



South East of Scotland  
Transport Partnership



# REGIONAL TRANSPORT STRATEGY

**SEA Environmental Report**

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In partnership with:



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# 1 Introduction

## 1.1 Background

- 1.1.1 SEStran is the Regional Transport Partnership (RTP) for the South East of Scotland with a statutory duty to produce and deliver a long term Regional Transport Strategy (RTS) covering the City of Edinburgh, , Clackmannanshire, East Lothian, Falkirk, Fife, Midlothian, Scottish Borders and West Lothian, , , local authority areas which make up the SEStran region. A new RTS is being prepared to set out an updated vision, priorities and direction for transport in the region for the period up to 2035.
- 1.1.2 This Environmental Report (ER) has been prepared to accompany the Draft SEStran RTS (hereafter ‘the Draft RTS’) for public consultation. In accordance with statutory requirements, the ER documents the findings of Strategic Environmental Assessment (SEA) carried out in respect of the Draft RTS. SEA is being carried out as a plan-making tool to help shape the emerging RTS throughout its development rather than only for retrospective reporting.

## 1.2 How to Comment on this Environmental Report

- 1.2.1 This ER and an associated Non-Technical Summary are being issued for consultation alongside the Draft RTS and associated documents for a period of 12 weeks. Details of how to participate in the consultation are provided on SEStran’s website and, in accordance with statutory requirements, will be published in a local newspaper.

## 1.3 Statutory Requirements

- 1.3.1 The 2005 Act requires responsible authorities, including RTPs, to assess the likely significant effects on the environment of implementing relevant plans, programmes and strategies, as defined within the Environmental Assessment (Scotland) Act 2005 (hereafter ‘the 2005 Act’). This assessment must also examine the likely significant effects of implementing reasonable alternatives to the plan or strategy under consideration (i.e. the emerging RTS). The assessment is carried out by following a staged process of reporting known as Strategic Environmental Assessment (SEA).
- 1.3.2 The emerging RTS is considered to constitute a *relevant and qualifying* plan under Section 5(3) of the SEA Regulations, meaning there was no option to exempt it from being subject to a full SEA. It is a ‘relevant’ plan for the purposes of this legislation as it required in response to administrative and legislative provisions and will influence the development and consenting of future policies and projects, in particular the implementation of Local Development Plans (LDPs). The emerging RTS also satisfies the test of being a ‘qualifying’ plan as it is being prepared for transport purposes, has the potential to set the framework for future development consent of projects (transport and other development) requiring an Environmental Impact Assessment (EIA) and will apply to the whole SEStran region, rather than only to a small area.
- 1.3.3 Under the 2005 Act, once the need for SEA has been established a three-stage process is required:
- **SEA Scoping** (Section 5): Responsible authorities must provide the SEA Consultation Authorities with sufficient information to enable them to consider the proposed scope, level of detail and consultation period for an Environmental Report to accompany the emerging plan or programme under consideration. This requirement was fulfilled through the submission of a SEA Scoping Report to the Consultation Authorities in February 2021, with responses received from NatureScot and Historic Environment Scotland (HES) in March 2021. Details of how these Scoping consultation responses have been addressed in this SEA are provided in **Section 4.4**;

- **Preparation of and Consultation regarding an Environmental Report:** The relevant Responsible Authority must prepare an Environmental Report (ER) to “*identify, describe and evaluate the likely significant effects on the environment of implementing*” the emerging plan and its reasonable alternatives. The ER also needs to provide a “*description of the measures envisaged concerning monitoring*” of likely significant environmental effects from implementing the plan. Both the ER and associated emerging strategy must be consulted on in tandem prior to the final approval of the strategy. The scope, level of detail and consultation period of the SEA align with the approach agreed through SEA Scoping; and,
- **Preparation of a Post Adoption SEA Statement:** Following modifications as necessary to respond to comments submitted regarding the Draft RTS and associated ER, SEStran will update the Draft RTS and then submit the finalised RTS to the Scottish Ministers for approval. Following approval of the final RTS, a statement must then be prepared to set out, amongst other matters, how environmental considerations have been taken into account and how any likely significant effects of the RTS on the environment (as predicted through this SEA process) will be monitored.

## 1.4 Report Structure

### 1.4.1 This report is structured as follows:

- **Section 2** explains the background to the development of the Draft RTS and provides a summary of its proposed content and purpose;
- **Section 3** outlines key environmental information which has informed this SEA. This section is supported by detailed baseline and a review of relevant plans, programmes and strategies provided in **Appendices A and B**;
- **Section 4** provides an overview of the SEA process undertaken to date and describes how the SEA of the Draft RTS has been carried out;
- **Section 5** explains how the SEA process has informed the preparation of the Draft RTS and improved its environmental performance:
- Section 6 presents the key findings of the SEA undertaken for the Draft RTS. Detailed results from the SEA are also provided in **Appendices D and E**. A set of high-level environmental commentaries for each of the RTS Transport Corridors discussed in the Draft RTS are also provided in **Appendix F**.
- **Section 7** sets out the next steps in the SEA process and outlines potential monitoring arrangements.

## 2 Overview of SEStran Regional Transport Strategy

### 2.1 Introduction

- 2.1.1 This section describes the context in which a new RTS is being prepared for the SEStran region and outlines its proposed form and content, all of which requires to be assessed through this SEA.

### 2.2 Form and Content of the Draft Regional Transport Strategy

#### Overview

- 2.2.1 In accordance with the Transport (Scotland) Act 2005, SEStran prepared the first RTS for the South East Scotland region covering the period 2008 – 2023. In 2015, SEStran published an update to the RTS, covering the period 2015-2025. A new RTS is being developed to replace the current RTS once it expires in 2025 and to set out a new long term transport vision, outcomes and strategic objectives for the South East Scotland region, aligned with the NTS2 (2020). The Draft RTS which this RTS accompanies represents the settled view of the SEStran RTP regarding a new transport strategy which should be implemented at regional and local levels through a new RTS.
- 2.2.2 The Draft RTS sets out proposed policies and actions grouped around 12 Regional Mobility Themes:
- Shaping development and place
  - Delivering safe active travel
  - Enhancing access to public transport
  - Enhancing and extending the bus service
  - Enhancing and extending the train service
  - Reallocating road space on the regional network
  - Improving integration between modes
  - Decarbonising transport
  - Facilitating efficient freight movement and passenger travel
  - Working towards zero road deaths and serious injuries
  - Reducing car kilometres
  - Responding to the post-Covid world
- 2.2.3 The Draft RTS also identifies Transport Corridors relating to the largest and most important movements of people and freight across the SEStran region. A dedicated spatial chapter of the RTS outlines high-level options to enhance connectivity and accessibility within and between these corridors.
- 2.2.4 Once the RTS is finalised and then approved by the Scottish Ministers, the implementation of policies, actions and options is expected to be developed further by SEStran and constituent



local authorities through subsequent delivery plans and individual project level interventions. The detail of these falls outwith the scope of this SEA but is unlikely to result in any significant environmental effects beyond those already identified through this SEA of the emerging RTS, as all substantive RTS policies, actions and options have been assessed through the SEA. In the event that future delivery plans do set out new substantive policies or proposals not already assessed within this SEA, SEStran would need to consider the implications of this in relation to statutory impact assessment requirements (i.e. the need to undertake a further SEA and/or EqIA as appropriate).

## 2.3 RTS Development Process

- 2.3.1 A collaborative approach has been adopted to prepare the Draft RTS, with a strong emphasis on stakeholder engagement from the outset. The preparation of the emerging RTS has also been closely informed by this SEA and the application of relevant 'equalities duties' as detailed within a separate **SEStran RTS Equalities Duties Report**.
- 2.3.2 In accordance with established Scottish Transport Appraisal Guidance (STAG principles), a three stage process has been adopted to prepare the new Draft RTS:
- **Initial Appraisal: Case for Change:** Development of SMART and evidenced-based Transport Planning Objectives (TPOs) and RTS strategy objectives to provide the robust basis necessary to underpin the development and assessment of sound policies and option for potential inclusion within the emerging RTS. Building on the SEStran RTS Main Issues Report (2020), the SEStran RTS Case for Change Report was consulted on in July 2021.
  - **Preliminary Options Appraisal:** STAG Appraisal (Summer 2021): detailed appraisal of identified options (policies and proposals) then took place using integrated SEA and STAG criteria (Environment, Safety, Economy, Integration and Accessibility) to establish and evaluate reasonable alternative options for potential inclusion within the Draft RTS to achieve the proposed RTS objectives. This is documented within the SEStran RTS Preliminary Options Appraisal Report (July 2021) which has been published as a supporting document to the Draft RTS.
  - **SEStran RTS Preparation:** The outcome of the STAG Appraisal was the identification of a recommended strategic framework (vision and objectives) and corresponding implementation options (policies, actions and options) for inclusion in the Draft RTS.
- 2.3.3 Following consultation on the Draft RTS, two further stages will need to be completed before the finalised new RTS can be approved:
- **Submission of Finalised RTS (March 2022):** Following modifications as necessary to respond to representations submitted regarding the Draft RTS, SEStran will submit the Finalised RTS to the Scottish Ministers for their approval in accordance with the Transport (Scotland) Act 2005; and,
  - **Approval of Finalised RTS (Spring 2022):** Subject to ministerial consideration and approval (with potential modifications), SEStran will proceed to adopt the finalised RTS. At this point, the new RTS will supersede the existing SEStran RTS Refresh 2015 – 2025.

## 3 Environmental and Policy Context

### 3.1 Introduction

- 3.1.1** **Section 3.2** summarises pertinent environmental and socio-economic conditions relating to transport in the SEStran region which have been taken account of within the emerging RTS and within this SEA. **Section 3.3** then identifies the relationship between the emerging RTS and other relevant plans and programmes. Each section is supported by detailed baseline and policy reviews provided in **Appendices A** and **B** respectively (originally produced at SEA Scoping stage and updated to respond to comments received from the SEA Consultation Authorities as well as to reflect changes in the interim period).

### 3.2 Overview of Baseline Characteristics

- 3.2.1** With reference to the environmental topics prescribed within Schedule 3 of the SEA Act and the duties set out within the Transport (Scotland) Act 2005, a summary of the key issues identified in **Appendix A** which need to be addressed within the emerging RTS and taken account of in the associated SEA is provided in **Table 3.1** below. The identification of key issues has also been informed by consideration of the likely evolution of baseline conditions in the absence of the emerging RTS, as detailed in **Appendix A**.

Table 3.1: Key issues Relevant to the SEA of the New RTS for South East Scotland

Grouped Baseline Topics	SEA Environmental Aspects	Key Issues
Air and Climate	Air Quality  Climatic Factors	<ul style="list-style-type: none"> <li>The need to tackle poor air quality, particularly within existing Air Quality Management Areas (AQMAs), and to improve air quality for the benefit of human health and the environment.</li> <li>The need to mitigate climate change including through promoting sustainable land use patterns and the decarbonisation of the transport sector.</li> <li>The need to ensure that new development, including transport infrastructure and facilities, is resilient to adverse weather and adaptable to the effects of climate change.</li> </ul>
Physical Environmental	Biodiversity, Flora & Fauna, Soil, Water, Cultural Heritage, Landscape	<ul style="list-style-type: none"> <li>The need to conserve and enhance biodiversity interests including sites designated for their ecological importance.</li> <li>The need to maintain, restore and expand valued habitats and to safeguard protected species.</li> <li>The need to protect and enhance green infrastructure assets.</li> <li>The need to prioritise the redevelopment of previously developed (brownfield) land</li> <li>The need to protect sites designated for their geological interest.</li> <li>The need to protect and enhance the quality of water sources and the water environment</li> <li>The need to locate new development including transport infrastructure away from areas of flood risk, and for such infrastructure to be resilient to flooding (and adverse weather more widely).</li> <li>The need to protect and enhance cultural heritage assets and their settings.</li> <li>The need to conserve and enhance landscape character and to protect visual amenity.</li> </ul>
Social and Economic	Population (including relevant socio-economic issues), Health, Material Assets	<ul style="list-style-type: none"> <li>The need to align with and support the implementation of adopted and emerging relevant national policies, including NTS2 (Scottish Government, 2020) and the emerging Strategic Transport Projects Review 2 (STPR2) and National Planning Framework 4 (NPF4).</li> <li>The need to support and ensure alignment of the implementation with the current and emerging statutory Development Plans and other relevant regional and local policies applicable to the SEStran region, including the finalised Edinburgh City Mobility Plan (2021).</li> <li>The need to develop an integrated and efficient transport system which meets identified needs and supports projected population growth whilst effectively managing travel demand.</li> <li>The need to support the growth of key economic sectors and to deliver sustainable and inclusive economic growth.</li> <li>The need to tackle deprivation and severance and to improve access to key amenities and economic opportunities for all demographic groups and communities.</li> <li>The need to provide transport services appropriate to meet the needs of the projected ageing population.</li> </ul>

### 3.3 Relationship between the Emerging RTS and Other Relevant Plans

- 3.3.1 In accordance with the 2005 Act, a review of the relationship between the emerging RTS and other relevant plans and programmes (including legislation, policies and strategies at all spatial scales) has been carried out, as detailed fully within **Appendix B**. This review has identified key requirements, objectives and priorities of relevant plans and their implications for both the emerging RTS itself and for this SEA.
- 3.3.2 Undoubtedly the most important relationship between the emerging RTS and other plans and strategies is the need for the RTS to provide an appropriate framework to implement the National Transport Strategy 2 (NTS2) at a regional level. Published in February 2020, the NTS2 sets out a holistic vision for a “*sustainable, inclusive, safe and accessible transport system, helping deliver a healthier, fairer and more prosperous Scotland for communities, businesses and visitors*”. To deliver this the NTS2 outlines a strategic framework underpinned by four thematic priorities, which form the basis from which decisions will be evaluated on the success of future transport policies and proposals at national, regional and local levels:
- Reduces inequalities
  - Takes climate action
  - Helps deliver inclusive economic growth
  - Improves our health and wellbeing
- 3.3.3 One of the key priorities identified within the NTS2 is the need to better integrate transport planning, land use/spatial planning and economic development decisions. This highlights the importance of fostering strong bi-directional relationships between the emerging RTS and other emerging regional plans, specifically including the Regional Spatial Strategies (RSS) being developed for the South East Scotland and Forth Valley regions.
- 3.3.4 From the review of relevant plans and strategies provided in **Appendix B**, it is clear the emerging RTS should:
- Align with relevant existing and emerging policies and proposals within relevant national, regional and local plans and strategies. In particular, the emerging RTS must support the delivery of the National Transport Strategy 2 (2020) and the National Planning Framework 4 (NPF4)<sup>1</sup> once published as well as the implementation of adopted and emerging LDPs and a future Regional Spatial Strategy for the SEStran region;
  - Ensure the avoidance of likely significant adverse effects from the implementation of the plan on sites designated at international and national levels for reasons of biodiversity conservation or ecological importance;
  - Minimise and appropriately mitigate likely adverse effects on sites designated at the local level for their ecological importance;
  - Minimise the environmental impacts of transport provision and infrastructure, including in terms of reducing carbon and greenhouse gas emissions and using natural resources sustainably;

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<sup>1</sup> At the time of writing (October 2021) the Draft NPF4 has not yet been released but it is anticipated to be published for consultation during the RTS consultation period. The implications of Draft NPF4 for the RTS and associated SEA reporting will be reviewed following the RTS consultation.

- Reduce congestion and improve air quality, including but not limited to implementing existing Air Quality Action Plans for Air Quality Management Areas (AQMAs) within the SEStran region, and improving areas with known poor air quality;
- Underpin the development of a safe, secure, efficient, reliable and integrated transport system across the SEStran region;
- Support improvements in journey times and connectivity to and from key destinations;
- Encourage measures that reduce the need to travel and allow communities in different locations to flourish;
- Ensure the conditions are in place to allow a widespread uptake of active and sustainable modes of transport for all demographic groups and communities:
- Improve the accessibility of the transport system and the provision of a range of transport modes to meet identified needs;
- Ensure that transport is accessible to all and does not contribute to social exclusion or disadvantage, whether through severance or unaffordability;
- Enable the efficient, effective and sustainable movement of people and freight to increase economic productivity, competitiveness and opportunities for all;
- Secure economic growth and inward investment by supporting the delivery of new and upgraded transport infrastructure to increase connectivity and improve access to high quality employment and economic opportunities.
- Minimise the amenity impacts of transport, including in terms of reducing noise and vibration;
- Ensure the avoidance of unacceptable health impacts from transport, in particular impacts on air quality; and,
- Seek to protect and enhance the health and wellbeing of the resident and working population, including through facilitating access to healthcare, safeguarding physical health and providing opportunities to enhance mental health and social wellbeing.

3.3.5 As with the key environmental and socio-economic issues (**Table 3.1**), these key policy issues need to be addressed within the emerging RTS itself to effectively tackle pertinent transport problems, support the implementation of other existing and emerging plans and policies, and to allow the plan to contribute to the delivery of sustainable development.

### 3.4 Summary

3.4.1 All of the identified key environmental and socio-economic issues (**Table 3.1**) and key policy issues (listed above) have been taken account of within the emerging RTS in order to effectively tackle pertinent transport problems, support the implementation of other existing and emerging plans and policies, and to allow the plan to contribute to the delivery of sustainable development.

3.4.2 The identified key issues have also been reflected within a suite of bespoke SEA Objectives which together form a framework ('the SEA Framework') which has been used to assess the performance and likely significant environmental effects of the Draft RTS. The full SEStran RTS SEA Framework is provided in **Appendix C**.

## **4 The SEA Process**

### **4.1 Introduction**

- 4.1.1 This section provides an overview of the SEA process which has been undertaken to date for the emerging RTS, including how the assessment of the Draft RTS has been carried out.

### **4.2 SEA Purpose and Objectives**

- 4.2.1 In accordance with the 2005 Act, the purpose of SEA is to identify, assess and evaluate the likely significant environmental effects of a qualifying plan, programme or strategy. A key objective of SEA is to enhance the environmental and wider sustainability performance of a plan or programme. This is achieved through identifying any likely significant effects from implementation of the plan or programme as drafted, proposing mitigation measures to address any identified significant adverse environmental effects, and identifying enhancement measures to improve the overall performance of the plan or programme. As such, SEA is an integral part of good policy development and should not be viewed as a separate or retrospective activity.

### **4.3 Addressing Statutory Requirements**

- 4.3.1 To satisfy statutory requirements, it is necessary for this ER to provide certain information. The approach to addressing relevant requirements is shown in **Table 4.1** below.

Table 4.1: Requirements of the 2005 Act and how they are met through this SEA ER

SEA Requirements	Section Reference
a) An outline of the contents, main objectives of the plan or programme and relationships with other relevant plans and programmes.	Section 2
b) The relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan or programme.	Section 3 and Appendix A
c) The environmental characteristics of areas likely to be significantly affected.	
d) Any existing environmental problems which are relevant to the plan or programme	
e) The environmental protection objectives, established at international, community or national level which are relevant to the plan or programme and the way those objectives and any environmental considerations have been taken into account during its preparation.	Section 3 and Appendix B
f) The likely significant effects on the environment	Section 6 and Appendices D - F
g) 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.	Section 5
h) An outline of the reasons for selecting the alternatives dealt with and a description of how the assessment was undertaken, including any difficulties encountered in compiling the required information.	Section 4
i) A description of measures envisaged concerning monitoring.	Section 7
j) A non-technical summary of the information provided under the above headings.	Refer to separate Non-Technical Summary SA Report
k) Taking the environmental report and the results of the consultations into account in decision-making.	Sections 1, 4, 5 and 7

## 4.4 Approach to SEA

### SEA Project Team

- 4.4.1 Stantec has provided drafting and technical support to SEStran to support the preparation of the Draft RTS and regular discussions have been held with senior officers throughout the process of preparing the Draft RTS. This has allowed informal and early feedback of key issues identified by the SEA project team, resulting in iterative amendments to strengthen the RTS as it developed. Further details of how the SEA process has informed the preparation of the Draft RTS are provided in **Section 5**.

### Previous SEA Reporting

- 4.4.2 The previous stages of SEA undertaken in respect of the emerging RTS comprised consultations on a SEA Scoping Report (February 2021) and the SEA of the Case for Change Report (June 2021). The SEA of the Draft RTS builds directly on these previous stages and relevant content from previous reporting has been carried forward into this ER with updates as required.

### SEA Scoping

- 4.4.3 The SEStran RTS SEA Scoping Report sought the views of the SEA Consultation Authorities on the proposed scope, methodology and level of detail required in undertaking a legally compliant SEA of the emerging RTS. The main purpose of the SEA Scoping Report was to confirm the need to undertake an SEA and identify a proposed SEA Framework to assess in a systematic way the likely environmental effects from all components of the emerging RTS. This Framework comprises a series of sustainability objectives and guide questions regarding identified relevant socio-economic and environmental issues which may affect (or be affected by) the emerging RTS. The SEA objectives are accompanied guide questions and criteria to enable assessment of proposed policies and proposals (i.e. the Draft RTS components) as well as any identified reasonable alternatives.
- 4.4.4 The overall approach to SEA and the SEA Framework were amended to take account of Scoping consultation responses, as detailed in **Appendix C**. This SEA framework focuses on assessing potential effects on the following 10 SEA Objectives:
- i. Climate Change: Respond to the climate emergency by decarbonising infrastructure, facilitating a low carbon economy and adapting to accommodate the effects of climate change.
  - ii. Air Quality and Amenity: Tackle poor air quality, reduce concentrations of harmful atmospheric pollutants and minimise exposure to noise and vibration.
  - iii. Biodiversity, Geodiversity and Soil: Conserve, protect and enhance biodiversity and geodiversity interests, including through safeguarding important sites, species and soil resources and by protecting green infrastructure.
  - iv. Water, Flood Risk and Resilience: Conserve, protect and enhance water environments, water quality and water resources, whilst adapting to climate change and reducing flood risks.
  - v. Cultural Heritage: Conserve, protect and enhance all aspects of the historic environment, including archaeological sites and cultural assets.
  - vi. Landscape: Protect and enhance the landscape character, townscape character and visual amenity.



- vii. Accessibility: Ensure appropriate and affordable access for all to facilities, services, employment, economic opportunities and social activities.
- viii. Inclusive Growth: Improve social and economic prosperity for all by enhancing productivity and competitiveness and through reducing societal inequalities.
- ix. Health: Improve the health of the resident and workplace population, including with respect to physical and mental health and social wellbeing.
- x. Material Assets: Manage, maintain and where possible improve the efficient and effective use of natural resources, land and infrastructure to meet identified needs.

#### **SEA of Case for Change Report**

- 4.4.5 The SEStran RTS Case for Change Report provided a consolidated evidence base to identify the main transport problems and issues experienced within the SEStran area and to set out proposed strategic components to underpin the development of the new RTS. The Case for Change included the identification of relevant Transport Planning Objectives (TPOs) and associated proposed RTS Objectives, together with the development of an initial options generation matrix.
- 4.4.6 A proportionate ER was prepared to assess the likely environmental effects associated with the substantive components of the Case for Change which underpin the development of the RTS. The high-level nature of Case for Change Report precluded the identification of specific likely significant environmental effects. The assessment therefore focused more generally on:
  - Examining the coverage of key environmental issues, as identified through the SEA Scoping process, within the problems and issues, proposed RTS Strategic Objectives and the initial options generation matrix set out within the Case for Change Report; and,
  - Assessing the extent to which the proposed RTS Strategic Objectives and the initial options generation matrix address key environmental issues and thus the ability of the emerging RTS to tackle such issues. This includes testing the compatibility of the proposed RTS Strategic Objectives and the initial options generation matrix with the SEA Framework.
- 4.4.7 Opportunities to improve the coverage of key environmental issues and policy drivers and to enhance the ability of the emerging RTS to tackle such challenges were identified. These recommendations have now been taken account of in the preparation of the Draft RTS.

### **4.5 Preparation of this Environmental Report**

#### **Process**

- 4.5.1 Stantec commenced the SEA of the Draft RTS in August 2021 in tandem with the development of RTS components (following completion of a STAG Preliminary Options Appraisal). An initial step involved advising on how best to implement mitigation and enhancement recommendations identified through the SEA of the Case for Change Report. SEA based testing and refinement of emerging RTS components (e.g. policies) then took place before formal SEA policy assessment reporting was completed in October 2021 to align with settled version of the Draft RTS. This iterative process allowed the SEA to inform the final content of the Draft RTS to minimise its likely significant adverse effects and maximise the RTS's environmental performance.

#### **Reporting**

- 4.5.2 This SEA report presents the findings of an appraisal carried out to identify, assess and evaluate the likely significant environmental effects of all substantive proposals contained within the Draft

RTS. In doing so, each substantive component or proposal, together with any identified reasonable alternatives (see below), have been subject to a proportionate level of assessment against the 10 SA Objectives defined within the finalised SEStran RTS SEA Framework (**Appendix C**).

- 4.5.3 The high-level nature of proposed strategic framework elements within the Draft RTS (Vision, RTS Objectives, TPOs) precluded the identification of specific likely significant environmental effects. As with the SEA of the Case for Change Report, the assessment of these components has therefore focused on testing the compatibility and coverage of the Draft RTS strategic framework with the RTS SEA Framework.
- 4.5.4 The assessment of more detailed policies and actions which do have the potential to generate individual likely significant effects has been undertaken using the general qualitative scoring system shown in **Table 4.3** below.

Table 4.3: SEA Scoring System to Establish Likely Significant Effects

Score	Description	Symbol
Significant (Major) Positive Effect	The proposed policy contributes significantly to the achievement of the SEA Objective.	++
Minor Positive Effect	The proposed policy contributes to the achievement of the SEA Objective but not significantly.	+
Neutral Effect	The proposed policy is related to but does not have any effect on the achievement of the SEA Objective	0
Minor Negative Effect	The proposed policy detracts from the achievement of the SEA Objective but not significantly	-
Significant (Major) Negative Effect	The proposed policy detracts significantly from the achievement of the SEA Objective. Mitigation is therefore required.	--
Uncertain Effect	The proposed policy has an uncertain relationship to the SEA Objective or the relationship would be dependent on the way in which the aspect is managed.	?
No Clear Relationship	There is no clear relationship between the proposed policy and the achievement of the SEA Objective, or the relationship is negligible.	~

- 4.5.5 The findings of the detailed assessment of proposed RTS policies and actions are presented in matrices within **Appendix E**, with a summary of the likely significant environmental effects provided in **Section 6**.
- 4.5.6 Whilst it has not be possible to assess individual transport interventions at this stage, to inform the future development of interventions the key environmental constraints and sensitivities of each Transport Corridor has been identified through this SEA, as detailed in **Appendix F**. Environmental sensitivities were identified with reference to the Criteria to Assess Candidate Transport Options listed within the SEStran RTS SEA Framework (Appendix C) where relevant. To ensure the avoidance of likely significant adverse effects and allow transport interventions to contribute positively to the implementation of the SEStran RTS SEA Framework, identified environmental sensitivities will need to be taken account of in the design, planning, construction and implementation of relevant transport interventions.

## 4.6 Consideration of Reasonable Alternatives

- 4.6.1 The 2005 Act requires the likely significant effects of implementing both a plan or programme (i.e. the emerging RTS) and reasonable alternatives to it to be examined, as well as the rationale for identifying reasonable alternatives to be described. The SEA Act further states that to be considered as reasonable alternatives, options (e.g. alternative policy criteria or site allocations) must relate to the plan or programmes' corresponding objectives and geographical scope. To be eligible for consideration in this SEA process, reasonable alternatives must therefore be:
- **Realistic**, in that they are plausible alternatives which could be implemented instead of proposals within the emerging RTS and are consistent with relevant national and other policy frameworks (specifically including the emerging NTS2);
  - **Related** to the objectives of the emerging RTS; and,
  - Within the **geographical scope** of the emerging RTS, i.e. any reasonable alternatives would need to relate to transport needs, provision or infrastructure within the SEStran region.
- 4.6.2 As reasonable alternatives must relate to the objectives of the plan under consideration, it was not possible to identify any clear reasonable alternatives to the RTS vision and objectives, as any alternatives would change the strategic direction of the strategy. Reflecting the components of the emerging RTS, potential reasonable alternative options relate to the development of policies, actions and options.

### Policies and Actions

- 4.6.3 Alternative policies and actions were considered during the preparation of the Draft RTS to implement the proposed SEStran RTS vision and objectives. The rationale for the development of individual proposed policies is explained fully within the Draft RTS. In all cases, each policy is considered necessary either to implement higher level statutory and national policy requirements, achieve identified RTS Objectives and address associated TPOs, or otherwise to address identified key environmental issues (**Table 3.1**).
- 4.6.4 As detailed in **Section 5**, a series of recommendations have now been developed and incorporated within proposed policies and actions through the SEA process to improve their effectiveness and clarity. The assessment presented in **Section 6** and **Appendix E** of this SEA report has been updated to take account of all agreed mitigation now incorporated within the Draft RTS. This means all policies included within the Draft RTS themselves constitute reasonable alternative policy options and no further reasonable alternative options have been identified.

### Options

- 4.6.5 A high level and non-spatially defined list of transport options ('the initial options generation matrix') was defined by SEStran in the RTS Case for Change Report as the starting point to develop options to implement the proposed RTS Strategic Objectives. In accordance with SEA caselaw, all implementation components within an emerging plan themselves need to constitute reasonable options to implement the purpose of the plan, i.e. to achieve proposed RTS Strategic Objectives. An assessment of the initial options generation matrix was therefore carried out to demonstrate that all initially identified types of options are themselves reasonable and that no potentially reasonable alternatives have been excluded from consideration.
- 4.6.6 The high-level nature of the Draft RTS precluded the development of individual transport options or interventions at this stage. However, the STAG Preliminary Options Appraisal defined a suite of 18 Transport Corridors corresponding with key movements within the SEStran region where any future strategic transport interventions should be focused. The initial options generation

matrix has now been overlaid against these Transport Corridors to identify potential types of options which could be progressed, but at this stage no spatially defined interventions have been developed and thus none have been assessed in this SEA.

## 5 How has the SEA Informed the Draft RTS?

### 5.1 Introduction

- 5.1.1 The identification of any assumptions and uncertainties is an important element of SEA, as all components of a development plan need to be unambiguous to ensure they can be implemented as intended. In addition, the 2005 Act requires consideration to be given to “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”. A key role of the SEA process is therefore to devise appropriate mitigation and enhancement recommendations in order to address identified uncertainties, resolve deficiencies and strengthen the sustainability performance of the plan being assessed. This section details the ways in which the SEA process to date has informed and improved the Draft RTS.
- 5.1.2 There are several methods which can be used to mitigate potential adverse impacts and more widely enhance the contribution of specific components of an emerging plan to achieving sustainable development:
- Developing additional components to address key issues not fully addressed within the current version of the emerging strategy or to mitigate specific predicted impacts;
  - Adjusting or expanding components to ensure they can be implemented as intended and effectively address relevant issues; or,
  - Setting requirements to show how future actions or proposals addresses key environmental and sustainability issues identified in the strategy.

### 5.2 SEA Review of Emerging Draft RTS

- 5.2.1 A SEA focused review of emerging content for inclusion in the Draft RTS was undertaken by the SEA project team in September 2021 to address any emerging structural or environmental issues at the earliest opportunity. This review benefited from SEA mitigation recommendations already having been developed and implemented within strategic framework elements through the SEA of the RTS Case for Change Report (July 2021) to address identified weaknesses and improve the environmental performance of the proposed RTS vision and objectives, which allowed the review to focus on iterative testing and refinement of new Draft RTS components including policies.
- 5.2.2 The settled version of the Draft RTS was provided to Stantec UK in October 2021 to allow a formal SEA of its substantive content to be undertaken. This SEA was then undertaken on a pre-mitigation basis, which allowed any ambiguities and other weaknesses to be identified and appropriate mitigation and enhancement recommendations to be devised by the SEA project team. Further recommendations to address potential weaknesses identified within components of the Draft RTS and further enhance the ability of the document to tackle key sustainability issues were then developed by Stantec. These recommendations were largely incorporated within the Draft RTS, following which this SEA report was updated to reflect the final position and the improved environmental performance of many proposed components. This has resulted in the removal of previously identified uncertainties and inconsistencies from, and improved coverage of identified key environmental issues, within the Draft RTS.
- 5.2.3 The specific recommendations developed by the SEA project team to enhance the environmental performance of the Draft RTS and how these have been addressed are outlined in **Table 5.1** below. In addition, the SEA project team also identified a range of minor suggestions throughout the Draft RTS to clarify the scope, role and delivery of the document, all of which have now been incorporated within the Draft RTS as published for consultation.

Table 5.1: Pre-Assessment Phase Recommendations

Ref	Policy or Action	Pre-Assessment Phase Recommendations	Response
SHAPING DEVELOPMENT AND PLACE			
1.	Policy f)	Explanation of developer contributions for strategic transport infrastructure required, this should include who would be responsible for developing and implementing it.	Further supporting text will be added to support the implementation of these policies following publication of the Draft NPF4 and STPR Phase 2 Report, as these will inform any proposals for strategic transport infrastructure and schemes.
2.	Action	Regionally strategic sustainable transport schemes need to be defined.	
REALLOCATION OF ROADSPACE ON THE REGIONAL AND LOCAL NETWORK			
3.	Policy e)	Broaden scope of the policy to ensure it takes into account impact on the environment and communities.	Recommendation agreed and implemented.
DECARBONISING THE FLEET			
4.	Policy b)	Amend action to reference NTS2 Sustainable Travel Hierarchy and demand management measures to ensure active travel is prioritised and EVs don't contribute to congestion.	Recommendation agreed and implemented.
5.	Policy c)	Clarify the framework referred to. Is it a component of the RTS or still to be developed.	Recommendation agreed and implemented.
FACILITATING EFFICIENT FREIGHT MOVEMENT AND PASSENGER TRAVEL			
6.	Policy b) & Action	Add supporting text in the overview section providing a reasoned justification for the policy. This should introduce the need for the transport network to the effects of climate change, including building resilience into the existing network and new infrastructure.	Recommendation agreed and implemented.
REDUCING CAR KILOMETRES			
7.	Policy a)	Remove reference to alternatives.	Recommendation agreed and implemented.

## 5.3 Summary

- 5.3.1 This section has demonstrated that through resolving uncertainties and inconsistencies, and by identifying opportunities to improve the clarity and environmental performance of the Draft RTS, the SEA process has closely influenced the content of the document. As a result, the consultation version of the Draft RTS is now considered to be more robust and effective in terms of addressing relevant environmental issues. Once the finalised RTS has been approved by the Scottish Ministers a SEA Post Adoption Statement will be prepared in accordance with statutory requirements to set out, amongst other matters, how environmental considerations and the views of the SEA Consultation Authorities have been taken account of in the preparation of the RTS.

