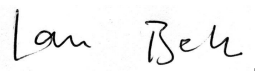


**Strategic Environmental Assessment of the Renfrewshire Local Transport Strategy**  
Post-Adoption SEA Statement

Renfrewshire Council  
April 2007

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Strategic Environmental Assessment of the Renfrewshire Local Transport Strategy

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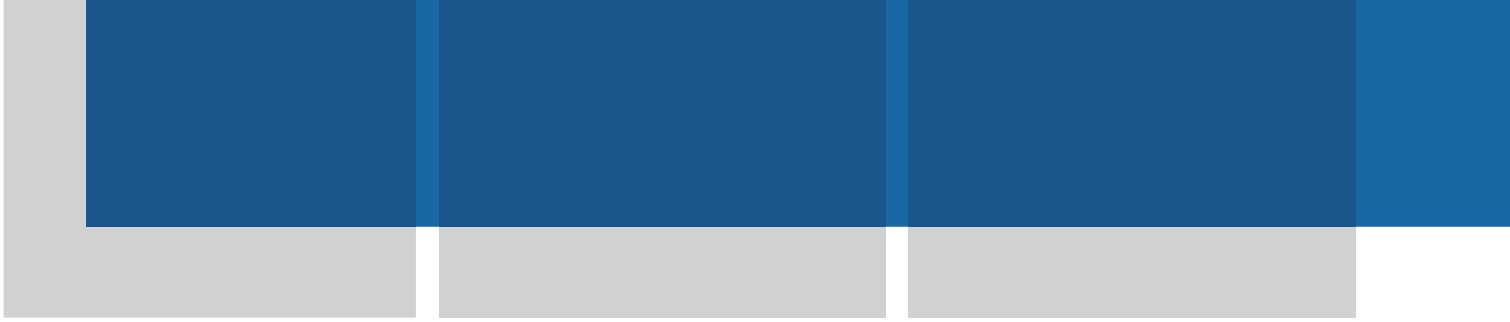
Reference IEDE

April 2007

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# 1 SEA Process

## 1.1 The Renfrewshire Local Transport Strategy

Renfrewshire Council's previous Local Transport Strategy (LTS) was published in 2000 and set out the Council's aims, actions and targets for tackling transport issues. In line with guidance from the Scottish Executive<sup>1</sup>, the Council reviewed this strategy and published the updated draft Renfrewshire LTS in January 2007. Following a period of public consultation, the final LTS was adopted by Renfrewshire Council in Spring 2007.

The LTS sets out the Council's intentions for transport, the updated strategy provides the policy basis for new and existing infrastructure.

## 1.2 Strategic Environmental Assessment

The Renfrewshire LTS has been subject to a Strategic Environmental Assessment (SEA), as required under the Environmental Assessment (Scotland) Act 2005, also known as the 'SEA Act'. The SEA has included the following activities:

- Taking into account the views of the Scottish Environment Protection Agency, Scottish Natural Heritage and the Scottish Ministers (Historic Scotland) regarding the scope and level of detail that was appropriate for the Environmental Report (ER);
- Preparing an ER on the likely significant effects on the environment of the draft LTS which included consideration of:
  - the baseline data relating to the current state of the environment;
  - links between the LTS and other relevant strategies, policies, plans, programmes and environmental protection objectives;
  - existing environmental problems affecting the LTS;
  - the strategy's likely significant effects on the environment (positive and negative);
  - measures envisaged for the prevention, reduction and offsetting of any significant adverse effects;
  - an outline of the reasons for selecting the alternatives chosen; and
  - monitoring measures to ensure that any unforeseen environmental effects will be identified allowing for appropriate remedial action to be taken;
- Consulting on the draft LTS and ER;
- Taking into account the ER and the results of consultation in making final decisions regarding the LTS; and
- Setting out a programme to monitor the significant environmental effects of the implementation of the LTS. This also aims to identify unforeseen adverse significant environmental effects and enable appropriate remedial action to be taken.

## 1.3 This Post-Adoption SEA Statement

Part 3, subsection 18 of the SEA Act requires a statement to be produced following the adoption of the LTS. It states that this should include the following information:

- a) *how environmental considerations have been integrated into the plan or programme;*
- b) *how the environmental report has been taken into account;*
- c) *how the opinions expressed in response to the invitations mentioned in section 16 have been taken into account;*

<sup>1</sup> Scotland's Transport Future: Guidance on Local Transport Strategies, 2005

- d) *how the results of any relevant consultation under regulation 14 of the Environmental Assessment of Plans and Programmes Regulations 2004 (S.I. 2004/1633) have been taken into account;*
- e) *the reasons for choosing the plan or programme as adopted, in the light of the other reasonable alternatives considered; and*
- f) *the measures that are to be taken to monitor the significant environmental effects of the implementation of the plan or programme.*

The purpose of this Post-Adoption SEA Statement is to meet the above requirements of the SEA legislation. To demonstrate that these legislative requirements have been met, each of the above points is referred to directly in the relevant chapters of this statement.

## 2 Addressing Environmental Considerations

### 2.1 Introduction

The negative environmental effects of the LTS were predicted through the SEA process and were reported in the ER. The ER also included a list of ‘environmental problems’ which were identified through initial consultation with Renfrewshire Council Officers, SEPA, SNH and Historic Scotland.

The purpose of this chapter of the Post-Adoption SEA Statement is to address the following requirements of the SEA Act:

- a) *how environmental considerations have been integrated into the plan or programme; and*
- b) *how the environmental report has been taken into account.*

This chapter highlights how predicted impacts and environmental problems were taken into account. For the purposes of this report, environmental problems and predicted environmental effects are referred to collectively as ‘environmental considerations’.

