trends on car ownership in the Orkney Islands	Scottish Executive: 2001 Census
Local air quality data for Kirkwall	Orkney Islands Council Department of Environmental Health
Water quality data (freshwater and coastal)and Groundwater quality data	Scottish Environment Protection Agency (SEPA)
Data on Agricultural Land Use in Orkney during 2002 and 2005	Scottish Agricultural Census 2002 and 2005
Information on contaminated land in Orkney	Orkney Islands Council Department of Environmental Health
List of statutory and non-statutory designated natural heritage sites	Scottish Natural Heritage (SNH) and Orkney Islands Council Local Plan
List of RSPB reserves in Orkney	RSPB website
Lists of Priority habitats and species in Orkney	Orkney Islands Council Local Biodiversity Action Plan
Information on Landscape Character Assessment	Scottish Natural Heritage Review No 100, Orkney Landscape Character Assessment
Lists of Scheduled Ancient Monuments and Listed Buildings Information on Conservation Areas	Orkney Islands Council Local Plan The Orkney Islands Council Structure Plan 2001
General health of the populations of Orkney and Scotland Life expectancy of residents of the Orkney Islands over the period 2000-2005 Information on health and physical activity	Scottish Executive National Census 2001 British Heart Foundation Website www.heartstats.org Scottish Executive and NHS Health Scotland healthy Living website www.InfoScotland.com
Road accident statistics for Orkney	Scottish Executive Road Accident Statistics, 2006 www.scotland.gov.uk/Publications/2006/11/22093058/60 Statistical Bulletin Transport Series: Trn/2006/4: Key Road Accident Statistics. www.scotland.gov.uk/Publications/2006/06/15094628/10
Population change in Orkney 1992 - 2004	General Register Office for Scotland (GROS)
SIMD ranking of areas in the Orkney Islands for geographical access to services	Scottish Executive website www.scotland.gov.uk/stats/
Traffic levels in Kirkwall	Orkney Islands Council Roads Department
Source of materials used in road maintenance and fate of used road materials	Orkney Islands Council Roads Department

The following summarises the likely gaps and/or unreliability of the SEA baseline data, and how they were minimised:

- Orkney Islands Council does not measure levels of PM₁₀ as part of the air quality monitoring programme. However this is not believed to be necessary due to the measured low levels of other pollutants produced by exhaust emissions.

- There is no soil quality data available for the Orkney Islands. If in future a soil monitoring programme is established, the resulting data will be used to monitor the environmental performance of the LTS.
- Quantities of materials used on Orkney's roads are very variable from year to year and this information was not readily available. Quantities of road planings made available for recycling and quantities of road sweepings sent to Chinglebraes for remediation are included in the Environmental Baseline under the heading Material Assets.
- At first sight the SIMD ranking for the Orkney Islands may not appear to be valid as it indicates that South Ronaldsay (south) is more geographically isolated than South Ronaldsay (north). However as the ranking is based largely on access to public transport this can be explained by the fact that the public bus service stops at St Margaret's Hope in the north of the island.
- Health data is fairly subjective and can only give an indication of peoples' perception of their own health. However, it is considered a useful indicator for the purposes of this report.

Environmental problems

Schedule 3 paragraph 4 of the Environmental assessment (Scotland) Act 2005 requires that the Environmental Report includes a description of existing environmental problems, in particular those relating to any areas of particular environmental importance. The purpose of this section is to explain how existing environmental problems will affect or be affected by The Orkney Islands Local Transport Strategy, and whether the Strategy is likely to aggravate, reduce or otherwise affect existing environmental problems.

Environmental problems were identified through consideration of the responses to consultation on the Local Transport Strategy and through discussion with the Statutory Consultation Authorities Relevant environmental problems are summarised at **Table 5**.