## 6 Key Findings – SEA of Draft RTS

### 6.1 Overview

- 6.1.1 This section provides the results of the SEA undertaken in respect of the substantive components of the Draft RTS, namely strategic framework elements (vision, RTS objectives and associated TPOs) and the related suite of policies and actions to implement the RTS

### 6.2 SEA of Strategic Framework

#### Coverage of Key Environmental Issues in Case for Change Report

- 6.2.1 The context for the emerging RTS is set out in Sections 2 and 3 of the Draft RTS. These sections outline pertinent baseline conditions, identify key transport challenges in the region and forecast future trends with regards to demographics and transport use.
- 6.2.2 Section 4 of the Draft RTS summarises how the SMART and evidence-based Transport Planning Objectives (TPOs) were developed at the RTS Case for Change stage in order to provide a robust basis to underpin the development of RTS policies, actions and options. 29 TPOs have been devised, which in turn act as the foundation for an overarching vision and four high level proposed RTS Strategic Objectives:
- Strategy Objective 1: Transitioning to a Sustainable, Post-Carbon Transport System
  - Strategy Objective 2: Facilitating Greater Physical Activity
  - Strategy Objective 3: Widening Public Transport Connectivity and Access Across the Region
  - Strategy Objective 4: Supporting Safe, Sustainable and Efficient Movement of People and Freight Across the Region
- 6.2.3 A high-level assessment of the compatibility of the vision, 29 TPOs and 4 RTS Objectives with the SEA Objectives included in the RTS SEA Framework (**Appendix C**) is presented in **Appendix D**. In summary, this indicates:
- Overall, the identified TPOs provide good coverage of the SEStran RTS SEA Framework and associated key issues, especially in relation to socio-economic related SEA Objectives. Further consideration should however be given to ensuring that strategic elements of the RTS provide direct coverage of Biodiversity, Heritage and Landscape SEA Objectives to maximise positive environmental outcomes.
  - In general, the proposed RTS Objectives provide an appropriate high-level platform from which to develop specific schemes, policies and proposals to address a range of key environmental (as well as socio-economic and wider) issues. However, as individual proposed RTS Strategic Objectives respond to specific TPOs they have differential relationships with individual SEA Objectives and the RTS Strategic Objectives are not necessarily fully integrated. Each of the RTS Strategic Objectives underpin the development of specific lower-level RTS components, which could give rise to potential tensions, gaps or ‘silo working’ between the implementation of specific RTS Strategic Objectives through individual policies.



## 6.3 SEA of Policies and Actions

- 6.3.1 To implement the proposed RTS Objectives a suite of policies and actions have been developed, framed around 12 Regional Mobility Themes which have been used to form the structure of the Draft RTS. This section presents key findings from the SEA of the proposed policies and actions detailed within the Draft RTS. The summary assessment provided below uses each of the SEA Objectives from the SEStran RTS SEA Framework (Appendix C) as headings, whilst detailed matrices identifying all likely effects from the policies is provided in Appendix E.

### SEA Objective 1 – Health

- 6.3.2 All actions and policies are predicted to have a significant positive effect on this objective. A large proportion of the policies and actions are designed to increase the proportion of trips undertaken by active travel (walking, cycling and wheeling) allowing people to incorporate exercise into their daily trips and increasing peoples level of activity. Exercise is known to have beneficial effects on both mental and physical health.
- 6.3.3 The actions and policies included to decarbonise vehicles are expected to improve air quality which in turn is predicted to have a significant positive effect on health, particularly respiratory health, as people will be exposed to less harmful emission.
- 6.3.4 Actions and Policies of note are:
- *Delivering Safe Active Travel*
    - Policy - a) The RTS seeks the implementation of measures which improve facilities for those walking, wheeling or cycling.
    - Policy - e) Roadspace for active travel should be prioritised in towns and cities in line with the sustainable travel hierarchy and this should be integrated into local strategies and policy documents.
    - Action - Deliver road safety measures that enable people to safely use active travel within in the region.
    - Action - Promotional and communication campaigns to highlight the benefits of active travel across the region and encourage people to adopt it where possible.
  - *Enhancing Access to Public Transport*
    - Policy - a) The public transport network should be physically accessible for all including vulnerable groups such as those with disabilities, mobility impairments and the elderly. This requires full compliance with the requirements of the Disability Discrimination Act.
  - *Reallocating Roadspace on the Regional and Local Network*
    - Policy - a) The RTS encourages the reallocation of roadspace away from general traffic to specific groups of road users including for public transport and active travel.
  - *Improving Integration Between Modes*
    - Policy - b) Local access to multi-modal mobility hubs should be facilitated by high quality active travel routes that enable safe walking, wheeling and cycling.
  - *Facilitating Efficient Freight Movement and Passenger Travel*



- Policy - a) Additional locations for commercial vehicle driver rest areas on the strategic road network should be investigated.
- Action - Undertake analysis to identify locations where additional commercial vehicle driver rest areas may be required on the strategic road network.
- *Working Towards Zero Road Deaths and Serious Injuries*
  - Policy - c) In urban environments 20 mph zones, traffic calming and other road safety measures should be used to provide a safe environment for all users of the road network.
  - Policy - e) Target zero fatalities and serious injuries on the region's roads by 2050.
  - Action - Develop Route Action Plans for key rural corridors which require a coordinated approach to road safety along their route where there is greater scope for conflict between high speed through traffic and slow turning traffic.
  - Action - Identify locations where local speed limit amendments may be required to improve safety.
- *Reducing Car Kilometres*
  - Policy - a) The RTS seeks the implementation of low and zero emission zones where appropriate alternatives are provided and supports the delivery of the Edinburgh Low Emission Zone.
  - Policy - f) Where appropriate support behaviour change and the use of more sustainable modes of transport by a combination of enhanced infrastructure, information provision, innovation and measures to discourage car use.
  - Action - Drawing upon the analysis undertaken, develop and implement an action plan to deliver measures in the SEStran region to support the delivery of the Scottish Government's car traffic reduction target across the region.
- *Responding to the Post-Covid World*
  - Policy - b) The RTS will be flexible in responding to these changing travel behaviour trends and adapt accordingly as it becomes clearer what the 'new normal' will entail.
  - Policy - c) Measures to mitigate the impacts of the Covid-19 pandemic and the resulting implications for towns and cities will be supported providing they maintain consistency with the wider policy set out in the RTS.

## SEA Objective 2 – Accessibility

6.3.5 The Accessibility Objective receives good coverage across all actions and policies which are largely predicted to have a significant positive effect. The actions and policies seek to improve accessibility in terms of both physical access to the network and infrastructure and also access to information about services and prioritising vulnerable groups and those who live in rural areas.

6.3.6 Actions and policies of note are:

- *Shaping Development and Place*

- Policy - a) New developments should be located to (i) reduce the need to travel and (ii) minimise the use of unsustainable modes by the application of Transit Oriented Development (TOD), 20-minute neighbourhood and shared mobility concepts.
- Policy - b) 20-minute neighbourhoods should be implemented in urban areas where active travel and shared mobility provision enable sustainable access to local services and amenities in a safe and sustainable manner.
- Policy - c) New residential development should be located where connectivity by sustainable modes to existing and planned employment centres as well as key services is high.
- Policy - d) New public services should be located where connectivity by active travel and public transport to the public is high but particularly with regards to the location of 'deprived' communities (e.g., health provision should be located with connectivity to health deprived communities in mind).
- Action - Partner Councils work with SEStran through the statutory planning processes to implement RTS policies with regards to major developments.
- *Delivering Safe Active Travel*
  - Policy - b) The progression, implementation and ultimate completion of the SEStran Strategic Network is a key policy.
  - Action - Progress the delivery of the SEStran Strategic Network and broader cross boundary networks with partners. Develop further phases of this network to ensure a long-term pipeline of investment.
  - Action - Review destinations served by the active travel network to identify gaps and locations where cross boundary schemes may be required to ensure an integrated, high quality network exists.
  - Action - Expand the provision of bike sharing initiatives across the region.
- *Enhancing Access to Public Transport*
  - Policy - a) The public transport network should be physically accessible for all including vulnerable groups such as those with disabilities, mobility impairments and the elderly. This requires full compliance with the requirements of the Disability Discrimination Act.
  - Policy - b) Public transport information should be provided in a variety of formats to meet the specific needs of all users.
  - Policy - c) The public transport system should be affordable for all based on their ability to pay.
  - Policy - d) Shared mobility solutions should be implemented to provide enhanced access to a wider range of transport options without the requirement for ownership.
  - Action - Regional audit to identify stops, stations and interchanges which do not meet accessibility requirements and to develop a prioritised list of interventions.
  - Action - Deliver improved public transport information in a variety of formats supported by appropriate wayfinding infrastructure on the transport network.

- Action - Resist pressures to increase public transport fares and explore opportunities to provide more affordable public transport for those least able to pay for it.
- *Enhancing and Extending the Bus Service*
  - Policy - a) Bus priority measures should be implemented to deliver a network of regional, cross boundary quality bus corridors that link up key urban centres building upon existing bus priority measures.
  - Policy – f) Service improvements should be implemented in locations identified as at most risk of a combination of transport poverty and deprivation.
  - Policy – g) Demand Responsive Transport should be implemented where traditional scheduled bus services are unfeasible particularly in rural and remote areas.
  - Action - Undertake a Regional Bus Connectivity study for non-Edinburgh travel to identify settlement pairs where travel demand is high and bus services are poor as a means to promoting new routes and connectivity (in partnership with other policies).
  - Action - Undertake further analysis to develop options to improve bus service connectivity to areas identified as being poorly connected to essential services and suffering from related deprivation. This could include increased service frequencies, new services, more direct services and / or more express services.
  - Action - Work with partners to implement new direct and express services to link settlements across the region that require multiple interchanges or excessively long journey times.
- *Enhancing and Extending the Train Service*
  - Policy - a) Opportunities should be explored with partners to expand the rail network in the south-east of Scotland through new lines and stations where appropriate, cost effective and in line with strategy objectives.
  - Policy – c) Opportunities should be explored with partners to introduce new services including more direct links across the region and enhanced cross city connections.
  - Policy - h) The rail network should be affordable for all and opportunities for fares rationalisation across Scotland should be explored to ensure parity of access and affordability.
  - Action - Identify capacity constraints upon the rail network and appropriate resolutions to enable the provision of passenger and freight services that meet both current and future needs.
- *Reallocating Roadspace on the Regional and Local Network*
  - Policy - a) The RTS encourages the reallocation of roadspace away from general traffic to specific groups of road users including for public transport and active travel.
  - Action - Develop a framework and set of criteria to assist partners in identifying and delivering local and regional road space reallocation proposals. This should be undertaken in an inclusive way and in line with the National Transport Strategy's sustainable travel hierarchy.
- *Improving Integration Between Modes*

- Policy - a) A network of integrated, multi-modal mobility hubs should be implemented across the region starting with the 8 pilot locations identified in the SEStran Mobility Hub study.
- Policy - b) Local access to multi-modal mobility hubs should be facilitated by high quality active travel routes that enable safe walking, wheeling and cycling.
- Policy - c) Park and ride provision should be enhanced where there is evidence of sufficient residential walk, cycle and drive-in catchment and where there is evidence of localised parking issues such as overspill and excessive parking which impact on local residential networks.
- Action - Identify locations where increased park and ride capacity may be required taking into account findings from recent SEStran and ScotRail park and ride studies.
- Action - Support provision of taxis, ride sourcing and community transport for vulnerable groups and people without adequate access to public or private transport.
- *Decarbonising Transport*
  - Policy - c) The RTS seeks the roll out of EV charging infrastructure to support decarbonisation of car-based travel.
  - Action - Pursue Scottish Government for effective national strategy / guidance / specifications on fleet decarbonisation and rollout of appropriate and future-proofed supporting infrastructure. This should include legislation to manage on-street charging provision and provision of chargers in new developments.
  - Action - Working with the private sector and partners to develop a regional electric vehicle investment and charging strategy, with associated technical guidance, including a spatial strategy across the area for long journey rapid charging facilities and for local area hub / community charging.
- *Facilitating Efficient Passenger Travel and Freight Movement*
  - Policy - c) Opportunities should be sought to reestablish direct passenger and freight ferry links with Europe where appropriate and viable.
  - Policy - d) The RTS seeks the implementation of passing loops and other appropriate infrastructure that will enable additional train paths for rail freight services to be provided in the region.
  - Action - Engage with partners to explore opportunities to reintroduce ferry links to Europe.
- *Working Towards Zero Road Deaths and Serious Injuries*
  - Policy - c) In urban environments 20 mph zones, traffic calming and other road safety measures should be used to provide a safe environment for all users of the road network.
  - Action - Develop Route Action Plans for key rural corridors which require a coordinated approach to road safety along their route where there is greater scope for conflict between high speed through traffic and slow turning traffic.
  - Action - Pursue a national review of speed limits.

- Action - Identify locations where local speed limit amendments may be required to improve safety.
- *Reducing Car Kilometres*
  - Policy - b) The RTS is supportive of appropriate demand management measures where suitable active travel and public transport alternatives are in place.
  - Policy - c) Further expansion of trip sharing and car sharing services should be undertaken across the region to reduce the need for car ownership.
  - Policy - d) Ongoing expansion and upgrading of digital connectivity is supported to reduce the need to travel and enable the adoption of flexible and agile working patterns.
  - Policy - e) Park and Ride provision should be enhanced where required to enable car journeys to transfer to public transport for at least part of the trip.
  - Action - Explore the most effective model for regional delivery of trip sharing and car sharing services across the region.
- *Responding to the Post Covid World*
  - Policy - b) The RTS will be flexible in responding to these changing travel behaviour trends and adapt accordingly as it becomes clearer what the 'new normal' will entail.
  - Action - Drawing on the findings of the monitoring reports, revisit the RTS when the post-covid picture has stabilised to determine any policy adjustments required to reflect the 'new normal' circumstances.

### SEA Objective 3 – Material Assets

- 6.3.7 All actions and policies are predicted to have significant positive effects on the Material Assets SEA Objective. They seek to make the best use of existing infrastructure, such as park and rides, by making them accessible to more people, research will be undertaken to identify where improvements are most needed and would provide most benefit.
- 6.3.8 Decarbonising the fleet and reducing the number of kilometres travelled in cars will help to ensure natural resources are used effectively and efficiently.
- 6.3.9 The improvements to public transport to make it more accessible and to enhance and extend bus and train services is likely to result in greater uptake of public transport and reduced car use which will reduce congestion and allow transport infrastructure to operate more efficiently.
- 6.3.10 Actions and policies of note are:
- *Shaping Development and Place*
    - Policy - a) New developments should be located to (i) reduce the need to travel and (ii) minimise the use of unsustainable modes by the application of Transit Oriented Development (TOD), 20-minute neighbourhood and shared mobility concepts.
    - Policy - c) New residential development should be located where connectivity by sustainable modes to existing and planned employment centres as well as key services is high.
    - Policy - d) New public services should be located where connectivity by active travel and public transport to the public is high but particularly with regards to the location of

'deprived' communities (e.g., health provision should be located with connectivity to health deprived communities in mind).

- Action - Partner Councils work with SEStran through the statutory planning processes to implement RTS policies with regards to major developments.

■ *Delivering Safe Active Travel*

- Policy - e) Roadspace for active travel should be prioritised in towns and cities in line with the sustainable travel hierarchy and this should be integrated into local strategies and policy documents.
- Action - Review destinations served by the active travel network to identify gaps and locations where cross boundary schemes may be required to ensure an integrated, high quality network exists.
- Action - Deliver road safety measures that enable people to safely use active travel within in the region.

■ *Enhancing Access to Public Transport*

- Policy - d) Shared mobility solutions should be implemented to provide enhanced access to a wider range of transport options without the requirement for ownership.
- Action - Regional audit to identify stops, stations and interchanges which do not meet accessibility requirements and to develop a prioritised list of interventions.

■ *Enhancing and Extending the Bus Service*

- Policy - c) Bus priority should also be designed into major infrastructure and new development schemes.
- Policy - f) Service improvements should be implemented in locations identified as at most risk of a combination of transport poverty and deprivation.
- Action - Undertake a Regional Bus Connectivity study for non-Edinburgh travel to identify settlement pairs where travel demand is high and bus services are poor as a means to promoting new routes and connectivity (in partnership with other policies).
- Action - Undertake a Regional Bus Priority study which will identify regional, cross boundary quality bus corridors and key bus priority interventions to reduce bus journey times and improve bus journey time reliability where Edinburgh is likely to be a focus.
- Undertake further analysis to develop options to improve bus service connectivity to areas identified as being poorly connected to essential services and suffering from related deprivation. This could include increased service frequencies, new services, more direct services and / or more express services.

■ *Enhancing and Extending the Train Service*

- Policy - c) Opportunities should be explored with partners to introduce new services including more direct links across the region and enhanced cross city connections.
- Policy - d) The resolution of key capacity constraints on the rail network should be taken forward as a priority.

- Policy - e) The full electrification of the rail network in the region should be delivered in line with Transport Scotland's decarbonisation strategy.
- Policy - f) Opportunities to link the region to the emerging High Speed Rail network should be explored. The RTS supports reduced cross-border rail journey times as a means to improve competitiveness with short haul flights and reduce emissions.
- Action - Support / undertake appraisal and business case development for new rail infrastructure including lines, stations and services.
- Action - Work with Transport Scotland and Network Rail to deliver new rail infrastructure in the region where appraisal and business case development has demonstrated its merits.
- *Reallocating Roadspace on the Regional and Local Network*
  - Policy - a) The RTS encourages the reallocation of roadspace away from general traffic to specific groups of road users including for public transport and active travel.
  - Action - In collaboration with bus operators, undertake analysis of regional and cross-boundary corridors where congestion is impacting on bus operations and identify locations where roadspace reallocation may be required.
- *Improving Integration between Modes*
  - Policy - c) Park and ride provision should be enhanced where there is evidence of sufficient residential walk, cycle and drive-in catchment and where there is evidence of localised parking issues such as overspill and excessive parking which impact on local residential networks.
  - Policy - e) Opportunities to expand DRT provision should be sought and to make the most efficient usage of capacity available on existing transport services.
  - Action - Identify locations where increased park and ride capacity may be required taking into account findings from recent SEStran and ScotRail park and ride studies.
  - Action - Work with DRT and community transport operators to deliver more widespread and efficient usage of services in areas where traditional fixed-route bus services are inappropriate.
- *Decarbonising Transport*
  - Policy - a) The RTS seeks the implementation of measures which facilitate the decarbonisation of the vehicle fleet including cars, buses, vans, trains, ships and aircraft in line with national requirements.
  - Action - Develop and coordinate a regional information strategy including messaging around the need to ensure EVs are not regarded as a green light to increased car use and the range of issues associated with this
- *Facilitating Efficient Freight Movement and Passenger Travel*
  - Policy - f) Freight Consolidation Centres should be implemented at key locations on the strategic network including potentially on the A720 Edinburgh City Bypass and Leith Port.



- Policy - d) Micro-consolidation centres should be implemented in conjunction with multi-modal mobility hubs and supported by sustainable last mile logistics including cycle logistics and electric vans.
- Policy - c) Opportunities should be sought to enhance gauge clearances on the rail network to enable a wider range of freight wagons and containers to operate on the region's network and for the number of rail freight services to be increased accordingly.
- Policy - e) The RTS seeks the implementation of passing loops and other appropriate infrastructure that will enable additional train paths for rail freight services to be provided in the region.
- Action - Work with partners to identify locations where targeted infrastructure investment may be required and work to deliver it where appropriate.
- Action - Work with partners to identify, through the further development of the SEStran Freight Strategy, locations where Freight Consolidation Centres could be located.
- Action - Implement micro-consolidation centres alongside the delivery of multi-modal mobility hubs with supporting cycle logistics and electric vans last mile logistics.
- Action - Work with partners to identify, through the further development of the SEStran Freight Strategy, locations where gauge clearances should be increased to enable new and enhanced rail freight services to operate in the region.
- Action - Work with partners to identify, through the further development of the SEStran Freight Strategy, locations where passing loops or other capacity improvements may be required to provide additional train paths for rail freight services.
- *Working Towards Zero Road Deaths and Serious Injuries*
  - Policy - a) The RTS supports the implementation of road safety schemes on the regional network targeted at locations of collision clusters.
  - Action - Identify collision cluster locations for the implementation of road safety schemes.
  - Action - Undertake analysis to identify single carriageway routes with high proportions of HGVs and other large vehicles where the implementation of safe overtaking opportunities may be required to prevent frustration which can lead to unsafe overtaking manoeuvres.
  - Action - Develop Route Action Plans for key rural corridors which require a coordinated approach to road safety along their route.
  - Action - Undertake analysis to identify single carriageway routes with high proportions of HGVs and other large vehicles where the implementation of safe overtaking opportunities may be required.
- *Reducing Car Kilometres*
  - Policy - b) The RTS is supportive of appropriate demand management measures where suitable active travel and public transport alternatives are in place.
  - Policy - e) Park and Ride provision should be enhanced where required to enable car journeys to transfer to public transport for at least part of the trip.



- Action - Undertake further analysis to identify the scope and scale of 'avoidable' car kilometres across the region which can then be targeted through improved information, improvements to public transport and appropriate demand management measures.
- Action - Research demand management measures which may be appropriate for the region including parking management and charges, reduced parking provision, improved enforcement of parking regulations, Workplace Parking Levies as well as congestion and road user charging.
- Responding to the Post-Covid World
  - Policy - b) The RTS will be flexible in responding to these changing travel behaviour trends and adapt accordingly as it becomes clearer what the 'new normal' will entail.
  - c) Measures to mitigate the impacts of the Covid-19 pandemic and the resulting implications for towns and cities will be supported providing they maintain consistency with the wider policy set out in the RTS.
  - Action - Drawing on the findings of the monitoring reports, revisit the RTS when the post-covid picture has stabilised to determine any policy adjustments required to reflect the 'new normal' circumstances.

## SEA Objective 4 – Productivity, Competitiveness and Innovation

- 6.3.11 Overall the Productivity, Competitiveness and Innovation SEA Objective is covered well by the themes and their associated policies and actions will have significant positive effects. It is considered that the policies and actions will allow industry to improve efficiency in transporting goods with more direct routes to market. Conditions for drivers of freight are likely to improve with better rest stops to be delivered.
- 6.3.12 Overall accessibility across the region is expected to improve giving businesses access to the best talent who may previously have been restricted by their transport options to employment locations. Better transport options can also increase productivity by reducing the affects of fatigue on employees who may previously have experienced long and tiring commutes.
- 6.3.13 Actions and policies of note are:
- *Shaping Development and Place*
    - Policy - c) New residential development should be located where connectivity by sustainable modes to existing and planned employment centres as well as key services is high.
    - Policy - d) New public services should be located where connectivity by active travel and public transport to the public is high but particularly with regards to the location of 'deprived' communities (e.g., health provision should be located with connectivity to health deprived communities in mind).
  - *Delivering Safe Active Travel*
    - Policy - e) Roadspace for active travel should be prioritised in towns and cities in line with the sustainable travel hierarchy and this should be integrated into local strategies and policy documents.

- Action - Review destinations served by the active travel network to identify gaps and locations where cross boundary schemes may be required to ensure an integrated, high quality network exists.
- Action - Deliver road safety measures that enable people to safely use active travel within in the region.
- Action - Promotional and communication campaigns to highlight the benefits of active travel across the region and encourage people to adopt it where possible.
- Action - Expand the provision of bike sharing initiatives across the region.
- *Enhancing Access to Public Transport*
  - Policy - a) The public transport network should be physically accessible for all including vulnerable groups such as those with disabilities, mobility impairments and the elderly. This requires full compliance with the requirements of the Disability Discrimination Act.
  - Policy - c) The public transport system should be affordable for all based on their ability to pay.
  - Policy - d) Shared mobility solutions should be implemented to provide enhanced access to a wider range of transport options without the requirement for ownership.
  - Action - Regional audit to identify stops, stations and interchanges which do not meet accessibility requirements and to develop a prioritised list of interventions.
  - Action - Identify locations where implementation of shared mobility solutions could be beneficial and reduce the requirement for forced car ownership.
- *Enhancing and Extending the Bus Service*
  - Policy - a) Bus priority measures should be implemented to deliver a network of regional, cross boundary quality bus corridors that link up key urban centres building upon existing bus priority measures.
  - Policy - f) Service improvements should be implemented in locations identified as at most risk of a combination of transport poverty and deprivation.
  - Policy - g) Demand Responsive Transport should be implemented where traditional scheduled bus services are unfeasible particularly in rural and remote areas.
  - Action - Undertake a Regional Bus Connectivity study for non-Edinburgh travel to identify settlement pairs where travel demand is high and bus services are poor as a means to promoting new routes and connectivity (in partnership with other policies).
  - Action - Undertake a Regional Bus Priority study which will identify regional, cross boundary quality bus corridors and key bus priority interventions to reduce bus journey times and improve bus journey time reliability where Edinburgh is likely to be a focus.
  - Action - Undertake further analysis to develop options to improve bus service connectivity to areas identified as being poorly connected to essential services and suffering from related deprivation. This could include increased service frequencies, new services, more direct services and / or more express services.
- *Enhancing and Extending the Train Service*

- Policy - a) Opportunities should be explored with partners to expand the rail network in the south-east of Scotland through new lines and stations where appropriate, cost effective and in line with strategy objectives.
- Policy - b) The RTS supports the delivery of new stations at Reston, East Linton, Winchburgh and at Leven and Cameron Bridge as part of the delivery of Levenmouth rail link.
- Policy - c) Opportunities should be explored with partners to introduce new services including more direct links across the region and enhanced cross city connections.
- Policy - d) The resolution of key capacity constraints on the rail network should be taken forward as a priority.
- Action - Identify capacity constraints upon the rail network and appropriate resolutions to enable the provision of passenger and freight services that meet both current and future needs.
- *Reallocating Roadspace on the Regional and Local Network*
  - Policy - a) The RTS encourages the reallocation of roadspace away from general traffic to specific groups of road users including for public transport and active travel.
  - Policy - e) Opportunities to provide roadspace reallocation to support the efficiency of freight movements should be explored where these will not significantly disadvantage public transport users, communities or the environment.
  - Action - In collaboration with bus operators, undertake analysis of regional and cross-boundary corridors where congestion is impacting on bus operations and identify locations where roadspace reallocation may be required.
  - Action - Explore the shared use of bus / commercial vehicle lanes through the development and implementation of the SEStran Freight Strategy
- *Improving Integration Between Modes*
  - Policy - b) Local access to multi-modal mobility hubs should be facilitated by high quality active travel routes that enable safe walking, wheeling and cycling.
  - Policy - c) Park and ride provision should be enhanced where there is evidence of sufficient residential walk, cycle and drive-in catchment and where there is evidence of localised parking issues such as overspill and excessive parking which impact on local residential networks.
  - Policy - f) Opportunities should be sought to expand the provision of bike-buses across the region to facilitate more integrated journeys.
  - Action - Work with DRT and community transport operators to deliver more widespread and efficient usage of services in areas where traditional fixed-route bus services are inappropriate.
  - Action - Support provision of taxis, ride sourcing and community transport for vulnerable groups and people without adequate access to public or private transport.
  - Action - Work with partners to deliver more buses in the region with the facilities to carry bikes.

■ *Decarbonising Transport*

- Policy - a) The RTS seeks the implementation of measures which facilitate the decarbonisation of the vehicle fleet including cars, buses, vans, trains, ships and aircraft in line with national requirements.
- Action - Working with the private sector and partners to develop a regional electric vehicle investment and charging strategy, with associated technical guidance, including a spatial strategy across the area for long journey rapid charging facilities and for local area hub / community charging.
- Action - Facilitate pilot projects to encourage transition to alternative fuels for all modes.
- Action - Support alternative fuels for modes such as commercial vehicles and buses by actively engaging in and funding pilot projects across the region.

■ *Facilitating Efficient Freight Movement and Passenger Travel*

- Policy - c) Opportunities should be sought to reestablish direct passenger and freight ferry links with Europe where appropriate and viable.
- Policy - a) Additional locations for commercial vehicle driver rest areas on the strategic road network should be investigated.
- Policy - b) Freight Consolidation centres should be implemented at key locations on the strategic network including potentially on the A720 Edinburgh City Bypass and Leith Port.
- Policy - c) Micro-consolidation centres should be implemented in conjunction with multi-modal mobility hubs and supported by sustainable last mile logistics including cycle logistics and electric vans.
- Policy - d) Opportunities should be sought to enhance gauge clearances on the rail network to enable a wider range of freight wagons and containers to operate on the region's network and for the number of rail freight services to be increased accordingly.
- Policy - e) The RTS seeks the implementation of passing loops and other appropriate infrastructure that will enable additional train paths for rail freight services to be provided in the region.
- Action - Engage with partners to explore opportunities to reintroduce ferry links to Europe.
- Action - Engage with partners to explore opportunities to reintroduce ferry links to Europe.
- Action - Implement micro-consolidation centres alongside the delivery of multi-modal mobility hubs with supporting cycle logistics and electric vans last mile logistics.
- Action - Identify opportunities to implement innovation and automation in the freight and logistics industry in the region including the delivery of relevant pilot projects.

■ *Working Towards Zero Road Deaths and Serious Injuries*

- Policy – a) The RTS supports the implementation of road safety schemes on the regional network targeted at locations of collision clusters and corridors where a consistent and comprehensive approach is required to safety along the entire route.

- Policy - c) Safe overtaking opportunities should be provided on regionally strategic freight corridors and other routes where high proportions of HGVs and other large vehicles create frustration which can lead to unsafe overtaking manoeuvres.
  - Policy - c) In urban environments 20 mph zones, traffic calming and other road safety measures should be used to provide a safe environment for all users of the road network.
  - Action - Develop Route Action Plans for key rural corridors which require a coordinated approach to road safety along their route where there is greater scope for conflict between high speed through traffic and slow turning traffic.
  - Action - Undertake analysis to identify single carriageway routes with high proportions of HGVs and other large vehicles where the implementation of safe overtaking opportunities may be required to prevent frustration which can lead to unsafe overtaking manoeuvres.
- *Reducing Car Kilometres*
- Policy - d) Ongoing expansion and upgrading of digital connectivity is supported to reduce the need to travel and enable the adoption of flexible and agile working patterns.
  - Policy - e) Park and Ride provision should be enhanced where required to enable car journeys to transfer to public transport for at least part of the trip.
  - Action - Research demand management measures which may be appropriate for the region including parking management and charges, reduced parking provision, improved enforcement of parking regulations, Workplace Parking Levies as well as congestion and road user charging.
- *Responding to the Post-Covid World*
- Policy - b) The RTS will be flexible in responding to these changing travel behaviour trends and adapt accordingly as it becomes clearer what the 'new normal' will entail.
  - Policy - c) Measures to mitigate the impacts of the Covid-19 pandemic and the resulting implications for towns and cities will be supported providing they maintain consistency with the wider policy set out in the RTS.
  - Action - Drawing on the findings of the monitoring reports, revisit the RTS when the post-covid picture has stabilised to determine any policy adjustments required to reflect the 'new normal' circumstances.

### **SEA Objective 5 – Air Quality and Amenity**

- 6.3.14 Policies and actions are predicted to have an overall significant positive effect on the Air Quality and Amenity SEA Objective. The RTS includes policies and actions which seek to reduce the number of journeys made in private vehicles and facilitate and encourage more people using public transport and active travel to make journeys. The result of this is predicted to be improved air quality and reduced concentrations of harmful atmospheric pollutants. Policies also seek to minimise the need to travel through integrating transport planning with land use planning.
- 6.3.15 Of particular note are the policies and actions associated with the *Decarbonising Transport* theme which will tackle poor air quality and harmful emissions most directly.

6.3.16 Policies and actions which propose new or extended infrastructure have been scored positively as it is assumed they will only be implemented to meet identified needs and where the overall benefits outweigh any environmental impacts and those impacts are appropriately mitigated. Those would include any impact on amenity resulting from noise and/or vibration.

6.3.17 Actions and policies of note are:

■ *Shaping Development and Place*

- Policy - a) New developments should be located to (i) reduce the need to travel and (ii) minimise the use of unsustainable modes by the application of Transit Oriented Development (TOD), 20-minute neighbourhood and shared mobility concepts.
- Policy - b) 20-minute neighbourhoods should be implemented in urban areas where active travel and shared mobility provision enable sustainable access to local services and amenities in a safe and sustainable manner.
- Policy - e) Local authorities should engage early with SEStran on Local Development Plans and large scale development proposals to assist in the identification of suitable sustainable transport connections to support the development.
- Action - Partner Councils work with SEStran through the statutory planning processes to implement RTS policies with regards to major developments.

■ *Delivering Safe Active Travel*

- Policy - a) The RTS seeks the implementation of measures which improve facilities for those walking, wheeling or cycling.
- Policy - e) Roadspace for active travel should be prioritised in towns and cities in line with the sustainable travel hierarchy and this should be integrated into local strategies and policy documents.
- Action - Review destinations served by the active travel network to identify gaps and locations where cross boundary schemes may be required to ensure an integrated, high quality network exists.
- Action - Promotional and communication campaigns to highlight the benefits of active travel across the region and encourage people to adopt it where possible.
- Action - Expand the provision of bike sharing initiatives across the region.

■ *Enhancing Access to Public Transport*

- Policy - d) Shared mobility solutions should be implemented to provide enhanced access to a wider range of transport options without the requirement for ownership.
- Action - Identify locations where implementation of shared mobility solutions could be beneficial and reduce the requirement for forced car ownership.

■ *Enhancing and Extending the Bus Service*

- Policy - a) Bus priority measures should be implemented to deliver a network of regional, cross boundary quality bus corridors that link up key urban centres building upon existing bus priority measures.

- Action - Undertake a Regional Bus Connectivity study for non-Edinburgh travel to identify settlement pairs where travel demand is high and bus services are poor as a means to promoting new routes and connectivity (in partnership with other policies).
- Action - Undertake further analysis to develop options to improve bus service connectivity to areas identified as being poorly connected to essential services and suffering from related deprivation. This could include increased service frequencies, new services, more direct services and / or more express services.
- *Enhancing and Extending the Train Service*
  - Policy - d) The resolution of key capacity constraints on the rail network should be taken forward as a priority.
  - Action - Identify capacity constraints upon the rail network and appropriate resolutions to enable the provision of passenger and freight services that meet both current and future needs.
  - Action - Work with Transport Scotland and Network Rail to seek the acceleration of the electrification of the rail network of the region.
- *Reallocating Roadspace on the Regional and Local Network*
  - Policy - a) The RTS encourages the reallocation of roadspace away from general traffic to specific groups of road users including for public transport and active travel.
  - Policy - e) Opportunities to provide roadspace reallocation to support the efficiency of freight movements should be explored where these will not significantly disadvantage public transport users, communities or the environment.
  - Action - Develop a framework and set of criteria to assist partners in identifying and delivering local and regional road space reallocation proposals. This should be undertaken in an inclusive way and in line with the National Transport Strategy's sustainable travel hierarchy.
- *Improving Integration between Modes*
  - Policy - b) Local access to multi-modal mobility hubs should be facilitated by high quality active travel routes that enable safe walking, wheeling and cycling.
  - Policy - f) Opportunities should be sought to expand the provision of bike-buses across the region to facilitate more integrated journeys.
  - Policy - g) Where practical opportunities should be sought to enable the secure carriage of bikes on trains.
  - Action - Work with partners to deliver more buses in the region with the facilities to carry bikes.
  - Action - Pursue improved provision of trains equipped with facilities for the safe carriage of bikes.
- *Decarbonising Transport*
  - Policy - a) The RTS seeks the implementation of measures which facilitate the decarbonisation of the vehicle fleet including cars, buses, vans, trains, ships and aircraft in line with national requirements.



- Policy - b) The RTS recognises the risks associated with lower car running costs and supports measures (subject to equality impacts) to prevent renewed growth in private car travel, and to encourage the use of alternative modes in line with the NTS 2 sustainable travel hierarchy.
  - Policy - c) The RTS seeks the roll out of EV charging infrastructure to support decarbonisation of car-based travel.
  - Action - Pursue Scottish Government for effective national strategy / guidance / specifications on fleet decarbonisation and rollout of appropriate and future-proofed supporting infrastructure. This should include legislation to manage on-street charging provision and provision of chargers in new developments.
  - Action - Develop and coordinate a regional information strategy including messaging around the need to ensure EVs are not regarded as a green light to increased car use and the range of issues associated with this.
- *Facilitating Efficient Freight Movement and Passenger Travel*
- Policy - g) Micro-consolidation centres should be implemented in conjunction with multi-modal mobility hubs and supported by sustainable last mile logistics including cycle logistics and electric vans.