### 2.2 How Environmental Considerations have been Addressed

Environmental considerations have been addressed both through the inclusion of LTS actions and through Renfrewshire Council’s commitment to implementing mitigation measures. These mitigation measures are listed in full in Section 5 of this report.

Table 2.1 below sets out the environmental considerations and highlights the LTS actions or mitigation measures that have been developed to address them.

**Table 2.1 Addressing Environmental Considerations**

Environmental Considerations and Findings from the Environmental Report	How Environmental Considerations have been Addressed
<p><b>Biodiversity</b></p> <p>The ER identified the potential for negative residual effects (i.e. following implementation of mitigation measures) on designated areas due to the construction of major transport infrastructure. Of greatest significance is the potential for negative effects on the Black Cart SPA and/or Inner Clyde SPA due to the construction of the Renfrew North Development Road, Fastlink and the Paisley South Cycle Link (see ER Section 4.6.1).</p>	<p>The LTS contains a number of actions to promote biodiversity. In addition, mitigation measures were developed to address impacts on biodiversity (see Section 5.1.2). The following mitigation measures specifically addresses potential impacts on the SPAs:</p> <p>‘Potential Impacts on the integrity of Natura 2000 sites (or proposed Natura 2000 sites) will in the first instance be prevented by locating transport activities likely to cause disturbance away from such sites. Where activities could directly, indirectly or in combination with other proposals affect the interests of a Natura site, the proposals will be screened for the potential for significant effects to the interests of the site in consultation with SNH. If the screening indicates potential for significant effects studies will be completed to inform an Appropriate Assessment’.</p>

Environmental Considerations and Findings from the Environmental Report	How Environmental Considerations have been Addressed
<p>There ER identified the following potential environmental problems related to transport:</p> <ul style="list-style-type: none"> <li>■ Effects on species due to noise, vibration and light</li> </ul>	<p>The LTS does not itself address street lighting or associated light pollution. It does however state that the Council will ‘bring forward a strategy to address street lighting’. As stated in the mitigation section (Section 5.1.3), ‘The forthcoming street lighting strategy will include measures to reduce light pollution’.</p> <p>The following mitigation measure was developed to address noise issues: ‘Noise impacts will be mitigated through appropriate acoustic screening, where this is appropriate, taking into account the local environment’</p>
<ul style="list-style-type: none"> <li>■ Construction effects on integrity of wildlife corridors</li>   <li>■ Clearance of trees and habitats adjacent to railways</li>   <li>■ Road kill</li> </ul>	<ul style="list-style-type: none"> <li>■ Mitigation (Section 5.1.2) includes measures to enhance biodiversity, including the creation of greenways and wildlife corridors and the following commitment: ‘In the early stages of developing transport corridors, consideration will be given to the provision of wildlife access corridors’.</li>   <li>■ The Council have no control over maintenance of railways.</li>   <li>■ The LTS includes the following action to address road kill: ‘Identify locations where animals conflict with traffic and where possible provide safe crossing facilities (i.e. tunnels) or warnings to drivers’.</li> </ul>
<ul style="list-style-type: none"> <li>■ Pollution effects on species/habitats due to run-off from transport infrastructure</li> </ul>	<p>The following mitigation measure addresses this problems: ‘Transport schemes and improvement works will implement appropriate means to minimise pollution from surface run-off e.g. oil separators and silt traps’ (Section 5.1.5), as well as another measure to promote the use of SUDS.</p>
Landscape and Visual Amenity	
<p>The ER identified the potential for significant negative residual effects on landscape character and visual amenity due to actions promoting major infrastructure, namely the Renfrew North Development Road, Fastlink and road infrastructure associated with the Bishopton ROF development. In addition, the LTS contains a number of actions for studies into the need for further infrastructure. These have the potential for significant negative effects, however, at this stage it is not known whether projects will be taken forward and therefore if the negative effects will occur.</p>	<p>Sections 5.1.3 and 5.1.4 and of this report focus on mitigating the effects of major and minor infrastructure, through appropriate design and location. Section 5.1.2 and the biodiversity actions of the LTS also address enhancements habitat creation, which have the potential for positive effects on landscape.</p>
<p>The ER identified the potential for negative cumulative effects on landscape/streetscape character from the provision of small-scale infrastructure, such as footways and cycleways.</p>	
<p>There ER identified the following potential environmental problems</p>	

<b>Environmental Considerations and Findings from the Environmental Report</b>	<b>How Environmental Considerations have been Addressed</b>
<p>related to transport:</p> <ul style="list-style-type: none"> <li>■ Upgrading of existing transport corridors can negatively affect landscape character by introducing urban elements to rural areas</li> </ul>	
<ul style="list-style-type: none"> <li>■ Light pollution from street lighting can result in negative effects on landscape character and visual amenity</li> </ul>	<p>The LTS does not address street lighting or associated light pollution but states that the Council will 'bring forward a strategy to address street lighting'. As stated in the mitigation section (Section 5.1.3), 'The forthcoming street lighting strategy will include measures to reduce light pollution'.</p>
<b>Cultural Heritage</b>	
<p>The ER identified the potential for significant negative effects on the historic environment due to the provision of new transport infrastructure, or through upgrades to existing infrastructure. Negative effects are possible through direct effects on historic buildings, features or archaeology or on the setting of such features.</p>	<p>Effects on historic buildings and features will be dependent on the precise locations of new or upgraded infrastructure. Specific impacts of major projects will be addressed through Environmental Impact Assessments (EIA).</p> <p>More generic mitigation measures have been developed to address impacts, particularly for the provision of small-scale infrastructure which is unlikely to require EIA (see Section 5.1.4).</p>
<p>The ER identified the potential for negative cumulative effects on the historic environment through the provision of small-scale infrastructure, such as footways, cycleways and signage. Effects on the setting of historic features are of greater significance in sensitive areas such as Conservation Areas.</p>	
<b>Water</b>	
<p>The ER did not predict significant negative residual effects on water quality due to the aims and actions within the LTS. There is the potential for negative effects to occur, particularly through construction activities and pollution of water bodies through run-off. However, it is predicted that the mitigation commitments should ensure that negative effects on water quality are not significant.</p>	<p>Measures to mitigate effects on the water environment are set out in Section 5.1.5.</p>
<p>The ER noted that there is the potential for the loss of quality agricultural land through the provision of new infrastructure e.g. the Renfrew North Development Road.</p>	<p>This is addressed by the following mitigation measure: 'In the development of transport infrastructure, using good quality agricultural land will be avoided where possible' (see Section 5.1.7).</p>
<b>Air Quality and Climate Change</b>	
<p>Overall, the ER predicted that the actions of the LTS would have positive effects on local air quality as it includes actions to reduce</p>	