Table 5: Environmental problems relevant to the Orkney Islands Local Transport Strategy

Problem	Supporting data	Implications
<p>Congestion problems at key times of day in the towns of Kirkwall and Stromness may, in certain weather conditions, lead to localised areas of reduced air quality.</p>	<p>Traffic level data obtained from Orkney Islands Council Department of Technical Services⁵ confirms that at key times of the day certain areas in Kirkwall experience a degree of congestion and delay on some junction approaches.</p> <p>However, air quality data obtained from Orkney Islands Council Department of Environmental Health confirms that air quality objectives for NO₂, SO₂, benzene and PM₁₀ are unlikely to be exceeded in the Orkney Islands</p>	<p>Improvements to public transport and better conditions for cycling and walking promoted in the Strategy will encourage a reduction in private car use and, hence, fewer congestion problems.</p>
<p>Most of the road network in Orkney does not feature sustainable drainage. Water and other substances drain directly from roads into ditches which, in turn, drain to other watercourses and, ultimately, the sea.</p>	<p>Water quality data from SEPA</p> <p>Of the watercourses monitored 85% are classified as A1 or A2 and there is no indication that road transport is responsible for the lower classification of the remaining 15% of watercourses monitored.</p>	<p>It is hoped that the proposed improvements to public transport which are set out in the Strategy will lead to increasing use of public transport resulting in fewer cars on the roads of Orkney. This will, in turn, lead to a decrease in pollutants such as hydrocarbons entering watercourses.</p> <p>The inclusion of sustainable drainage systems will be considered at the planning stage of any new development.</p>
<p>Construction of new infrastructure can result in damage to, or loss of, natural heritage, including the marine environment. Construction can also result in the loss or, or damage to, historic environment features or may affect their setting.</p>		<p>No major infrastructure projects are anticipated in the Strategy.</p> <p>Any marine works, such as dumping of dredge spoil, will require to be licensed under the Food & Protection Act and/or the Coast Protection Act. The subsequent consultation with bodies such as SNH and SEPA should allow identification of potential problems.</p>

⁵ Orkney Islands Council Kirkwall VISSIM Model. Model Development Report February 2006, Halcrow Group Limited.

Problem	Supporting data	Implications
Maintenance and management of existing infrastructure may affect local biodiversity such as that of roadside verges		Orkney Islands Council already has a policy on grass cutting on roadside verges. This policy is currently being reviewed.
Works involving excavation and soil disturbance cause physical damage to habitats, and if active remediation is not carried out these habitats may never return to their former condition.		The Strategy will recommend that Best Environmental Practice is followed when carrying out maintenance of the existing transport infrastructure, and that where there is uncertainty concerning the appropriate method to be employed that advice is sought from the relevant source.
The application of salt to the roads to combat icy conditions may impact upon the flora and fauna in the vicinity of roads.		Road safety must also be taken into consideration in deciding when it is necessary to salt the roads. Weather forecasts utilising thermal mapping and road sensors in Orkney will form the operational basis on which operational decisions will be made.

Likely evolution of the environment without the Orkney Islands Local Transport Strategy

Without the Orkney Islands Local Transport Strategy it is considered that the likely future changes to the area will be as follows:

- **Climate factors** -without the Local Transport Strategy greenhouse gases associated with Orkney's transport would probably be slightly less. However any reduction in emissions due to uptake of active travel also might not occur.
- **Local air quality** - local air quality is good and would remain so.
- **Biodiversity** - the impacts on biodiversity resulting from transport in Orkney would remain broadly as they are at present, although without the slightly increased disturbance to marine life from increased movement of ferries. However there may be increased road kill if numbers of cars on the roads continued to rise. There would be no improved access opportunities for people to appreciate the natural environment.
- **Water and soil** - It is possible that more salt from road treatment during winter would enter the water and soil environments without annual reviews to the Winter Road Maintenance Policy and Plan.

- **Landscape** -there would be no change to the landscape due to transport.
- **Cultural heritage** - it is not anticipated that there would be any direct impact on cultural heritage sites. However there would be no improved access to cultural heritage sites.
- **Population** - transport is a vital element in sustaining the economy and social services of the smaller islands. Without continuing improvements to the transport service it is probable that the current trend of migration to the mainland of Orkney would continue. Some economic development activities may not be realised without improved links which in turn may affect population levels.
- **Human health** – the health of residents of the Orkney Islands would probably remain as it is. Proposals for improvements to public transport and for cyclists and pedestrians would not be implemented resulting in poorer accessibility and fewer opportunities for exercise. Road safety schemes would not be implemented without the Strategy.
- **Material assets** - transport is linked to development. Improved transport links may facilitate further development of land, for example in the construction of housing or establishment of businesses or leisure activities. Without the Strategy it is possible that certain developments might not go ahead.