## SEA Objective 6 – Climate Change Mitigation

- 6.3.18 The policies and actions are predicted to have positive effects on the Climate Change Mitigation SEA Objective. Actions include increasing the number of rail lines that are electrified, improving access to public transport for all areas across the region and facilitating and encouraging the uptake of active travel all of which is considered to contribute to efforts to decarbonise the transport sector.
- 6.3.19 *Facilitating Efficient Passenger Travel and Freight Movement* contains a specific policy regarding adaptation of transport networks and services to be robust and resilient to the impacts of climate change.
- 6.3.20 Actions and policies of note are:
- *Shaping Development and Place*
- Policy - a) New developments should be located to (i) reduce the need to travel and (ii) minimise the use of unsustainable modes by the application of Transit Oriented Development (TOD), 20-minute neighbourhood and shared mobility concepts.
  - Policy - b) 20-minute neighbourhoods should be implemented in urban areas where active travel and shared mobility provision enable sustainable access to local services and amenities in a safe and sustainable manner.
  - Policy - d) New public services should be located where connectivity by active travel and public transport to the public is high but particularly with regards to the location of 'deprived' communities (e.g., health provision should be located with connectivity to health deprived communities in mind).
  - Action - Undertake a regional audit of Local Development Plans, Indicative Regional Spatial Strategies, Regional Economic Strategy, Local Transport Strategies and relevant national plans (including the Strategic Transport Projects Review 2) to identify



synergies and areas where partnership working is required to ensure consistency with the policy outlined in the RTS.

- Action - Work with partner Councils to create a developer contribution mechanism for regionally strategic sustainable transport schemes.

■ *Delivering Safe Active Travel*

- Policy - a) The RTS seeks the implementation of measures which improve facilities for those walking, wheeling or cycling.
- Policy - e) Roadspace for active travel should be prioritised in towns and cities in line with the sustainable travel hierarchy and this should be integrated into local strategies and policy documents.
- Action - Review destinations served by the active travel network to identify gaps and locations where cross boundary schemes may be required to ensure an integrated, high quality network exists.
- Action - Deliver road safety measures that enable people to safely use active travel within in the region.
- Action - Promotional and communication campaigns to highlight the benefits of active travel across the region and encourage people to adopt it where possible.
- Action - Expand the provision of bike sharing initiatives across the region.

■ *Enhancing Access to Public Transport*

- Policy - d) Shared mobility solutions should be implemented to provide enhanced access to a wider range of transport options without the requirement for ownership.
- Actions - Identify locations where implementation of shared mobility solutions could be beneficial and reduce the requirement for forced car ownership.

■ *Enhancing and Extending the Bus Service*

- Policy - a) Bus priority measures should be implemented to deliver a network of regional, cross boundary quality bus corridors that link up key urban centres building upon existing bus priority measures.
- Policy - b) The purpose of bus priority measures should be to provide journey times which are competitive with the car wherever possible.
- Policy - c) Bus priority should also be designed into major infrastructure and new development schemes.
- Action - Undertake a Regional Bus Connectivity study for non-Edinburgh travel to identify settlement pairs where travel demand is high and bus services are poor as a means to promoting new routes and connectivity (in partnership with other policies).
- Action - Work with partners to implement new direct and express services to link settlements across the region that require multiple interchanges or excessively long journey times.

■ *Enhancing and Extending the Train Service*

- Policy - a) Opportunities should be explored with partners to expand the rail network in the south-east of Scotland through new lines and stations where appropriate, cost effective and in line with strategy objectives.
- Policy - b) The RTS supports the delivery of new stations at Reston, East Linton, Winchburgh and at Leven and Cameron Bridge as part of the delivery of Levenmouth rail link.
- Policy - c) Opportunities should be explored with partners to introduce new services including more direct links across the region and enhanced cross city connections.
- Policy - e) The full electrification of the rail network in the region should be delivered in line with Transport Scotland's decarbonisation strategy.
- Action - Work with Transport Scotland and Network Rail to deliver new rail infrastructure in the region where appraisal and business case development has demonstrated its merits.
- Action - Identify capacity constraints upon the rail network and appropriate resolutions to enable the provision of passenger and freight services that meet both current and future needs.
- Action - Work with Transport Scotland and Network Rail to seek the acceleration of the electrification of the rail network of the region.
- *Reallocating Roadspace on the Regional and Local Network*
  - Policy - a) The RTS encourages the reallocation of roadspace away from general traffic to specific groups of road users including for public transport and active travel.
  - Policy - b) The principles of the sustainable transport hierarchy should be applied to reprioritise the local and regional road network wherever possible.
  - Policy - c) The sustainable travel hierarchy should be used as a material consideration to prioritise the allocation of roadspace within new developments in the region.
  - Action - Develop a framework and set of criteria to assist partners in identifying and delivering local and regional road space reallocation proposals. This should be undertaken in an inclusive way and in line with the National Transport Strategy's sustainable travel hierarchy.
- *Improving Integration between Modes*
  - Policy - f) Opportunities should be sought to expand the provision of bike-buses across the region to facilitate more integrated journeys.
  - Policy - g) Where practical opportunities should be sought to enable the secure carriage of bikes on trains.
  - Action - Work with DRT and community transport operators to deliver more widespread and efficient usage of services in areas where traditional fixed-route bus services are inappropriate.
  - Action - Work with partners to deliver more buses in the region with the facilities to carry bikes.

- Action - Pursue improved provision of trains equipped with facilities for the safe carriage of bikes.
- *Decarbonising Transport*
  - Policy - a) The RTS seeks the implementation of measures which facilitate the decarbonisation of the vehicle fleet including cars, buses, vans, trains, ships and aircraft in line with national requirements.
  - Policy - c) The RTS seeks the roll out of EV charging infrastructure to support decarbonisation of car-based travel.
  - Action - Pursue Scottish Government for effective national strategy / guidance / specifications on fleet decarbonisation and rollout of appropriate and future-proofed supporting infrastructure. This should include legislation to manage on-street charging provision and provision of chargers in new developments.
  - Action - Facilitate pilot projects to encourage transition to alternative fuels for all modes.
  - Action - Support alternative fuels for modes such as commercial vehicles and buses by actively engaging in and funding pilot projects across the region.
- *Facilitating Efficient Freight Movement and Passenger Travel*
  - Policy - b) The transport network should be robust and resilient to adapt to the impacts of climate change with suitable diversionary routes in place for instances when key primary routes are required to close temporarily.
  - Action - Work with partners to undertake analysis to identify locations most vulnerable to the impacts of climate change and where diversionary routes are least adequate and develop a set of interventions to improve the resiliency of the strategic transport network.
- *Working Towards Zero Road Deaths and Serious Injuries*
  - Policy - a) The RTS supports the implementation of road safety schemes on the regional network targeted at locations of collision clusters and corridors where a consistent and comprehensive approach is required to safety along the entire route.
  - Policy - c) In urban environments 20 mph zones, traffic calming and other road safety measures should be used to provide a safe environment for all users of the road network.
  - Action - Pursue a national review of speed limits.
  - Action - Action - Develop Route Action Plans for key rural corridors which require a coordinated approach to road safety along their route where there is greater scope for conflict between high speed through traffic and slow turning traffic.
  - Action - Identify locations where local speed limit amendments may be required to improve safety.
- *Reducing Car Kilometres*
  - Policy - a) The RTS seeks the implementation of low and zero emission zones where appropriate alternatives are provided and supports the delivery of the Edinburgh Low Emission Zone.

- Policy - d) Ongoing expansion and upgrading of digital connectivity is supported to reduce the need to travel and enable the adoption of flexible and agile working patterns.
- Policy - f) Where appropriate support behaviour change and the use of more sustainable modes of transport by a combination of enhanced infrastructure, information provision, innovation and measures to discourage car use.
- Action - Undertake further analysis to identify the scope and scale of 'avoidable' car kilometres across the region which can then be targeted through improved information, improvements to public transport and appropriate demand management measures.

### SEA Objective 7 – Biodiversity, Geodiversity and Soil

- 6.3.21 The predicted effects of the RTS on the Biodiversity, Geodiversity and Soil SEA Objective is mixed with some predicted significant positive effects and some uncertainties.
- 6.3.22 The positive effects come from the prediction that a number of the policies and actions will work to deliver a transport network that is less reliant on private car journeys and there is an uptake of travel by active and public means with a resultant reduction in toxic emissions which pollute the environment and be harmful to biodiversity, geodiversity and soils.
- 6.3.23 Actions and policies associated with the *Re-Allocation of Roadspace on the Regional and Local Network* are considered particularly positive as they will result in improvements without significant new infrastructure and therefore minimising impact on species, habitats and soil resources.
- 6.3.24 The effects of the *Facilitating Efficient Passenger Travel and Freight Movement* are considered to have an uncertain effect on the Biodiversity, Geodiversity and Soil SEA Objective as they include infrastructure works.
- 6.3.25 It is recommended that any planned infrastructure works incorporate green infrastructure.
- 6.3.26 Policies and actions of note are:
- *Shaping Development and Place*
    - Policy - a) New developments should be located to (i) reduce the need to travel and (ii) minimise the use of unsustainable modes by the application of Transit Oriented Development (TOD), 20-minute neighbourhood and shared mobility concepts.
    - Policy - e) Local authorities should engage early with SEStran on Local Development Plans and large scale development proposals to assist in the identification of suitable sustainable transport connections to support the development.
    - Action - Partner Councils work with SEStran through the statutory planning processes to implement RTS policies with regards to major developments.
  - *Delivering Safe Active Travel*
    - Policy - e) Roadspace for active travel should be prioritised in towns and cities in line with the sustainable travel hierarchy and this should be integrated into local strategies and policy documents.
    - Action - Expand the provision of bike sharing initiatives across the region.

■ *Reallocating Roadspace on the Regional and Local Network*

- Policy - a) The RTS encourages the reallocation of roadspace away from general traffic to specific groups of road users including for public transport and active travel.
- Policy - b) The principles of the sustainable transport hierarchy should be applied to reprioritise the local and regional road network wherever possible.
- Action - Develop a framework and set of criteria to assist partners in identifying and delivering local and regional road space reallocation proposals. This should be undertaken in an inclusive way and in line with the National Transport Strategy's sustainable travel hierarchy.
- Action - In collaboration with bus operators, undertake analysis of regional and cross-boundary corridors where congestion is impacting on bus operations and identify locations where roadspace reallocation may be required.

■ *Improving Integration Between Modes*

- Policy - c) Park and ride provision should be enhanced where there is evidence of sufficient residential walk, cycle and drive-in catchment and where there is evidence of localised parking issues such as overspill and excessive parking which impact on local residential networks.
- Policy - f) Opportunities should be sought to expand the provision of bike-buses across the region to facilitate more integrated journeys.
- Policy g) Where practical opportunities should be sought to enable the secure carriage of bikes on trains.
- Action - Identify locations where increased park and ride capacity may be required taking into account findings from recent SEStran and ScotRail park and ride studies.
- Action - Work with partners to deliver more buses in the region with the facilities to carry bikes.
- Action - Pursue improved provision of trains equipped with facilities for the safe carriage of bikes.

■ *Decarbonising Transport*

- Policy - a) The RTS seeks the implementation of measures which facilitate the decarbonisation of the vehicle fleet including cars, buses, vans, trains, ships and aircraft in line with national requirements.
- Policy - b) The RTS recognises the risks associated with lower car running costs and supports measures (subject to equality impacts) to prevent renewed growth in private car travel, and to encourage the use of alternative modes in line with the NTS 2 sustainable travel hierarchy.
- Policy - c) The RTS seeks the roll out of EV charging infrastructure to support decarbonisation of car-based travel.
- Action - Pursue Scottish Government for effective national strategy / guidance / specifications on fleet decarbonisation and rollout of appropriate and future-proofed supporting infrastructure. This should include legislation to manage on-street charging provision and provision of chargers in new developments.

- Action - Working with the private sector and partners to develop a regional electric vehicle investment and charging strategy, with associated technical guidance, including a spatial strategy across the area for long journey rapid charging facilities and for local area hub / community charging.
- Action - Develop and coordinate a regional information strategy including messaging around the need to ensure EVs are not regarded as a green light to increased car use and the range of issues associated with this.
- *Working Towards Zero Road Deaths and Serious Injuries*
  - Policy - b) SEStran supports a national review of speed limits whilst also seeking local amendments to speed limits to improve safety where appropriate.
  - Policy - c) In urban environments 20 mph zones, traffic calming and other road safety measures should be used to provide a safe environment for all users of the road network.
  - Action - Identify collision cluster locations for the implementation of road safety schemes.
  - Action – Undertake analysis to identify single carriageway routes with high proportions of HGVs and other large vehicles where the implementation of safe overtaking opportunities may be required to prevent frustration which can lead to unsafe overtaking manoeuvres.
  - Action - Develop Route Action Plans for key rural corridors which require a coordinated approach to road safety along their route where there is greater scope for conflict between high speed through traffic and slow turning traffic.
  - Action - Undertake analysis to identify single carriageway routes with high proportions of HGVs and other large vehicles where the implementation of safe overtaking opportunities may be required.
  - Action - Pursue a national review of speed limits.
  - Action - Identify locations where local speed limit amendments may be required to improve safety.
- *Reducing Car Kilometres*
  - Policy - a) The RTS seeks the implementation of low and zero emission zones where appropriate alternatives are provided and supports the delivery of the Edinburgh Low Emission Zone.
  - Policy - d) Ongoing expansion and upgrading of digital connectivity is supported to reduce the need to travel and enable the adoption of flexible and agile working patterns.
  - Action - Undertake further analysis to identify the scope and scale of ‘avoidable’ car kilometres across the region which can then be targeted through improved information, improvements to public transport and appropriate demand management measures.

## SEA Objective 8 – Water, Flood Risk and Resilience

- 6.3.27 *Decarbonising Transport* actions and policies are predicted to have a significant positive effect as they will reduce the risk of water environments and resources being polluted by oil based fuels.
- 6.3.28 *Facilitating Efficient Freight Movement and Passenger Travel* actions and policies are predicted to have a significant positive effect as they include making the transport network robust and resilient to adapt to the impacts of climate change.
- 6.3.29 *Enhancing and Extending the Train Service* is predicted to have an uncertain effect on water, flood risk and resilience due to the inclusion of policies and actions to deliver new infrastructure.
- 6.3.30 Policies and actions of note are:
- *Decarbonising Transport*
    - Policy - a) The RTS seeks the implementation of measures which facilitate the decarbonisation of the vehicle fleet including cars, buses, vans, trains, ships and aircraft in line with national requirements.
    - Action - Pursue Scottish Government for effective national strategy / guidance / specifications on fleet decarbonisation and rollout of appropriate and future-proofed supporting infrastructure. This should include legislation to manage on-street charging provision and provision of chargers in new developments.
  - *Facilitating Efficient Freight Movement and Passenger Travel*
    - Policy - b) The transport network should be robust and resilient to adapt to the impacts of climate change with suitable diversionary routes in place for instances when key primary routes are required to close temporarily.
    - Action - Work with partners to undertake analysis to identify locations most vulnerable to the impacts of climate change and where diversionary routes are least adequate and develop a set of interventions to improve the resiliency of the strategic transport network.
  - *Reallocating Roadspace on the Regional and Local Network*
    - Policy - a) The RTS encourages the reallocation of roadspace away from general traffic to specific groups of road users including for public transport and active travel.
    - Action - Develop a framework and set of criteria to assist partners in identifying and delivering local and regional road space reallocation proposals. This should be undertaken in an inclusive way and in line with the National Transport Strategy's sustainable travel hierarchy.

## SEA Objective 9 – Cultural Heritage

- 6.3.31 Overall it is predicted that there will be significant positive effects on the Cultural Heritage SEA Objective. It is considered that the policies and actions designed to reduce carbon emissions generated by transport will help to conserve historic buildings as the materials they are constructed in are vulnerable to the effects of toxic pollutants.
- 6.3.32 Providing an enhanced public transport service with better bus and rail connections are predicted to make accessing historic and cultural sites easier for people and there could be a



resultant increase in visitor numbers and increased awareness and appreciation of the regions historic and cultural assets.

#### 6.3.33 Policies and actions of note are:

- *Delivering Safe Active Travel*

- Policy - a) The RTS seeks the implementation of measures which improve facilities for those walking, wheeling or cycling.
- Policy - e) Roadspace for active travel should be prioritised in towns and cities in line with the sustainable travel hierarchy and this should be integrated into local strategies and policy documents.
- Action - Progress the delivery of the SEStran Strategic Network and broader cross boundary networks with partners. Develop further phases of this network to ensure a long-term pipeline of investment.
- Action - Review destinations served by the active travel network to identify gaps and locations where cross boundary schemes may be required to ensure an integrated, high quality network exists.

- *Enhancing Access to Public Transport*

- Policy - a) The public transport network should be physically accessible for all including vulnerable groups such as those with disabilities, mobility impairments and the elderly. This requires full compliance with the requirements of the Disability Discrimination Act.
- Policy - b) Public transport information should be provided in a variety of formats to meet the specific needs of all users.
- Policy - c) The public transport system should be affordable for all based on their ability to pay.
- Action - Regional audit to identify stops, stations and interchanges which do not meet accessibility requirements and to develop a prioritised list of interventions.
- Action - Deliver improved public transport information in a variety of formats supported by appropriate wayfinding infrastructure on the transport network.
- Action - Resist pressures to increase public transport fares and explore opportunities to provide more affordable public transport for those least able to pay for it.

- *Enhancing and Extending the Bus Service*

- Policy - a) Bus priority measures should be implemented to deliver a network of regional, cross boundary quality bus corridors that link up key urban centres building upon existing bus priority measures.
- Policy - f) Service improvements should be implemented in locations identified as at most risk of a combination of transport poverty and deprivation.
- Policy - g) Demand Responsive Transport should be implemented where traditional scheduled bus services are unfeasible particularly in rural and remote areas.



- Action - Undertake a Regional Bus Connectivity study for non-Edinburgh travel to identify settlement pairs where travel demand is high and bus services are poor as a means to promoting new routes and connectivity (in partnership with other policies).
- Action - Undertake a Regional Bus Priority study which will identify regional, cross boundary quality bus corridors and key bus priority interventions to reduce bus journey times and improve bus journey time reliability where Edinburgh is likely to be a focus.
- Action - Work with partners to implement new direct and express services to link settlements across the region that require multiple interchanges or excessively long journey times.
- *Enhancing and Extending the Train Service*
  - Policy - a) Opportunities should be explored with partners to expand the rail network in the south-east of Scotland through new lines and stations where appropriate, cost effective and in line with strategy objectives.
  - Policy - b) The RTS supports the delivery of new stations at Reston, East Linton, Winchburgh and at Leven and Cameron Bridge as part of the delivery of Levenmouth rail link.
  - Policy - c) Opportunities should be explored with partners to introduce new services including more direct links across the region and enhanced cross city connections.
  - Action - Support / undertake appraisal and business case development for new rail infrastructure including lines, stations and services.
  - Action - Work with Transport Scotland and Network Rail to deliver new rail infrastructure in the region where appraisal and business case development has demonstrated its merits.
  - Action - Support Transport Scotland and the UK Government in the development of a business case for High Speed Rail serving south-east Scotland.
  - Action - Undertake appraisal and business case development for new light rail and tram links within the region.
- *Reallocating Roadspace on the Regional and Local Network*
  - Policy - a) The RTS encourages the reallocation of roadspace away from general traffic to specific groups of road users including for public transport and active travel.
  - Policy - d) SEStran will work with local authority partners to deliver locally and regionally significant roadspace reallocation initiatives.
  - Action - Develop a framework and set of criteria to assist partners in identifying and delivering local and regional road space reallocation proposals. This should be undertaken in an inclusive way and in line with the National Transport Strategy's sustainable travel hierarchy.
  - Action - In collaboration with bus operators, undertake analysis of regional and cross-boundary corridors where congestion is impacting on bus operations and identify locations where roadspace reallocation may be required.
- *Improving Integration Between Modes*

- Policy - a) A network of integrated, multi-modal mobility hubs should be implemented across the region starting with the 8 pilot locations identified in the SEStran Mobility Hub study.
- Policy - b) Local access to multi-modal mobility hubs should be facilitated by high quality active travel routes that enable safe walking, wheeling and cycling.
- Policy - f) Opportunities should be sought to expand the provision of bike-buses across the region to facilitate more integrated journeys.
- Policy - g) Where practical opportunities should be sought to enable the secure carriage of bikes on trains.
- Action - Work with DRT and community transport operators to deliver more widespread and efficient usage of services in areas where traditional fixed-route bus services are inappropriate.
- Action - Work with partners to deliver more buses in the region with the facilities to carry bikes.
- Action - Pursue improved provision of trains equipped with facilities for the safe carriage of bikes.
- *Decarbonising Transport*
  - Policy - c) The RTS seeks the roll out of EV charging infrastructure to support decarbonisation of car-based travel.
  - Action - Working with the private sector and partners to develop a regional electric vehicle investment and charging strategy, with associated technical guidance, including a spatial strategy across the area for long journey rapid charging facilities and for local area hub / community charging.
- *Facilitating Efficient Freight Movement and Passenger Travel*
  - Action - Work with partners to identify locations where targeted infrastructure investment may be required and work to deliver it where appropriate.
- *Working Towards Zero Road Deaths and Serious Injuries*
  - Policy - a) The RTS supports the implementation of road safety schemes on the regional network targeted at locations of collision clusters and corridors where a consistent and comprehensive approach is required to safety along the entire route.
  - Action - Pursue a national review of speed limits.
  - Action - Develop Route Action Plans for key rural corridors which require a coordinated approach to road safety along their route where there is greater scope for conflict between high speed through traffic and slow turning traffic.
  - Action - Identify locations where local speed limit amendments may be required to improve safety.
- *Reducing Car Kilometres*

- Policy - a) The RTS seeks the implementation of low and zero emission zones where appropriate alternatives are provided and supports the delivery of the Edinburgh Low Emission Zone.
- Action - Undertake further analysis to identify the scope and scale of 'avoidable' car kilometres across the region which can then be targeted through improved information, improvements to public transport and appropriate demand management measures.

## SEA Objective 10 – Landscape

6.3.34 Actions and policies are predicted to have significant positive effects on the Landscape SEA Objective. Overall they are predicted to improve townscape and amenity in urban and built-up areas as it is predicted that there will be less congestion and more people travelling by active means which will improve air quality and reduce noise and will make spending time in these environments more pleasant. Improvements in park and ride services and public transport more generally is predicted to result in less car parking being required in towns and cities which will have a positive impact on visual amenity and improve townscape character more generally.

6.3.35 It is also likely that the actions and will have positive effects on rural areas again through improved accessibility and allowing more people to spend time in the landscape and appreciate its characteristics.

6.3.36 Policies and actions of note are:

### ■ *Shaping Development and Place*

- Policy - a) New developments should be located to (i) reduce the need to travel and (ii) minimise the use of unsustainable modes by the application of Transit Oriented Development (TOD), 20-minute neighbourhood and shared mobility concepts.
- Policy - b) 20-minute neighbourhoods should be implemented in urban areas where active travel and shared mobility provision enable sustainable access to local services and amenities in a safe and sustainable manner.
- Policy - c) New residential development should be located where connectivity by sustainable modes to existing and planned employment centres as well as key services is high.
- Action - Partner Councils work with SEStran through the statutory planning processes to implement RTS policies with regards to major developments.
- Action - Develop regional guidance around best practice on sustainable transport provision for new developments and local place

### ■ *Delivering Safe Active Travel*

- Policy - a) The RTS seeks the implementation of measures which improve facilities for those walking, wheeling or cycling.
- Policy - e) Roadspace for active travel should be prioritised in towns and cities in line with the sustainable travel hierarchy and this should be integrated into local strategies and policy documents.
- Action - Deliver road safety measures that enable people to safely use active travel within in the region.

- Action - Review destinations served by the active travel network to identify gaps and locations where cross boundary schemes may be required to ensure an integrated, high quality network exists.
- *Enhancing Access to Public Transport*
  - Policy - a) The public transport network should be physically accessible for all including vulnerable groups such as those with disabilities, mobility impairments and the elderly. This requires full compliance with the requirements of the Disability Discrimination Act.
  - Action - Regional audit to identify stops, stations and interchanges which do not meet accessibility requirements and to develop a prioritised list of interventions.
  - Action - Policy - Deliver improved public transport information in a variety of formats supported by appropriate wayfinding infrastructure on the transport network.
  - Action - Policy - Resist pressures to increase public transport fares and explore opportunities to provide more affordable public transport for those least able to pay for it.
- *Enhancing and Extending the Bus Service*
  - Policy - a) Bus priority measures should be implemented to deliver a network of regional, cross boundary quality bus corridors that link up key urban centres building upon existing bus priority measures.
  - Policy - b) The purpose of bus priority measures should be to provide journey times which are competitive with the car wherever possible.
  - Action - Undertake a Regional Bus Connectivity study for non-Edinburgh travel to identify settlement pairs where travel demand is high and bus services are poor as a means to promoting new routes and connectivity (in partnership with other policies).
  - Action - Undertake a Regional Bus Priority study which will identify regional, cross boundary quality bus corridors and key bus priority interventions to reduce bus journey times and improve bus journey time reliability where Edinburgh is likely to be a focus.
  - Action - Work with partners to implement new direct and express services to link settlements across the region that require multiple interchanges or excessively long journey times.
- *Enhancing and Extending the Train Service*
  - Policy - a) Opportunities should be explored with partners to expand the rail network in the south-east of Scotland through new lines and stations where appropriate, cost effective and in line with strategy objectives
  - Policy - c) Opportunities should be explored with partners to introduce new services including more direct links across the region and enhanced cross city connections.
  - Action - Work with Transport Scotland and Network Rail to deliver new rail infrastructure in the region where appraisal and business case development has demonstrated its merits.
- *Reallocation of Roadspace on the Regional and Local Network*

- Policy - a) The RTS encourages the reallocation of roadspace away from general traffic to specific groups of road users including for public transport and active travel.
- Action - Develop a framework and set of criteria to assist partners in identifying and delivering local and regional road space reallocation proposals. This should be undertaken in an inclusive way and in line with the National Transport Strategy's sustainable travel hierarchy.
- Action - In collaboration with bus operators, undertake analysis of regional and cross-boundary corridors where congestion is impacting on bus operations and identify locations where roadspace reallocation may be required.
- *Improving Integration Between Modes*
  - Policy - b) Local access to multi-modal mobility hubs should be facilitated by high quality active travel routes that enable safe walking, wheeling and cycling.
  - Policy - c) Park and ride provision should be enhanced where there is evidence of sufficient residential walk, cycle and drive-in catchment and where there is evidence of localised parking issues such as overspill and excessive parking which impact on local residential networks.
- *Decarbonising Transport*
  - Policy - a) The RTS seeks the implementation of measures which facilitate the decarbonisation of the vehicle fleet including cars, buses, vans, trains, ships and aircraft in line with national requirements.
  - Policy - c) The RTS seeks the roll out of EV charging infrastructure to support decarbonisation of car-based travel.
  - Action - Pursue Scottish Government for effective national strategy / guidance / specifications on fleet decarbonisation and rollout of appropriate and future-proofed supporting infrastructure. This should include legislation to manage on-street charging provision and provision of chargers in new developments.
  - Action - Working with the private sector and partners to develop a regional electric vehicle investment and charging strategy, with associated technical guidance, including a spatial strategy across the area for long journey rapid charging facilities and for local area hub / community charging.
- *Facilitating Efficient Freight Movement and Passenger Travel*
  - Policy a) The RTS supports targeted infrastructure investment, including new road links or increased road and junction capacity; only in line with the Transport Scotland sustainable travel and investment hierarchies and when all other avenues are exhausted; where significant sustainable travel and investment hierarchies and when all other avenues are exhausted; where significant economic opportunities would otherwise not be realized or are being severely impacted under the status quo; where bus priority and/or active travel is integral where appropriate.
  - Policy - c) Micro-consolidation centres should be implemented in conjunction with multi-modal mobility hubs and supported by sustainable last mile logistics including cycle logistics and electric vans.
  - Action - Work with partners to identify locations where targeted infrastructure investment may be required and work to deliver it where appropriate.

- Action - Work with partners to undertake analysis to identify locations most vulnerable to the impacts of climate change and where diversionary routes are least adequate and develop a set of interventions to improve the resiliency of the strategic transport network.
- *Working Towards Zero Road Deaths and Serious Injuries*
  - Policy - b) SEStran supports a national review of speed limits whilst also seeking local amendments to speed limits to improve safety where appropriate.
  - Policy - c) In urban environments 20 mph zones, traffic calming and other road safety measures should be used to provide a safe environment for all users of the road network.
  - Action - Pursue a national review of speed limits.
  - Action - Identify locations where local speed limit amendments may be required to improve safety.
- *Reducing Avoidable Car Kilometres*
  - Policy - a) The RTS seeks the implementation of low and zero emission zones where appropriate alternatives are provided and supports the delivery of the Edinburgh Low Emission Zone.
  - Action - Undertake further analysis to identify the scope and scale of 'avoidable' car kilometres across the region which can then be targeted through improved information, improvements to public transport and appropriate demand management measures.
  - Action - Research demand management measures which may be appropriate for the region including parking management and charges, reduced parking provision, improved enforcement of parking regulations, Workplace Parking Levies as well as congestion and road user charging.

## 6.4 SEA of RTS Transport Corridors

- 6.4.1 The Draft RTS identifies 18 Transport Corridors relating to the largest and most important movements of people and freight across the SEStran region. Building on the 'Initial Options Generation Matrix' set out within the RTS Case for Change Report, a dedicated spatial chapter of the RTS outlines high-level options to enhance connectivity and accessibility within and between the identified corridors. A set of high-level environmental commentaries for each of the RTS Transport Corridors is provided in **Appendix F**.
- 6.4.2 Whilst it has not be possible to assess individual transport interventions at this stage, to inform the future development of interventions the key environmental constraints and sensitivities of each Transport Corridor has been identified through this SEA, as detailed in **Appendix F**. To ensure the avoidance of likely significant adverse effects and allow transport interventions to contribute positively to the implementation of the SEStran RTS SEA Framework, identified environmental sensitivities will need to be taken account of in the design, planning, construction and implementation of relevant transport interventions.

## 7 Conclusion

### 7.1 Summary of Environmental Report

7.1.1 This Environmental Report (ER) has documented the findings of the SEA carried out in respect of the Draft SEStran Regional Transport Strategy (SEStran RTS).

7.1.2 This ER has:

- Provided an overview of the Draft RTS;
- Identified the purpose and legal requirements of undertaking SEA;
- Described the approach to undertaking the SEA of the Draft RTS;
- Detailed the findings of the SEA carried out in respect of the Draft RTS; and,
- Explained how the SEA process has generated mitigation and enhancement recommendations to improve the effectiveness and environmental performance of the emerging RTS.

7.1.3 **Section 3** (supported by **Appendix B**) has outlined key information and issues which have informed the SEA process undertaken to date and the emerging RTS itself. **Section 5** has demonstrated that through resolving uncertainties and inconsistencies, and by identifying opportunities to improve the clarity and environmental performance of the Draft RTS, the SEA process has closely influenced the content of the document. As a result, the consultation version of the Draft RTS is considered to be more robust and effective in terms of addressing relevant environmental issues. This has made the SEA reporting process more efficient and improved the environmental performance of the Draft RTS. In particular, the consultation version of the Draft RTS is now predicted to generate a range of likely significant beneficial effects on the environment and in relation to identified key environmental issues, with no residual significant adverse effects considered likely.

### 7.2 How to Comment on this Environmental Report

7.2.1 This ER and the associated NTS are being issued for consultation alongside the Draft RTS and associated documents for a period of 12 weeks. Details of how to participate in the consultation are provided on SEStran's website and, in accordance with statutory requirements, will be published in a local newspaper.

### 7.3 Next Stages of RTS Preparation and SEA

7.3.1 This ER Report will be consulted on in tandem with the Draft RTS. All representation received regarding both documents will then be analysed by SEStran officers and the independent SEA project team to determine whether:

- Major changes need to be made to the Draft RTS, potentially resulting in the need to re-consult on substantive actions and an associated SEA ER Addendum; or,
- Only minor modifications need to be made to the Draft RTS prior to submission to the Scottish Ministers for approval (i.e. no further consultation necessary).

7.3.2 The Scottish Ministers will then review the finalised RTS and determine whether it can be approved with or without any further modifications. At this time, a SEA Post Adoption Statement will be prepared to explain how the SEA process has closely informed the development of the finalised RTS and to provide an appropriate monitoring framework.



## 7.4 Monitoring

- 7.4.1 The 2005 Act requires SEA Environmental Reports to provide a “*description of the measures envisaged concerning monitoring*” after the adoption of a plan or programme which is subject to SEA. To comply with these a SEA Monitoring Framework will be developed following consultation on the Draft RTS. This will be used as the main tool to monitor and review the implementation of the RTS and the associated environmental effects. It will also identify and monitor the actions required by multiple stakeholders to deliver the policies and actions set out within the RTS.
- 7.4.2 For a successful monitoring framework, SEStran must ensure that selected indicators are specific, manageable and targeted towards measuring the implementation of the RTS. This should be reviewed on a regular basis in terms of progress in achieving the RTS Objectives and the effectiveness of policies. It is recommended that the SEStran RTS Monitoring Framework should be based around the SEA Objectives and the associated indicators and targets detailed within the SEStran RTS SEA Framework (**Appendix C**).
- 7.4.3 In addition to monitoring RTS delivery, to comply with statutory SEA requirements the SEStran RTS Monitoring Framework will also need to specifically include mechanisms to monitor the likely significant effects on the environment of the RTS as predicted through this SEA process. In addition, the Monitoring Framework should include mechanisms to assess whether all RTS policies are being implemented as intended and with no unforeseen adverse consequences. To inform future RTS reviews it would also be prudent to monitor whether the policies remain in conformity with any updates to national transport and land use planning policies.
- 7.4.4 The final suite of metrics and mechanisms included within the SEStran RTS Monitoring Framework to monitor the likely significant effects on the environment of the RTS as predicted through this SEA process will be confirmed within the SEStran RTS SEA Post Adoption Statement.



## Appendix A Environmental Baseline Review

### A.1 Introduction

A.1.1 This appendix supports Section 3 of the RTS SEA Scoping Report by providing a review of current environmental and socio-economic conditions within the area likely to be affected by the emerging RTS, in particular (but not exclusively) the SEStran regional administrative area. In doing so this review:

- Identifies relevant aspects and characteristics of the environment, including those likely to be significantly affected by the outcome of the refreshed SEStran RTS. This includes the identification of sites designated at international or national levels for reasons of biodiversity conservation, geological importance, heritage or landscape value which have the potential to be affected by the emerging RTS;
- Identifies relevant socio-economic trends and baseline conditions, again focusing on matters likely to be significantly affected by the outcome of the emerging RTS; and,
- Outlines how the identified environmental and socio-economic characteristics and baseline conditions should be addressed within a refreshed RTS and considered within this SEA. The terms “must” and “should” are used to differentiate between statutory requirements to consider particular issues and non-statutory considerations, for example evidence from the baseline analysis which indicates a need to improve environmental quality.