<b>Environmental Considerations and Findings from the Environmental Report</b>	<b>How Environmental Considerations have been Addressed</b>
<p>traffic through the centre of Renfrew. The LTS also includes actions to improve air quality in the centre of Paisley which is a designated Air Quality Management Area. The significance of positive effects is unknown as no modelling data was available to quantify predictions.</p> <p>Overall impacts on CO<sub>2</sub> emissions are predicted to be positive due to actions to promote walking, cycling and the use of public transport. Negative impacts were also predicted due to the promotion of the Renfrew North Development Road, which is likely to encourage private car use.</p>	
<p>The ER highlighted idling buses as a contributing factor to existing air quality problems, particularly in the AQMA.</p>	<p>The LTS includes the following action, which may address this issue in the future: 'Investigate the case in Renfrewshire for creating a statutory Bus Quality Partnership or contract in partnership with SPT to improve bus service quality, network coverage and hours of operation'.</p>
<b>Material Assets</b>	
<p>The ER predicted negative impacts on material assets due to the potential for new infrastructure to result in land take. Impacts were not predicted to be significant.</p>	<p>This is addressed by the following mitigation measure: 'In the development of transport infrastructure, using good quality agricultural land will be avoided where possible' (see Section 5.1.7)</p>
<p>Relevant problems highlighted in the ER relate to the loss of recreational facilities due to new transport infrastructure e.g. Glasgow Airport Rail Link (GARL), which will cause the loss of football pitches and the Renfrew North Development Road which may affect a nearby golf course.</p>	<p>Following the EIA for GARL, mitigation measures have included compensatory measures to replace affected football pitches.</p> <p>Effects of the Renfrew North Development Road recreational facilities will be addressed at project level, through the EIA.</p>
<b>Human Health</b>	
<p>Effects on health were predicted to be positive due to actions which encourage physical activity. The following potential transport-related problems can be associated with human health:</p> <ul style="list-style-type: none"> <li>■ Noise and vibration</li> <li>■ Air quality</li> <li>■ Road accidents</li> </ul>	<ul style="list-style-type: none"> <li>■ Noise is addressed through mitigation (see Section 5.1.8).</li> <li>■ Air quality has been identified as being a potential problem to human health in the existing Paisley AQMA and proposed AQMA. The spatial actions within the LTS aim to mitigate this problem.</li> <li>■ The 'Road and Community Safety' section within the LTS.</li> </ul>
<b>Social Exclusion and Access to the Natural and Historic Environment</b>	

<b>Environmental Considerations and Findings from the Environmental Report</b>	<b>How Environmental Considerations have been Addressed</b>
<p>Positive effects were predicted in the ER in relation to access to the 'natural and historic environment' as the LTS contains proposals to improve walking and cycling infrastructure. However, it is noted that major infrastructure projects can also have negative effects – new road and rail infrastructure can act as physical barriers between the communities and the natural/historic environment.</p> <p>Social exclusion impacts are predicted to be positive as the LTS aims and actions are intended to create increased connectivity between settlements and promotion of public transport, walking and cycling.</p>	<p>This is addressed through the following mitigation measure: 'Transport infrastructure will be designed and located to avoid or minimise community severance' (see Section 5.1.8).</p>
<p>The following problems were identified in the ER:</p> <ul style="list-style-type: none"> <li>■ Crime – theft of and from cars, crime and fear of crime on public transport and in bus/train stations</li> <li>■ Severance – new infrastructure can act as physical barriers between communities and amenity areas e.g. greenspace</li> </ul>	<p>Crime is not explicitly addressed by the LTS. See above for severance issues.</p>

# 3 Taking Account of Consultation Responses

## 3.1 Consultation

The draft Renfrewshire LTS and the Environmental Report were subject to public consultation between 12 January and 23 February 2007. This allowed the public and the Consultation Authorities the opportunity to comment on the draft and LTS and SEA prior to the development of the final strategy.

Comments were received from the Consultation Authorities although no comments were received from the general public.

This chapter addresses the following requirements of the SEA Act, which states that the Post-Adoption SEA Statement must highlight:

- c) *how the opinions expressed in response to the invitations mentioned in section 16 have been taken into account; and*
- d) *how the results of any relevant consultation under regulation 14 of the Environmental Assessment of Plans and Programmes Regulations 2004 (S.I. 2004/1633) have been taken into account.*

Table 3.1 summarises the responses from the Consultation Authorities and states how these comments have been addressed.