SEA Objectives

The SEA objectives shown in **Table 6** address each of the required SEA Directive issues: climatic factors, local air quality, biodiversity, water, soil & geology, landscape, cultural heritage, human health, population and material assets.

Table 6: SEA Objectives

	Objective	SEA issue	Indicators
1.	To minimise output from transport of CO ₂ emissions which contribute to climate change	Climatic effects	Predicted emissions of CO ₂ from transport.
2.	To maintain a good standard of air quality	Local air quality	NO ₂ annual mean. SO ₂ annual mean. PN ₁₀ annual mean. Traffic congestion levels.
3.	To protect, maintain and, where possible, enhance biodiversity and to improve opportunities for people to appreciate the natural environment	Biodiversity	Statutory & non-statutory designated sites. BAP action plans. Protected species and their habitats. Condition of roadside verges. Access to the natural environment.
4.	To protect and maintain the quality of water bodies, wetlands and floodplains	Water, soil & geology	Water quality data for <ul style="list-style-type: none"> • inland waters • coastal waters • groundwater Information on flooding episodes
5.	To safeguard soil quality and quantity		Area of agricultural land Information on contaminated land
6.	To protect and enhance the quality and distinctiveness of the area's	Landscape	Landscape Character / quality. Retention of features of landscape value

	Objective	SEA issue	Indicators
	landscape and townscapes		(hedges, verges, trees, stone walls etc.)
7.	To preserve historic buildings, archaeological sites and other culturally and historically important features and to improve opportunities for people to appreciate the historic environment	Cultural heritage	Scheduled Ancient Monuments Listed Buildings. Conservation Areas. Historic Gardens and Designed Landscapes. Other sites of known or unknown archaeological importance.
8.	To protect human health through the promotion of active lifestyles and improvements to road safety	Human health	Health deprivation statistics. Age expectancy of men and women in the Orkney Islands Road accident statistics.
9.	To improve accessibility and reduce social exclusion	Population	Access to facilities, schools, health, employment, recreation etc. Population statistics for the Orkney Islands
10.	To reduce, reuse and recover waste	Material assets	Source of road materials – locally sourced where possible. Quantity of road materials reused or made available for recycling.

3. ASSESSMENT OF ENVIRONMENTAL EFFECTS AND MEASURES ENVISAGED FOR PREVENTION, REDUCTION AND OFFSET OF ANY SIGNIFICANT ADVERSE EFFECTS

Alternatives to which SEA was applied

Three alternatives to the present Strategy were considered and a broad outline of each is presented in Table 7.

Table 7: Alternatives to the Orkney Islands Local Transport Strategy

Alternative	Implications for the Local Transport Strategy
Do minimum scenario	Assessment of the current plan without revision. The transport system would increasingly become inefficient and ineffective.
Unrestrained service development including a substantial increase in air and ferry services and demand-led provision of road space	The Strategy would contain significant additional air and sea routes and significant road building / parking provision to meet the demand and desires for additional capacity
Improved efficiency and effectiveness of transport and the transportation system	Assessment of the environmental impacts against the objectives set out in this Local Transport Strategy and consideration of the best way to mitigate against adverse impacts.

Assessment methods

The reasonable alternatives described above have been assessed against the range of environmental issues set out in Schedule 3 of the Environmental Assessment (Scotland) Act 2005. Comments from the Consultation Authorities (SNH, SEPA and The Scottish Ministers (Historic Scotland) have been taken into account regarding the methods, scope and level of detail in this Environmental Report.

The potential impacts of these alternatives on the SEA issues are assessed in Table 8 below.