A.1.2 This evidence is then used to:

- Outline the expected evolution of baseline environmental conditions in the absence of the emerging RTS; and;
- Define a suite of key environmental issues which will need to be addressed within the emerging RTS and which should be considered throughout this SEA process.

A.1.3 The purpose of this baseline review is therefore to inform both proposals for the emerging RTS and the content of a SEA Framework which will be used to assess all substantive components of the emerging RTS. The environmental issues and sensitivities in each defined travel corridor which should be considered and assessed with regard to any future transport projects are presented in **Appendix F**.

A.1.4 For the purposes of brevity, the baseline will be presented in three distinct categories, each in accordance with the required SEA objectives as shown below:

- Air and Climate: Air & Climatic Factors;
- Physical Environment: Biodiversity, Flora & Fauna, Soil, Water, Cultural Heritage & Landscape; and
- Socioeconomics: Population, Human Health & Material Assets.

### A.2 Overview of Designated Sites

A.2.1 **Table A.1** identifies sites designated at international, national or local level for reasons of biodiversity conservation, geological importance, heritage or landscape value which are considered to have the potential to be affected by the emerging RTS. The site-specific context of these designated sites needs to be considered when characterising the environmental

baseline position and identifying the relevance of existing issues and problems to the emerging RTS, as detailed in **Section A.3.**

Table A.1: Designated Sites of Relevance to the Emerging RTS

Relevant Sites in the SEStran Region	Designation Type	Qualifying Features / Interests
<p>The SEStran region hosts 10 SPAs:</p> <ul style="list-style-type: none"> <li>- Greenlaw Moor</li> <li>- Gladhouse Reservoir</li> <li>- Cameron Reservoir</li> <li>- Firth of Tay and Eden Estuary</li> <li>- Firth of Forth</li> <li>- Firth of Forth</li> <li>- Westwater</li> <li>- Slamannan Plateau</li> <li>- Slamannan Plateau</li> <li>- Din Moss - Hoselaw Loch</li> </ul>	Special Protection Area (SPA)	The identified SPAs have been designated as they support rare and vulnerable birds (as listed on Annex I of Directive 2009/147/EC on the conservation of wild birds – ‘the Birds Directive’) and for regularly occurring migratory species.
<p>The SEStran region area hosts 14 SACs:</p> <ul style="list-style-type: none"> <li>- Peeswit Moss</li> <li>- Threepwood Moss</li> <li>- Whitlaw and Branxholme</li> <li>- Whitlaw and Branxholme</li> <li>- Whitlaw and Branxholme</li> <li>- Whitlaw and Branxholme</li> <li>- Whitlaw and Branxholme</li> <li>- Dogden Moss</li> <li>- Blawhorn Moss</li> <li>- Borders Woods</li> <li>- Borders Woods</li> <li>- Borders Woods</li> <li>- Borders Woods</li> <li>- Borders Woods</li> </ul>	Special Area of Conservation (SAC)	The identified SACs have been designated owing to their significant contribution in conserving the 189 habitat types and 788 species identified in Annexes I and II of Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora (‘the Habitats Directive’).
<p>Eight of the SPAs within the SEStran region are also designated as Ramsar Sites:</p> <ul style="list-style-type: none"> <li>- Fala Flow</li> <li>- Gladhouse Reservoir</li> <li>- Greenlaw Moor</li> <li>- Din Moss - Hoselaw Loch</li> <li>- Westwater</li> </ul>	Ramsar Site	Ramsar Sites are wetlands that are considered to be of international importance under the Ramsar Convention.

Relevant Sites in the SEStran Region	Designation Type	Qualifying Features / Interests
<ul style="list-style-type: none"> <li>- Cameron Reservoir</li> <li>- Firth of Forth</li> <li>- Firth of Forth</li> </ul>		
<p>The SEStran region area hosts 154 SSSIs designated for reasons of biodiversity conservation or important ecological features or mixed:</p> <ul style="list-style-type: none"> <li>- Abbey St Bathans Woodlands</li> <li>- Adderstonlee Moss</li> <li>- Airhouse Wood</li> <li>- Akermoor Loch</li> <li>- Alemoor West Loch and Meadow</li> <li>- Allan Water, Hillhead</li> <li>- Ashkirk Loch</li> <li>- Avenel Hill and Gorge</li> <li>- Avon Gorge</li> <li>- Back Burn Wood and Meadows</li> <li>- Balerno Common</li> <li>- Ballo and Harperleas Reservoirs</li> <li>- Bankhead Moss</li> <li>- Bemersyde Moss</li> <li>- Berwickshire Coast (Intertidal)</li> <li>- Black Burn</li> <li>- Blawhorn Moss</li> <li>- Blind Moss</li> <li>- Bo'mains Meadow</li> <li>- Branxholme Easter Loch</li> <li>- Branxholme Wester Loch</li> <li>- Buckstruther Moss</li> <li>- Calderwood</li> <li>- Cameron Reservoir</li> <li>- Camilla Loch</li> <li>- Carriston Reservoir</li> <li>- Carron Dams</li> <li>- Carron Glen</li> </ul>	<p>Site of Scientific (SSSI)</p> <p>Special Interest</p>	<p>The identified SSSIs have been designated owing to the presence of nationally important or rare habitat types within each.</p>

Relevant Sites in the SEStran Region	Designation Type	Qualifying Features / Interests
<ul style="list-style-type: none"> <li>- Cassindonald Moss</li> <li>- Catshawhill</li> <li>- Clarilaw Grasslands</li> <li>- Coldingham Common, Long Moss</li> <li>- Coldingham Loch</li> <li>- Colmsliehill Junipers</li> <li>- Cragbank and Wolfhopelee</li> <li>- Craig Leith and Myreton Hill</li> <li>- Craigdilly</li> <li>- Craighall Den</li> <li>- Craigmead Meadows</li> <li>- Crichton Glen</li> <li>- Crook Burn, Dyeshaugh</li> <li>- Cullaloe Reservoir</li> <li>- Dalbeath Marsh</li> <li>- Dalkeith Oakwood</li> <li>- Damhead Wood</li> <li>- Danskine Loch</li> <li>- Darnrig Moss</li> <li>- Denny Muir</li> <li>- Devon Gorge</li> <li>- Dolphinton - West Linton Fens and Grassland</li> <li>- Drone Moss</li> <li>- Dunbog Bog</li> <li>- Dunhog Moss</li> <li>- Earlshall Muir</li> <li>- Faldonside Loch</li> <li>- Fleecefaulds Meadow</li> <li>- Gartmorn Dam</li> <li>- Gattonside Moss</li> <li>- Gladhouse Reservoir</li> <li>- Glenkinnon Burn</li> <li>- Gordon Moss</li> <li>- Habbies Howe - Logan Burn</li> <li>- Hadfast Valley</li> <li>- Henderland Bank</li> <li>- Herman Law and Muchra Cleuchs</li> </ul>		

Relevant Sites in the SEStran Region	Designation Type	Qualifying Features / Interests
<ul style="list-style-type: none"> <li>- Hermand Birchwood</li> <li>- Holl Meadows</li> <li>- Howierig Muir</li> <li>- Hummelknowes Moss</li> <li>- Inner Tay Estuary</li> <li>- Isle of May</li> <li>- Jedwater Woodlands</li> <li>- Kilconquhar Loch</li> <li>- Kingside Loch</li> <li>- Kippilaw Moss</li> <li>- Kirkhope Linns</li> <li>- Kirkton Burn Meadow</li> <li>- Langtonlees Cleugh</li> <li>- Lielowan Meadow</li> <li>- Lindean Reservoir</li> <li>- Lindores Loch</li> <li>- Linhouse Valley</li> <li>- Linlithgow Loch</li> <li>- Linn Mill</li> <li>- Lochcote Marsh</li> <li>- Lochmill Loch</li> <li>- Lockshaw Mosses</li> <li>- Long Moss - Drinkstone Hill</li> <li>- Longnewton Cutting</li> <li>- Lurgie Loch</li> <li>- Lynnwood - Whitlaw Wood, Slitrig</li> <li>- Makerstoun - Corbie Craigs to Trows' Craigs</li> <li>- Minto Craigs</li> <li>- Morton Lochs</li> <li>- Mount Bog</li> <li>- Newtown St Boswells Woods</li> <li>- North Berwick Law</li> <li>- North Fife Heaths</li> <li>- Nut Wood</li> <li>- Otterston Loch</li> <li>- Papana Water</li> <li>- Park Hill and Tippeton Mosses</li> </ul>		

Relevant Sites in the SEStran Region	Designation Type	Qualifying Features / Interests
<ul style="list-style-type: none"> <li>- Pease Bridge Glen</li> <li>- Peeswit Moss</li> <li>- Philpstoun Muir</li> <li>- Picklettillem Marsh</li> <li>- Plora Wood</li> <li>- Redden Bank Lime Works</li> <li>- Riskinhope</li> <li>- Roscobie Hills</li> <li>- Roslin Glen</li> <li>- Selkirk Racecourse Moss</li> <li>- Slaidhills Moss</li> <li>- Slamannan Plateau</li> <li>- St Mary's Loch</li> <li>- Star Moss</li> <li>- Steelend Moss</li> <li>- Swallow Craig Den</li> <li>- Swinkie Muir</li> <li>- Tailend Moss</li> <li>- The Hirsell</li> <li>- Threepwood Moss</li> <li>- Tweedsmuir Hills</li> <li>- Tweedwood - Gateheugh</li> <li>- Waltonhill and Cradle Den</li> <li>- Wester Craiglockhart Hill</li> <li>- Westwater Reservoir</li> <li>- Whim Bog</li> <li>- Whitlaw Bank to Hardies Hill</li> <li>- Whitlaw Rig</li> <li>- Whitmuirhall Loch</li> <li>- Williamhope</li> <li>- Woodhall Dean</li> <li>- Woodhead Moss</li> <li>- Yetholm Loch</li> <li>- Arthur's Seat Volcano</li> <li>- Bilston Burn</li> <li>- Black Loch (Abdie)</li> <li>- Burnmouth Coast</li> <li>- Din Moss - Hoselaw Loch</li> </ul>		

Relevant Sites in the SEStran Region	Designation Type	Qualifying Features / Interests
<ul style="list-style-type: none"> <li>- Dollar Glen</li> <li>- Duddingston Loch</li> <li>- Ferry Hills</li> <li>- Firth of Forth</li> <li>- Foulden Burn</li> <li>- Greenlaw Moor</li> <li>- Lammermuir Deans</li> <li>- North Esk Valley</li> <li>- Petershill</li> <li>- Rammer Cleugh</li> <li>- Skolie Burn</li> <li>- St Michael's Wood Marshes</li> <li>- Traprain Law</li> <li>- Whitlaw Mosses</li> </ul>		
<p>The SEStran region hosts 3 NNRs:</p> <ul style="list-style-type: none"> <li>- Blawhorn Moss</li> <li>- Isle of May</li> <li>- Tentsmuir</li> <li>- St Abbs</li> </ul>	National Nature Reserve (NNR)	NNRs are designated to further the conservation and study of wildlife, habitats or geological features of special interest.
<p>The SEStran region hosts 19 SSSIs designated for reasons of geological importance:</p> <ul style="list-style-type: none"> <li>- Agassiz Rock</li> <li>- Bangle Quarry</li> <li>- Carlops Meltwater Channels</li> <li>- East Kirkton Quarry</li> <li>- Garleton Hills</li> <li>- Grieston Quarry</li> <li>- Hareheugh Craigs</li> <li>- Hewan Bank</li> <li>- Inveriel Quarry</li> <li>- Keith Water</li> <li>- Lintmill Railway Cutting</li> <li>- Lynslie Burn</li> <li>- Mill Glen</li> <li>- Old Cambus Quarry</li> <li>- Oxendean Burn</li> <li>- Palmers Hill Railway Cutting</li> </ul>	Site of Special Scientific Interest (SSSI)	Geological SSSIs are designated owing to the presence of nationally important or rare geological features.



Relevant Sites in the SEStran Region	Designation Type	Qualifying Features / Interests
<ul style="list-style-type: none"> <li>- Roscobie Quarry</li> <li>- Thornylee Quarry</li> <li>- Whiteadder Water</li> </ul>		
The SEStran region hosts 1 Regional Park: Pentland Hills Regional Park	Regional Parks	The Pentland Hills Regional Park was designated in 1986, the majority of which is in private ownership, with statutory duties carried out by City of Edinburgh Council, Midlothian Council and West Lothian Council to their constituent parts of the park. It covers an area of 90 sq km. The regional park designation was created to enable the coordinated management of recreation and other land uses such as farming and forestry.
The SEStran region hosts 2 UNESCO World Heritage Sites; Edinburgh World Heritage Site; and Forth Bridges World Heritage Site	World Heritage Sites	<p>The Old and New Towns of Edinburgh became a UNESCO World Heritage Site in 1995. The site covers an area of approximately 4.5km<sup>2</sup> and contains nearly 4,500 individual buildings as well as ancient monuments, designed landscapes, and conservation areas.</p> <p>The Forth Bridge was inscribed as a UNESCO World Heritage Site in July 2015.</p> <p>The United Nations Educational, Scientific and Cultural Organization (UNESCO) recognises World Heritage Sites as places of outstanding cultural, historical or scientific value.</p>
The SEStran region area hosts 1,475 Scheduled Monuments and 25,174 listed buildings.	Scheduled Monuments (SM)	A wide range of historic structures within the SEStran region area have been designated as either Scheduled Monuments or Listed Buildings, including hill forts, chapels, standing stones, bridges, castles and cairns. Scheduled Monuments are designated owing to their historical significance whilst buildings are listed owing to their features of architectural importance.
The SEStran region hosts 180 Conservation Areas across all of the local authority areas.	Conservation Areas	The designated Conservation Areas are centred upon clusters of Listed Buildings or other structures of architectural importance.
<p>The SEStran region hosts two National Scenic Areas:</p> <ul style="list-style-type: none"> <li>- Upper Tweeddale</li> <li>- Eildon and Leaderfoot</li> </ul>	National Scenic Areas	<p>NSAs are areas which are nationally important for their scenic quality. There are 40 NSAs mainly in the more remote and mountainous areas of Scotland all of which were originally identified in 1978 by the Countryside Commission for Scotland (CCS) in its publication 'Scotland's Scenic Heritage'. They represent the best areas of the type of scenic beauty popularly associated with Scotland and for which it is renowned.</p> <p>NSAs have been recognised within the planning system since 1980. In 2010 the Scottish Ministers issued directions to local authorities under provisions in section 263A of the Town and Country Planning (Scotland) Act 1997 (inserted by section 50 of the Planning etc. (Scotland) Act 2006) to designate the current suite of 40 NSAs, thereby affording statutory protection to their special qualities when making planning decisions.</p>

## Implications of Environmental Designations for the emerging RTS and SEA

- A.2.2 The Firth of Forth SPA covers a significant portion of the SEStran coastal area, covering a range of estuarine and coastal habitats, stretching from the coasts of Fife and East Lothian moving inland to Alloa. The SPAs features include invertebrate-rich intertidal flats and rocky shores and areas of saltmarsh, lagoons and sand dune. The boundary of the SPA mostly follows that of the Firth of Forth Site of Special Scientific Interest and slightly overlaps with Forth Islands SPA. The Firth of Forth is also designated as a Ramsar site. There are 10 SPAs in the SEStran region. SPAs have been designated as they support rare and vulnerable birds (as listed on Annex I of Directive 2009/147/EC on the conservation of wild birds – ‘the Birds Directive’) and for regularly occurring migratory species. The emerging RTS must protect and support the management of all internationally and nationally designated sites in pursuit of their defined conservation objectives.
- A.2.3 The Old and New Towns of Edinburgh UNESCO World Heritage Site covers an area of approximately 4.5km<sup>2</sup>. The United Nations Educational, Scientific and Cultural Organization (UNESCO) recognises World Heritage Sites as places of outstanding cultural, historical or scientific value. The emerging RTS must protect, preserve and enhance the qualities of the UNESCO World Heritage Site.
- A.2.4 The Pentland Hills Regional Park is one of only three Regional Parks in Scotland, covering around 90km<sup>2</sup>. The emerging RTS should protect or enhance where possible the special landscape and cultural qualities of the Pentland Hills Regional Park.
- A.2.5 The SEStran region hosts two of the 40 National Scenic Areas of Scotland (Upper Tweeddale & Eildon and Leaderfoot). The emerging RTS should provide an appropriate level of protection and enhancement opportunities for landscapes designated at the national level

## A.3 Environmental and Socio-economic Baseline Conditions

- A.3.1 Informed by **Table A.1**, the following section outlines the current environmental conditions (including with respect to population, health and infrastructure) within the area likely to be affected by the emerging RTS, namely the SEStran region. This review also identifies associated existing environmental problems and issues which the emerging RTS should address and which should be considered throughout this SEA process.
- A.3.2 As set out in Section A.1, the qualitative baseline will be presented in three distinct categories, each in accordance with the required SEA objectives as shown below:
- **Air and Climate:** Air & Climatic Factors;
  - **Physical Environment:** Biodiversity, Flora & Fauna, Soil, Water, Cultural Heritage & Landscape; and
  - **Socioeconomics:** Population, Human Health & Material Assets.
- A.3.3 The key issues for the region as identified in the baseline are summarised in Section 3 of this Scoping Report.

## Air and Climate

### Air and Noise

- A.3.4 There are 15 Air Quality Management Areas (AQMAs) in the SEStrans region to monitor air pollutants. These are Edinburgh (Edinburgh Centre, Glasgow Road, St Johns Road, Great Junction Street, Inverleith Road, Salamander Street), East Lothian (East Lothian AQMA), Falkirk (Grangemouth, Haggs, Falkirk Centre), Fife (Bonnygate, Appin Crescent) and West

Lothian (Broxburn, Linlithgow and Newton). Clackmannanshire, Midlothian and Scottish Borders Council areas do not contain any AQMAs.

- A.3.5 The Scottish Government has published Strategic Noise Action Plans (SNAP) as directed by the Environmental Noise (Scotland) Regulations 2006. The Edinburgh Agglomeration NAP identifies a number of candidate noise management areas (CNMAs) including the A70, A71, A702 and A902, notable for their onward connections to the wider SEStran region. Overall, it shows there is a decrease in noise levels across the city. With regard to rail noise levels, ongoing improvements to track maintenance have resulted in a significant reduction in noise from operational railway across GB. More widely, the Transportation Noise Action Plan 2019-2023 sets out the intended approach to noise management across Scotland and identifies major road transport corridor CNMAs, with 12 in West Lothian, 10 in Fife, 9 in Falkirk, 2 in Edinburgh, 2 in East Lothian, 1 in Midlothian, with none identified in Clackmannanshire or Scottish Borders Council areas. These areas are identified in END Noise Mapping Round 3 as places near major roads with more than 3 million vehicle passengers per year. A further three Rail CNMAs were identified (2 in Linlithgow and 1 in Kirkcaldy) identified having more than thirty thousand train passages per year.

### **Climatic Factors**

- A.3.6 The latest available reporting indicates that Greenhouse Gas (GHG) emissions across the SEStran region vary, with City of Edinburgh having the highest emissions in the SEStran region in 2018 (emitting 8.3kt per km<sup>2</sup>, followed by Falkirk (7.6kt per km<sup>2</sup>) and Clackmannanshire (3.2kt per km<sup>2</sup>). This reflects the distribution of both population and fossil fuel reliant industries within the SEStran area. The remaining local authorities in the SEStran region emit less than 2.5kt per km<sup>2</sup><sup>2</sup>. With regard to low carbon energy generation<sup>3</sup>, as of 2019, Fife generated 4,684 MWhr, Scottish Borders generated 3,630MWhr and City of Edinburgh generated 2,018 MWhr from a range of onshore wind, solar, biomass and hydropower sources.
- A.3.7 Further analysis of transport emissions within the SEStran region and the relationship between the transport network and GHG emissions from other sectors will be undertaken and reported during the development of the emerging RTS.

### **Climate Change Impacts**

- A.3.8 The UK Climate Change Risk Assessment (2017) projects that climate change will lead to an increase in the severity and frequency of severe weather, sea level rise, flooding and climate events including higher precipitation events. This could adversely impact on the functioning and performance of transport infrastructure and the overall transport network. The SESplan Strategic Development Plan (2013) identifies the effects of climate change as a key consideration for future development and infrastructure development, recognising that both urban and rural environments will need to withstand and respond to the effects of climate change in the period to 2032.
- A.3.9 Further analysis of the need to adapt to climate change and for transport infrastructure to be climate resilient will be undertaken and reported during the development of the emerging RTS. Similarly, transport provision within the SEStran region will at times be affected by weather related travel issues such as extreme heat and cold.

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<sup>2</sup>Department for Business, Energy and Industrial Strategy (2018). Emissions of Carbon Dioxide for Local Authority Areas. Available online at: <https://data.gov.uk/dataset/723c243d-2f1a-4d27-8b61-cdb93e5b10ff/emissions-of-carbon-dioxide-for-local-authority-areas>

<sup>3</sup> Department for Business, Energy & Industrial Strategy (2019). Regional Renewable Statistics by Local Authority 2014-2019. Available online at: <https://www.gov.uk/government/statistics/regional-renewable-statistics>

## Physical Environment

### Biodiversity, Flora & Fauna

- A.3.10 **Table A.1** above identifies the qualifying features of relevant European sites (SPAs, SACs and Ramsar sites) and sites designated at the national level and benefiting from statutory protection within the SEStran region for specific reasons of ecological importance or biodiversity conservation.

### Soil

- A.3.11 Overall, the SEStran region comprises a mix of urban, semi-urban and rural landscapes. The SEStran region is made up of a mixture of a wide range of soils including alluvial soils, brown soils, mineral gleys, peaty gleys and small localised areas of peatland<sup>4</sup>.
- A.3.12 Throughout the SEStran region, agricultural land quality is varied, with a mixture of class 2, 3.1 and 3.2 (land capable of producing a wide range of crops to land capable of producing consistently high yields of crops) around the coastal areas and in a large proportion of the Scottish Borders. The remaining areas are a mixture of urban, class 4,5 and 6 (non-agricultural (urban) and land capable of producing a narrow range of crops to land capable of use as improved grassland)<sup>5</sup>.

### Water

- A.3.13 The main waterbodies within the SEStran region include the River Forth/Forth Estuary, River Tay/Tay Estuary, River Eden, River Tyne, River Tweed and Liddel Water. Other notable lochs and reservoirs within the SEStran region include Central Fife, Ochil Hills, Pentland Hills, Moorfoot Hills, Lammemuir Hills and Upland Areas South of Peebles.
- A.3.14 SEPA Flood Risk Mapping indicates a high to medium risk of coastal flooding at the River Forth/Forth Estuary and the River Tay/Tay Estuary at the northern boundary of the SEStran region. Elsewhere in the region, there is a high to medium risk of river flooding along the lochs, rivers, canals and reservoirs across the region, with areas of surface water flooding present throughout.

### Landscape

- A.3.15 Other than the mixture of urban and semi-urban areas across the region, the remainder of the region comprises rural landscapes encompassing small villages, hamlets, untouched rural landscapes and protected open green spaces such as the Pentland Hills and Lomond Hills Regional Parks. A large proportion of the SEStran region includes the coastline running down the south east of Scotland. Throughout the SEStran region, green belt corridors can be found around Clackmannanshire, Dunfermline, Edinburgh, Falkirk and Grangemouth and St Andrews aimed to protect and enhance their character, landscape setting and identity.
- A.3.16 The SEStran region hosts two National Scenic Areas; Upper Tweeddale and Eildon and Leaderfoot. These make up 40 NSAs across Scotland, recognised as the best areas for scenic beauty across Scotland.

### Cultural Heritage

- A.3.17 As set out in **Table A.1**, the SEStran region hosts 1,475 Scheduled Monuments and 25,174 listed buildings. Across all of the local authority areas, there are 180 conservation areas. The

<sup>4</sup> National Soil Map of Scotland. Available at: [https://map.environment.gov.scot/Soil\\_maps/?layer=1#](https://map.environment.gov.scot/Soil_maps/?layer=1#)

<sup>5</sup> National scale land capability for agriculture. Available at: [https://map.environment.gov.scot/Soil\\_maps/?layer=1#](https://map.environment.gov.scot/Soil_maps/?layer=1#)

Old and New Towns of Edinburgh were also designated as a UNESCO World Heritage Site in 1995, covering an area of approximately 4.5km<sup>2</sup> and contains almost 4,500 individual buildings in addition to ancient monuments, designed landscapes and conservation areas. The Forth Bridge is also a UNESCO World Heritage Site.

## Socio-economics

### Population

- A.3.18 The SEStran region encompasses 8 local authorities, namely Clackmannanshire, City of Edinburgh, East Lothian, Falkirk, Fife, Midlothian, Scottish Borders and West Lothian, covering an area of approximately 3,180 sq.m, hosting around 28% of Scotland's population. The SESplan SDP identifies Edinburgh City Centre as the regional town centre for the whole of the SESplan area, recognising its role as the largest centre and its key role for retail, business and tourism. The SDP also recognises Livingston, Kirkcaldy, Dunfermline and Glenrothes as the strategic town centres.
- A.3.19 The total population of the local authorities which make up the SEStran region was estimated to be 1,609,070 people in 2019<sup>6</sup>. This is an increase of 7% since 2009, when the population was 1,497,020 people<sup>7</sup>. Within this period, the SEStran region has experienced a 4.1% rise since 2009 in those aged 0-15, a 4.5% rise in the population aged 16-64 and a 23.6% rise in those aged 65+. This shows that the SEStran region has an ageing population, with a substantial rise in people over 65 in the ten-year period 2009-2019.
- A.3.20 In terms of population projections, the population of the SEStran area is projected to steadily increase, culminating in a 7.6% increase in population by 2043 from 1,609,070 (2018) to 1,731,454<sup>8</sup>. Of all the local authority areas in the SEStran region, Midlothian is projected<sup>9</sup> to see the greatest increase in population to 2043 (+31%) to 119,637, followed by East Lothian (+15.1%) to 121,743 and Edinburgh which is projected to increase by 13.1% to 2043 to have a population of 585,566. The local authorities projected to experience a decrease in population by 2043 are Fife (-2.1%) to 364,164 and Clackmannanshire (-2.9%) to 49,924 people.
- A.3.21 With regard to housing, the SESplan SDP and adopted LDPs in the SEStran region provide an up to date estimation of housing need and housing land requirements (HLRs) (all tenure, private and affordable) in accordance with the Scottish Planning Policy (2014). A more detailed review of anticipated housing development is provided within the policy review in Appendix B.
- A.3.22 Higher education institutions in the SEStran region are mainly confined to cities and larger towns such as University of Edinburgh, Queen Margaret University, Heriot Watt University, Edinburgh Napier University, University of St Andrews. The region also hosts several further education institutions such as Edinburgh College, Forth Valley College, Fife College and Borders College Scotland.
- A.3.23 Throughout the SEStran region<sup>10</sup>, around 77% of those aged 16-64 are economically active, of which 75% are in employment, slightly higher than the Scottish average (74%). Of those in

<sup>6</sup> NOMIS Population estimates - local authority based by single year of age 2009 & 2019. Available at <https://www.nomisweb.co.uk/query/construct/summary.asp?mode=construct&version=0&dataset=2002>

<sup>7</sup> NOMIS Population estimates - local authority based by single year of age 2009 & 2019. Available at <https://www.nomisweb.co.uk/query/construct/summary.asp?mode=construct&version=0&dataset=2002>

<sup>8</sup> Projected total population by Scottish area (2018-2043), 2018-2043, National Record of Scotland <https://www.nrscotland.gov.uk/statistics-and-data/statistics/statistics-by-theme/population/population-projections/sub-national-population-projections/2018-based>

<sup>9</sup> Population projections for Scottish Areas (2018-based) Principal Projections, National Records of Scotland. <https://scotland.shinyapps.io/nrs-sub-national-population-projections/>

<sup>10</sup> NOMIS annual population survey (2019)



employment, 66% are employees, with 8% classed as self-employed. Of the population in the SEStran region that are working age (16-64), around 4% are unemployed, slightly higher than the Scottish average (3.6%). Of those in employment in the region, 25% work in professional occupations, followed by associate professional & technical occupations (16%) and managers, directors and senior officials (9%).

- A.3.24 With regard to deprivation, the Scottish Index of Multiple Deprivation (SIMD)<sup>11</sup> is a relative measure of deprivation across small areas in Scotland. It looks at multiple deprivation based on employment, education, health, access to services, crime, and housing in addition to income. Overall, areas of deprivation are widely dispersed throughout the region, with the least deprived 10% most commonly found in East Lothian, Midlothian and Scottish Borders. Of all the local authorities in the SEStran region, East Lothian is the only local authority without a datazone within the most deprived 5% of the country. A more detailed assessment of equalities and deprivation across the SEStran region will be provided in the Equalities Impact Assessment (EqIA), to be developed in conjunction with the emerging RTS.

### **Human Health**

- A.3.25 The NHS Health Boards which serve the SEStran region are the Forth Valley, Fife, Lothian and Borders Health Boards<sup>12</sup>. The hospital provision within each of the health boards is as follows; Forth Valley (5), Fife (2), Lothian (21), Borders (5).
- A.3.26 Life expectancy<sup>13</sup> in the SEStran region (2017-2019) is similar across the Health Boards which serve the region, with NHS Lothian having the highest life expectancy for females (82.12) and NHS Borders having the highest male life expectancy of the region (79.15). The lowest life expectancy (2017-2019) for females is in NHS Forth Valley (81.12), while for males, NHS Fife had the lowest male life expectancy (77.3). This shows that there is a larger disparity in life expectancy for males across the SEStran region than females.
- A.3.27 Further analysis of health impacts will be provided within the EqIA and emerging RTS.

### **Material Assets**

- A.3.28 Within the SEStran region, the City of Edinburgh is at the top of the retail hierarchy, recognised in SESplan as the principal retail, office and tourism centre of the region. As of 2019, Edinburgh has an estimated population of 524,930 people, the most populous of all of the local authorities in the SEStran region, followed by Fife (373,550) and West Lothian (183,100)<sup>14</sup>. Edinburgh plays a critical role in the tourism industry for the SEStran region and all of Scotland; Edinburgh and the Lothians was the destination of choice for 42% of international overnight stays in 2016<sup>15</sup>, generating £1.5 billion of expenditure in the region and attracting 30 million day and overnight visitors by 2019<sup>16</sup>.
- A.3.29 Key transport routes and infrastructure within the SEStran region include the Forth Rd Bridge, A90 Queensferry Crossing, A720 Edinburgh City Bypass, M8, M9, M90, A1, A68 and A92. These main routes adjoin b-routes and other minor roads, providing key connections across the SEStran region and into wider Scotland. The road network provides key links to the

<sup>11</sup> SIMD (2020) <https://simd.scot/#/simd2020/BTTTTFTT/9/-4.0000/55.9000/>

<sup>12</sup> NHS Health Boards Map <https://www.scot.nhs.uk/mapofscotlandshowversion-2/>

<sup>13</sup> Scottish Public Health Observatory [https://scotland.shinyapps.io/ScotPHO\\_profiles\\_tool/](https://scotland.shinyapps.io/ScotPHO_profiles_tool/)

<sup>14</sup> NOMIS Population estimates - local authority based by single year of age (2019)

<sup>15</sup> Tourism in Scotland, Scottish Government (2018) <https://www.gov.scot/publications/tourism-scotland-economic-contribution-sector/pages/3/>

<sup>16</sup> Visit Scotland Edinburgh & Lothians Factsheet (2019) <https://www.visitscotland.org/binaries/content/assets/dot-org/pdf/research-papers-2/regional-factsheets/edinburgh-and-lothians-factsheet-2019.pdf>

regions ports and airports, most notable Grangemouth, Leith, Rosyth and Methil Docks and Edinburgh Airport.

- A.3.30 With regard to traffic movements, two of the top five local authorities with the highest traffic volumes in Scotland (Edinburgh & Fife) are found within the SEStran region; with the top 5 LAs accounting for 34% of all traffic on Scotland's roads<sup>17</sup>. This data was gathered prior to the ongoing Covid-19 pandemic. Since then, passenger usage of all modes of transport across Scotland have significantly reduced, with the latest statistics in January 2021 showing reductions in rail journeys (-90%), air travel (-80%), concessionary bus journeys (-70%), ferries (-65%), walking (-55%), car journeys (-45%) and cycling (-40%)<sup>18</sup>. This change is temporary and likely to recover to 2019 levels following the end of the pandemic.
- A.3.31 Rail infrastructure in the SEStran region provides extensive connections throughout Scotland via the Forth Railway Bridge and also down to the North of England via North Berwick and onwards to London. Of the top 5 railway stations in Scotland, the SEStran region features both Edinburgh Waverly and Haymarket which had the highest entries and exits 2019-2020 in Scotland, enabling 32,465,202 and 2,980,386 journeys respectively<sup>19</sup>. Rail services in the region include:
- Clackmannanshire: served by the Stirling to Alloa line, with direct connectivity more focused towards Glasgow than Edinburgh,
  - East Lothian/Borders: local service to North Berwick and Dunbar, with East Coast and Cross Country also serving Dunbar and Berwick-upon Tweed, providing rail access to the east coast of the Scottish Borders.
  - Fife: serves the Fife Circle, providing services to Dundee, the north-east and other services to Perth and the North.
  - Midlothian and Scottish Borders: are served by the Borders Railway; and
  - West Lothian: is served by four main train services: Edinburgh – Shotts (Carstairs) – Glasgow, Edinburgh – Bathgate – Glasgow, Edinburgh – Falkirk High – Glasgow mainline, Edinburgh – Falkirk Grahamston – Dunblane – the latter two also serving Falkirk.
- A.3.32 The opening of the Edinburgh Tram linking York Place and Edinburgh Airport in 2014, provided a high capacity public transport option for the western corridor of Edinburgh. SEStran continue to support the extension of the tram network within Edinburgh and beyond, providing a more sustainable transport option for the region. The SEStran region is also served by multiple bus services connecting urban and rural settlements. Services are predominantly run and timetables by private operators, although SEStran are exploring the feasibility of a high-quality orbital bus service for the region.
- A.3.33 With regards to air and sea travel, Edinburgh Airport both serves the SEStran region and is a nationally important asset in terms of providing an international gateway for travellers and cargo. Ports in the SEStran region include Rosyth, Grangemouth and Leith docks.

<sup>17</sup> Transport Scotland, Scottish transport Statistics No 38 (2019)  
<https://www.transport.gov.scot/media/47300/scottish-transport-statistics-2019.pdf>

<sup>18</sup> COVID-19 Transport Trend Data - 25 - 31 January 2021 <https://www.transport.gov.scot/publication/covid-19-transport-trend-data-25-31-january-2021/>

<sup>19</sup> Office of Road and Rail Top 5 stations in Scotland. <https://dataportal.orr.gov.uk/media/1911/top-10-busiest-stations-in-scotland-train-board-2019-20.mp4>

## **A.4 Evolution of Baseline Conditions in the Absence of the Emerging RTS**

### **A.4.1 Evolution of Baseline Conditions in the Absence of the Emerging RTS**

A.4.2 In accordance with the 2005 Act, each iterative version of the ER for the emerging RTS will outline the likely evolution of the environmental baseline scenario, as described in **Table A.2**, in the absence of the emerging RTS (in relation to the substantive component(s) being consulted upon in tandem with the ER).