**Table 3.1 Taking Account of Consultation Responses**

Summary of Consultation Response	How Consultation Response has been Addressed
<b>Historic Scotland</b>	
<i>The Renfrewshire LTS and its context</i>	
Content with the information provided, including info relating to the LTS, relevant strategies, plans and programmes, environmental problems and issues, SEA objectives and testing of LTS objectives.	Noted.
<i>Assessment of environmental effects and proposed mitigation measures</i>	
Notes that alternatives to alternatives to <i>projects</i> had not been assessed and asked if alternatives aims and actions were considered in the strategy development.	Project proposals were developed prior to the development of the LTS and were therefore not appraised as part of the SEA process.  Alternative aims and actions were considered informally through workshops during the development of the LTS. However the SEA process commenced after this point and alternatives were therefore not formally appraised as part of the SEA.
<i>Assessment methodology and effects of LTS aims and actions</i>	
Content with assessment and results.	Noted.
<i>Mitigation</i>	

Summary of Consultation Response	How Consultation Response has been Addressed
Welcomes mitigation commitments and suggest a reference to the mitigation within the LTS document.	Noted.
Suggests additional mitigation measures to avoid impacts through scheme location and design and early consultation with the HS Inspectorate's South West Team.	Mitigation measures added, see Section 5.1.4.
<p><i>Monitoring</i></p> <p>Content with monitoring proposals and suggests a new indicator to monitor gardens and designed landscapes.</p>	New indicator added to monitoring framework, see Section 6.
<b>SNH</b>	
<p><i>Consideration of alternatives</i></p> <p>Accepts that the integrated strategy should be the preferred option but concerned that the broad-brush consideration of alternatives is of limited value, as 'car-based' or 'public transport-based' strategies would not be realistically feasible to take forward. The response states that a 'finer scale comparison of the various alternatives available within such an integrated strategy would be required in order to identify the best environmental solutions to transport issues in the region'.</p>	The examination of alternatives and selection of preferred strategy were undertaken by Renfrewshire Council prior to commencement of the SEA. The alternatives were therefore not assessed as part of the SEA. Alternative aims and actions were considered by Renfrewshire Council during the development of the LTS.
<p><i>The findings of the SEA</i></p> <p>Welcomes assessment findings.</p>	Noted.
<p><i>Environmental Problems/Issues</i></p> <p>Comments made regarding the Council's responsibilities regarding disturbance to bats (European Protected Species) and breeding birds.</p>	Noted.
<p><i>Mitigation</i></p> <p>Welcomes 'the potential need for protected species licensing and for Appropriate Assessment where Natura 2000 sites might be affected'.</p>	Noted.
<p><i>Monitoring</i></p> <p>Suggests the inclusion of additional indicators: "Areas of SINC lost as a result of transport activities" and "Areas of Greenbelt or Open Space lost as a result of transport activities".</p>	Indicators added to monitoring framework, see Section 6.
<p><i>Baseline</i></p> <p>Comments regarding minor inaccuracies in baseline information.</p>	Comments noted, however, these did not affect the assessment of environmental effects.
<b>SEPA</b>	
<p><i>Non-Technical Summary</i></p> <p>Suggests possible changes to the NTS.</p>	The ER is a final version and will not be revised.
<p><i>Links to other plans, programme and strategies</i></p> <p>States that certain policies highlighted at Scoping were not specifically referred to in the ER.</p>	The SEA reviewed a comprehensive range of international, national, regional and local plans, programmes and

Summary of Consultation Response	How Consultation Response has been Addressed
<p>SEPA states that the review of other PPS is 'comprehensive' but that they would have expected to see a more detailed explanation about the relationship between 'the most relevant PPS' and the LTS.</p>	<p>strategies in this Section of the ER. It is recognised that it did not cover all possible documents including some of the internal, non-statutory guidance /advice notes published by CAs. However, it is considered that the coverage of these documents would not have changed the results of the assessment.</p> <p>The review is considered to be fit for purpose and more detailed examination of other PPS would not have led to changes to the assessment or the conclusions of the ER.</p>
<p><i>Consideration of strategic options and actions</i></p> <p>Notes that strategic alternatives were appraised using STAG but not through SEA</p> <p>States that cross-examination of Strategic and Spatial Actions would have been useful</p>	<p>STAG is a recognised method for the appraisal of alternative transport strategies and the results of the STAG process were summarised in the ER. It should be noted that the SEA began after the selection of the preferred strategic option.</p> <p>Noted. In response, Renfrewshire Council considers that the Strategic policies and Spatial policies are consistent. In undertaking the SEA no apparent inconsistencies were noted.</p>
<p><i>Environmental baseline</i></p> <p>Recommends changes to the baseline information provided</p>	<p>The comments are noted but the additional information suggested would not result in a change to the outcome of the SEA. It is considered that the level of detailed requested for some subjects, including biodiversity, is not necessary for the purpose of an SEA. The ER is a final version and will not be revised. We would note that SEPA were consulted during Scoping and all comments were incorporated in the ER.</p>
<p><i>Environmental problems/issues</i></p> <p>Recommends changes or further explanation regarding problems/issues</p>	<p>The ER is a final version and will not be revised. Please note that SEPA were consulted during Scoping and all comments were incorporated in the ER.</p>
<p>Notes that 'the ER did not examine any possible conflicts between the identified SEA objectives'</p>	<p>The SEA objectives were defined very broadly and based on experience of other SEAs this is not considered by the SEA team to be a particularly useful exercise for this particular SEA. Although this</p>