Table 8: Assessment of the three alternatives to the Orkney Islands Local Transport Strategy

Alternative Strategy	ASSESSMENT CRITERIA									
	Climate factors	Local air quality	Water, soil & geology	Biodiversity	Landscape	Cultural heritage	Population	Human health	Material assets	
1. Do minimum scenario	□	□	□	□	□	□	?/ #	□	□	
2. Unrestrained service development	#	#	#	#	#	?	Ü	?	#	
3. Improved efficiency and effectiveness of transport and the transportation system	#	Ü	Ü	Ü	□	Ü	Ü	Ü	#/Ü	

KEY TO SYMBOLS

Ü = significant positive environmental effects, # = significant negative environmental effects,

□ = no significant environmental effects, ? = Don't know

Alternative 1 is the lowest cost and most easily deliverable strategy and mitigation would not be required of the impacts of the current transport and transportation network and system. However, over time, the system would become increasingly inefficient and ineffective. Without improvements to the transport service it is probable that depopulation of the Isles, already a problem, would continue and certainly increase.

Alternative 2 would have the greatest impact upon social and economic outcomes as connectivity would be maximised between the Isles and the Orkney mainland, between the Scottish mainland and internally between our towns and villages. However unrestrained service development is the least sustainable option and would also have the greatest negative impact on environmental outcomes. Substantial increases in air and ferry services would result in negative impacts on climate effects and local air quality through increases in atmospheric emissions. Demand-led provision of road space would lead to negative impacts upon water, soil and geology, and would result in loss and fragmentation of habitats and subsequent loss of biodiversity. Road construction and increased traffic levels would also result in negative impact on the landscape and increased use of material assets such as aggregates from quarries. Furthermore, this option includes no encouragement towards increased uptake of active travel and the health benefits which it brings.

Alternative 3 would have a significant impact upon social and economic outcomes and offers the most efficient use of the available funding. The planned improvements to the efficiency and effectiveness of Orkney's transport and transportation system will add to the environmental sustainability of the service as a whole.

Of the nine key Priorities for Action in Orkney Islands Council's Corporate Strategic Plan the two priorities with specific relevance to the Local Transport Strategy are:

- Pursue the development of an integrated transport infrastructure which is economically, socially and environmentally sustainable.
- Progress modernisation of services in pursuit of continuous improvement in efficiency and best practice.

Alternative 3 accords with both of these priorities as it will result in a Strategy which will improve the efficiency of the existing transport service whilst also facilitating a modal change to more sustainable means of travel. Alternative 3 is the preferred Strategy approach.

Assessment of the Orkney Islands Local Transport Strategy

The full range of strategy interventions contained in each part of the Orkney Islands Local Transport Strategy was assessed using the framework shown below. The results of these assessments are presented in full as **Appendix C**.

OBJECTIVE/ COMPONENT OF PPS	ASSESSMENT CRITERIA									Comments overall assessment including information on: secondary, cumulative or synergistic effects or effects on existing environment
	1. Climatic factors	2. Local air quality	3. Biodiversity	4. Water, soils & geology	5. Landscape	6. Cultural heritage	7. Human health	8. Population	9. Material assets	
KEY ☺ = positive environmental effects, # = negative environmental effects, ☐ = no environmental effects, ? = don't know LT = LONG TERM MT = MEDIUM TERM ST = SHORT TERM										

Each individual strategy intervention was assessed against the SEA issues using the SEA objectives as assessment criteria. The recommended procedure was to note only **significant** environmental impacts; however this might have resulted in the omission of certain impacts, especially as the Local Transport Strategy is relatively short term in nature. The procedure followed has been therefore to identify all potential impacts, describing them as either positive or negative and stating the timescale over which they would occur (short, medium or long-term).

The SEA environmental assessment process involves:

- Predicting the **potential environmental effects** of each policy
- Determining the likely **magnitude** of the effects and the **sensitivity** of receptors
- Evaluating the **significance** of the effects of implementation
- Predicting the **cumulative effects** of the policies
- Developing **mitigation** measures to prevent, reduce or offset effects
- Revising assessment taking into account agreed mitigation measures

The high level objectives of the Strategy were assessed against the environmental objectives using the framework shown earlier and presented in **Table 9** below