A.4.3 At this initial stage, based on the high level baseline information provided in **Table A.2** it is clear that, in the absence of the emerging RTS, in overall terms transport infrastructure and provision would struggle to cope with changing transport demands and would fail to support the delivery of inclusive and sustainable economic growth in full. Furthermore, in the absence of the emerging RTS, after the expiration of the current RTS in 2025 SEStran would be in breach of the requirements under the Transport (Scotland) Act 2005 to prepare and maintain a RTS for the South East of Scotland area, and when doing so to have regard to the current NTS (namely the emerging NTS2, which is expected to be finalised in the interim period). This would result in a regional policy vacuum and would prevent SEStran from having an up to date strategy aligned with current national policies, in especially as the NTS2 will directly inform the development of the National Planning Framework 4.

- In relation to the environmental topics prescribed in Schedule 2 of the 2005 Act, it should firstly be noted that environmental impacts from individual transport infrastructure projects would depend on their locational, design and operational characteristics, as would be assessed through the consenting of each project rather than through the emerging RTS. However, in the absence of the emerging RTS and if the resident and workplace populations of the SEStran region increase in line with projections:
- **Population:** Demand for transport would outstrip supply, leading to overcrowding of transport infrastructure, increased congestion and delays on the transport network. This could impede the delivery of inclusive growth and stifle economic productivity, as well as resulting in physical environmental and health impacts (see below). It could also lead to a requirement for new major transport infrastructure to cope with increased demand, which if not co-ordinated could itself result in a range of environmental impacts;
- **Health:** Demand for, and use of, road transport of transport would increase in line with population growth, whilst opportunities to encourage transport modal shift to active and public transport would be lost. Additionally, if a significant switch to active modes of transport is not achieved, physical and mental health issues including obesity, inactivity, poor air quality and social exclusion would continue to adversely affect the resident population of the SEStran region. Ill-health is therefore likely to deteriorate and could result in life expectancy stagnating or even reducing;
- **Biodiversity, Flora & Fauna:** If not carefully co-ordinated (i.e. through the emerging RTS), the need for new major transport infrastructure to cope with increased demands could put pressure on biodiversity, including the loss and fragmentation of habitats. Unchecked increases in traffic and noise could also result in habitat degradation and species disturbance;
- **Soil:** If not carefully co-ordinated, the need for new major transport infrastructure to cope with increased demands could lead to the loss of important soil resources, soil erosion and land contamination;
- **Water:** If not carefully co-ordinated, the need for new major transport infrastructure to cope with increased demands could result in increased flood risks and the pollution of the water environment;



- **Air Quality & Climatic Factors:** In the absence of better integration between transport planning and land use/spatial planning, and substantial modal shifts towards sustainable modes, an increase in road traffic associated with projected population growth would increase fossil fuel combustion, carbon emissions and local atmospheric pollution, in particular greater release of particulate matter. This could lead to worsening air quality and act against wider policy efforts to decarbonise key economic sectors, including transport, to mitigate climate change. A failure to tackle existing areas of poor air quality and more generally to improve air quality could result in the need for local authorities within the SEStran region to designate further Air Quality Management Areas (AQMAs) and implement associated Air Quality Action Plans (AQAP), which could adversely impact on the functioning of the transport network;
- **Material Assets:** Transport infrastructure and provision would struggle to cope with changing transport demands whilst opportunities to encourage transport modal shift to active and public transport would be lost. The absence of the emerging RTS could result in the failure of SEStran and constituent local authorities to attract the substantial public and private sector funding needed to adequately maintain existing transport infrastructure, better integrate transport modes and to deliver the new or upgraded infrastructure required to meet the needs of a rising population. This would jeopardise the ability of SEStran, as the statutory RTP for the South East of Scotland area ('the SEStran region'), to support the delivery of sustainable and inclusive economic growth;
- **Cultural Heritage:** If not carefully co-ordinated, the need for new major transport infrastructure to cope with increased demands could increase development pressures in areas of historical or archaeological interest and could undermine the integrity and setting of sensitive heritage assets;
- **Landscape:** If not carefully co-ordinated, the need for new major transport infrastructure to cope with increased demands could adversely impact on the landscape character of and key landscape features within the SEStran region area, as well as adversely affecting visual amenity.

## Appendix B Review of Plans and Programmes

B.1.1 This Appendix supports **Section 3** of the SEA Scoping Report by setting out a review of relevant qualifying plans and programmes (including legislation and strategies) of relevance to the emerging RTS. The main purpose of this review is to identify relevant environmental protection objectives and policy requirements within the identified policy documents which should be taken account of within or otherwise inform the emerging RTS and this associated SEA. This policy review has been led by SEStran officers to support the development of the emerging RTS, with input from Stantec to ensure compliance with SEA reporting requirements.

### B.2 Review of Relevant Plans and Programmes

B.2.1 This section sets out a proportionate review of plans and review of other plans and programmes of relevance to the emerging RTS and the associated SEA. This review will be updated as required throughout the preparation of the emerging RTS to take account of policy developments. Table B.1 below is arranged by International, National and Local Policy levels and applies the same topic groupings as used in **Appendix A: Air & Climate, Physical Environmental and Socioeconomics and Interrelated Effects**<sup>20</sup>.

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<sup>20</sup> Note that Interrelated Effects refers to policies with wide relevance to all objectives where relevant.

Table B.1: Policy Documents of Relevance

SEA Topic	Relevant Plans, Programmes and Strategies
<b>International<sup>21</sup></b>	
<b>Air and Climate:</b> Air & Climatic Factors	<p>World Health Organization (1999) Guidelines for Community Noise, WHO Air Quality Guidelines, United Nations (1979) Geneva Convention on Long Range Transboundary Air Pollution, The United Nations Framework Convention on Climate Change (UNFCCC) (1992), Kyoto Protocol to the UN Convention on Climate Change (2005), United Nations (2009) The Copenhagen Accord, United Nations (2010) Cancun Adaptation Framework, United Nations (2016) Paris Agreement.</p> <p>European / EU legislation and plans now of indirect relevance include: Ambient Air Quality Directive 2008/50/EC and Air Quality Framework Fourth Daughter Directive 2004/107/EC, Environmental Noise Directive 2002/49/EC, Renewable Energy Directive 2009/28/EC</p>
<b>Physical Environment:</b> Biodiversity, Flora & Fauna, Soil, Water, Cultural Heritage & Landscape	<p>The Ramsar Convention on Wetlands (1971), EU Convention on the Agreement on the Conservation of African – Eurasian Migratory Waterbirds (2006) (The Bonn Convention), United Nations (1992) The Rio Convention on Biodiversity, Strategic Plan for Biodiversity 2011 - 2020 + Aichi Biodiversity targets, UNESCO (1972) Convention Concerning the Protection of the World Cultural and Natural Heritage.</p> <p>European / EU legislation and plans now of indirect relevance include: Convention on the Conservation of European Wildlife and Natural Habitats - The Bern Convention (1981), Birds Directive 2009/147/EC/, Habitats Directive 92/43/EEC as amended by 97/62/EC, Convention for the Protection of the Architectural Heritage of Europe (Granada Convention), European Landscape Convention (The Florence Convention).</p>
<b>Socio-economics:</b> Population, Human Health & Material Assets	<p>United Nations (2016) Habitat III (Quinto), United Nations Economic Commission for Europe (1998) Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters (The Aarhus Convention), World Health Organisation (2004) Children's Environment and Health Action Plan for Europe</p>
<b>Interrelated Effects</b>	<p>Johannesburg Declaration on Sustainable Development, Communication COM (2005) 666: Taking Sustainable use of resources forward</p> <p>European / EU legislation and plans now of indirect relevance include: Strategic Environmental Assessment (SEA) Directive 2001/42/EC European Spatial Development Perspective (ESDP) (97/150/EC), Environmental Impact Assessment Directive 2014/52/EU amending Directive 2011/92/EU</p>

<sup>21</sup> Some European Union (EU) legislation remains of indirect relevance.

<b>National (UK) - legislative and policy frameworks informed by relevant higher-level frameworks</b>	
<b>Air and Climate:</b> Air & Climatic Factors	The Environment Act 1995, The Air Quality Standards Regulations (2010) as amended, Air Quality Strategy for England, Scotland, Wales and Northern Ireland, UK's Air Quality Action Plan (Defra, revised January 2016), Defra (2011) Air Quality Plans for the Achievement of EU Air Quality Limit Values for Nitrogen Dioxide (NO <sub>2</sub> ) in the UK: List of UK and National Measures, Climate Change Act 2008, DECC (2011) UK Renewable Energy Roadmap, DECC (2014) UK National Energy Efficiency Action Plan, HM Government (2017) UK Climate Change Risk Assessment 2017
<b>Physical Environment:</b> Biodiversity, Flora & Fauna, Soil, Water, Cultural Heritage & Landscape	Wildlife and Countryside Act 1981, Environmental Protection Act 1990, The Protection of Badgers Act 1992, Conservation of Habitats & Species Regulations 2010 (as amended), UK National Ecosystem Assessment (2011) UK National Ecosystem Assessment: Understanding Nature's Value to Society, The Conservation of Habitats and Species Regulations 2010 as amended, JNCC (2012) The UK Post 2010 Biodiversity Framework, Natural Environment and Rural Communities Act 2006, HM Government (2018) 25 Year Environment Plan, Environmental Protection Act 1990 Part SEA, Good Environmental Status, DECC (2010) Department for Transport (2011) National Policy Statement for Ports, The Marine and Coastal Access Act (2009), Department for Environment, Food & Rural Affairs (2011) UK Marine Policy Statement, The Ancient Monuments and Archaeological Areas Act (1979) National Parks and Access to the Countryside Act (1949), Forestry Act (1967)
<b>Socio-economics:</b> Population, Human Health & Material Assets	The Enterprise and Regulatory Reform Act (2013), Equality Act (2010), Health Effects of Climate Change in the UK 2008 - An update of the Department of Health Report 2001/2002, Health Protection Agency (2009) Health Strategy for the United Kingdom 2, Health and Safety Executive (2009) The Health and Safety of Great Britain: Be Part of the Solution, Sustainable Development Commission (2010) Sustainable Development: The Key to Tackling Health Inequalities, HM Treasury (2014) National Infrastructure Plan, HM Government (2009) The UK Renewable Energy Strategy.
<b>Interrelated Effects</b>	HM Government (2005) The UK Sustainable Development Strategy, Defra (2011) Mainstreaming Sustainable Development, Department for Transport (2008) Delivering a Sustainable Transport System, HM Government (2005) One Future – Different Paths. Shared Framework for Sustainable Development.
<b>National (Scotland) - legislative and policy frameworks informed by relevant higher-level frameworks</b>	
<b>Air and Climate:</b> Air & Climatic Factors	Air Quality (Scotland) Regulations (amended) 2016, Cleaner Air for Scotland - the road to a healthier future, The Environment Act 1995 & Part IV of the Environment Act 1995 Local Air Quality Management Policy Guidance, The Environmental Noise (Scotland) Regulations 2006, Transportation Noise Action Plan, Planning Advice Note 1/2011: Planning and Noise, Climate Change (Scotland) Act 2009 and Orders + New Climate Change Bill, The Scottish Government's Climate Change Plan, Third Report on Proposals and Policies 2018-2032, Switched On Scotland: A Roadmap to Widespread Adoption of Plug-in Vehicles 2013, 'Climate Ready Scotland' - Scotland's Climate Change Adaptation Programme, Transportation Noise Action Plan (2019-2023) Update to the Climate Change Plan 2018-2032, Scottish Government.
<b>Physical Environment:</b> Biodiversity, Flora & Fauna, Soil, Water, Cultural Heritage & Landscape	Nature Conservation (Scotland) Act 2004, Wildlife and Natural Environment (Scotland) Act 2011, Scottish Government: Scottish Forestry Strategy 2006 and Implementation Plan 2015 – 2018, It's in your Hands: Scotland's Biodiversity Strategy (2005), 2020 Challenge for Scotland's Biodiversity (2013), Scotland's Biodiversity, a Route Map to 2020 (6 Big Steps for

	<p>Nature), Scotland's Biodiversity List, Scottish Biodiversity Strategy indicators, Scottish Government and its Key Agencies: Scottish Biodiversity Strategy Post-2020: Statement of Intent, The Scottish Soil Framework (2009), State of Scotland's Soils Report 2011, National Soil Map of Scotland, Soil Monitoring Action Plan &amp; Implementation Plan, Contaminated Land (Scotland) Regulations 2000 as amended, Scottish Government's Statutory Guidance: Edition 2 (2006), Getting the best from our land: A Land Use Strategy for Scotland 2016 – 2021, Water Environment and Water Services (Scotland) Act 2003, Water Environment (Controlled Activities) (Scotland) Regulations 2011 as amended (CAR), Groundwater Protection Policy for Scotland: Environmental Policy (SEPA, 2009), River Basin Management Plan for the Scotland River Basin 2015 – 2027, Flood Risk Management (Scotland) Act 2009, Scottish Canals Asset Management Strategy 2019-30, Marine (Scotland) Act 2010, The Historic Environment Policy for Scotland(2019), Our Place in Time - The Historic Environment Strategy for Scotland 2014, Historic Environment Circular 1, The Town and Country Planning (Historic Environment Scotland) Amendment Regulations 2015 , The Historic Environment (Scotland) Act 2014, Planning (Listed Buildings and Conservation Areas) (Scotland) Act 1997, Ancient Monuments and Archaeological Areas Act 1979 (as amended, 2014), Planning (Listed Buildings and Conservation Areas) (Scotland) Act 1997 (as amended, 2014), PAN71 Conservation Area Management 2004, Scotland's Scenic Heritage, SNH Landscape Policy Framework, Planning etc. (Scotland) Act 2006, Creating Places: The Scottish Government's policy statement on architecture and place, National Parks (Scotland) Act 2000, Scotland's Landscape Charter, NatureScot Landscape Character Assessments.</p>
<p><b>Socio-economics:</b> Population, Human Health &amp; Material Assets</p>	<p>General Registers of Scotland: National Population Projections, Equality Act 2010 (as amended specific to Scotland), Scottish Government: Fairer Scotland Action Plan, Going Further: Scotland's Accessible Travel Framework, National Bus Travel Concession Scheme for Older and Disabled Persons (2006 and amended), Scotland's Economic Strategy (2015), Town Centre Action Plan, Scottish Government: Let's Get Scotland Walking - A National Walking Strategy 2014, Cycling Action Plan for Scotland, A Healthier Scotland - Actions and Ambitions on Diet, Activity and Healthy Weight 2017, Mental Health Strategy 2017 – 2027, Good Mental Health for All, Scottish Government: Go Safe on Scotland's Roads It's Everyone's Responsibility: Scotland's Road Safety Framework to 2020, Audit Scotland (2011) Transport for Health and Social Care, Scottish Government: Short Life Working Group (2013) Healthcare Transport Recommendations, A connected Scotland - Tackling social isolation and loneliness and building stronger social connections, Going Further: Scotland's Accessible Travel Framework, Scottish Government: Good Places, Better Health. A New Approach to the Environment and Health in Scotland: Implementation Plan (2008), Creating Places (2013), Place Standard Tool (2016), Scottish Planning Policy (2014), National Planning Framework 3 (2014), Scottish Government: Equally Well (2008), First Equally Well Review (2010), Second Equally Well Review (2014), Equally Well Implementation Plan and Outcomes Frameworks (2008), Transport (Scotland) Act 2005, Scotland's Energy Strategy 2017, Switched On Scotland Roadmap 2013, Switched On Scotland Phase Two: An Action Plan for Growth, Infrastructure Investment Plan (2015), Scotland's NTS2 (2020), Strategic Transport Projects Review 2 Phase 1 Report (2021), Scottish Planning Policy (2014), National Planning Framework 3 (NPF3) (2014), NPF4 (emerging).</p>
<p><b>Interrelated Effects</b></p>	<p>National Transport Strategy 2 (NTS2) (2020), NTS2 1<sup>st</sup> Annual Delivery Plan (2020), Strategic Transport Projects Review 2 (STPR2) (emerging), National Planning Framework 4 (NPF4) (emerging), Scottish Planning Policy (2014), NPF3 (2014), Place Principle (2019) Designing Streets (2010), Infrastructure Commission for Scotland Report, Scotland's Economic Strategy 2015, Infrastructure Investment Plan (2015), Cycling Action Plan for Scotland, National Walking Strategy, Delivering the Goods - Scotland's Rail Freight Strategy (2016), Rail Enhancements &amp; Capital Investment Strategy, Scottish Ferries Plan, National Roads Development Guide, Climate Ready Scotland Adaptation Programme (2019), Scotland's 3rd Land Use</p>

	Strategy (Consultation Draft 2020), The Scottish Governments Programme for Government (2020-2021), The Scottish Government's Infrastructure Investment Plan 2021-22 to 2025-26 (2021)
<b>SEStran Region - policy frameworks informed by relevant higher-level frameworks</b>	
<b>Air and Climate:</b> Air & Climatic Factors	Edinburgh Adapts: Climate Change Adaptation Action Plan 2016-2020.
<b>Physical Environment:</b> Biodiversity, Flora & Fauna, Soil, Water, Cultural Heritage & Landscape	Central Scotland Green Network
<b>Socioeconomics:</b> Population, Human Health & Material Assets	Edinburgh and South East Scotland City Region Deal (2018), Borderlands Inclusive Growth Deal (2019), Falkirk Growth Deal (Submitted 2019), Stirling/ Clackmannanshire City Region Deal (2020),.
<b>Interrelated Effects</b>	SESplan Strategic Development Plan (2013-2032), SESplan indicative Regional Spatial Strategy (iRSS) (2020), Forth Valley iRSS (2020).
<b>Constituent Local Authorities within SEStran Region - policy frameworks informed by relevant higher-level frameworks</b>	
<b>Air and Climate:</b> Air & Climatic Factors	Air Quality Action Plans covering the Air Quality Management Areas (AQMAS), Edinburgh Agglomeration Noise Plan, Local Authority Climate Change Strategies (for each constituent local authority)
<b>Physical Environment:</b> Biodiversity, Flora & Fauna, Soil, Water, Cultural Heritage & Landscape	Biodiversity Action Plans and Green Network Strategies (for each constituent local authority), Local Flood Risk Management Plans within SESplan area, Old and New Towns of Edinburgh World Heritage Site Draft Management Plan (2017 to 2022) (UNESCO World Heritage Site).
<b>Socioeconomics:</b> Population, Human Health & Material Assets	Local Outcome Improvement Plans (LOIPs) (for each constituent local authority and associated Community Planning Partnership), Local Open Space Strategies, Local Walking, Cycling and Active Travel Strategies (for each constituent local authority and associated Community Planning Partnership), Active Travel Strategies, Core Path Plans and Minerals, Local Transport Strategies, Local Development Plans (LDPs) / LDP policies (for each constituent local authority)
<b>Interrelated Effects</b>	Local Transport Strategies and Local Development Plans (for each constituent local authority)

## B.3 Key Policy Considerations

- B.3.1 As set out in **Table B.1**, an extensive policy review was carried out of relevant plans, programmes and strategies which need to be taken into account of in the development of the emerging RTS and this associated SEA. This section highlights the most critical policy targets and implications which the emerging RTS will be required to address.

### International

- B.3.2 Mitigating and adapting to climate change is a critical policy consideration at an international level with multiple agreements in place to address the climate emergency. The UNFCCC is the forum for international action on climate change with the aim of stabilising GHG concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system. The UNFCCC focuses on mitigating (reducing) GHG emissions, adapting to climate change, reporting of national emissions, and financing of climate action in developing countries. Agreed at COP 21, the Paris Agreement commits signatories to reducing global greenhouse gas emissions with the long-term goal of withholding a temperature increase by no more than 2%. In addition, the Cancun Adaptation Framework recognises that adaptation required to given same priority as mitigation including reducing vulnerability and increasing resilience. Any major transport infrastructure development set out in the emerging RTS should contribute to meeting the requirements and targets set out in international climate change policies and agreements.
- B.3.3 As the United Kingdom formally left the European Union (EU) in 2020, European legislation and associated policies are no longer of direct relevance to domestic policies or strategies such as the RTS. However, EU legislation has historically developed policy frameworks to address environmental issues which have subsequently been implemented at UK and Scotland levels, and prior to leaving the EU, existing EU legislation was transposed and incorporated into UK and Scottish legislation. This means some EU legislation remains of indirect relevance to the emerging RTS in terms of having established frameworks and requirements which the RTS will still need to implement in accordance with UK and Scottish legislation.

### National

- B.3.4 The Scottish Government's update to the Climate Change Plan 2018-2032 (2020) sets out a commitment to reduce greenhouse gas emissions to 75% of 1990 levels by 2030, 90% by 2040 and net-zero by 2045. The Plan recognises the key role that the decarbonisation of transport will play in reducing Scotland's emissions.
- B.3.5 The upgrade to the Climate Change Plan follows on from the publication of Climate Ready Scotland Adaptation Programme in 2019 which sets out the current state of the climate in Scotland including average rainfall increases, temperature rises and changes in mean sea level around the UK. The Programme sets out low and high emission scenarios, predicts a high emissions prediction of a summer temperature increase of 2.6°C and a winter temperature increase of 2.2 °C by 2070 with associated changes in rainfall in the summer (14% drier) and in winter (18% wetter). The transition to a low-carbon transport system will be critical to mitigating and adapting to the impacts of climate change in Scotland. This is backed up by several national policy documents, including NTS2.
- B.3.6 The National Transport Strategy 2 (2020) sets out the transport strategy for Scotland over the next 20 years, seeking to deliver a transport system which is sustainable, inclusive, safe and accessible across Scotland. NTS2 provides a strategic framework comprising four key priorities and associated enablers to ensure that NTS2:
- **“Reduces inequalities:** providing fair access to services that are accessible and affordable for all;



- **Takes Climate action:** to help deliver the net-zero emissions target, adapting to the effects of climate change and promoting greener, cleaner choices;
  - **Helps to deliver inclusive economic growth;** which is efficient, reliable, high quality and innovative; and,
  - **Improves our health and wellbeing:** delivering a safer and secure Scotland, with a wide variety of travel choices for communities”.
- B.3.7 NTS2 also sets out proposals (as stated in the Scottish Government’s Climate Change Plan) to reduce reliance on private transport to help to address the ongoing climate emergency, including a reduction in car kilometres by 20% in 2030, an ambition to phase out new petrol and diesel cars by 2032, decarbonise Scotland’s passenger railways by 2035 and decarbonise scheduled internal Scottish flights by 2040. The delivery of inclusive economic growth is also a key pillar of NTS2, seeking to increase the resilience of Scotland’s transport system and foster greater integration of transport and wider infrastructure policies and investments. It aims to increase Scotland’s competitiveness and help Scotland to become an innovative leader in beneficial transport innovations.
- B.3.8 In September 2021 Transport Scotland published a report on Decarbonising Scotland’s Transport sector. The report provides an independent assessment of policy outcomes Scotland needs to achieve in terms of the introduction of zero-emission vehicles and changes in transport behaviour, to meet Scottish Government set emissions targets in the transport sector.
- B.3.9 The consultation draft of Scotland’s 3rd Land Use Strategy was published in December 2020, setting out the Governments vision for achieving sustainable land use in Scotland. The Strategy sets out a set of key considerations for climate change adaptation & mitigation, understanding the need for climate resilience and the improvement of flood management within our urban landscapes. Post-consultation, the final draft of the Strategy is anticipated to be published in March 2021.
- B.3.10 The Scottish Governments Programme for Government (2020-2021) is guided by the National Performance Framework. This edition focuses on protecting and renewing Scotland, addressing the ongoing impact of Covid-19 on health, the economy and society and in supporting the transition to net-zero emissions. Two key interrelated policy issues that the SEStran RTS must respond to are encapsulated by this target: delivering sustainable economic growth through climate change adaptation, and enhanced infrastructure investment.
- B.3.11 The Scottish Government’s Infrastructure Investment Plan 2021-22 to 2025-26 (2021) sets out priorities for public investment through a long-term strategy. With progress updated annually, it sets out why the Scottish Government invests, how it invests and what it intends to invest up to 2040 by sector. This Infrastructure Investment Plan focuses on the importance of infrastructure investment to aid in the recovery from the economic, health and social harm from Covid-19 and also to address the adjustments required following the UKs exit from the EU in December 2020.
- B.3.12 Scotland’s Economic Strategy (2015) sets out the long-term vision for Scotland’s economic prosperity with £11bn worth of planned investment in Scotland’s infrastructure. The Economic Strategy sets four priorities for delivering sustainable economic growth in Scotland; investment, innovation, internalisation and inclusive growth. Of most relevance to the SEStran region, the Strategy identified a number of major projects such as the Queensferry Crossing (now completed) and an £850m investment in the St James Quarter, a 1.7m sq. ft mixed use development in Edinburgh City Centre. The Scottish Governments Programme for Government 2020-2021 identifies the importance of transport in Scotland’s Covid-19 recovery, identifying a suite of investment plans for transport improvements across Scotland such as £500m for bus priority infrastructure over the next 5 years, a £17m low carbon transport loan scheme and £100m for active travel infrastructure in 2020/2021. These improvements will help aid the Covid-19 recovery but also contribute towards the movement towards the decarbonisation of Scotland’s transport infrastructure.

- B.3.13 The National Planning Framework 3 (2014) designates a suite of National Developments which benefit from Scottish Government support in policy terms and sets out a national spatial strategy to deliver sustainable economic growth. This includes planned investment in key economic sectors and infrastructure, identifying improved digital and transport connectivity as one of the four key planning outcomes for the plan. National Developments within the SEAStran region of relevance to transport are Freight on Forth, Grangemouth investment Zone, Borders Railway, Central Scotland Green Network (CSGN), new non-nuclear baseloads at Longannet and Cockenzie and improvements to Edinburgh Airport. The CSGN aims to transform the environment of Central Scotland by 2050 to contribute towards sustainable economic growth and population wellbeing. The CSGN is framed around 5 themes and several outcomes are relevant to biodiversity and conservation including improving resilience of habitats and species as a result of integrated habitat networks and increasing/creating habitat including woodland and green infrastructure / green networks.
- B.3.14 The draft National Planning Framework 4 (NPF4) is due to be published for consultation in November 2020. NPF4 will set out a new plan for Scotland to 2050 and any projects that emerge from the RTS will need to be delivered in line with NPF4. The draft RTS will be published for consultation before draft NPF4 is published, however when the final RTS is being prepared the content of NPF4 will be known and should be considered when finalising the RTS.
- B.3.15 The Scottish Government's Infrastructure Investment Plan (2015) sets out the Scottish Government's infrastructure investment priorities and plans up to 2040 including EGIP, strategic roads projects, high speed rail, Glasgow subway modernisation, low emission vehicle infrastructure, active travel infrastructure and accessibility improvements to infrastructure.
- B.3.16 The emerging RTS must take account of all priorities identified in this policy review, including NTS2, Scotland's Economic Strategy, NPF3 and the Infrastructure Investment Plan especially with regard to transport climate change and inclusive growth. The emerging RTS also needs to be aligned with emerging policy priorities including the recommendations of STPR2 and the emerging NPF4.

## Regional

- B.3.17 The SESplan Strategic Development Plan (2013) sets out the vision and spatial strategy for the SESplan region to 2032, guiding future development and land use at a strategic level and also through the implementation of Local Development Plans (LDPs) for the constituent local authorities in the region. The SDP identifies existing and proposed employment land and housing commitments across the 13 Strategic Development Areas (SDA's) in the region as follows:

Strategic Development Areas	Committed Housing Units (from LDPs)	Strategic Employment Land (from previous LDPs)	Proposed Employment land allocated in the SDP
Regional Core (West Edinburgh, South East Edinburgh, Edinburgh City Centre, Edinburgh Waterfront)	41,500	247ha	20ha
East Coast (East Lothian, Eastern Borders)	8,400	76ha	n/a
Midlothian/Borders (A7/A68/Borders Rail Corridor (Midlothian), A701)	15,500	124ha	25ha

Corridor (Midlothian), Central borders, Western Borders)			
Fife Forth (North Dunfermline, Ore/Upper Level Valley)	6,700	411ha	n/a
West Lothian (West Lothian)	22,300	123ha	n/a
<b>Total</b>	<b>94,400 units</b>	<b>981ha</b>	<b>45ha</b>

- B.3.18 To address the needs of the projected growing population (+10% by 2043), the emerging RTS must take account of all planned housing and infrastructure developments, ensuring transport is able to meet the projected increases in demand whilst also promoting sustainable development which helps to meet climate change targets in international, regional and local policy.
- B.3.19 The Proposed Strategic Development Plan (SESplan2) (2016) was rejected by Scottish Ministers in May 2019 on the basis that its consideration of strategic transport infrastructure issues in the region, including consideration of cross-boundary requirements, was not accompanied and reinforced by a full Transport Appraisal. The emerging RTS is likely to be approved prior to the development of the replacement SESplan Regional Spatial Strategy (as that will follow NPF4 in 2022), but the emerging RTS will need to take account of transport issues noted in the SESplan2 Proposed Plan and the reasons for the rejection of that plan by the Scottish Ministers.
- B.3.20 The Edinburgh & South East Scotland City Region Deal aims to stimulate regional growth through the implementation of a number of strategic projects in the SEStran region<sup>22</sup> worth £1.3bn over the next 15 years. Of this, £156m has been allocated for transport improvements including £120m for A720 Sheriffhall roundabout and £20m for public transport infrastructure, with an additional £313 million allocated to deliver housing development in the region. The Deal recognises its importance in delivering targets previously set out in the SDP including the core A8/A9 sustainable transportation measures to provide long term resilience and improving connectivity between neighbouring local authorities. Elsewhere, the Borderlands Inclusive Growth Deal (Scottish Borders only), Falkirk Growth Deal and Stirling & Clackmannanshire City Region Deal all aim and set out funded infrastructure projects to foster inclusive economic growth.
- B.3.21 The SEStran Strategic Network Plan identifies plans for the development and enhancement of the strategic transport network, providing a framework of cross boundary active travel routes connecting cities, towns and other settlements throughout the region. This will be achieved through new active travel proposals such as the East Lothian Cycle Highway, new travel hubs/park and rides and through major proposals such as planned major residential development at Blindwells and Gallatown in addition to mixed use proposals at Grangemouth, Longannet and Edinburgh West.
- B.3.22 The emerging RTS will build upon the work of the previous SEStran RTS 2015-2025 refresh, published to take account of 2011 census data, updated national objectives, internal connectivity, new road accident national targets, project updates, implementation changes, and strategies and initiatives developed since 2008 publication. It focuses mainly on the environmental and infrastructure capacity concerns of the growing demand on transport infrastructure in the SEStran region, taking account of the implications of the SDP and the need

<sup>22</sup> With the exception of Clackmannanshire which is part of the Stirling and Clackmannanshire City Region Deal.

for enhancements in internal and external connectivity for the region. It sets a number of targets to do this including maintaining and improving accessibility to key business/employment locations for all, increase public transport access to employment for the most deprived communities by at least 10% after 15 years and working towards the Scottish Governments target of returning to 2001 traffic levels by 2021.

### **Local**

- B.3.23 Policies and guidance to guide development at the local level is provided via Local Development Plans (LDPs) and Local Transport Strategies. The emerging RTS will need to take account of transport pressures as a result of current and emerging development set out in the adopted LDPs in the region, in addition to significant infrastructure developments identified in emerging LDPs such as City Plan 2030, expected to be adopted in Spring 2022. The RTS will also need to take account of existing transport issues and objectives set out in Local Transport Strategies across the SEStran region and be cognisant of the potential development of new LTS in tandem with (rather than following) the RTS. This includes the Edinburgh City Mobility Plan, which is expected to be approved by the City of Edinburgh Council in February 2021.
- B.3.24 An overview of relevant infrastructure development proposals and housing land targets across the 8 local authorities in the SEStran region is provided below.

Local Authority	Adopted LDP	Relevant LTS	Strategic Infrastructure Developments Identified <sup>23</sup>	Housing requirements to end of plan period.
City of Edinburgh	Edinburgh Local Development Plan (2016)	City of Edinburgh Local Transport Strategy (2014-2019) City of Edinburgh Transport 2030 Vision (2010-2030) Edinburgh Airport Masterplan (2016-2040) Edinburgh City Mobility Plan (in draft)	<ul style="list-style-type: none"> <li>- New tram and rail infrastructure in west Edinburgh</li> <li>- Improvements to Edinburgh Airport</li> <li>- Improvements to road capacity</li> <li>- Sheriffhall Junction upgrade</li> <li>- Extension of ocean drive development to increase port capacity</li> <li>- Eastfield Road and Gogar Link Road</li> </ul>	29,510 homes covering period 2009-2024.
East Lothian	East Lothian Local Development Plan (2018)	East Lothian Local Transport Strategy (2018-2024)	<ul style="list-style-type: none"> <li>- Blindwells new settlement.</li> <li>- Targeted improvements in air quality for Mussleburgh and Tranent High Streets.</li> </ul>	12,850 homes. SESplan indicated a requirement for a further 3820 dwellings between 2024 and 2032.
Scottish Borders	Scottish Borders Local Development Plan (2016)	Scottish Borders Local Access & Transport Strategy (in draft)	<ul style="list-style-type: none"> <li>- Transportation interchange improvements between main town centres</li> <li>- Improvements to local road network.</li> <li>- Future railways extension between St Boswells and Hawick</li> <li>- Updates to A1, A7 and A68</li> <li>- New rail station at Reston</li> </ul>	12,506 covering 2009-2025), with 565 new housing allocations in the LDP.
West Lothian	West Lothian Local Development Plan (2018)	n/a	<ul style="list-style-type: none"> <li>- Junction 3 M9 at Linlithgow</li> <li>- Duntarvie, winchburgh junction</li> <li>- Avon Gorge to Falkirk</li> <li>- A71 west calder station park and ride</li> <li>- New Winchburgh Rail station</li> <li>- West Lothian (HS2)</li> </ul>	7,249 homes to 2024.
Midlothian	Midlothian Local Development Plan (2017)	Midlothian Transport Strategy (2007-2010)	<ul style="list-style-type: none"> <li>- A720 Sheriffhall Junction Grade Separation</li> <li>- Shawfair SDA A720/A68 Junction at Newton Farm - A701 relief road and A702 Link with associated junctions</li> <li>- Orbital bus route A720 bypass</li> </ul>	8350 homes to 2024.

<sup>23</sup> Not a comprehensive list of all improvements identified.

## Appendix C SEA Framework

### C.1 Response to SEA Scoping Comments

- C.1.1 In February 2021, a SEA Scoping Report was prepared as the first stage of a SEA process to identify, assess and address any likely significant effects on the environment from the implementation of the emerging RTS. The Scoping Report was submitted to the Scottish Government SEA Gateway on 25<sup>th</sup> February 2021, which commenced a 35 day consultation period with the SEA Consultation Authorities<sup>24</sup>. Scoping responses were received from NatureScot and Historic Environment Scotland (HES); SEPA advised that they were not responding to SEA Scoping Reports due to due resourcing and technical issues.
- C.1.2 The Scoping responses received address both substantive issues for consideration within RTS development and 'technical' SEA issues to be addressed through iterative SEA reporting. Summaries of all comments received and how they have been addressed are provided in **Tables C.1** and **C.2** below.

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<sup>24</sup> The SEA Consultation Authorities are defined by section 3 of the Environmental Assessment (Scotland) Act 2005 as NatureScot (formerly Scottish Natural Heritage (SNH)), Historic Environment Scotland (HES) and the Scottish Environment Protection Agency (SEPA).