Summary of Consultation Response	How Consultation Response has been Addressed
	is referred to in ODPM guidance <sup>2</sup> , this is not recommended in the more recent Scottish Executive SEA Toolkit <sup>3</sup>
<p><i>Consideration of alternatives</i></p> <p>States that ‘the ER should have considered possible alternative proposals for those Actions having significant environmental impacts and which cannot be mitigated satisfactorily’.</p>	It is confirmed that such alternatives were not examined as part of the SEA. Renfrewshire Council consider that the proposed actions are the most suitable in meeting the objectives for the LTS.
<p><i>Uncertainties and assumptions</i></p> <p>States that SEPA disagrees with the assessment that effects on water quality would be ‘minor negative’ and ‘recommends a re-assessment of the Aims and Actions in relation to their likely impacts on water resources as appropriate to SEA’.</p>	<p>The SEA includes an assessment of likely <i>residual</i> impacts i.e. those which persist following implementation of mitigation measures. Mitigation includes commitments made by Renfrewshire Council as part of the LTS. Over and above legal requirements, the Council are committed to the measures described in Section 5.1.5 below, which include adherence to SEPA’s PPGs.</p> <p>For the SEA to have predicted ‘significant negative’ effects on water quality, this would have to have been based on the assumption that mitigation measures would not be implemented as stated.</p> <p>It is therefore felt that the prediction of ‘minor negative’ is appropriate and the aims and actions will not be reassessed.</p>
<p><i>Effects of LTS aims and actions</i></p> <p><i>Strategic Road and Rail Connections:</i> the response states that studies into the M8 and A737 ‘could have been undertaken before, or in conjunction with, the preparation of the ER in order to integrate the findings/recommendations of such studies into the SEA process. This concern is raised in view of the main function that the M8 and A737 corridors have in relation to the LTS’</p> <p>‘The ER could have also:</p> <p>(i) considered the potential effects of the proposed Actions on surface water runoff in relation to biodiversity into more detail; and</p> <p>(ii) provided further explanation of the potential impacts associated with infrastructural works and risks of fragmentation of natural habitats/impacts on ecological</p>	<p>The M8 / A737 is being considered within the Strategic Projects review being undertaken by Transport Scotland. This is not due to be concluded until summer 2008.</p> <p>Noted.</p>

<sup>2</sup> A Practical Guide to the Strategic Environmental Assessment Directive, Office of the Deputy Prime Minister, September 2005

<sup>3</sup> Strategic Environmental Assessment Toolkit, Scottish Executive, September 2006

Summary of Consultation Response	How Consultation Response has been Addressed
<p>corridors'</p> <p>'SEPA considers that the environmental impacts of the proposed Actions need to be assessed in relation to the missing baseline information and possibly in relation to development pressures and trends in the area. At present it is not clear whether such pressures and trends are likely to affect the predicted environmental impacts'</p> <p><i>'Network Maintenance:</i> SEPA considers that the ER should also consider the current effects of existing surfaced roads/routes (carriageways, footways, etc) on surface water runoff and risks of pollution. SEPA emphasises the need to assess the possibility of adopting mitigation measures to address current environmental problems associated with transport'</p> <p><i>Demand Management:</i> In order to encourage a shift away from individual car use, the LTS and the ER should be able to influence development plans and planning policies. The Council may wish to take this in account during the next review of such plans/policies.</p> <p><i>Walking and Cycling:</i> SEPA considers that screening of the proposed Actions vis-à-vis the requirements of the Habitats Directive could have been carried out as part of, or in conjunction with, the SEA process. This would have ensured an integrated and comprehensive assessment of the likely significant environmental impacts.</p> <p><i>Biodiversity:</i> SEPA considers that land covered by soil and trees prevent risks of increased surface water runoff and therefore, risks of flooding and pollution. Consequently, SEPA encourages the minimum possible conversion of un-built land into hard surfaces (e.g. roads), unless the latter incorporate suitable and specific mitigation measures related to surface water runoff and</p>	<p>See comments on Baseline data above. It is considered that the inclusion of additional baseline data would not have altered the results of the SEA. However, it is recognised that a review of cumulative effects with other developments would have provided a higher resolution, particularly with respect to spatial policies.</p> <p>The ER includes a summary of the 'likely evolution of the environment without the Renfrewshire LTS'. The effects of the LTS were assessed by the SEA <i>in addition</i> to this existing situation and mitigation measures were developed on the basis of this assessment. Mitigation is therefore relevant to the LTS and existing problems.</p> <p>Comment noted. The LTS will influence future development plans and the ER will inform relevant SEAs.</p> <p>The response to the mitigation section of the ER from SNH states: 'We welcome the acknowledgement in this section of the potential need for protected species licensing and for Appropriate Assessment where Natura 2000 sites might be affected.' On this basis, Renfrewshire Council has chosen not to carry out an Appropriate Assessment at this stage. The Council will screen schemes for Appropriate Assessment if there is the potential for adverse effects on either SPA.</p> <p>Noted.</p>

Summary of Consultation Response	How Consultation Response has been Addressed
prevention of water pollution.	
<p><i>Effects of LTS aims and actions</i></p> <p>The response from SEPA states that ‘the ER assumes that most of the environmental impacts associated with the LTS Actions could be mitigated’. The response makes specific reference to the SPA (Special Protection area), stating that without an Appropriate Assessment ‘it is not clear how the ER could have determined that the predicted impacts on European protected habitats or species (e.g. the SPA) could be mitigated satisfactorily’.</p>	<p>The ER clearly predicts the potential for significant negative residual impacts on biodiversity due to proposals for new infrastructure in the vicinity of the Inner Clyde and Black Cart SPAs i.e. impacts following mitigation still have the potential to be significant.</p>
<p><i>Effects of LTS aims and actions</i></p> <p>Related to the above point, SEPA state that ‘Habitats Directive requires screening and assessment of both plans and projects and therefore, the LTS may need to be screened vis-à-vis the requirements of Article 6 of the Directive’.</p>	<p>The response to the mitigation section of the ER from SNH states: ‘We welcome the acknowledgement in this section of the potential need for protected species licensing and for Appropriate Assessment where Natura 2000 sites might be affected.’</p> <p>On this basis Renfrewshire Council has chosen not to carry out an Appropriate Assessment at this stage. The Council will screen schemes for Appropriate Assessment if there is the potential for adverse effects on either SPA</p>
<p><i>Assessment of cumulative effects</i></p> <p>‘it does not seem that the ER takes consideration of the environmental problems related to existing transport matters. Consequently, the possible cumulative environmental impacts that could result from the proposed Actions in conjunction with the current situation were not clearly presented in the ER’</p>	<p>The assessment of LTS aims and actions does consider existing environmental problems. Therefore the cumulative assessment, which addresses the overall effects of the aims and actions, takes existing environmental problems into account.</p>
<p><i>Proposed mitigation measures</i></p> <p><i>Biodiversity:</i> ‘Most of the listed mitigation measures consist of compensatory measures and therefore, do not mitigate predicted adverse impacts.</p> <p>Also, SEPA does not regard the need to screen proposals in accordance with Article 6 of the Habitats Directive as a form of mitigation measure.’</p>	<p>The term ‘compensation’ is not used in the ER. However, we would state that compensation is a recognised form of mitigation – the SEA Act refers to measures to ‘prevent, reduce and as fully as possible offset any significant adverse effects’ – offsetting impacts can include compensatory measures.</p> <p>The response to the mitigation section of the ER from SNH states: ‘We welcome the</p>