Table 9: Assessment of the Local Transport Strategy high level objectives

High level objectives of Local Transport Strategy	ASSESSMENT CRITERIA									
	Climatic factors	Air	Biodiversity	Water, soil etc	Landscape	Cultural heritage	Human health	Population	Material assets	
Ensure travel opportunities meet the needs of the whole community	#	#	ü/#	ü/#	□	?	ü	ü	□	
Integrate various means of travel around Orkney	□	□	□	□	□	□	ü	ü	□	
Promote accessibility for all	□	□	□	□	□	?	ü	ü	#	
Increase levels of active travel	ü	ü	ü/#	ü/#	ü	?	ü	□	ü/#	
Make travel safer	□	□	ü/#	ü/#	□	?	ü	ü	□	
Reducing traffic in sensitive areas	□	ü	□	□	ü	ü	ü	ü	□	
<p>KEY: ü= positive environmental effects, # = negative environmental effects, □ = no environmental effects, ? = DON'T KNOW</p>										

Assessment of the Orkney Islands Local Transport Strategy – cumulative effects

A summary of the assessment of the individual strategy interventions and their cumulative effects is shown in **Table 11** below.

Table 11: Assessment of cumulative effects

SEA topic	Orkney Islands Local Transport Strategy intervention aspects											Potential cumulative impact of PPS
	1	2	3	4	5	6	7	8	9	10	11	
Climatic factors	++	-/0	+/0	-/0	0	++	0	++	+/0	+/0	+/0	Slight positive effect
Air	++	-/0	+/0	0	0	++	0	++	+/0	+/0	+/0	Slight positive effect
Biodiversity	+/-	0	+/0	+/-/0	+/0	++	+/-/?	++	0	+/-	+/-/0	Slight positive effect
Water, soil etc	+/-	-/0	+/0	+/-/0	+/0	+/-	+/-/0	++	0	+/-	+/-/0	Slight positive effect
Landscape	+/0	0	0	+/0	0	+/0	-/0	++	0	0	++	Overall neutral effect
Cultural heritage	?/0	?/0	?/0	?/0	0	+/0	-/0	++	0	?/0	+/?	Overall neutral effect
Human health	++	+/0	+/0	+/0	0	++	++	++	++	++	+/0	Positive effect
Population	++	++	++	+/?/0	+/0	++	+/0	++	++	++	+/-/?	Positive effect
Material assets	+/-/0	-/0	0	+/-/0	+/0	+/-	+/-	+/0	0	+/0	+/-/0	Overall neutral effect

KEY:

++ = strongly positive, + = positive, - - = strongly negative, - = negative, 0 = neutral, ? = uncertain

INTERVENTION ASPECTS:

- | | |
|--|---|
| 1. Active travel | 7. Local roads & maintenance |
| 2. Air services | 8. Smarter choices & travel information |
| 3. Bus services & community transport | 9. Taxis & private hire vehicles |
| 4. Ferry services, ports & harbours | 10. Travelling safely |
| 5. Freight transport | 11. Traffic & parking |
| 6. Land-use planning and development control | |

Cumulative effects on SEA topic can be identified by 'reading across'

Summary of assessment of cumulative effects

Where all interventions of a sub-strategy are forecast to result in either positive or negative impact on an SEA issue its impact is described in Table 11 as either strongly positive or strongly negative.

Where all interventions of a sub-strategy are forecast to have a neutral or unknown impact its impact on an SEA issue is described as neutral or unknown.

Where the impacts of interventions of a sub-strategy on an SEA issue will be mixed or are unknown these mixed impacts or unknowns are all shown in Table 11.

The overall impact is assessed by counting the numbers of each symbol present in each row. This method has the advantage of acknowledging all impacts identified but also has the disadvantage of not quantifying the relative magnitude of these impacts.

Climatic factors and Local Air Quality

Although negative effects are forecast from possible minor increases in the air and internal ferry services to the islands, the cumulative effect of the Strategy interventions is assessed to be slightly positive for these SEA issues. This is due to the potential positive effects from anticipated modal change from use of the private car to use of public transport and also participation in Active Travel. However, although it is possible that the additional emissions caused by a further daily Kirkwall to Glasgow rotation and an additional weekly ferry sailing to North Ronaldsay could be more than compensated for by emissions savings from a reduction in numbers of private cars on the roads, realisation of these objectives, and hence a positive effect on climatic factors and local air quality will depend on changes in the travelling behaviour of the community.