Table C.1: Summary of SEA Scoping Consultation Responses - Issues for RTS Development

SEA Consultation Body	Comment	Response
NatureScot	<p>Welcomed the issues scoped into the assessment and the emphasis on using the SEA process to inform the emerging RTS as well as the use of SEA as a planmaking tool, noting the added value this approach brings.</p> <p>Identified that the SEA Scoping Report emphasised links to and relationship with the NTS2 (adopted February 2020) but notes that the context for the Scoping Report has changed significantly due to the ongoing impacts of the Covid-19 pandemic.</p> <p>Noted the enhanced importance of addressing both the climate emergency and biodiversity emergency since NTS2 was published. Impacts of the pandemic throughout the lifetime of the emerging RTS should also be considered. Annex A - Section A.3.28 states reductions in journeys due to Covid-19 are temporary and expected to recover to 2019 levels. NatureScot noted that Scottish Government and others are working to ensure some of the changes are made permanent to help to contribute to a more sustainable transport system for the region.</p>	<p>The Draft RTS addresses the impacts of the Covid-19 pandemic on regional transport issues. It acknowledges the impact on transport needs, operations, behaviours and related factors. However, these impacts need to be considered alongside other factors affecting changes to transport needs and provision over the 20-year period of the RTS.</p>
	<p>Identified key environmental opportunities for the RTS, including:  <i>“The use of nature-based solutions to challenges, especially as part of transport infrastructure projects – this could be a key principle in the new RTS.  Improving opportunities for people to have access to and engage with nature through better transport provision – especially for those who don’t have access to a private car.  Enhancing nature as part of proposals by delivering positive effects for biodiversity (also referred to as biodiversity/environmental net-gain) at both a strategy and project level”.</i></p>	<p>The Draft RTS has considered a range of key environmental opportunities, including those submitted by NatureScot.</p>
	<p>Noted the emerging RTS should recognise the value of natural infrastructure, following the key messages on the importance of natural capital as set out in the Infrastructure Investment Plan.</p>	<p>The Draft RTS has considered the value of natural infrastructure, particularly with regard to the networks, connections and storage relating to the enabling of transport infrastructure development, including the promotion of active travel.</p>
	<p>Welcomed the promotion of an integrated approach to planning for transport and other topics, noting the need to promote modes of travel which will contribute to a more sustainable transport system for Scotland.</p>	<p>An integrated approach to transport and land use planning is set out within the Draft RTS.</p>
	<p>Following the inclusion of inclusive growth as one of the SEA Objectives, NatureScot notes potential tensions between inclusive growth and other</p>	<p>The Inclusive Growth SEA Objective was identified to provide coverage of the ‘population’ SEA topic prescribed within the 2005 Act. The</p>



SEA Consultation Body	Comment	Response
	environmental objectives. NatureScot request that it be made clear that inclusive growth will not be an overriding objective at any point of the SEA process.	objective is not solely focused on achieving economic growth but rather takes account of wider socio-economic issues relevant to the transport system. The RTS SEA Framework has been applied in a holistic manner and the Inclusive Growth SEA Objective is not an over-riding consideration.
	Notes importance of making sure that the active travel network is designed to be resilient to climate change such as the use of trees/bushes for shade and shelter.	This suggestion is welcomed. The Initial Appraisal: Case for Change report will identify a suite of key transport problems and issues which should be addressed in the emerging RTS, including the need to design all travel modes to adapt to the changing climate.

C.1.3 XX

Table C.2: Summary of SEA Scoping Consultation Responses - Assessment Issues

SEA Consultation Body	Comment	Response
Historic Environment Scotland	Noted historic environment has been scoped into assessment. HES satisfied with scope and level of detail proposed for assessment subject to the other detailed response provided.	None required.
	In response to Table 4.1, recommended that reference to “‘heritage assets’ or ‘historic environment assets’ should encompass all aspects of the historic environment including archaeological sites, and that all archaeology should be covered by this, rather than focusing on assets considered to be important, particularly as no criteria for determining whether a site is important or not is specified”.	Cultural Heritage SEA Objective amended to read “Conserve, protect and enhance all assets of the historic environment including archaeological sites and cultural assets”.
	Noted that proximity is to be used as an assessment criterion for the assessment of spatially specific options and queried the use of a quantitative distance-based methodology for the assessment of impacts on setting. The states the importance of taking qualitative factors into account when assessing impacts on heritage assets was identified.  Provided an alternative question ‘will the RTS component protect, promote, and where appropriate, enhance the historic environment?’ and alternative criteria for assessing candidate transport interventions and schemes could be ‘will there be effects on designated or undesignated heritage assets or their settings?’.	The guide questions provided in the Scoping Report will be used for the qualitative assessment of any impacts on heritage assets across the region. The use of GIS to identify the number and type of heritage assets within close proximity of proposed transport interventions will also form part of the SEA of the emerging RTS. Therefore, a combined qualitative and quantitative approaches will be adopted in the assessment. The suggested guide question and criterion will be included within the set of guide questions provided for assessment. However, it should be noted that the consideration of detailed impacts from individual schemes will be assessed at project level through the normal planning process.

SEA Consultation Body	Comment	Response
	Agreed with proposed 3 stage process of assessment and RTS development and proposed consultation timescales.	Noted and welcomed.
	Recommended expansion of baseline to include the Forth Road Bridge World Heritage Site, Inventory Gardens and Designed Landscapes, Inventory Battlefields, and non-designated historic environment assets, including marine assets.	Suggested amendments will be made to the environmental baseline in the Initial Appraisal: Case for Change SEA Environmental Report.
	Replace references to The Historic Environment Scotland Policy Statement 2016 and Historic Environment Circular 1 with the Historic Environment Policy for Scotland (2019) (HEPS) and Historic Environment Circular. Also reference the Forth Bridge World Heritage Site Management Plan.	Suggested amendments will be made to the policy review in the Initial Appraisal: Case for Change SEA Environmental Report.
NatureScot	Notes Table 3.1 and 4.3 refers to protected sites and protected species but important to take account of biodiversity resources found throughout the country. Notes that the main access and engagement with nature will be away from protected sites.	Table 3.1 of the SEA Scoping Report identified the need to conserve and enhance all biodiversity interests, including sites designated for their ecological importance. Guide questions listed in Table 4.3 of the SEA Scoping Report have been used in a qualitative assessment of each substantive component of the emerging RTS, and any identified reasonable alternatives, to proportionately identify their likely significant effects. SEA reporting includes consideration of biodiversity risks from implementation of the RTS, including likely impacts on designated sites and wider ecological interests.
	Notes in Table 3.1 and elsewhere in the Scoping Report the linkages made between transport and poor air quality, suggesting acknowledgement of the zoning in place to address air quality issues eg AQMA, LEZ etc and linkages to wider placemaking.	Noted.
	Section 4.5.1 (third bullet point) – Suggestion to use distance-based thresholds and connectivity to identify risks to biodiversity resources.	
	Welcomes inclusion of reference to habitat loss or fragmentation in Table 4.3, noting the importance of connectivity in different habitats.	None required.
	Annex A at Table A.1 - notes St Abb's Head NNR is missing. Notes benefits of better transport infrastructure to allow more visitors to St Abbs Head.	Suggested amendments to the baseline have been made in Appendix A of this ER.
	Annex B in Table B1 - The Scottish Biodiversity strategy Post-2020: A Statement of Intent should be listed and key messages implemented throughout the SEA process for the emerging RTS. Also in Table B1, Naturescot's Landscape Character Assessments should be listed either nationally or regionally.	Suggested amendments will be made within the baseline and policy reviews provided in Appendices A and B of this ER.
	Notes the intention not to fully consult at Options Appraisal stage and notes the importance of the consideration of alternatives at this stage to show	The Initial Appraisal: Case for Change Report resulted in the development of SMART and evidence-based Transport Planning Objectives (TPOs), which provided a robust basis for the development and assessment of

SEA Consultation Body	Comment	Response
	stakeholders the analysis and decision-making process to arrive at the list of preferred options.	candidate policies, actions and options. The approach adopted to identify and consider reasonable alternative options in this SEA is outlined in Section 4.6.
	In section 2.4.4 there is mention of use of a representative panel of stakeholder interests to provide inputs to the appraisal of options during Stage 2 – Preliminary Options Appraisal. We are happy to be involved in this panel if the opportunity arises.	
	NatureScot presume that the consultation period for the Environmental Report will be the same as for the Draft RTS – i.e. 12 weeks. States they are happy with this anticipated timescale for a consultation on the Environmental Report.	Iterative SEA Environmental Reports have been prepared to accompany each formal RTS consultation document. The Draft RTS and this accompanying ER will be consulted on for a 12 week period.

## **C.2 Finalised SEStran RTS SEA Framework**

Table C.3: SEStran RTS SEA Framework

SEA Objectives	Guide Questions: <i>Will the RTS (component)...</i>	Criteria to Assess Candidate Transport Options
1. Climate Change: Respond to the climate emergency by decarbonising infrastructure, facilitating a low carbon economy and adapting to accommodate the effects of climate change.	<ul style="list-style-type: none"> <li>• Contribute to decarbonisation of the transport system?</li> <li>• Promote modal shift towards sustainable and active travel?</li> <li>• Support a sustainable pattern of development which minimises energy consumption and GHG emissions?</li> <li>• Reduce reliance on car travel?</li> <li>• Promote the use of clean fuels and technologies?</li> <li>• Enhance the resilience of infrastructure to adverse weather and the effects of climate change?</li> </ul>	<ul style="list-style-type: none"> <li>• Support a sustainable pattern of development that facilitates achieving carbon neutrality.</li> <li>• Impacts on climate change mitigation: modal shifts and GHG emissions or saving (construction and operational phases)</li> <li>• Resilience to adverse weather and the effects of climate change.</li> </ul>
2. Air Quality and Amenity: Tackle poor air quality, reduce concentrations of harmful atmospheric pollutants and minimise exposure to noise and vibration.	<ul style="list-style-type: none"> <li>• Maintain or enhance air quality?</li> <li>• Decrease noise and vibration levels at sensitive locations?</li> <li>• Reduce exposure to poor air quality?</li> <li>• Prevent and reduce emissions of harmful pollutants?</li> </ul>	<ul style="list-style-type: none"> <li>• Proximity to and impacts on existing Air Quality Management Areas (AQMA).</li> <li>• Proximity to congestion pinch points.</li> <li>• Likely operational emissions.</li> </ul>
3. Biodiversity, Geodiversity and Soil: Conserve, protect and enhance biodiversity and geodiversity interests, including through safeguarding important sites, species and soil resources and by protecting green infrastructure.	<ul style="list-style-type: none"> <li>• Ensure appropriate safeguards for the integrity, conservation objectives and feature of sites designated at international, national or local levels for reasons of biodiversity or geodiversity value or species protection?</li> <li>• Support the protection and enhancement of valued species and habitats?</li> <li>• Support safeguarding against habitat loss or fragmentation?</li> <li>• Support the protection and enhancement of protected trees and important woodland areas?</li> <li>• Protect and enhance important soil resources?</li> </ul>	<ul style="list-style-type: none"> <li>• Proximity to and impacts on sites designated at international, national and local levels for reasons of biodiversity conservation, ecological importance or geological importance (i.e. effects on integrity, objectives and features).</li> <li>• Proximity to and impacts on designated woodlands, important trees or hedgerows and other valued habitats.</li> <li>• Potential impacts on protected species.</li> </ul>

SEA Objectives	Guide Questions: <i>Will the RTS (component)...</i>	Criteria to Assess Candidate Transport Options
4. Water, Flood Risk and Resilience: Conserve, protect and enhance water environments, water quality and water resources, whilst adapting to climate change and reducing flood risks.	<ul style="list-style-type: none"> <li>• Avoid deterioration and enhance the overall, ecological and chemical classification of water bodies and the water environment in accordance with the Water Framework Directive?</li> <li>• Affect the volume of surface water runoff into or abstraction from water bodies?</li> <li>• Minimise the risk of flooding to people, property, infrastructure and environmental assets?</li> <li>• Manage residual flood risks appropriately and avoid new flood risks?</li> <li>• Seek to minimise new development in areas prone to flood risk or mitigate the potential for such risk?</li> </ul>	<ul style="list-style-type: none"> <li>• Proximity to Flood Risk Zones.</li> <li>• Proximity to and impacts on the WFD status of waterbodies and aquifers.</li> <li>• Resilience to flood risk.</li> </ul>
5. Cultural Heritage: Conserve, protect and enhance all aspects of the historic environment, including archaeological sites and cultural assets.	<ul style="list-style-type: none"> <li>• Conserve, protect and enhance the integrity, character and setting of heritage assets?</li> <li>• Preserve important archaeological sites and protect potential unknown archaeological resources?</li> <li>• Protect, promote, and where appropriate, enhance the historic environment?</li> </ul>	<ul style="list-style-type: none"> <li>• Potential effects on designated or undesignated heritage assets or their settings.</li> </ul>
6. Landscape: Protect and enhance the landscape character, townscape character and visual amenity.	<ul style="list-style-type: none"> <li>• Protect and enhance landscape character?</li> <li>• Safeguard important landscape and townscape features?</li> <li>• Protect visual amenity and valued views?</li> <li>• Prevent urban sprawl?</li> <li>• Maintain and enhance the attractiveness of the public realm?</li> </ul>	<ul style="list-style-type: none"> <li>• Proximity to and impacts on designated landscapes.</li> <li>• Impacts on visual amenity and key views.</li> <li>• Impacts on settlement integration or coalescence.</li> </ul>
7. Accessibility: Ensure appropriate and affordable access for all to facilities, services,	<ul style="list-style-type: none"> <li>• Implement the NTS2 Sustainable Travel Hierarchy across the SEStran region?</li> </ul>	<ul style="list-style-type: none"> <li>• Directing high footfall development to highly accessible locations.</li> </ul>

SEA Objectives	Guide Questions: <i>Will the RTS (component)...</i>	Criteria to Assess Candidate Transport Options
employment, economic opportunities and social activities.	<ul style="list-style-type: none"> <li>• Improve physical access to employment for all?</li> <li>• Reduce the need to travel?</li> <li>• Increase the accessibility of public services, economic opportunities and markets?</li> <li>• Improve the accessibility and integration of the transport network?</li> <li>• Improve the accessibility of education infrastructure, in particular by active travel and public transport?</li> <li>• Enhance access to active travel routes?</li> <li>• Reduce congestion and allow for greater journey time reliability?</li> <li>• Help reduce severance effects of the transport network?</li> </ul>	<ul style="list-style-type: none"> <li>• Proximity to and impacts on the public transport network.</li> <li>• Proximity to the strategic road network (motorways and trunk roads).</li> <li>• Proximity to and impacts on identified congestion pinch points.</li> <li>• Proximity to and impacts on the accessibility of community facilities, public services and key amenities.</li> <li>• Proximity to and impacts on the accessibility of education infrastructure.</li> </ul>
8. Inclusive Growth: Improve social and economic prosperity for all by enhancing productivity and competitiveness and through reducing societal inequalities.	<ul style="list-style-type: none"> <li>• Support better integration of land-use/spatial planning, transport planning and economic development decisions?</li> <li>• Help to integrate labour and housing markets to meet identified population needs in a sustainable manner?</li> <li>• Support the delivery of existing and emerging spatial strategies at national, regional and local levels?</li> <li>• Promote the co-location of synergistic economic activities and land uses?</li> <li>• Support efficient freight movement?</li> <li>• Support increased and diversified employment opportunities?</li> <li>• Address transport needs resulting from existing and changing demographic characteristics?</li> <li>• Address transport needs resulting from existing and changing socio-economic characteristics?</li> </ul>	<ul style="list-style-type: none"> <li>• Economic development, employment benefits and social value unlocked by the intervention.</li> <li>• Ability to help reduce identified inequalities (as assessed through separate reporting).</li> <li>• Support the creation of safe and attractive public realm.</li> <li>• Contribution to area-based regeneration and socio-economic renewal.</li> <li>• Impacts on transport efficiency.</li> <li>• Impacts on freight movement.</li> <li>• Proximity to and impacts on key employment locations (existing and planned).</li> </ul>



SEA Objectives	Guide Questions: <i>Will the RTS (component)...</i>	Criteria to Assess Candidate Transport Options
	<ul style="list-style-type: none"> <li>Support the implementation of relevant equalities duties, as assessed through separate reporting?</li> </ul>	
9. Health: Improve the health of the resident and workplace population, including with respect to physical and mental health and social wellbeing.	<ul style="list-style-type: none"> <li>Facilitate and encourage use of public transport and active travel?</li> <li>Improve access to recreational opportunities and facilities?</li> <li>Reduce the negative impacts of transport on human health, especially in terms of pollution and air quality?</li> <li>Reduce the likelihood of transport-related road accidents and casualties?</li> <li>Improve access to healthcare facilities?</li> <li>Safeguard sensitive environmental receptors to maintain and enhance human health?</li> </ul>	<ul style="list-style-type: none"> <li>Proximity to and impacts on access to healthcare facilities.</li> <li>Proximity to and impacts on active travel networks.</li> <li>Proximity to and impacts on open space provision and accessibility.</li> </ul>
10. Material Assets: Manage, maintain and where possible improve the efficient and effective use of natural resources, land and infrastructure to meet identified needs.	<ul style="list-style-type: none"> <li>Implement the NTS2 Sustainable Investment Hierarchy across the SEStran region?</li> <li>Unlock the delivery of housing to meet identified needs?</li> <li>Prioritise the re-development of previously developed land?</li> <li>Support the provision of adequate infrastructure, services and facilities to meet identified needs?</li> </ul>	<ul style="list-style-type: none"> <li>Alignment with or ability to support land-use/spatial planning and economic development decisions.</li> <li>Proximity to and impacts on the delivery of major development allocations and committed developments.</li> <li>Facilitate the redevelopment of previously developed land.</li> <li>Proximity to and impacts on vacant and derelict land (VDL).</li> <li>Impacts on best and more versatile agricultural land.</li> <li>Impacts on natural resources, including the extraction of mineral resources.</li> </ul>

## Appendix D SEA of Transport Planning Objectives and RTS Objectives

### D.1 Overview

- D.1.1 This appendix provides a detailed assessment of likely environmental effects from the proposed strategic framework within the Draft RTS, comprising 29 TPOs and 4 related RTS Objectives. The methodology adopted to undertake this assessment is detailed in **Section 4** of the SEA ER.

### D.2 SEA of Transport Planning Objectives

- D.2.1 The RTS seeks to address the problems experienced in everyday life by individuals, organisations and businesses in the SEStran area as identified through stakeholder consultation. From a user perspective the transport problems are considered to relate to a small number of parameters which define any travel such as:
- Cost of travel (especially relative to disposable income)
  - Lack of public transport connectivity
  - Personal security/safety
  - Physical accessibility of services
  - Punctuality of travel (public transport punctuality/congestion making road based journey times unreliable)
  - Quality and comfort of journey
  - Reliability of travel (cancellation of public transport services)
  - Requirement for excessive interchange
  - Travel time
- D.2.2 Building on the RTS Case for Change Report the Draft RTS identified 29 TPOs, which in turn act as the foundation for four high level proposed RTS Strategic Objectives. A high-level assessment of the compatibility of the 29 identified TPOs with the SEA Objectives included in the RTS SEA Framework (**Appendix C**) is presented in **Table D.1** below.

Table D.1 Compatibility of RTS Transport Planning Objectives with SEA Objectives

SEA Objective	Relevant Transport Planning Objectives (TPO)
Climate Change: Respond to the climate emergency by decarbonising infrastructure, facilitating a low carbon economy and adapting to accommodate the effects of climate change.	The TPOs provide adequate coverage of the Climate Change SEA Objective through seeking to facilitate and encourage active travel by creating environments which better allow people to choose walking and cycling as options. Improvements to public transport to make it more reliable, improve interchanges and improve journey times also support this SEA Objective. The TPOs which relate to car based travel could prove problematic, for instance improving journey times could have a reversed effect and make car travel the preferred mode above active and public transport.
Air Quality and Amenity: Tackle poor air quality, reduce concentrations of harmful atmospheric pollutants and minimise exposure to noise and vibration.	Many of the TPOs included are likely to have a positive impact on Air Quality and Amenity however no TPOs specifically address emission reductions and tackling poor air quality.
Biodiversity, Geodiversity and Soil: Conserve, protect and enhance biodiversity and geodiversity interests, including through safeguarding important sites, species, soil resources and habitats and by protecting green infrastructure.	Coverage of this SEA Objective is relatively weak. Any TPO that requires the delivery of new infrastructure should have regard for their potential impact on biodiversity, geodiversity and soil and opportunities to enhance the physical environment should be included. Creating environments which allow more people to walk and cycle have the potential to create new green infrastructure and this should be considered as the RTS progresses.
Water, Flood Risk and Resilience: Conserve, protect and enhance water environments, water quality and water resources, whilst adapting to climate change and reducing flood risks.	This SEA Objective receives little direct coverage in the TPOs with no objectives included to directly increase resilience of the transport network against flood risk and adapting to climate change. As the RTS progresses it should be ensured that any transport interventions have regard for this objective and should not contribute to flood risk on the transport network or elsewhere as a result of transport interventions.
Cultural Heritage: Conserve, protect and enhance the historic environment and cultural assets.	Opportunities to conserve, protect and enhance the historic environment and cultural assets have not been considered at this early stage.
Landscape: Protect and enhance the landscape character, townscape character and visual amenity.	Landscape considerations are not given much coverage in the TPOs at this early stage. Actions required to meet any objectives should consider landscape impact and seek to enhance landscape and townscape character and amenity.
Accessibility: Ensure appropriate and affordable access for all to facilities, services, economic opportunities and social activities.	The TPOs give good coverage of this SEA Objective improvements to affordability and accessibility featuring with a particularly strong emphasis with regard to active travel and public transport.
Inclusive Growth: Improve social and economic prosperity for all by enhancing productivity and competitiveness and through reducing societal inequalities.	This SEA Objective receives good coverage in the TPOs in particular with regard to affordability and accessibility and in terms of the freight sector where intervention could improve competitiveness and productivity in the production and distribution of goods.

SEA Objective	Relevant Transport Planning Objectives (TPO)
Health: Improve the health of the resident and workplace population, including with respect to physical and mental health and social wellbeing.	Health is afforded good coverage through the TPOs related to increased safety and security, reduced injuries and fatalities, improved active travel environments, decarbonisation and public transport improvements.
Material Assets: Manage, maintain and where possible improve the efficient and effective use of natural resources, land and infrastructure to meet identified needs.	Through seeking to make improvements to existing road networks and freight links good coverage is given in the TPOs to this SEA Objective. Any interventions resulting from the RTS should seek to ensure that natural resources and land are used efficiently.

### **D.3 SEA of Proposed RTS Strategic Objectives**

D.3.1 The identified 29 TPOs act as the foundation for four high level proposed RTS Strategic Objectives:

- xi. Strategy Objective 1: Transitioning to a Sustainable, Post-Carbon Transport System
- xii. Strategy Objective 2: Facilitating Greater Physical Activity
- xiii. Strategy Objective 3: Widening Public Transport Connectivity and Access Across the Region
- xiv. Strategy Objective 4: Supporting Safe, Sustainable and Efficient Movement of People and Freight Across the Region

D.3.2 An assessment of the compatibility of the proposed RTS Strategic Objectives with the SEA Objectives defined within the RTS SEA Framework (**Appendix C**) is presented in **Table D.2** below.

Table D.2: Compatibility of RTS Objectives with SEA Framework

SEA Objectives	RTS Objectives				Commentary
	<i>Transitioning to a Sustainable, Post-Carbon Transport System</i>	<i>Facilitating Greater Physical Activity</i>	<i>Widening Transport Connectivity and Access Across the Region</i>	<i>Public and Efficient Movement of People and Freight Across the Region</i>	
11. <b>Health:</b> Improve the health of the resident and workplace population, including with respect to physical and mental health and social wellbeing.	+	+	+	+	<p>RTS Objective 1 seeks to reduce emissions and energy use and improve air quality and provides coverage of the Health SEA Objective. By encouraging and facilitating the use of E-vehicles and decarbonisation of public transport and fleet vehicles a resultant reduction in emissions and improved air quality would have a positive effect on peoples physical health.</p> <p>RTS Objective 2, Facilitating Greater Physical Activity, has clear links to the Health SEA Objective as it directly seeks to improve health and wellbeing through transport interventions.</p> <p>RTS Objective 3 provides good coverage of the Health SEA Objective as it seeks to address inequalities in access to healthcare, employment, training and educational opportunities all of which impact on physical, social and mental health and wellbeing.</p> <p>By seeking to reduce personal injuries, RTS Objective 4 relates well to the Health SEA Objective.</p> <p>Overall, the Health SEA Objective is well represented throughout all RTS Objectives.</p>
12. <b>Accessibility:</b> Reduce the need to travel and ensure appropriate and affordable access for all to facilities,	+	+	+	+	<p>The Accessibility SEA Objective receives good coverage across all 4 of the RTS Objectives.</p>

SEA Objectives	RTS Objectives				Commentary
	<i>Transitioning to a Sustainable, Post-Carbon Transport System</i>	<i>Facilitating Greater Physical Activity</i>	<i>Widening Transport Connectivity and Access Across the Region</i>	<i>Public and Efficient Movement of People and Freight Across the Region</i>	
services, economic opportunities and social activities.					<p>Objective 1 looks to make forms of e-mobility accessible and remove barriers that would prevent people from using for example e-scooters and e-bikes as alternative forms of transport.</p> <p>Objectives 2 and 3 seek to address transport related problems experienced by those who are elderly, have disabilities, are mobility impaired or are parents with pushchairs by improving physical access to and use of public transport.</p> <p>Objectives 3 and 4 aim to address safety on public transport for vulnerable groups.</p>
13. <b>Material Assets:</b> Manage, maintain and where possible improve the efficient and effective use of natural resources, land and infrastructure to meet identified needs.	+	?	?	?	<p>RTS Objective 1 covers the Material Assets SEA Objective as it looks to shape strategic land use development but the wording could be strengthened to make it clear that an outcome of this would be more efficient use of land, resources and infrastructure.</p> <p>All RTS Objectives refer to regional integration and delivery (systems and joined-up approaches) which could result in improved efficiency and effective use of resources, land and infrastructure but in their current format this is not clear. With further detail and clarification of what regional integration would entail Material Assets would be well represented in the RTS Objectives.</p>



SEA Objectives	RTS Objectives					Commentary
	<i>Transitioning to a Sustainable, Post-Carbon Transport System</i>	<i>Facilitating Greater Physical Activity</i>	<i>Widening Transport Connectivity and Access Across the Region</i>	<i>Public and Efficient Movement of People and Freight Across the Region</i>	<i>Supporting Sustainable and Safe Movement Across the Region</i>	
<b>14. Productivity, Competitiveness and Innovation:</b> Deliver an integrated and efficient transport system to increase economic prosperity, support the growth of key economic sectors and deliver increased and more inclusive employment.	+	+	+	+		<p>All RTS Objectives align with this SEA Objective through seeking to enhance the efficiency and performance of the transport system whilst increase accessibility enabling economic growth/prosperity.</p> <p>RTS Objectives 3 and 4 give particularly good coverage of this SEA Objective by seeking to improve accessibility and efficiency.</p>
<b>15. Air Quality and Amenity:</b> Tackle poor air quality, reduce concentrations of harmful atmospheric pollutants and minimise exposure to noise and vibration.	+	+	+	+		<p>RTS Objective 1 aligns with this SEA objective by seeking to reduce harmful emissions, encouraging behaviour change to reduce the need to travel and use sustainable modes and facilitating E-mobility. All of which should result in better air quality and reduced atmospheric pollutants.</p> <p>Facilitating Greater Physical Activity, RTS Objective 2, gives good coverage to SEA Objective Air Quality and Amenity by seeking to reduce emissions through enhancing 'place' and creating an environment suitable for walking, cycling and wheeling.</p> <p>RTS Objective 3 has the potential to align with this SEA Objective however encouraging and facilitating greater public transport use will not alone result in improved air quality, reduced emissions and noise and vibrations if the public transport systems continue to rely on fossil fuels. The Objective should therefore be strengthened to make it clear that along with facilitating greater access</p>

SEA Objectives	RTS Objectives					Commentary
	<i>Transitioning to a Sustainable, Post-Carbon Transport System</i>	<i>Facilitating Greater Physical Activity</i>	<i>Widening Transport Connectivity and Access Across the Region</i>	<i>Public and Efficient Movement of People and Freight Across the Region</i>	<i>Supporting Sustainable and Safe, Movement Across the Region</i>	
						<p>to public transport there will be a drive to decarbonise the public transport systems. Although this is covered in RTS Objective 1 it would be beneficial to reiterate in Objective 3.</p> <p>By seeking to provide safe, sustainable and efficient movement RTS Objective 4 aligns with this SEA Objective.</p> <p>Coverage of Air Quality could however be strengthened by including options which directly seek to improve air quality. At present any air quality improvements are the result of options to address social and economic issues.</p>
<b>16. Climate Change Mitigation:</b> Decarbonise the transport sector and support wider efforts to mitigate climate change.	+	+	+	+		<p>RTS Objective 1 aligns with this SEA Objective as it seeks to respond to the climate emergency through reducing transport emissions by reducing avoidable car kilometres, the use of electric vehicles for unavoidable car trips, decarbonising public transport and commercial fleet and facilitating E-mobility.</p> <p>RTS Objective 2 seeks to reduce emissions and therefore aligns with the Climate Change Mitigation SEA Objective, however how it will achieve a reduction in emissions is not covered in great detail.</p> <p>RTS Objective 3, Widening Public Transport Activity and Access aligns with this SEA Objective as an increase in public transport is part of the effort to mitigate climate</p>

SEA Objectives	RTS Objectives					Commentary
	<i>Transitioning to a Sustainable, Post-Carbon Transport System</i>	<i>Facilitating Greater Physical Activity</i>	<i>Widening Transport Connectivity and Access the Region</i>	<i>Public and Across the Region</i>	<i>Supporting Sustainable and Efficient Movement of People and Freight Across the Region</i>	
						<p>change however it should be emphasised that the public transport system needs decarbonised before it can fully support climate change mitigation efforts.</p> <p>Making the movement of people and freight more efficient as per RTS Objective 4 would reduce journey times and cut congestion and therefore supports efforts to mitigate climate change.</p> <p>Coverage of climate change mitigation could however be strengthened by including options which directly seek to address the climate emergency. At present any efforts to decarbonise the transport sector are the result of options to address social and economic issues.</p>
<b>17. Biodiversity, Geodiversity and Soil:</b> Conserve, protect and enhance biodiversity and geodiversity interests, including through safeguarding important sites, species, soil resources and habitats and by protecting green infrastructure.	+	?	?	?		<p>RTS Objective 1 aims to enhance environmental quality by de-carbonising public transport and commercial fleet, facilitating the use of electric vehicles, bikes and scooters and shaping strategic land-use development all of which are predicted to have a positive impact on biodiversity, geodiversity and soil.</p> <p>The relationship between RTS Objectives 2, 3 and 4 and the Biodiversity, Geodiversity and Soil SEA Objective is uncertain. There is no evident consideration of impact on biodiversity, geodiversity and soil in the three noted RTS Objectives and at this early stage it is not clear whether the Objectives would have a positive or negative impact on these. Where relevant, policies and</p>

SEA Objectives	RTS Objectives				Commentary
	Transitioning to a Sustainable, Post-Carbon Transport System	Facilitating Greater Physical Activity	Widening Transport Connectivity and Access Across the Region	Public and Efficient Movement of People and Freight Across the Region	
					proposals to implement these Objectives should include appropriate safeguards in respect of biodiversity, geodiversity and soil. .
18. <b>Water, Flood Risk and Resilience:</b> Conserve, protect and enhance water environments, water quality and water resources, whilst adapting to climate change and reducing flood risks.	+	?	?	?	<p>RTS Objective 1 is compatible with the SEA Objective as transitioning to a sustainable, post-carbon transport system transport indirectly improves water, flood and risk resilience.</p> <p>RTS Objectives 2, 3 and 4 have an uncertain relationship with this SEA Objective as potential impacts (beneficial or adverse) would depend on their implementation. Where relevant, policies and proposals to implement these Objectives should include appropriate safeguards in respect of flood risks and the water environment.</p>
19. <b>Cultural Heritage:</b> Conserve, protect and enhance the historic environment and cultural assets.	+	?	?	?	<p>RTS Objective 1 is predicted to have an overall positive effect on the Cultural Heritage SEA Objective as it seeks to enhance environmental quality.</p> <p>The RTS Objectives 2, 3 and 4 have an uncertain relationship with this SEA Objective as potential impacts (beneficial or adverse) would depend on their implementation. RTS Objectives 3 and 4 have the greatest potential to align with Cultural Heritage as they could make heritage assets more accessible to residents and tourists alike. However, increased visitor numbers should be supported by any required</p>

SEA Objectives	RTS Objectives				Commentary
	Transitioning to a Sustainable, Post-Carbon Transport System	Facilitating Greater Physical Activity	Widening Transport Connectivity and Access Across the Region	Public and Efficient Movement of People and Freight Across the Region	
					infrastructure to cope with larger volumes of people. Where relevant, policies and proposals to implement these Objectives should include appropriate safeguards in respect of cultural heritage to conserve, protect and enhance the historic environment and cultural assets.
20. <b>Landscape:</b> Protect and enhance the landscape character, townscape character and visual amenity.	+	?	?	?	<p>RTS Objective 1 aligns with the SEA Objective as it seeks to enhance environmental quality by creating a sustainable, post-carbon transport system should result that will result in an overall positive effect on landscape and townscape.</p> <p>RTS Objective 2, 3 and 4 have an uncertain relationship with this SEA Objective as potential impacts (beneficial or adverse) would depend on their implementation. Where relevant, policies and proposals to implement these Objectives should include appropriate safeguards in respect of landscape character and visual amenity.</p>
KEY:	+	Compatible	-	Incompatible	
	0	Neutral	~	No Relationship	Clear
	?	Uncertain			

- 7.4.5 The assessment provided in **Table D.1** demonstrates that in general the proposed RTS Objectives provide an appropriate high-level platform from which to develop specific schemes, policies and proposals to address a range of key environmental (as well as socio-economic and wider) issues.
- D.3.3 However, the analysis also indicates that as individual proposed RTS Strategic Objectives respond to specific TPOs they have differential relationships with individual SEA Objectives and the RTS Strategic Objectives are not necessarily fully integrated. Each of the RTS Strategic Objectives will underpin the development of specific lower-level RTS components including individual options, so it will be important to avoid potential tensions, gaps or ‘silo working’ between the implementation of individual RTS Strategic Objectives (which could undermine the overall environmental performance of the RTS).

## Appendix E SEA of RTS Policies and Actions

### E.1 Overview

- E.1.1 This appendix provides a detailed assessment of likely environmental effects from suite of proposed policies and actions included within Regional Mobility Thematic chapters of the Draft RTS. The methodology adopted to undertake this assessment is detailed in **Section 4** of the Draft RTS SEA Report.
- E.1.2 In accordance with core SEA requirements, this assessment focuses on identifying significant effects and relevant mitigation measures to address any identified Major Negative (i.e. significant adverse) effects. It also seeks to identify and resolve any key uncertainties which presently limit the effectiveness of the assessed strategic policies. The scoring system used to assess the policies and actions against the SEA Objectives detailed in the SEStran RTS SEA Framework (**Appendix C**) is shown in **Table E.1** below.