Summary of Consultation Response	How Consultation Response has been Addressed
	acknowledgement in this section of the potential need for protected species licensing and for Appropriate Assessment where Natura 2000 sites might be affected.'
<p><i>Water:</i> Water issues have not been assessed in sufficient detail in the ER. In fact, the ER assumes that most of the water-related impacts could be mitigated. On the other hand, most of the information required to substantiate such conclusion was not provided in the baseline information. Previous comments on water issues (see various comments above) also apply to this section of the ER.'</p>	<p>The detail applied to this assessment was based on feedback from SEPA on previous transport strategy SEAs and the Scoping Report for this particular SEA. Although there may be information gaps it is considered that the level of detail is fit for purpose. Regarding the water environment, the ER does indeed assume that through implementation of the mitigation commitments (see Section 5.1.5), <i>significant</i> negative impacts can be avoided.</p>
<p><i>Air quality and climate change:</i> The Council may wish to use the findings and conclusions of the ER for the next review' of development plans and policies.</p>	Noted
<p><i>Other comments:</i> SEPA is of the opinion that current development pressures and trends and the Local Plan's designations for future development have a major impact on the implementation of the LTS. Subsequently, it is understood that such relationship could also affect the predicted environmental effects of the LTS. In view of this, the Council may wish to ensure coordination between planning and transport initiatives. Such coordination would also improve processing of specific proposals for developments which, although not directly related to the implementation of the LTS' Actions, may influence the magnitude of the environmental impacts associated with the LTS (e.g. surface water runoff; risks of pollution due to construction; etc.). Therefore, the possible cumulative environmental impacts that may result as a consequence of the LTS in conjunction with designations and policies for future development may require careful consideration.</p>	<p>The council will make every effort to ensure a co-ordinated approach to development of the council area.</p>

# 4 Consideration of Alternatives

## 4.1 Introduction

The SEA Act requires the environmental effects of ‘reasonable alternatives’ to be identified, described and evaluated. The Act also states that the Post-Adoption SEA Statement should include:

- e) *the reasons for choosing the plan or programme as adopted, in the light of the other reasonable alternatives considered.*

This chapter sets out the strategic alternatives that were considered and explains the selection of the preferred option.

## 4.2 Appraising Alternatives

To determine the preferred option for the LTS, an appraisal of four high level alternatives was carried out using the Scottish Executive’s Scottish Transport Appraisal Guidance (STAG). This process assessed each alternative against the following government transport objectives:

- Environment;
- Safety;
- Economy;
- Integration; and
- Accessibility and social inclusion.

In addition, the performance of the strategic alternatives was assessed with respect to planning objectives, which were derived for the LTS. The planning objectives are as follows:

- Regenerate the local economy wherever possible.
- Extend opportunities for all by:
  - combating poverty and promoting equality including supporting behavioural change;
  - encouraging healthier lifestyles;
  - encouraging a choice of transport options; and
  - improving access for all, including the mobility impaired.
- Ensure a healthy and sustainable environment.
- Improve community safety and security, both real and perceived, and increase connectivity between settlements and services.
- Encourage integration of services and an integrated approach by public bodies whilst achieving best value.

Consideration was then given to the implementability of the options. Particular attention was placed upon feasibility, risks, affordability, financial sustainability and public acceptability. The appraisals are described in detail in a separate supporting STAG document which is available to view on the Council’s website.

### 4.3 The Strategic Alternatives

An analysis of transport problems resulted in the development of a number of measures to address these problems. In order to make the appraisal process more manageable, the measures were combined into four broad packages, as follows:

#### 4.3.1 *Option 1 – Do Minimum*

Do minimum package of measures across Renfrewshire including minimum investment in many different schemes; essential maintenance works; and long-term approach to change hearts and minds. The do minimum does not include the introduction of improved public transport facilities and makes no commitment to larger, long-term scheme funding.

#### 4.3.2 *Option 2 – Package of Integrated Transport Measures*

Funding for public transport development and integration to improve public transport facilities and reduce congestion. New developments only on the basis of sustainability and operational Green Travel Plans.

#### 4.3.3 *Option 3 – Package of Car Based Measures*

Road capacity improvements to minimise congestion; predict and provide for increased traffic volumes; parking availability at journey's end; and decline in provision of, and space available for, public transport.

#### 4.3.4 *Option 4 – Package of Public Transport Measures*

Additional bus facilities; regulation of certain routes or bus partnerships implemented; creation of central public transport interchange area; and provision of up-to-date timetable and fare information, with integration between modes and services where possible.