In this instance the policy is justified on population and health grounds as well as by its positive effects on the economy and social inclusion.

Biodiversity, Water and Soils

Again a slight positive cumulative effect is forecast for these SEA issues, largely due to the anticipated modal change mentioned above but also to the inclusion of measures which will improve road safety and a planned review of speed limits in the county. However, where interventions will result in excavation or construction works there is potential for negative effects. Appropriate Assessment has also been applied to the potential negative impact from intervention FPH3 on Natura sites in order to ascertain the magnitude of that impact and to identify mitigative measures.

Landscape and Cultural Heritage

The assessments for these SEA issues forecast an overall neutral effect for both but, in the case of Cultural Heritage, there is a considerable degree of uncertainty due to the potential for damage to occur to buried archaeological if excavation works are required. Also certain traffic management measures could impact negatively on the character of townscapes or historic landscapes.

Human Health and Population

The cumulative assessments for these issues are broadly positive.

Material Assets

Although the cumulative effect for material assets is neutral the numbers of positive, negative and neutral assessment results are very similar. This is largely due to the definition in this SEA of material assets as both raw materials resulting from mineral extraction and also aspects of the transport structure such as roads, footpaths, cycle-ways and piers. In order to improve aspects of the transport infrastructure and therefore access for the travelling public there is negative impact on natural resources such as sand and quarried stone.

Measures envisaged for the prevention, reduction and offsetting of significant adverse effects

Schedule 3 paragraph 7 of the Environmental Assessment (Scotland) Act 2005 requires an explanation 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.” **Table 12** sets out any environmental problems that are likely to remain on implementation of the PPS and summarises proposed measures for the prevention, reduction and offset of significant adverse effect.

Table 12: Mitigating measures envisaged for the prevention, reduction and offsetting of any significant adverse effects

Issue/Impact identified in ER	Mitigation Measure	Lead Authority	Proposed timescale
Increasing levels of greenhouse gases	Studies will be undertaken into: <ul style="list-style-type: none"> • Use of alternative fuels, inc. biofuels • The efficiency of ferry engines • Driver training options; The Council’s Department of Technical Services already participates in driver training programmes which are promoted by the Association of Public Service Excellence • The introduction of energy conservation measures for the Council’s own fleet of vehicles and as part of passenger transport developments. All vehicles of the Department of Technical Services have Euro 4 compliant diesel engines • Pool cars for Council departments • Use of IT solutions • Hybrid/electric vehicles 	Orkney Islands Council	Measures which are not already in place will be implemented during the course of the Strategy
Localised congestion occurs at key times of the day, mainly when people are travelling to and from work, and especially in the towns of Kirkwall and Stromness.	A number of the sub-strategies, e.g. Active Travel, Bus Services and Community & Voluntary Transport and Smarter Choices, include interventions which will encourage a reduction in use of the private car through increasing the attractiveness of walking, cycling and using public transport and by the preparation of Travel Plans. Both towns will also benefit from implementation of Traffic and Parking intervention TP3, <i>Review and develop a parking strategy for Orkney</i> . The congestion problems in Kirkwall, the larger of the two towns which suffers worst, are also addressed in the Traffic and Parking sub-strategy by intervention TP1, <i>Manage traffic in and around Kirkwall</i> .	Orkney Islands Council	During the course of the Strategy
Most of the road network in Orkney does not feature sustainable drainage, and	The sub-strategies mentioned above (walking, cycling, public transport etc.) aim to reduce the number of private cars on roads throughout Orkney and this would in turn result in lower levels of pollutants in road run-off.	Orkney Islands Council	During the course of the Strategy