Table E.1: SEA Scoring System to Establish Likely Significant Effects

Score	Description	Symbol
Significant (Major) Positive Effect	The proposed policy contributes significantly to the achievement of the SEA Objective.	++
Minor Positive Effect	The proposed policy contributes to the achievement of the SEA Objective but not significantly.	+
Neutral Effect	The proposed policy is related to but does not have any effect on the achievement of the SEA Objective	0
Minor Negative Effect	The proposed policy detracts from the achievement of the SEA Objective but not significantly	-
Significant (Major) Negative Effect	The proposed policy detracts significantly from the achievement of the SEA Objective. Mitigation is therefore required.	--
Uncertain Effect	The proposed policy has an uncertain relationship to the SEA Objective or the relationship would be dependent on the way in which the aspect is managed.	?
No Clear Relationship	There is no clear relationship between the proposed policy and the achievement of the SEA Objective, or the relationship is negligible.	~

- E.1.3 Each policy and suite of actions has been scored against each SA Objective using the criteria in **Table E1.1** above and a commentary provided. As well as identifying any Major (i.e. significant) or Minor (i.e. not significant) likely effects, this commentary box lists any assumptions or uncertainties which influence the assessment of a strategic policy against an individual SA Objective. Similarly, the matrix identifies any mitigation or enhancement recommendations not previously proposed in order to resolve identified uncertainties, address any likely Major Negative (i.e. significant adverse) effects and allow individual policies to contribute (more) to the achievement of relevant SEA objectives.

Table E.2: SEA Assessment of RTS Policies 1 to 6

ASSESSMENT TABLE FOR POLICIES							
SEA Objective	Theme 1: Shaping Development & Place	Theme 2: Delivering Safe Active Travel	Theme 3: Enhancing Access to Public Transport	Theme 4: Enhancing and the Bus Service	Theme 5: Enhancing and the Train Service	Theme 6: Reallocation of Roadspace on the Regional and Local Network	Commentary
1. <b>Health:</b> Improve the health of the resident and workplace population, including with respect to physical and mental health and social wellbeing.	++	++	++	++	++	++	<p><u>Assessment of Predicted Effects</u></p> <p>Theme 1 – <i>Shaping Place Development</i> policies are predicted to have a positive effect on the Health SEA objective as it they are likely to result in a transport system which provides improved access between services, workplaces and homes.</p> <p>Theme 2 – <i>Delivering Safe Active Travel</i> policies is predicted to have positive effects on physical and mental health as they will make travelling by active modes more accessible to more people</p> <p>Theme 4 &amp; 5 – <i>Enhancing and Extending Bus and Train Services</i> are predicted to have positive effects as giving more people access to reliable and frequent bus and train services allows better opportunity for accessing employment and social activities which can lessen the risk of isolation and the associated negative health impacts.</p> <p><u>Mitigation and Enhancement</u></p> <p><u>Assumptions</u></p> <p><u>Uncertainties</u></p>
2. <b>Accessibility:</b> Reduce the need to travel and ensure appropriate and affordable access for all to facilities, services, economic opportunities and social activities.	++	++	++	++	++	++	<p><u>Assessment of Predicted Effects</u></p> <p>Policies associated with themes 1 – 6 are predicted to have overall positive effects on the Accessibility SEA Objective. Themes 1 – 6 all aim to make transport more accessible across the region and to increase the range of transport options by improving interchanges, extending services and enhancing and improving active travel options. The policies are designed to improve accessibility for the residential population and for businesses and freight.</p> <p><u>Mitigation and Enhancement</u></p> <p><u>Assumptions</u></p>



							<u>Uncertainties</u>
3.	<b>Material Assets:</b> Manage, maintain and where possible improve the efficient and effective use of natural resources, land and infrastructure to meet identified needs.						<u>Assessment of Predicted Effects</u>  Theme 1 – <i>Shaping Development and Place</i> policies are predicted to have a positive effect as they seek to coordinate land use planning and transport planning to ensure connectivity and minimise the need to travel which should result in efficient use of land and minimise land take for development.  Theme 2 – The <i>Safe Active Travel</i> policies are predicted to have a positive effect on the Material Assets SEA Objective as they seek to improve infrastructure to make travel by active means more accessible and safe and safety and accessibility have been identified as barriers to walking, cycling and wheeling.  Theme 3 – <i>Enhancing Access to Public Transport</i> policies are predicted to have an overall positive effect. The policies seek to meet the identified needs of vulnerable groups by improving infrastructure to enhance accessibility at stops, stations and interchanges making the transport system operate more efficiently and effectively for all using it.  Themes 4 – <i>Enhancing and Extending Bus Service</i> policies are predicted to have a positive effect on the Material Assets SEA Objective. The policies seek to deliver bus services the form a network of corridors that link up key urban centres which should improve efficiency. Designing bus priority measures into major infrastructure schemes is an efficient and effective use of natural resources.  Theme 5 – <i>Enhancing and Extending the Train Service</i> policies are predicted to have a positive effect as they will identify and deliver improvements to the rail network that will meet the need of providing better accessibility to train services for more people across the region. Improvements to the rail network including more frequent services and new lines is predicted to make the rail network operate more efficiently.  Theme 6 – <i>Reallocation of Roadspace on the Regional and Local Network</i> policies are predicted to have an overall positive effect on the Material Assets SEA Objective. The policies will allow improvements on the network for non-car based travel without requiring the construction of roads and routes which is an efficient use of natural resources, land and infrastructure.  <u>Mitigation and Enhancement</u>  <u>Assumptions</u>  <u>Uncertainties</u>
4.	<b>Productivity, Competitiveness and Innovation:</b> Deliver an integrated and efficient transport system to increase economic prosperity, support the growth of key economic sectors and	++	+	++	++	++	<u>Assessment of Predicted Effects</u>  Theme 1 – <i>Shaping Development and Place</i> aligning transport interventions and improvements with place planning is predicted to result in an efficient transport network which serves peoples needs and

<p>deliver increased and more inclusive employment.</p>							<p>joins up areas of employment with population centres giving access to a wide range of employment opportunities.</p> <p>Theme 2 – <i>Delivering Safe Active Travel</i> is predicted to have a positive effect by contributing to the creation of an integrated and efficient transport system.</p> <p>Theme 3 – <i>Enhancing Access to Public Transport</i> is predicted to result in the transport system operating more efficiently because of better integration between routes and modes of travel.</p> <p>Themes 4 and 5 – <i>Enhancing and Extending the Bus Service and Train Service</i> actions are predicted to have a positive effect on the productivity, competitiveness and innovation SEA Objective. Having an efficient and integrated public transport network that allows people to easily move around the region will help to attract talent and business to the area.</p> <p><u>Mitigation and Enhancement</u></p> <p>Active travel routes should link areas of employment with residential areas. Safe bike storage should be provided by employers and at transport interchanges to allow people to combine cycling with public transport easily and efficiently.</p> <p><u>Assumptions</u></p> <p><u>Uncertainties</u></p>
<p>5. <b>Air Quality and Amenity:</b> Tackle poor air quality, reduce concentrations of harmful atmospheric pollutants and minimise exposure to noise and vibration.</p>	++	++	++	++	++	++	<p><u>Assessment of Predicted Effects</u></p> <p>Themes 1 – 6 Policies are overall predicted to have a positive effect on the Air Quality and Amenity SEA Objective. All policies seek to reduce the number of people travelling in private vehicles and facilitate and encourage more people to use public transport and active travel to make journeys. Policies also seek to minimise the need to travel through integrating transport planning with land use planning.</p> <p><u>Mitigation and Enhancement</u></p> <p>Electrification of the rail network will be powered by renewable electricity where possible</p> <p><u>Assumptions</u></p> <p>That the reallocation of roadspace will not result in increased congestion.</p> <p><u>Uncertainties</u></p>
<p>6. <b>Climate Change Mitigation:</b> Decarbonise the transport sector and support wider efforts to mitigate climate change.</p>	++	++	++	++	++	++	<p><u>Assessment of Predicted Effects</u></p> <p>Theme 1 – <i>Shaping Development and Place</i> policies are predicted to have an overall positive effect on the Climate Change Mitigation SEA</p>

						<p>Objective. The policies are predicted to support wider efforts to mitigate climate change by minimising the use of unsustainable modes of travel, reducing the overall need to travel and improving public transport and active travel connectivity between developments all of which is predicted to reduce reliance on journeys made by cars.</p> <p>Theme 2 – <i>Delivering Safe Active Travel</i> policies are predicted to have an overall positive effect on the Climate Change Mitigation SEA Objective as they seek to implement measures which improve facilities for walking, cycling and wheeling which in turns allows more people to travel actively rather than in a vehicle fueled by fossil fuels. Prioritising road space for active travel in towns and cities is predicted to discourage people from using private vehicles to access these areas with an overall reduction carbon emitting vehicles being utilised.</p> <p>Theme 3 – <i>Enhancing Access to Public Transport</i> policies are predicted to have a positive effect on decarbonising the transport sector and supporting wider efforts to mitigate climate change. The policies will allow more people to access public transport and reduce reliance on private cars.</p> <p>Theme 4 – <i>Enhancing and Extending the Bus Service</i> will make travelling by bus accessible to more people and can reduce the number of journeys made by private cars.</p> <p>Theme 5 – <i>Enhancing and the Extending the Train Service</i> policies are predicted to have a positive effect. They include delivery of full electrification of the rail network, delivery of new routes and stations and improved direct links all of which are predicted help decarbonise the transport sector and support efforts to mitigate climate change.</p> <p>Theme 6 – <i>Reallocation of Roadspace on the Regional and Local Network</i> policies are predicted to have a positive effect on the Climate Change Mitigation SEA Objective. They support wider efforts to mitigate climate change by improving provision of space for active and public transport without significant infrastructure investment and its associated carbon emissions. The improvements are also predicted to incentivize people to use active and public transport modes over using private cars helping to reduce carbon emissions.</p> <p><u>Mitigation and Enhancement</u></p> <p><u>Assumptions</u></p> <p>Electrification of the rail network will be powered by renewable electricity where possible.</p> <p>Buses will be powered by low/no emission fuels.</p> <p><u>Uncertainties</u></p>
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<p>7. <b>Biodiversity, Geodiversity and Soil:</b> Conserve, protect and enhance biodiversity and geodiversity interests, including through safeguarding important sites, species, soil resources and habitats and by protecting green infrastructure.</p>	++	++	~	~	~	++	<p><u>Assessment of Predicted Effects</u></p> <p>Theme 6 – Predicted to have positive effect as by reallocating space rather than building new roads/routes less land will be required and therefore the impact on protect species, sites and habitats is lessened.</p> <p>Theme 2 – Facilitating and encouraging people to use active travel modes will help to reduce the amount of journeys being taken by modes which produce emissions which have a detrimental impact on biodiversity, geodiversity and soil.</p> <p><u>Mitigation and Enhancement</u></p> <p>Green infrastructure should be included in any changes to local road networks, new bus stops, train stations etc. Wildlife corridors, road verges, planting of local plant species should be incorporated into future schemes.</p> <p><u>Assumptions</u></p> <p>It is assumed that any interventions to enhance and extend bus and train services would be appropriately assessed in terms of environmental impact and therefore biodiversity, geodiversity and soil interests would be adequately safeguarded.</p> <p><u>Uncertainties</u></p>
<p>8. <b>Water, Flood Risk and Resilience:</b> Conserve, protect and enhance water environments, water quality and water resources, whilst adapting to climate change and reducing flood risks.</p>	~	~	~	~	~	~	<p><u>Assessment of Predicted Effects</u></p> <p>The policies associated with Themes 1 - 6 are predicted to have no clear relationship with the Water, Flood Risk and Resilience SEA Objective.</p> <p><u>Mitigation and Enhancement</u></p> <p>Any planned infrastructure improvements should include measures to reduce flood risk and increase resilience to the predicted future effects of climate change.</p> <p><u>Assumptions</u></p> <p><u>Uncertainties</u></p>
<p>9. <b>Cultural Heritage:</b> Conserve, protect and enhance all assets of the historic environment including archaeological sites and cultural assets.</p>	++	++	++	++	++	~	<p><u>Assessment of Predicted Effects</u></p> <p>Theme 1 – <i>Shaping Place Development</i> policies are predicted to have a positive effect as they take into account the interactions between place-making and transport planning, ensuring that transport in the built environment plays a role in attractiveness of places and creating spaces where people want to live, work, visit and spend time in.</p> <p>Theme 2 – <i>Delivering Safe Active Travel</i> is predicted to give more people access by sustainable modes of transport to historic environment sites which will enhance the assets and highlight their value. A general uptake in active travel and a resultant reduction in travel in vehicles</p>

							<p>which produce emissions will have a positive effect on heritage sites which can be damaged by emissions from vehicles.</p> <p>Theme 3 – <i>Enhancing Access to Public Transport</i> is predicted to have a positive effect as by improving access to public transport should allow more people to travel to more destinations and in turn will increase visitors to cultural heritage sites increasing peoples awareness and interest in the regions heritage assets.</p> <p>Themes 4 and 5 – <i>Enhancing and Extending the Bus and Train Services</i> are predicted to have a positive as there is potential to improve public transport access to sites and increase visitor numbers.</p> <p><u>Mitigation and Enhancement</u></p> <p>Active travel routes and schemes should connect heritage sites to each other and population centres so people can reach them by active travel means. Ensure safe storage areas for bikes to ensure people feel confident to leave them and spend time visiting attractions.</p> <p>Any planned route improvements should look to provide better access to heritage sites across the region particularly during peak tourist periods.</p> <p><u>Assumptions</u></p> <p>It is assumed that any physical interventions will be appropriately assessed to ensure no negative or adverse impacts on heritage assets occur.</p> <p>Any increase in visitor numbers can be appropriately managed and will not result in detrimental impacts on heritage sites and assets.</p> <p><u>Uncertainties</u></p>	
10.	<p><b>Landscape:</b> Protect and enhance the landscape character, townscape character and visual amenity.</p>	++	++	++	++	++	++	<p><u>Assessment of Predicted Effects</u></p> <p>Theme 2 – <i>Delivering Safe Active Travel</i> is predicted to result in an uptake in people using active travel modes and fewer journeys taken in private vehicles. Reducing the amount of vehicles on rural and urban roads is predicted to have a positive effect on landscape and townscape character and will make spending time in these environments more attractive and pleasant.</p> <p>Theme 3 – <i>Enhancing Access to Public Transport</i> is predicted to have a positive effect on landscape as by making public transport more accessible people may be more inclined to use it rather than use private vehicles. This would mean that overall there are less vehicles on the roads with a resultant overall improvement in landscape and townscape character as the pollution, congestion and noise associated with cars will likely be reduced.</p> <p>Theme 6 – <i>Reallocation of Roadspace on the Regional and Local Network</i> is predicted to have a positive effect on the Landscape SEA Objective as it is considered that by reallocating space less land will be required for new transport routes and interventions and landscape and townscape can be protected.</p>

							<u>Mitigation and Enhancement</u>  Ensure safe storage of bikes is available in a variety of locations to allow people to confidently leave their bikes and spend time.  <u>Assumptions</u>  <u>Uncertainties</u>
KEY	++ (Major) Effect	Significant Positive	+ Minor Effect	Positive	0 Neutral Effect		
	- Minor Effect	Negative	-- Significant (Major) Negative Effect		? Uncertain Effect		
	~ No Relationship	Clear					

Table E.4: SEA Assessment of RTS Policies 7 to 12

ASSESSMENT TABLE FOR POLICIES							
SEA Objective	Theme 7: Improving Integration between Modes	Theme 8: Decarbonising Transport	Theme 9: Facilitating Efficient Passenger Travel and Freight Movement	Theme 10: Working Towards Zero Road Deaths and Serious Injuries	Theme 11: Reducing Kilometres Car	Theme 12: Responding to the Post-Covid World	Commentary
1. <b>Health:</b> Improve the health of the resident and workplace population, including with respect to physical and mental health and social wellbeing.	++	++	++	++	++	++	<u>Assessment of Predicted Effects</u>  Theme 7 - Active travel schemes and improvements to make it easier and more attractive for people to walk/cycle/wheel and incorporate exercise into their journeys is predicted to have a positive effect on the Health SEA Objective. Specific actions to provide transport options to vulnerable groups and those living in rural areas are likely to have positive health implications as they can reduce social isolation with a resultant increase in wellbeing.  Theme 8 – <i>Decarbonising Transport</i> is likely to result in improved physical health as there will be a reduction the amount of harmful emissions which are known to cause respiratory problems and other health conditions.

							<p>Theme 10 – <i>Working Towards Zero Road Deaths and Serious Injuries</i> policies are predicted to have an overall positive effect on health as they will make using the transport network safer with an overall improvement on physical health.</p> <p>Theme 11 – <i>Reducing Car Kilometres</i> policies are predicted to have a positive effect on physical and mental health and social wellbeing. The introduction of low emission zones will impact positively on physical health particularly with regards to respiratory diseases. Reducing the need to travel and enabling the adoption of flexible and agile working patterns is predicted to have a positive effect on mental health and social wellbeing by allowing people work more flexibly and fit work in with their lifestyle.</p> <p>Theme 12 – <i>Responding to the Post-Covid</i> policies are predicted to have a positive effect on the Health SEA Objective as they allow the transport system to adapt to any changes that result from the Covid-19 pandemic and respond to keep the network operating in a way that will protect peoples health.</p> <p><u>Mitigation and Enhancement</u></p> <p><u>Assumptions</u></p> <p><u>Uncertainties</u></p>
2.	<p><b>Accessibility:</b> Reduce the need to travel and ensure appropriate and affordable access for all to facilities, services, economic opportunities and social activities.</p>	++	++	++	++	++	<p><u>Assessment of Predicted Effects</u></p> <p>Theme 7 – <i>Improving Integration Between Modes</i> policies are increasing access to different transport options and ensure equitable access to a range of modes of transport and are therefore predicted to have an overall positive effect on the accessibility SEA Objective.</p> <p>Theme 8 – <i>Decarbonising Transport</i> policies are predicted to have a positive effect on the Accessibility SEA Objective as they will make EV charging facilities available.</p> <p>Theme 9 – <i>Facilitating Efficient Passenger Travel and Freight Movement</i> policies are predicted to have a positive effect on the Accessibility SEA Objective as they seek to improve the transport network for all users including residents and businesses which will help to facilitate improved economic and social opportunities.</p> <p>Theme 10 – <i>Working Towards Zero Road Deaths and Serious Injuries</i> policies are predicted to have a positive effect on the Accessibility SEA Objective as by making the transport network more people can access it and will feel safer doing so making them more likely to use it to access facilities, services and economic job opportunities.</p>



							<p>Theme 11 – <i>Reducing Car Kilometres</i> policies are predicted to have an overall positive effect. They are predicted to improve accessibility to public and active transport whilst reducing the need for car ownership.</p> <p>Theme 12 – <i>Responding to the Post Covid World</i> policies are predicted to have a positive effect as they will allow the transport network to remain accessible during the pandemic and in recovery from it.</p> <p><u>Mitigation and Enhancement</u></p> <p><u>Assumptions</u></p> <p><u>Uncertainties</u></p>
3.	<p><b>Material Assets:</b> Manage, maintain and where possible improve the efficient and effective use of natural resources, land and infrastructure to meet identified needs.</p>	++	++	++	++	++	<p><u>Assessment of Predicted Effects</u></p> <p>Theme 7 – <i>Improving Integration Between Modes</i> policies are predicted to have positive effect as they seek to make the best use of existing infrastructure by improving access to hubs and park and ride provision.</p> <p>Theme 8 – <i>Decarbonising Transport</i> policies are predicted to have a positive effect on the Material Assets SEA Objective as they will support the efficient and effective use of fleet vehicles.</p> <p>Theme 9 – <i>Facilitating Efficient Passenger Travel and Freight Movement</i> policies are predicted to have a positive effect as they seek to improve and enhance existing infrastructure to allow the transport network to operate more efficiently.</p> <p>Theme 10 – <i>Working Towards Zero Road Deaths and Serious Injuries</i> policies will allow transport infrastructure to operate more efficiently without the delays cause by accidents and safety incidents.</p> <p>Theme 11 – <i>Reducing Car Kilometres</i> policies are predicted to have a positive effect on the Material Assets SEA Objective as it is likely that there will be fewer cars on the roads and this will reduce congestion and allow the road network to operate more efficiently and effectively.</p> <p>Theme 12 – <i>Responding to a Post-Covid World</i> policies are predicted to have a positive effect as they will allow transport infrastructure to respond and adapt to accommodate changes required due to Covid-19 meaning it can continue to operate efficiently and effectively for those who need to use it.</p> <p><u>Mitigation and Enhancement</u></p>



							<u>Assumptions</u>  <u>Uncertainties</u>
4. <b>Productivity, Competitiveness and Innovation:</b> Deliver an integrated and efficient transport system to increase economic prosperity, support the growth of key economic sectors and deliver increased and more inclusive employment.	++	++	++	++	++	++	<u>Assessment of Predicted Effects</u>  All themes and their policies are predicted to have a positive effect on the Productivity, Competitiveness and Innovation SEA Objective. All policies seek to create a transport network which is well integrated and operates effectively for all uses including freight. Policies to make the transport network safer will result in a system that experiences fewer delays and is therefore more efficient.  <u>Mitigation and Enhancement</u>  <u>Assumptions</u>  <u>Uncertainties</u>
5. <b>Air Quality and Amenity:</b> Tackle poor air quality, reduce concentrations of harmful atmospheric pollutants and minimise exposure to noise and vibration.	++	++	++	++	++	~	<u>Assessment of Predicted Effects</u>  Theme 7 – <i>Improving Integration Between Modes</i> policies are predicted to have a positive effect on the Air Quality and Amenity SEA Objective. Making it easier for people to link transport modes means is predicted to result in more people choosing to use active or public transport for all or at least part of their journeys reducing reliance on private vehicles in turn reducing congestion and the associated noise and emissions.  Theme 8 – <i>Decarbonising Transport</i> policies are predicted to have a positive effect on Air Quality and Amenity as they will result in less carbon emissions coming from vehicles and reducing harmful atmospheric pollutants.  Theme 9 – <i>Facilitating Efficient Passenger Movement</i> policies are predicted to have a positive effect as they seek to implement sustainable last mile logistics including by bike and electric van which would remove highly emitting vehicles from some of the most congested areas. They also seek to carry more freight on the rail network removing heavy goods vehicles and reducing congestion on the road network.  Theme 10 <i>Working Towards Zero Road Deaths</i> and Theme 11 <i>Reducing Car Kilometres</i> are both predicted to have a positive effect on the Air Quality and Amenity SEA Objective. Policies associated with both themes are predicted to reduce congestion and delays on the transport network, particularly on roads, with

							<p>a resultant reduction in harmful atmospheric pollutants and noise.</p> <p><u>Mitigation and Enhancement</u></p> <p><u>Assumptions</u></p> <p><u>Uncertainties</u></p>	
6.	<p><b>Climate Change Mitigation:</b> Decarbonise the transport sector and support wider efforts to mitigate climate change.</p>	++	++	++	++	++	~	<p><u>Assessment of Predicted Effects</u></p> <p>Themes 7 – 11 are predicted to have a positive effect on the Climate Change Mitigation SEA Objective. The policies associated with each theme are predicted to facilitate and encourage uptake of travel by active and public modes.</p> <p>Theme 8 – <i>Decarbonising Transport</i> policies are predicted to be particularly effective in meeting this SEA Objective as they will drive a shift away from carbon emitting vehicles to electric vehicles.</p> <p><u>Mitigation and Enhancement</u></p> <p><u>Assumptions</u></p> <p><u>Uncertainties</u></p>
7.	<p><b>Biodiversity, Geodiversity and Soil:</b> Conserve, protect and enhance biodiversity and geodiversity interests, including through safeguarding important sites, species, soil resources and habitats and by protecting green infrastructure.</p>	++	++	?	++	++	~	<p><u>Assessment of Predicted Effects</u></p> <p>Theme 10 – <i>Working Towards Zero Road Deaths and Serious Injuries</i> is predicted to have a positive effect on Biodiversity, Geodiversity and Soil as the actions are likely to result in lower speed limits with a resultant reduction in emissions which will be beneficial for species and soil resources.</p> <p><u>Mitigation and Enhancement</u></p> <p>Schemes to make roads safer for all users should where possible incorporate green infrastructure and enhancements to existing green infrastructure.</p> <p><u>Assumptions</u></p> <p>Theme 9 – <i>Facilitating Efficient Passenger Travel and Freight Movement</i> actions include developing new freight locations and</p>

							capacity improvements and it is assumed any development of these would be informed by appropriate environmental assessments to ensure biodiversity, geodiversity and soil are appropriately protected.
							<u>Uncertainties</u>
8. <b>Water, Flood Risk and Resilience:</b> Conserve, protect and enhance water environments, water quality and water resources, whilst adapting to climate change and reducing flood risks.	~	++	++	~	~	~	<u>Assessment of Predicted Effects</u>  Themes 7, 10, 11, 12 and their associated policies have no clear relationship with the Water, Flood Risk and Resilience SEA Objective.  Theme 8 – <i>Decarbonising Transport</i> actions are predicted to have a positive effect as they will reduce the risk of water being polluted with oil based fuels.  Theme 9 – <i>Facilitating Efficient Passenger Travel and Freight Movement</i> policies are predicted to have a positive effect as they include <i>adapting</i> the transport network to the impacts of climate change and creating a robust and resilient transport service.  <u>Mitigation and Enhancement</u>  <u>Assumptions</u>  <u>Uncertainties</u>
9. <b>Cultural Heritage:</b> Conserve, protect and enhance all assets of the historic environment including archaeological sites and cultural assets.	+	++	+	+	++	++	<u>Assessment of Predicted Effects</u>  Theme 7 – <i>Improving Integration between Modes</i> and associated policies <i>is</i> predicted to have a positive effect as it is likely that the policies will make cultural heritage sites more accessible to more people. Theme 9 – <i>Facilitating Efficient Passenger Travel and Freight Movement</i> policies are predicted to have similar positive effects as they should make travel in the region more efficient and therefore travelling to and between heritage destinations will be more attractive to more people.  Theme 8 – <i>Decarbonising Transport</i> policies are predicted to have a positive effect as a reduction in toxic emissions from transport will reduce the damage done to historic buildings and help to conserve them.  Theme 12 - <i>Responding to a Post-Covid World</i> policies are predicted to have a positive effect as they will allow the transport service to adapt to new ways of working and living and ensure access to cultural heritage sites is maintained.

							<div>Mitigation and Enhancement</div> <div>Assumptions</div> <p>It is assumed that public transport to cultural heritage sites will be maintained/improved to ensure that they remain accessible despite efforts to reduce travel by car.</p> <div>Uncertainties</div>
10. <b>Landscape:</b> Protect and enhance the landscape character, townscape character and visual amenity.	+	++	+	+	+	~	<div>Assessment of Predicted Effects</div> <p>Theme 7 – <i>Improving Integration Between Modes</i> policies are predicted to have a positive effect as they will improve access to places across the region making it easier for more people to visit and appreciate scenic areas and towns.</p> <p>Theme 8 – <i>Decarbonising Transport</i> policies are predicted to have a positive effect on the Landscape SEA Objective as it will result in reduced vehicle emissions which will make spending time in urban environments more pleasant and will reduce the harmful environmental effects of toxic emissions on the landscape.</p> <p>Theme 10 – <i>Working Towards Zero Road Deaths and Passenger Injuries</i> policies are predicted to have a positive effect as they will make travelling around the region more attractive and will make it safer for people to visit and spend time in rural and urban environments and experience the landscape and townscape value of the region.</p> <p>Theme 11 – <i>Reducing Car Kilometres</i> policies are predicted to have a positive effect as it is likely that the number of cars on the road will be reduced and therefore landscape and townscape character will be improved on amenity grounds through reduced emissions and noise.</p> <div>Mitigation and Enhancement</div> <div>Assumptions</div> <div>Uncertainties</div> <p>Theme 9 – <i>Facilitating Efficient Passenger Travel and Freight Movement</i> policies are predicted to have an uncertain effect on the Landscape objective. It is unclear how much impact on the landscape will come from the proposed interventions such as passing loops and capacity improvements.</p>
KEY	++ Significant (Major) Positive Effect	+	0				

		Minor Positive Effect	Neutral Effect	
	- Minor Negative Effect	-- Significant (Major) Negative Effect	? Uncertain Effect	
	~ No Clear Relationship			

Table E.4: SEA Scoring of RTS Actions for Themes 1 to 6

ASSESSMENT TABLE FOR ACTIONS							
SEA Objective	Theme 1: Shaping Development & Place	Theme 2: Delivering Safe Active Travel	Theme 3: Enhancing Access to Public Transport	Theme 4: Enhancing and Extending Bus Service	Theme 5: Enhancing and Extending the Train Service	Theme 6: Reallocation of Roadspace on the Regional and Local Network	Commentary
11. <b>Health:</b> Improve the health of the resident and workplace population, including with respect to physical and mental health and social wellbeing.	++	++	++	++	++	++	<p><u>Assessment of Predicted Effects</u></p> <p>Theme 1 – <i>Shaping Development and Place</i> actions are considered to have a positive effect on the Health SEA Objective as it is predicted that by aligning transport planning with land use planning places will develop in a more sustainable manner with improvements predicted in accessibility to services, leisure and social opportunities all of which would have a beneficial impact on peoples health both physical and mental.</p> <p>Theme 2 – <i>Delivering Safe Active Travel</i> actions are predicted to have a positive impact on peoples overall health and wellbeing as incorporating exercise into day-to-day activities will become easier and more attractive to more people. Exercising outdoors will also become more accessible to more people and the promotional and communication campaigns highlighting the benefits will help encourage uptake.</p> <p>Themes 3, 4 &amp; 5 – <i>Enhancing Access to Public Transport, Enhancing and Extending Bus and Train Services</i> are predicted to have positive effects as giving more people access to reliable and frequent bus and train services allows better opportunity for accessing employment and social activities which can lessen the risk of isolation and the associated negative health impacts.</p> <p>Theme 6 – <i>Reallocation of Roadspace on the Regional and Local Network</i> actions are predicted to have a positive effect on peoples health. It is considered that the reallocation of space will make active travel a more attractive and safer option for people and there will be a resultant increase in people walking, cycling and wheeling and an overall improvement in peoples physical and mental health.</p>

							<p><u>Mitigation and Enhancement</u></p> <p>Make it clear that there will be specific actions dedicated to identifying roadspace for active travel.</p> <p><u>Assumptions</u></p> <p><u>Uncertainties</u></p>
12. <b>Accessibility:</b> Reduce the need to travel and ensure appropriate and affordable access for all to facilities, services, economic opportunities and social activities.	++	++	++	++	++	++	<p><u>Assessment of Predicted Effects</u></p> <p>Themes 1 – 6 and their associated actions are considered to have a positive effect on the Accessibility SEA Objective. It is predicted that they improve access to all forms of public transport making it easier for people to move around the region more efficiently and improve access to previously harder to reach areas.</p> <p><u>Mitigation and Enhancement</u></p> <p><u>Assumptions</u></p> <p><u>Uncertainties</u></p>
13. <b>Material Assets:</b> Manage, maintain and where possible improve the efficient and effective use of natural resources, land and infrastructure to meet identified needs.	++	++	++	++	++	++	<p><u>Assessment of Predicted Effects</u></p> <p>Themes 1 – 6 and their associated actions are predicted to have an overall positive effect on the Material Assets SEA Objective.</p> <p>Theme 1 – <i>Shaping Place Development</i> actions are considered to ensure resources and land are used sustainably by aligning transport planning and land use planning which is considered will result in better connections within and between places which are delivered in strategic locations at the same time as new or planned development.</p> <p>Theme 2 – <i>Delivering Safe Active Travel</i> actions will review the current active travel network and identify gaps where improvements need to be made and work to develop those to meet the identified needs identified in the review.</p> <p>Themes 3, 4 and 5 – <i>Enhancing Access to Public Transport, Enhancing and Extending the Bus Service and Enhancing and Extending the Train Service</i> actions are all predicted to have positive effect on Material Assets. These actions will all see improvements to the public transport network infrastructure allowing it to operate more efficiently and deliver an effective service for all users but particularly to meet the needs of vulnerable groups.</p> <p>Theme 6 – <i>Reallocation of Roadspace on the Regional and Local Network</i> actions will deliver improvements to the network for active and public transport travel without having to develop significant new infrastructure and extract high volumes of natural resources and take new land.</p>

							<u>Mitigation and Enhancement</u>  <u>Assumptions</u>  <u>Uncertainties</u>
14. <b>Productivity, Competitiveness and Innovation:</b> Deliver an integrated and efficient transport system to increase economic prosperity, support the growth of key economic sectors and deliver increased and more inclusive employment.	++	++	++	++	++	++	<u>Assessment of Predicted Effects</u>  Theme 1 – <i>Shaping Development and Place</i> aligning transport interventions and improvements with place planning is predicted to result in an efficient transport network which serves peoples needs and joins up areas of employment with population centres giving access to a wide range of employment opportunities.  Theme 2 – <i>Delivering Safe Active Travel</i> is predicted to have a positive effect by contributing to the creation of an integrated and efficient transport system.  Theme 3 – <i>Enhancing Access to Public Transport</i> is predicted to result in the transport system operating more efficiently because of better integration between routes and modes of travel.  Themes 4 and 5 – <i>Enhancing and Extending the Bus Service and Train Service</i> actions are predicted to have a positive effect on the productivity, competitiveness and innovation SEA Objective. Having an efficient and integrated public transport network that allows people to easily move around the region will help to attract talent and business to the area.  Theme 6 – <i>Reallocation of Roadspace on the Regional and Local Network</i> actions are predicted to have a positive effect as they are likely to result in more efficient movement of freight traffic which will benefits businesses. Improving bus journey times will make employment opportunities easier to access for more people increasing choice.  <u>Mitigation and Enhancement</u>  <u>Assumptions</u>  <u>Uncertainties</u>
15. <b>Air Quality and Amenity:</b> Tackle poor air quality, reduce concentrations of harmful atmospheric pollutants and minimise exposure to noise and vibration.	++	++	++	++	?	++	<u>Assessment of Predicted Effects</u>  Themes 1 – 4 and their associated actions are predicted to have a positive effect on the Air Quality and Amenity SEA Objective.