### 4.4 Conclusions

Following the results of these appraisals, it was recommended that an integrated package of sustainable transport measures was taken forward. This included measures from both the Integrated Transport option (for example high level funding for public transport development and integration to improve public transport facilities and reduce congestion; new developments only on the basis of sustainability and operational Green Travel Plans) and the Public Transport option (for example additional bus facilities; regulation of certain routes or Bus Partnerships implemented; creation of a central public transport interchange area to increase attractiveness of public transport, improve integration and encourage public transport use; and provision of up-to-date timetable and fare information, with integration between modes and services where possible).

It was determined that the implementation of an integrated package of sustainable transport measures would address the policy objectives of the LTS and would address the key concerns raised during the consultation process. In addition, it would conform to the Government's five key objectives of Environment; Accessibility and Social Inclusion; Economy; Safety; and Integration.

# 5 Mitigation

## 5.1 Mitigation Commitments

Sections 5.1.1 to 5.1.7 contain measures that Renfrewshire Council have committed to implementing to mitigate the predicted environmental effects of the LTS. An initial list of mitigation measures was set out in the ER and the Consultation Authorities made recommendations regarding these proposals. The mitigation measures set out below incorporate these recommendations.

The Director of Planning and Transport will ensure that mitigation is taken forward in the design and implementation of transport schemes.

### 5.1.1 *General*

While not strictly mitigation at an SEA level, it is recognised that transport projects likely to have significant impacts on the environment will be subject to Environmental Impact Assessment (EIA). The need for EIA will be determined on a project by project basis in liaison with the planning authority and following the requirements of the Environmental Impact Assessment (Scotland) Regulations.

### 5.1.2 *Biodiversity*

The Council is committed to the biodiversity Aims and Actions within the LTS and the Natural Heritage/Biodiversity policies within the Renfrewshire Local Plan. The following measures will also be implemented where appropriate:

- Potential Impacts on the integrity of Natura 2000 sites (or proposed Natura 2000 sites) will in the first instance be prevented by locating transport activities likely to cause disturbance away from such sites. Where activities could directly, indirectly or in combination with other proposals affect the interests of a Natura site, the proposals will be screened for the potential for significant effects to the interests of the site in consultation with SNH. If the screening indicates potential for significant effects studies will be completed to inform an Appropriate Assessment
- Potential impacts on protected species will be avoided in the first instance by locating transport activities likely to cause disturbance away from sites associated with protected species. In other cases impacts will be avoided by complying with protected species legislation and by licensing proposed disturbance through the relevant licensing authority (SEERAD or SNH)
- Sensitive sites (protected sites, second tier sites, semi natural habitat) will be avoided where possible
- Where appropriate, measures to enhance biodiversity will be implemented. Such measures may include seeding locally native species on roadside verges and other schemes, the use of locally native tree species in landscape schemes, habitat creation, habitat creation for protected species (e.g. barn owl boxes, log pile holts for otters) and the creation of greenways and wildlife corridors along transport corridors, footpaths and cycleways, to encourage the movement of species
- In the early stages of developing transport corridors, consideration will be given to the provision of wildlife access corridors

### 5.1.3 *Landscape and Visual Amenity*

- Where EIA is required, the landscape and visual appraisals will be carried out for all schemes to determine the likely effects of the scheme on landscape character and visual amenity
- High quality design and construction principles will be applied to all new developments and modifications and improvements to existing schemes
- All schemes will be appropriately and sensitively designed for their location
- All schemes will be maintained to ensure they remain in good condition
- All schemes will retain important and distinctive landscape features (e.g. field patterns, hedgerows, trees, open space and urban form) where possible
- Where important and distinctive landscape features must be removed/modified or landscape character will be temporarily altered, Landscape Management Plans will be produced highlighting how the affected areas will be restored, reinstated and enhanced
- All landscape schemes will incorporate biodiversity enhancements where appropriate e.g. use of native species, creation of greenways and green networks
- The quality and design of street furniture (e.g. lighting and signage) will ensure they are appropriate to their setting, create a cohesive treatment and enhance streetscape quality
- The forthcoming street lighting strategy will include measures to reduce light pollution

### 5.1.4 *Cultural Heritage*

- Impacts on the historic environment will be avoided wherever possible through appropriate scheme location and design
- Where there is the potential for effects on nationally important features of the historic environment, Renfrewshire Council will engage in early consultation with the Historic Scotland Inspectorate South West Team
- New transport related schemes in Conservation Areas will be of a high quality and will be designed to ensure they are appropriate to the character of the Conservation Area and its setting
- Surveys will be undertaken prior to the implementation of schemes to determine whether they will affect sites of archaeological importance and the setting of archaeological features
- Where EIA is required, landscape character assessments will incorporate Historic Land-Use Assessments (HLA) to inform all related assessments in terms of the historic elements of landscapes. This is a GIS-based analysis of past and present land-use, accessible at <http://www.rcahms.gov.uk>

### 5.1.5 *Water*

- All new transport schemes and improvement works will be carried out in accordance with relevant legislation for the protection of surface and groundwater (including the Water Framework Directive). These will also take into account SEPA's Pollution Prevention Guidelines (PPG):
  - PPG1: General Guide to the Prevention of Pollution
  - PPG2: Above Ground Oil Storage tanks
  - PPG5: Works In, Near or Liable to Affect Watercourses
  - PPG6: Working at Demolition and Construction Sites
  - PPG21: Pollution Incident Response Planning
- All engineering, building or other works in inland surface waters will require authorisation under the Water Environment (Controlled Activities) (Scotland) Regulations 2005 and may require licensing by SEPA (other than those covered by the General Binding Rules)
- Transport schemes and improvement works will implement appropriate means to minimise pollution from surface run-off e.g. oil separators and silt traps
- In accordance with Scottish Planning Policy 7 (SPP:7), if initial discussion with the appropriate planning authority indicate that flooding is likely to be an issue for a scheme a flood risk assessment will be carried out
- The council will require that all new transport-related developments implement Sustainable Urban Drainage Systems (SUDS)