Issue/Impact identified in ER	Mitigation Measure	Lead Authority	Proposed timescale
water and other substances drain directly from roads into ditches.	As part of the Strategy the inclusion of sustainable drainage systems will be considered at the planning stage of any new development.	Orkney Islands Council	Throughout the Strategy period
The application of salt to the roads to combat icy conditions may impact upon the flora and fauna in the vicinity of roads.	Intervention TS1, <i>review and update the Winter Maintenance Policy and Plan annually</i> , which forms part of the Travelling Safely sub-strategy, describes how operational decisions made by the Roads Operations Section will be informed by weather forecasts using thermal mapping and road sensors. This will help avoid over use of salt on the roads.	Orkney Islands Council	During the course of the Strategy
	Operators also receive regular training in the calibration of mechanical spreaders.	Orkney Islands Council	Training is already in place
<p>Construction of new infrastructure can result in damage to, or loss of, natural heritage, including the marine environment.</p> <p>Decline of habitats and species may occur through fragmentation of the countryside.</p>	<p>New developments should avoid SSSIs and other sensitive sites. Design / implementation of schemes should mitigate or improve biodiversity (e.g. better connection of green corridors, incorporation of otter runs) as well as wildlife protection measures.</p> <p>In the construction of new and upgraded roads, the LTS promotes the use of principles of ‘Best Practical Environmental Option’ to ensure that, where possible, environmental enhancement is included in schemes, rather than simply mitigation and reduction of adverse effects. Where there is uncertainty concerning the appropriate method to be used, advice will be sought from the relevant source.</p> <p>Local Plan Policy LP/T3 Roads states that “The Council will seek to ensure that: (I) the construction of new roads or (II) road improvements in environmentally sensitive areas, are undertaken in a manner which is sensitive to the natural heritage (including landscape character) and/or historic environment of the surrounding area.</p> <p>The LTS promotes development of a policy on the disposal at sea of dredge spoil, such that disposal of dredge spoil should be carried out in areas where it will not impact negatively upon vulnerable marine habitats or the activities of other users of the sea.</p>	Orkney Islands Council	During the course of the Strategy
Road traffic travelling at speed is hazardous to wildlife. European	<p>Orkney Islands Council is not aware of road kill presently being a significant issue for otter.</p> <p>However, several years ago, the Roads Department</p>		

Issue/Impact identified in ER	Mitigation Measure	Lead Authority	Proposed timescale
Protected Species, otter is a potential victim of road kill. Is Orkney Islands Council aware of this being a significant issue for otter?	erected otter crossings on the verges alongside the A961 at Echnaloch in Burray and the A967 close to Loch of Clumley in Sandwick. These consist of fencing posts with reflective triangles attached, and act as a warning to otters during hours of darkness by reflecting the lights of oncoming vehicles.	Orkney Islands Council	Already in place
Works involving excavation and soil disturbance cause physical damage to habitats and, if active remediation is not carried out, these habitats may not return to their former condition	The principles of 'Best Practical Environmental Option' will be followed and, if appropriate, habitat remediation will be included in any works.	Orkney Islands Council	During the course of the Strategy
Maintenance and management of existing infrastructure may affect local biodiversity, e.g. that of roadside verges.	As part of the Strategy a tailored policy for timing the mowing of roadside verges to allow certain plants to flower has been developed. It is proposed that all main A Class roadside verges will be cut three times per year and all other roads, with the exception of conservation verges, will be cut twice per year.	Orkney Islands Council	During the course of the Strategy
Construction or maintenance work has the potential to result in increased suspended solids in watercourses. Further causes of damage or disruption to the habitats of watercourses are engineering works such as culverting or realignment of streams.	Any engineering works which could impact upon the water environment require to be authorised under the Water Environment (Controlled Activities) (Scotland) Regulations 2005 (CAR). Engineering or road maintenance works should be carried out according to SEPA's Pollution Prevention Guidelines relating to construction and CAR. If culverting or realignment of streams is considered, SEPA's policy on The Culverting of Watercourses should be consulted.	Orkney Islands Council	These practices are, and will continue to be, followed.

Issue/Impact identified in ER	Mitigation Measure	Lead Authority	Proposed timescale
<p>Excavation work has the potential to disturb and damage archaeological remains.</p> <p>Negative effects on the historic environment may arise from the provision of smaller scale infrastructure such as lighting, street furniture, traffic calming measures or signage as well as from new or improved larger scale infrastructure.</p>	<p>Local Plan Policy LP/T3 Roads states that “The Council will seek to ensure that: (I) the construction of new roads or (II) road improvements in environmentally sensitive areas, are undertaken in a manner which is sensitive to the natural heritage (including landscape character) and/or historic environment of the surrounding area.</p> <p>All new transport schemes should be designed to avoid adverse effect on historic environment features and their setting, and schemes should be appropriate to the character of the townscape or Conservation Area.</p>	Orkney Islands Council	During the course of the Strategy
Use of non-renewable resources (aggregates)	The Roads Department currently transports road planings and other construction waste to Cursiter Quarry from where they are sold as recycled materials. Quarry and road construction resources are being reviewed which will include consideration of internal use of recycled materials in preference to making these available to the wider community.	Orkney Islands Council	Under review 2007-08

5. MONITORING

Section 19 of the Environmental Assessment (Scotland) Act 2005 requires the Responsible Authority to monitor significant environmental effects of the implementation of the PPS. This must be done in such a way as to identify unforeseen adverse effects and to take appropriate remedial action.

The following activities were undertaken to establish the monitoring approach:

Data from sources which are updated on a regular basis was selected for the monitoring programme. Where there is no data easily available it was decided to discuss relevant monitoring methods. The proposed SEA monitoring activities are set out in **Table 13**.

Table 13: Proposed SEA monitoring programme

What is being monitored	Data source, frequency of monitoring	Summary of proposed remedial action by OIC (if information is available)	Timescale and responsibility
Climate effects	Annual fuel consumption of: <ul style="list-style-type: none"> • Orkney Coaches • Orkney Ferries • Orkney’s internal air service 	Methods of reducing fuel consumption are being researched	Annual OIC
Climate effects	Weather-related disruption to travel, e.g. flooding and flight cancellation		Annual OIC
Local air quality	Annual Local Air Quality Management Progress Reports	Air quality limits for transport emissions are unlikely to be exceeded but will continue to be monitored	Annual OIC
Biodiversity	Reported damage to protected sites (SAC, SPA, SSSI) caused by transport-related activities	Information regarding protected sites in Orkney will be distributed to transport operators and relevant OIC departments	Annual SNH
Biodiversity	Number of successful licence applications for derogations of the Habitats Directive to disturb European Protected Species		Annual SNH and SEERAD
Biodiversity	Achievement of LBAP targets (LBAP currently under development)		Annual OIC
Water	Water pollution events related to transport (Baseline data specific to transport not currently available)		Annual SEPA
Water	Percentage of new road length incorporating SUDS features		Annual OIC
Water	Number of flooding events to affect transport infrastructure		Annual OIC
Soil	No monitoring at present		
Landscape	Proportion of transport projects accompanied by outline landscape design (baseline data not currently available)		Annual OIC
Cultural heritage	Number of applications for Scheduled Monument Consent, related to transport		Annual Historic Scotland
Cultural	Number of applications for Listed		Annual

What is being monitored	Data source, frequency of monitoring	Summary of proposed remedial action by OIC (if information is available)	Timescale and responsibility
heritage	Building Consent (inc. demolitions), related to transport		Historic Scotland
Human Health	Road accident statistics	Implement intervention TS2 of the Travelling Safely sub-strategy	Annual OIC
Human Health	Physical activity – travel to work/study mode	Carry out an annual survey of travel to work/study	Annual OIC
Human Health	Numbers of passengers travelling to World Heritage Site by public transport - access to Historic sites	If demand exists, service may be increased	Annual OIC
Population	Population statistics from General Register Office for Scotland		Annual OIC
Material assets	Road planings and construction waste re-used	Under review	Annual OIC
Material assets	Road planings and construction waste made available for re-sale	Under review	Annual OIC
Material assets	Road sweepings sent to Chinglebraes and Bossack for decontamination and landfill		Annual OIC

6. NEXT STEPS

Table 13 lists future milestones in the development of the PPS and its SEA, and the dates when these are expected to be completed.

Table 13: Anticipated plan-making and SEA milestones

Expected date	Milestone
20 February 2007	Environmental Report consultation period commences
3 April 2007	<i>Consultation deadline</i>
5 April 2007	<i>Meeting to approve Orkney Local Transport Strategy</i>
April 2007	<i>Publication of Orkney Local Transport Strategy</i>
April 2007	<i>Post adoption SEA statement</i>