### 5.1.6 *Air Quality and Climate Change*

- The LTS itself contains several proposed Actions to reduce emissions through increased walking, cycling and use of public transport

### 5.1.7 *Material Assets*

- In the development of transport infrastructure, using good quality agricultural land will be avoided where possible
- Wherever practicable, the Council will ensure that waste materials associated with transport infrastructure are reduced, reused, recycled or recovered

### 5.1.8 *Human Health and Social Exclusion*

- Noise impacts will be mitigated through appropriate acoustic screening, where this is appropriate, taking into account the local environment
- Where appropriate cycle/footpaths will be separated from roads to reduce the risk of accidents and the impacts of air pollution on health
- Transport infrastructure will be designed and located to avoid or minimise community severance

# 6 Monitoring

## 6.1 Introduction

The purpose of this chapter is to address the following requirement of the SEA Act:

- f) *the measures that are to be taken to monitor the significant environmental effects of the implementation of the plan or programme.*

The ER contained a draft monitoring framework which set out proposals for monitoring the environmental effects of the LTS. This allowed the Consultation Authorities to provide comments and suggestions regarding monitoring proposals. These comments were taken into account and this section of the Post-Adoption SEA Statement sets out the final monitoring framework.

## 6.2 Purpose of Monitoring Environmental Effects

The information gathered through monitoring activities will assist the Council in identifying the environmental effects of the Strategy. This should help the Council to:

- Measure the success of the mitigation measures implemented;
- Identify unforeseen environmental effects;
- More effectively predict the environmental effects of *future* transport strategies; and
- Manage uncertainty regarding likely effects. For example, where data gaps have made predicting effects problematic.

### 6.2.1 Targets

It should be noted that some aspects of the monitoring framework are linked to targets, which have been developed at national, regional and local levels.

#### 6.2.1.1 Biodiversity

The Local Biodiversity Action Plan (LBAP) for Renfrewshire, East Renfrewshire and Inverclyde identifies priority habitats and species. The habitat action plans and species action plans for each of these contain specific objectives and targets. These targets can be viewed on the LBAP website<sup>4</sup>.

#### 6.2.1.2 Climatic Factors

To reduce CO<sub>2</sub> emissions by 20% on 1990 levels by 2010 - this target may change due to forthcoming national legislation<sup>5</sup>.

<sup>4</sup> <http://www.renbap.paisley.ac.uk/renbap/Launch/Action%20Plan%20Launch.htm>

<sup>5</sup> Draft Climate Change Bill, HM Government, March 2007

### 6.2.1.3 Air Quality

To ensure that concentrations of the following seven key pollutants do not exceed specified levels<sup>6</sup>:

- Benzene
- 1,3-butadiene
- Carbon monoxide
- Lead
- Nitrogen dioxide
- Sulphur dioxide
- PM10 (fine particles)

### 6.2.1.4 Water Quality

The Water Framework Directive requires all UK water bodies to be of ‘good’ ecological status by 2015.

### 6.2.1.5 Waste

The following objectives are taken from the Glasgow and Clyde Valley draft Area Waste Plan:

#### 2010

Composting	6%
Recycling	30%
Landfill	64%

#### 2013

Composting	10%
Recycling	35%
Other recovery techniques	15%
Landfill	40%

#### 2010

Composting	15%
Recycling	40%
Other recovery techniques	20%
Landfill	25%

## 6.3 Monitoring Framework

The final monitoring framework is presented in Table 6.1. Where appropriate, monitoring reports will include the data below with descriptive information.

<sup>6</sup> Levels set out in the Air Quality Standards (Scotland) Regulations 2007

**Table 6.1 Monitoring Framework**

<b>SEA Category</b>	<b>Indicator</b>	<b>Data Source</b>
Biodiversity, Flora and Fauna	Reported damage to protected sites (SAC, SPA, SSSI) caused by transport-related activities	SNH
Biodiversity, Flora and Fauna	Number of successful licence applications for derogations of the Habitats Directive to disturb European Protected Species	SNH
Biodiversity, Flora and Fauna	Areas of SINC lost as a result of transport activities	Council
Biodiversity, Flora and Fauna	Areas of Greenbelt or Open Space lost as a result of transport activities	Council
Biodiversity, Flora and Fauna	Length of wildlife corridors lost and created	Council
Biodiversity, Flora and Fauna	Habitats lost or significantly altered	Council
Landscape and Visual Amenity	Proportion of transport projects accompanied by outline landscape design	Council
Cultural Heritage	Number of applications for Scheduled Monument Consent, related to transport, and outcomes of applications	Historic Scotland
Cultural Heritage	Number of applications for Listed Building Consent (inc demolitions) related to transport, and outcomes of applications	Council
Cultural Heritage	Physical disturbance to gardens and designed landscapes, related to construction of transport infrastructure	Historic Scotland
Air Quality	Exceedances of key air quality indicators in Air Quality Management Areas (AQMAs) & proposed AQMAs	Council
Climatic Factors	% of people changing from single occupancy car use to public transport	Council
Water	Water pollution events related to transport	SEPA
Water	Number of flooding events affecting transport infrastructure	Council/SEPA
Water	Percentage of new road length incorporating SUDS features	Council
Water	Length of roads retro-fitted with SUDS features	Council
Water	Indicators and targets for waterbodies will be set out in forthcoming River Basin Management Plans. Where appropriate these will be incorporated in the monitoring of environmental effects	Council
Human Health	Transport-related crime	Strathclyde Police
Human Health	Road traffic offences	Strathclyde Police
Human Health	Road safety figures	Strathclyde Police
Human Health	Physical activity - travel to work/study by mode	Council