							<p><u>Mitigation and Enhancement</u></p> <p><u>Assumptions</u></p> <p>Assumed improvements to the bus service will result in vehicles being run on low/no emission fuels and uptake will result in fewer car journeys with an overall positive impact on air quality and amenity.</p> <p><u>Uncertainties</u></p> <p>Theme 5 – <i>Enhancing and Extending the Train Service</i> actions are predicted to have an uncertain effect on the Air Quality and Amenity SEA Objective primarily due to the inclusion of action to develop new rail infrastructure and the impact this could have on exposure to noise and vibration.</p>
16.	<p><b>Climate Change Mitigation:</b> Decarbonise the transport sector and support wider efforts to mitigate climate change.</p>	++	++	++	++	++	<p><u>Assessment of Predicted Effects</u></p> <p>Themes 1 – 6 and their associated actions are predicted to have positive effects on the Climate Change Mitigation SEA Objective. The actions include increasing the number of rail lines that are electrified, improving access to public transport for all areas across the region and facilitating and encouraging the uptake of active travel all of which is considered to contribute to efforts decarbonise the transport sector.</p> <p><u>Mitigation and Enhancement</u></p> <p><u>Assumptions</u></p> <p><u>Uncertainties</u></p>
17.	<p><b>Biodiversity, Geodiversity and Soil:</b> Conserve, protect and enhance biodiversity and geodiversity interests, including through safeguarding important sites, species, soil resources and habitats and by protecting green infrastructure.</p>	++	0	0	0	0	<p><u>Assessment of Predicted Effects</u></p> <p>Theme 1 – <i>Shaping Development and Place</i> actions are considered to have a positive effect on the Biodiversity, Geodiversity and Soil SEA Objective. By aligning transport planning with land use planning more closely it will be easier to conserve and protect biodiversity, geodiversity and soil through better long term planning and reducing the need to retrofit transport schemes into development and increasing the amount of overall land required for development.</p> <p>Theme 6 – <i>Reallocation of Roadspace on the Regional and Local Network</i> actions are considered to have a positive effect as by reallocating roadspace rather than increasing the size of roads or building new roads the actions help to protect land from</p>



							<p>being used for development and will avoid disturbance to protected sites, species etc.</p> <p><u>Mitigation and Enhancement</u></p> <p><u>Assumptions</u></p> <p>Assumed any interventions will be appropriately assessed to determine environmental impact and appropriate mitigations put in place to conserve and protect biodiversity, geodiversity and soil.</p> <p><u>Uncertainties</u></p>
18. <b>Water, Flood Risk and Resilience:</b> Conserve, protect and enhance water environments, water quality and water resources, whilst adapting to climate change and reducing flood risks.	~	~	~	~	~	~	<p><u>Assessment of Predicted Effects</u></p> <p>The actions associated with Themes 1 - 6 are predicted to have no clear relationship with the Water, Flood Risk and Resilience SEA Objective.</p> <p><u>Mitigation and Enhancement</u></p> <p>Any planned infrastructure improvements should include measures to reduce flood risk and increase resilience to the predicted future effects of climate change.</p> <p><u>Assumptions</u></p> <p><u>Uncertainties</u></p>
19. <b>Cultural Heritage:</b> Conserve, protect and enhance all assets of the historic environment including archaeological sites and cultural assets.	++	++	++	++	++	++	<p><u>Assessment of Predicted Effects</u></p> <p>Theme 2 – <i>Delivering Safe Active Travel</i> is predicted to give more people access by sustainable modes of transport to historic environment sites which will enhance the assets and highlight their value. A general uptake in active travel and a resultant reduction in travel in vehicles which produce emissions will have a positive effect on heritage sites which can be damaged by emissions from vehicles.</p> <p>Theme 3 – <i>Enhancing Access to Public Transport</i> is predicted to have a positive effect as by improving access to public transport should allow more people to travel to more destinations and in turn will increase visitors to cultural heritage sites increasing peoples awareness and interest in the regions heritage assets.</p> <p>Themes 4 and 5 – <i>Enhancing and Extending the Bus and Train Services</i> are predicted to have a positive as there is potential to improve public transport access to sites and increase visitor numbers.</p>

							<div>Mitigation and Enhancement</div> <div>Assumptions</div> <div>Uncertainties</div>
20. <b>Landscape:</b> Protect and enhance the landscape character, townscape character and visual amenity.	++	++	++	++	++	++	<div>Assessment of Predicted Effects</div> <p>Actions associated with Themes 1 – 6 are predicted to have an overall positive effect on the Landscape SEA Objective. Actions are predicted to reduce the number of private vehicles on the road network which will reduce congestion and the amount of space required for parking in towns which will improve townscape character and visual amenity.</p> <div>Mitigation and Enhancement</div> <p>Any infrastructure works should include provision for green infrastructure and landscaping to strengthen visual amenity.</p> <div>Assumptions</div> <div>Uncertainties</div>
KEY	<div>++ Significant (Major) Positive Effect</div>	<div>+ Minor Positive Effect</div>	<div>0 Neutral Effect</div>				
	<div>- Minor Negative Effect</div>	<div>-- Significant (Major) Negative Effect</div>	<div>? Uncertain Effect</div>				
	<div>~ No Clear Relationship</div>						

Table E.5: SEA Assessment of RTS Actions for Themes 7 to 12

ASSESSMENT TABLE FOR ACTIONS							
SEA Objective	Theme 7: Improving Integration Between Modes	Theme 8: Decarbonising Transport	Theme 9: Facilitating Efficient Passenger Travel and Freight Movement	Theme 10: Working Towards Road and Injuries Zero Deaths Serious	Theme 11: Reducing Kilometres Car	Theme 12: Responding to the Post-Covid World	Commentary
21. <b>Health:</b> Improve the health of the resident and workplace population, including with respect to physical and mental health and social wellbeing.	++	++	++	++	++	++	<p><u>Assessment of Predicted Effects</u></p> <p>Theme 7 – <i>Improving Integration Between Modes</i> actions are predicted to have a positive effect on the Health SEA Objective. Improving integration across the transport network will make it easier for people to incorporate active travel into their activities and journeys which will improve physical and mental health.</p> <p>Theme 8 – <i>Decarbonising Transport</i> actions are predicted to have a positive effect as it is considered they will reduce the amount of harmful toxic pollutants produced and released by vehicles which will have a positive effect on physical health.</p> <p>Theme 9 – <i>Facilitating Efficient Passenger Travel and Freight Movement</i> actions are predicted to have a positive effect on health particularly for those driving freight vehicles with an action included to improve rest stops.</p> <p>Theme 10 – <i>Working Towards Zero Road Deaths and Serious Injuries</i> actions are predicted to have a positive effect on the Health SEA Objective as they will make the transport network safer for all users which will improve physical health.</p> <p>Theme 11 – <i>Reducing Car Kilometres</i> actions are predicted to have a positive effect on the health as they will reduce the number of cars on the transport network with a resultant reduction in harmful emissions which negatively effect physical health.</p> <p>Theme 12 – <i>Responding to the Post-Covid</i> actions are predicted to have a positive effect on the Health SEA Objective as they allow the transport system to adapt to any changes that result from the Covid-19 pandemic and respond to keep the network operating in a way that will protect peoples health.</p> <p><u>Mitigation and Enhancement</u></p> <p><u>Assumptions</u></p> <p><u>Uncertainties</u></p>

<p>22. <b>Accessibility:</b> Reduce the need to travel and ensure appropriate and affordable access for all to facilities, services, economic opportunities and social activities.</p>	++	++	++	+	++	++	<p><u>Assessment of Predicted Effects</u></p> <p>Themes 7, 8, 9 and 11 – <i>Improving Integration Between Modes, Decarbonising Transport, Facilitating Efficient Passenger Travel and Freight Movement and Reducing Car Kilometres</i> and their associated actions are predicted to have a positive effect on the Accessibility SEA Objective. All are predicted to make a range of transport options available to more people across the region and include actions specific to better access to vulnerable groups.</p> <p>Theme 12 – <i>Responding to the Post-Covid World Actions</i> are predicted to have positive effect as they ensure the transport network and services remain accessible to those who need to use it.</p> <p><u>Mitigation and Enhancement</u></p> <p><u>Assumptions</u></p> <p><u>Uncertainties</u></p>
<p>23. <b>Material Assets:</b> Manage, maintain and where possible improve the efficient and effective use of natural resources, land and infrastructure to meet identified needs.</p>	++	++	++	++	++	++	<p><u>Assessment of Predicted Effects</u></p> <p>All themes are predicted to have a positive effect on the Material Assets SEA Objective. The actions seek to improve the transport network for users of public and active travel and freight by improving existing or developing new infrastructure with the aim of making the network operate more efficiently and effectively.</p> <p><u>Mitigation and Enhancement</u></p> <p><u>Assumptions</u></p> <p><u>Uncertainties</u></p>
<p>24. <b>Productivity, Competitiveness and Innovation:</b> Deliver an integrated and efficient transport system to increase economic prosperity, support the growth of key economic sectors and deliver increased and more inclusive employment.</p>	++	~	++	++	~	++	<p><u>Assessment of Predicted Effects</u></p> <p>Theme 7 – <i>Improving Integration Between Modes</i> actions are predicted to have a positive effect as they will give more people in the region access to a range of different modes of transport and in more locations opening up new opportunities to people to travel sustainably to reach employment. This also has the potential to give companies access to talent who could previously had difficulty travelling to their sites.</p> <p>Theme 9 – <i>Facilitating Efficient Passenger Travel and Freight Movement</i> actions are predicted to have a positive effect on the Productivity, Competitiveness and Innovation SEA Objective. It</p>

							<p>is considered the actions will support the growth of key economic sectors by opening up new routes to markets and increasing capacity on the freight network.</p> <p>Theme 10 – <i>Working Towards Zero Road Deaths and Zero Road Deaths</i> actions are predicted to result in improved road safety and fewer accidents will reduce the amount of delays experienced making the transport system more efficient.</p> <p>Theme 12 – <i>Responding to a Post-Covid World</i> actions are predicted to have a positive effect as they will allow the transport service to adapt to new ways of working and living and ensure services continue to meet the needs of residents and businesses.</p> <p><u>Mitigation and Enhancement</u></p> <p><u>Assumptions</u></p> <p><u>Uncertainties</u></p>	
25.	<p><b>Air Quality and Amenity:</b> Tackle poor air quality, reduce concentrations of harmful atmospheric pollutants and minimise exposure to noise and vibration.</p>	++	++	++	++	++	~	<p><u>Assessment of Predicted Effects</u></p> <p>Theme 8 – <i>Decarbonising Transport</i> actions are predicted to have a positive effect on the Air Quality and Amenity SEA Objective as they will result in vehicles being fueled by low or no emission fuels which will significantly reduce the amount of harmful toxic pollutants emitted into the air.</p> <p>Theme 10 – <i>Working Towards Zero Road Deaths and Serious Injuries</i> actions are predicted to result in drivers driving at lower speed limits which will reduce harmful emissions. Traffic calming measures will help to reduce noise and vibration effects of vehicles all of which is predicted to have a positive effect on air quality and amenity.</p> <p><u>Mitigation and Enhancement</u></p> <p><u>Assumptions</u></p> <p>Theme 9 – engagement with Edinburgh Airport will include ways to reduce emissions associated with air travel. Assumed improvements will result in more people choosing to use public transport and there will a reduction in the use of private vehicles and associated emissions.</p> <p><u>Uncertainties</u></p>

<p>26. <b>Climate Change Mitigation:</b> Decarbonise the transport sector and support wider efforts to mitigate climate change.</p>	++	++	++	++	++	~	<p><u>Assessment of Predicted Effects</u></p> <p>Themes 7 – 11 and their associated actions are predicted to have a positive effect on the Climate Change SEA Objective. It is considered that the actions will encourage greater use of public transport and active travel and reduce the number of journeys taken in private vehicles. Actions will also facilitate the move away from fossil fuels to low or no emission alternatives such as hydrogen and electricity for powering vehicles. The actions to make the transport network safer will allow it to operate more efficiently with reduced congestion and delays which will help to reduce emissions.</p> <p><u>Mitigation and Enhancement</u></p> <p><u>Assumptions</u></p> <p>Theme 7 – Assumed that taxis will be low-emission vehicles</p> <p><u>Uncertainties</u></p>
<p>27. <b>Biodiversity, Geodiversity and Soil:</b> Conserve, protect and enhance biodiversity and geodiversity interests, including through safeguarding important sites, species, soil resources and habitats and by protecting green infrastructure.</p>	+	++	+	++	++	~	<p><u>Assessment of Predicted Effects</u></p> <p>Theme 8 – <i>Decarbonising Transport</i> is predicted to have a positive effect as it is likely that emissions from transport will be reduced and there will be less harmful toxic pollutants negatively impacting on plant and wildlife species. Theme 11 – <i>Reducing Car Kilometres</i> actions are also predicted to result in fewer harmful emissions and therefore less negative impact on habitats, plants and species.</p> <p>Theme 10 – <i>Working Towards Zero Road Deaths and Serious Injuries</i> is predicted to have a positive effect on Biodiversity, Geodiversity and Soil as the actions are likely to result in lower speed limits with a resultant reduction in emissions which will be beneficial for species and soil resources.</p> <p><u>Mitigation and Enhancement</u></p> <p>Where new infrastructure and improvements to existing infrastructure are planned efforts to protect and enhance biodiversity should be designed in.</p> <p><u>Assumptions</u></p> <p><u>Uncertainties</u></p>

<p>28. <b>Water, Flood Risk and Resilience:</b> Conserve, protect and enhance water environments, water quality and water resources, whilst adapting to climate change and reducing flood risks.</p>	~	++	++	~	~	~	<p><u>Assessment of Predicted Effects</u></p> <p>Theme 8 – <i>Decarbonising the Fleet</i> actions are predicted to have a positive effect as they will reduce the risk of the water environment being polluted by oil derived fuels and harmful toxic emissions.</p> <p>Theme 9 – <i>Facilitating Efficient Passenger Travel and Freight Movement</i> actions are predicted to have a positive effect as they include identify locations vulnerable to the impacts of climate change and increasing the resilience of the transport network.</p> <p><u>Mitigation and Enhancement</u></p> <p><u>Assumptions</u></p> <p><u>Uncertainties</u></p>
<p>29. <b>Cultural Heritage:</b> Conserve, protect and enhance all assets of the historic environment including archaeological sites and cultural assets.</p>	++	++	++	~	+	++	<p><u>Assessment of Predicted Effects</u></p> <p>Theme 7 – <i>Improving Integration between Modes</i> and associated actions are predicted to have a positive effect as it is likely that the actions will make cultural heritage sites more accessible to more people. Theme 9 – <i>Facilitating Efficient Passenger Travel and Freight Movement</i> actions are predicted to have similar positive effects as they should make travel in the region more efficient and therefore travelling to and between heritage destinations will be more attractive to more people.</p> <p>Theme 8 – <i>Decarbonising Transport</i> actions are predicted to have a positive effect as a reduction in toxic emissions from transport will reduce the damage done to historic buildings and help to conserve them.</p> <p>Theme 12 - <i>Responding to a Post-Covid World</i> actions are predicted to have a positive effect as they will allow the transport service to adapt to new ways of working and living and ensure access to cultural heritage sites is maintained.</p> <p><u>Mitigation and Enhancement</u></p> <p><u>Assumptions</u></p> <p><u>Uncertainties</u></p>

30.	<b>Landscape:</b> Protect and enhance the landscape character, townscape character and visual amenity.	++		++	++	++	++	++	~	<u>Assessment of Predicted Effects</u>
										Theme 7 – <i>Improving Integration Between Modes</i> actions are predicted to have a positive effect as they will improve access to places across the region making it easier for more people to visit and appreciate scenic areas and towns.
										Theme 8 – <i>Decarbonising Transport</i> actions are predicted to have a positive effect on the Landscape SEA Objective as it will result in reduced vehicle emissions which will make spending time in urban environments more pleasant and will reduce the harmful environmental effects of toxic emissions on the landscape.
										Theme 10 – <i>Working Towards Zero Road Deaths and Passenger Injuries</i> actions are predicted to have a positive effect as they will make travelling around the region more attractive and will make it safer for people to visit and spend time in rural and urban environments and experience the landscape and townscape value of the region.
										Theme 11 – <i>Reducing Car Kilometres</i> actions are predicted to have a positive effect as it is likely that the number of cars on the road will be reduced and therefore landscape and townscape character will be improved on amenity grounds through reduced emissions and noise.
										<u>Mitigation and Enhancement</u>
										<u>Assumptions</u>
										<u>Uncertainties</u>

KEY	++	Significant (Major) Positive Effect	+	Minor Positive Effect	0	Neutral Effect	
	-	Minor Negative Effect	--	Significant (Major) Negative Effect	?	Uncertain Effect	
	~	No Clear Relationship					



Appendix F     RTS Transport Corridors – Environmental Commentaries

- F.1.1    There are 18 transport corridors identified within the RTS. These will be the focus of future transport interventions to improve the linkages along existing major transport corridors to enhance connectivity beyond the region and, secondly enhance the inter-region links. The key environmental sensitivities of each of the corridors have been identified and will need to be taken account of in any future transport improvement projects. The findings are reported in the following tables.
- Queensferry**
- F.1.2    The Queensferry travel corridor extends from Cramond, west of Edinburgh city centre, to Kelty in west Fife. It includes the towns South Queensferry, Port Edgar, North Queensferry, Inverkeithing, Halbeath and Kelty. The corridor contains strategic road and rail links including the Forth Rail Bridge, Queensferry Crossing and the M90.
- F.1.3    The dominating environmental features in the corridor are the Firth of Forth with associated SSSI and SPA designations in place to protect bird and plant species and habitats and the Forth Bridge UNESCO World Heritage Site.
- F.1.4    The Firth of Forth is at risk of coastal flooding and there are areas of surface water flooding throughout the corridor and specific water courses are vulnerable to fluvial flooding. Areas of ancient woodland are also distributed throughout the corridor.
- F.1.5    The environmental designations and issues that have the potential to constrain transport development in the corridor are reported below. When individual schemes, improvements and routes are being developed appropriate environmental assessment will be required to ensure adequate protection and mitigation for the reported features.

Table F.1: Queensferry Corridor Environmental Sensitivities

Queensferry		
SEA Objectives	Environmental Category/Issues	Reason for Designations
Biodiversity, Geodiversity and Soil	Firth of Forth Site of Special Scientific Interest	Designated to protect an area of geological and geomorphological features, coastal and terrestrial habitats, vascular plants, invertebrates, breeding, passage and wintering birds
	Ferry Hills Site of Special Scientific Interest	Designated to protect an area of geological and biological interest
	Firth of Forth Special Protection Area	Designated to avoid deterioration of the habitats of qualifying species which extends to 27 bird species.
	Firth of Forth RAMSAR	Wetlands of International Importance
	Ancient Woodland located throughout the corridor	Designated to protect and avoid the degradation of areas of ancient woodland
Water, Flood Risk and Resilience	Firth of Forth	Coastal Flood Risk
	River Almond	Fluvial Flood Risk
	Areas of Surface Water Flooding located throughout the corridor	Surface Water Flood Risk
Cultural Heritage	Listed Buildings located throughout the corridor	To preserve and enhance buildings of historical or architectural interest.
	Scheduled Monuments located throughout the corridor	To preserve Scotland's most significant sites and monuments
	Forth Bridge UNESCO World Heritage Site	Designated to protect and recognise sites of Outstanding Universal Value
	Battle of Inverkeithing Battlefield	Designated to protect and recognise Battlefields of cultural significance which have historical association, physical and/or archaeological remains and a battlefield landscape
	Crammond Conservation Area	To preserve and enhance areas of special architectural or historic interest.
	Dalmeny Conservation Area	
	Queensferry Conservation Area	
	North Queensferry Conservation Area	
	Inverkeithing Conservation Area	
Landscape	Dundas Castle Garden and Designed Landscape	To ensure sites cultural significance can be taken into account in the planning process.
	Craigiehall Garden and Designed Landscape	
	Dalmeny Garden and Designed Landscape	
	Hopetoun House Garden and Designed Landscape	

## Fife Central

- F.1.6 The Fife Central travel corridor extends along the central Fife coastline, from Aberdour to Kirkcaldy, and inland, encompassing towns such as Cowdenbeath, Lochgelly, Thornton and Glenrothes. The main road and rail links include the A921, A92 and the Fife Circle railway line.
- F.1.7 Key environmental features within the travel corridor are the Firth of Forth SSSI, SPA and RAMSAR designations as well as the Lomond Hills Regional Park and notable Local Nature Reserves. Areas of Ancient Woodland are also situated across the corridor.
- F.1.8 It is important to note that the Firth of Forth is at risk of coastal flooding, there are areas of surface water flood risk scattered throughout the corridor and a number of water courses are susceptible to fluvial flooding.
- F.1.9 The environmental designations and issues that have the potential to constrain transport development in the corridor are reported below. When individual schemes, improvements and routes are being developed appropriate environmental assessment will be required to ensure adequate protection and mitigation for the reported features.

Table F.2: Fife Central Corridor Environmental Sensitivities

Fife Central		
SEA Objectives	Environmental Category/Issues	Reason for Designations
Biodiversity, Geodiversity and Soil	Outer Firth of Forth and St Andrews Bay Complex Special Protection Area	Qualifies to be designated as a SPA by regularly supporting non-breeding and breeding species of European Species of birds.
	Lomond Hills Regional Park	Designated to protect an area of biological interest
	Collaloe Local Nature Reserve	Designated to protect land because of its special natural interest and/or educational value
	Firth of Forth Site of Special Scientific Interest	Designated to protect an area of geological and geomorphological features, coastal and terrestrial habitats, vascular plants, invertebrates, breeding, passage and wintering birds
	Firth of Forth RAMSAR	Wetlands of International Importance
	Firth of Forth Special Protection Area	Designated to avoid deterioration of the habitats of qualifying species which extends to 27 bird species.
	Ancient Woodland located throughout the corridor	Designated to protect and avoid the degradation of areas of ancient woodland
	Coul Den Local Nature Reserve	Designated as an important site for wildlife, natural habitats and landscaped ponds
Water, Flood Risk and Resilience	Firth of Forth	Coastal Flood Risk
	Stenhouse Reservoir	Fluvial Flood Risk
	Dour Burn	Fluvial Flood Risk
	Tiel Burn	Fluvial Flood Risk
	Dronnachy Burn	Fluvial Flood Risk
	Den Burn	Fluvial Flood Risk
	River Ore	Fluvial Flood Risk

	Lochty Burn	Fluvial Flood Risk
	River Leven	Fluvial Flood Risk
	Lothrie Burn	Fluvial Flood Risk
	Loch Gelly	Fluvial Flood Risk
	Lochgelly Burn	Fluvial Flood Risk
	Gelly Burn	Fluvial Flood Risk
	Areas of Surface Water Flooding located throughout the corridor	Surface Water Flood Risk
Cultural Heritage	Listed Buildings located throughout the corridor	To preserve and enhance buildings of historical or architectural interest.
	Scheduled Monuments located throughout the corridor	To preserve Scotland's most significant sites and monuments
	Aberdour Conservation Area	To preserve and enhance areas of special architectural or historic interest.
	Burntisland Conservation Area	
	Kinghorn Conservation Area	
	Abbotshall and Central Kirkcaldy Conservation Area	
	Kirkaldy Harbour and Port Brae Conservation Area	
	Dysart Conservation Area	
	Markinch Conservation Area	
	Cadham Village Conservation Area	
	Leslie Conservation Area	
Landscape	St Colme Garden and Designed Landscape	To ensure sites cultural significance can be taken into account in the planning process.
	Aberdour Castle Garden and Designed Landscape	
	The Murrel Garden and Designed Landscape	
	Raith Park and Beveridge Park Gardens and Designed Landscape	
	Dysart House and Ravenscraig Park Garden and Designed Landscape	
	Wemyss Castle Garden and Designed Landscape	
	Balbirnie Garden and Designed Landscape	
	Leslie House Garden and Designed Landscape	
	Fordell Castle Garden and Designed Landscape	
	Blair Adam Garden and Designed Landscape	

#### East Fife

- F.1.10 The East Fife travel corridor extends from Leven in the southwest, Earlsferry in the southeast, St Andrews in the northeast and Cupar in the northwest. Strategic routes within the corridor include the A915, A917 and the A91.
- F.1.11 Environmental features located within the travel corridor include designations associated with the Firth of Forth and Firth of Tay and Eden Estuary, such as SSSI, SPA, SAC and RAMSAR sites. Several other SSSI and Local Nature Reserves are located throughout the corridor, as well as areas of Ancient Woodland.
- F.1.12 The Firth of Forth is at risk of coastal flooding and there are areas of surface water flooding throughout the corridor and specific water courses are vulnerable to flooding.
- F.1.13 In terms of air quality, the Bonnygate AQMA covers a section of the A91 through Cupar in Fife where levels of Nitrogen Dioxide and PM10 exceed UK Air Quality Strategy Objectives. The AQMA is in place to improve air quality within the designated area.
- F.1.14 The environmental designations and issues that have the potential to constrain transport development in the corridor are reported below. When individual schemes, improvements and routes are being developed appropriate environmental assessment will be required to ensure adequate protection and mitigation for the reported features.

Table F.3: East Fife Corridor Environmental Sensitivities

East Fife		
SEA Objectives	Environmental Category/Issues	Reason for Designations
Air Quality and Amenity	Bonnygate AQMA	Area where air quality objectives are not being met and where there is a plan in place to improve air quality
	Outer Firth of Forth and St Andrews Bay Complex Special Protection Area	Designated to avoid deterioration of the habitats of qualifying species.
Biodiversity, Geodiversity and Soil	Flecefauls Meadow Site of Special Scientific Interest	Designated to protect an area of biological interest
	Waltonhill and Cradle Den Site of Special Scientific Interest	Designated to protect an area of biological interest
	Carriston Reservoir Site of Special Scientific Interest	Designated to protect an area of biological interest
	Craighall Den Site of Special Scientific Interest	Designated to protect an area of biological and woodland interest
	Bankhead Moss Site of Special Scientific Interest	Designated to protect an area of biological interest
	Cassindonald Moss Site of Special Scientific Interest	Designated to protect an area of biological interest
	Craigtoun Country Park	Designated as a park in the countryside that affords opportunities to the public for enjoyment in the countryside or open-air recreation
	Firth of Tay and Eden Estuary RAMSAR	Wetlands of International Importance
	Firth of Tay and Eden Estuary Special Protection Area	Designated to avoid deterioration of the habitats of qualifying species which extends to 20 bird species.
	Firth of Tay and Eden Estuary Special Areas of Conservation	Designated to avoid deterioration of the habitats of qualifying species
	Eden Estuary Site of Special Scientific Interest	Designated to avoid deterioration of the habitats of qualifying species which extends to 21 bird species and features of biological importance
	Firth of Forth Special Protection Area	Designated to avoid deterioration of the habitats of qualifying species which extends to 27 bird species.
	Firth of Forth Site of Special Scientific Interest	Designated to protect an area of geological and geomorphological features, costal and terrestrial habitats, vascular plants, invertebrates, breeding, passage and wintering birds
	Firth of Forth RAMSAR	Wetlands of International Importance
	Cameron Reservoir RAMSAR	Wetlands of International Importance
	Gillingshill Reservoir Local Nature Reserve	Designated to protect land because of its special natural interest and/or educational value
	Kilconquhar Loch Site of Special Scientific Interest	Designated to protect an area of biological importance
	Ancient Woodland located throughout the corridor	Designated to protect and avoid the degradation of areas of ancient woodland
Water, Flood Risk and Resilience	Firth of Forth	Coastal Flood Risk
	North Sea Coast	Coastal Flood Risk
	Firth of Tay	Coastal Flood Risk
	River Leven	Fluvial Flood Risk
	Kennoway Burn	Fluvial Flood Risk
	Scoonie Burn	Fluvial Flood Risk
	Keil Burn	Fluvial Flood Risk
	Hatton Burn	Fluvial Flood Risk
	Cocklemill Burn	Fluvial Flood Risk
	Kilnoquhar Loch	Fluvial Flood Risk
	Inverie Burn	Fluvial Flood Risk

	Dreel Burn	Fluvial Flood Risk
	Kenly Water	Fluvial Flood Risk
	Cameron Burn	Fluvial Flood Risk
	Dunino Burn	Fluvial Flood Risk
	Wakefield Burn	Fluvial Flood Risk
	Kinnes Burn	Fluvial Flood Risk
	Cairnsmill Burn	Fluvial Flood Risk
	Claremont Burn	Fluvial Flood Risk
	Swilken Burn	Fluvial Flood Risk
	River Eden	Fluvial Flood Risk
	Lady Burn	Fluvial Flood Risk
	Ceres Burn	Fluvial Flood Risk
	Kinninmonth Burn	Fluvial Flood Risk
	Craigrothie Burn	Fluvial Flood Risk
	Glassy How Burn	Fluvial Flood Risk
	Pratis Burn	Fluvial Flood Risk
	Areas of Surface Water Flooding located throughout the corridor	Surface Water Flood Risk
Cultural Heritage	Listed Buildings located throughout the corridor	To preserve and enhance buildings of historical or architectural interest.
	Scheduled Monuments located throughout the corridor	To preserve Scotland's most significant sites and monuments
	Links Road, Leven Conservation Area	To preserve and enhance areas of special architectural or historic interest.
	Lower Largo Conservation Area	
	Kennoway Conservation Area	
	Upper Largo Conservation Area	
	Elie and Earlsferry Conservation Area	
	Kilconquhar and Barnyards Conservation Area	
	St Monans Conservation Area	
	St Andrews Conservation Area	
	Hepburn Gardens Conservation Area	
	Cupar Conservation Area	
	Ceres Conservation Area	
Landscape	Lahill Garden and Designed Landscape	To ensure sites cultural significance can be taken into account in the planning process.
	Charleton House Garden and Designed Landscaped	
	Balcarres Garden and Designed Landscaped	
	Balcaskie Garden and Designed Landscape	
	St Andrews Links Garden and Designed Landscape	
	St Andrews Botanic Garden Garden and Designed Landscape	
	Craigtoun Garden and Designed Landscape	
	Hill of Tarvit (Wemyss Hall) Garden and Designed Landscape	

## A92 Tay Bridge

- F.1.15 The A92 Tay Bridge travel corridor extends from Leuchars in Fife and across the Firth of Tay to Dundee city centre. Other settlements within the corridor include Balmilo, Wormit and Newport-on-Tay. Key strategic road and rail links include the Tay Bridge Road Bridge/A92 and the Tay Rail Bridge.
- F.1.16 Environmental features located within the travel corridor include SSSI, SPA, SAC and RAMSAR designations associated with the Firth of Tay and Eden Estuary and Inner Tay Estuary.
- F.1.17 The Firth of Tay is at risk of coastal flooding, areas of surface water flooding are located throughout the corridor and individual water courses are also at risk of fluvial flooding.
- F.1.18 In terms of air quality, the Dundee AQMA covers an area within the city centre where levels of Nitrogen Dioxide and PM10 exceed UK Air Quality Strategy Objectives.
- F.1.19 The environmental designations and issues that have the potential to constrain future transport development in the travel corridor are reported below. When individual schemes, improvements and routes are being developed appropriate environmental assessment will be required to ensure adequate protection and mitigation for the reported features.

Table F.4: A92 Tay Bridge Corridor Environmental Sensitivities

A92 Tay Bridge		
SEA Objectives	Environmental Category/Issues	Reason for Designations
Air Quality and Amenity	Dundee AQMA	Area where air quality objectives are not being met and where there is a plan in place to improve air quality
Biodiversity, Geodiversity and Soil	Firth of Tay and Eden Estuary Special Areas of Conservation	Designated to avoid deterioration of the habitats of qualifying species
	Inner Tay Estuary Site of Special Scientific Interest	Designated to protect an area of biological importance
	Firth of Tay and Eden Estuary RAMSAR	Wetlands of International Importance
	Firth of Tay and Eden Estuary Special Protection Area	Designated to avoid deterioration of the habitats of qualifying species which extends to 20 bird species.
	Balmerino – Wormit Shore Site of Special Scientific Interest	Designated to protect an area of geological importance
	Ancient Woodland located throughout the corridor	Designated to protect and avoid the degradation of areas of ancient woodland
Water, Flood Risk and Resilience	Motray Water	Fluvial Flood Risk
	Firth of Tay	Fluvial Flood Risk
	Areas of Surface Water Flooding located throughout the corridor	Surface Water Flood Risk
Cultural Heritage	Listed Buildings located throughout the corridor	To preserve and enhance buildings of historical or architectural interest.
	Scheduled Monuments located throughout the corridor	To preserve Scotland's most significant sites and monuments
	Leuchars Conservation Area	To preserve and enhance areas of special architectural or historic interest.
	Newport-on-Tay Conservation Area	
	Dundee City Conservation Area	
	Blackness Conservation Area	
	University Conservation Area	
	West and Lanes Conservation Area	
	West End and Suburbs Conservation Area	
	Crescents Conservation Area	
Landscape	Earlshall Gardens and Designed Landscape	To ensure sites cultural significance can be taken into account in the planning process.
	Naughton Gardens and Designed Landscape	

## A91

F.1.20 The A91 corridor extends from Alva in the west to Muckhart in the east and encompasses towns including Sauchie, Tillicoultry, Devonside and Dollar. The primary road link within the corridor is the A91.

F.1.21 Environmental designations within the corridor include Gartmorn Dam Country Park and Local Nature Reserve and multiple SSSI. Areas of Ancient Woodland are satiated throughout the travel corridor.

F.1.22 Several water courses within the travel corridor, including the Rivers Forth and Devon, are at risk of fluvial flooding and there are a number of areas of surface water flood risk.

F.1.23 Environmental designations and issues that have the potential to constrain transport development in the corridor are reported below. When individual schemes, improvements and routes are being developed appropriate environmental assessment will be required to ensure adequate protection and mitigation for the reported features.

Table F.5: A91 Corridor Environmental Sensitivities

A91		
SEA Objectives	Environmental Category/Issues	Reason for Designations
Biodiversity, Geodiversity and Soil	Craig Leith and Myreton Hill Site of Special Scientific Interest	Designated to protect an area of biological importance
	Gartmorn Dam Country Park	Designated as a park in the countryside that affords opportunities to the public for enjoyment in the countryside or open-air recreation
	Gartmorn Dam Local Nature Reserve	Designated to protect land because of its special natural interest and/or educational value
	Gartmorn Site of Special Scientific Interest	Designated to protect an area of biological importance
	Mill Glen Site of Special Scientific Interest	Designated to protect an area of geological importance
	Dollar Glen Site of Special Scientific Interest	Designated to protect an area of biological and geological importance
	Ancient Woodland located throughout the corridor	Designated to protect and avoid the degradation of areas of ancient woodland
Water, Flood Risk and Resilience	River Devon	Fluvial Flood Risk
	Gartmorn Dam Country Park	Fluvial Flood Risk
	River Forth	Fluvial Flood Risk
	Areas of Surface Water Flooding located throughout the corridor	Surface Water Flood Risk
Cultural Heritage	Listed Buildings located throughout the corridor	To preserve and enhance buildings of historical or architectural interest.
	Scheduled Monuments located throughout the corridor	To preserve Scotland's most significant sites and monuments
	Tillicoultry Conservation Area	To preserve and enhance areas of special architectural or historic interest.
	Dollar Conservation Area	
	Muckhart Conservation Area	
Landscape	Cowden Japanese Style Garden Garden and Designed Landscape	To ensure sites cultural significance can be taken into account in the planning process.
	Castle Campbell Garden and Designed Landscape	

## West Fife and Clackmannanshire

F.1.24 The West Fife and Clackmannanshire travel corridor extends from Alloa in the west to Pattiesmark, adjacent to Dunfermline and Rosyth, in the east. It includes towns such as Clackmannan, Kincardine, Culross, Torryburn, Oakley, Cairneyhill and Charlestown. Strategic road links include the A985 to the south, A907 to the north and Kincardine Bridge.

F.1.25 Environmental designations within the travel corridor include the Firth of Forth and associated SSSI, SPA and RAMSAR designations. Torry Bay Local Nature Reserve is also located within the corridor alongside a number of areas of Ancient Woodland.

F.1.26 Water courses at risk of fluvial flooding include the River Forth and several smaller burns. Areas of surface water flood risk are located throughout the travel corridor.



F.1.27 Environmental designations and issues that have the potential to constrain transport development are reported below. When individual schemes, improvements and routes are being developed appropriate environmental assessment will be required to ensure adequate protection and mitigation for the reported features.

Table F.6: West Fife/Clackmannanshire Corridor Environmental Sensitivities

West Fife / Clackmannanshire		
SEA Objectives	Environmental Category/Issues	Reason for Designations
Biodiversity, Geodiversity and Soil	Firth of Forth RAMSAR	Wetlands of International Importance
	Firth of Forth Sites of Special Scientific Interest	Designated to protect an area of geological and geomorphological features, costal and terrestrial habitats, vascular plants, invertebrates, breeding, passage and wintering birds
	Firth of Forth Special Protection Area	Designated to avoid deterioration of the habitats of qualifying species which extends to 27 bird species.
	Torry Bay Local Nature Reserve	Designated to protect land because of its special natural interest and/or educational value
	Lockshaw Mosses Site of Special Scientific Interest	Designated to protect an area of biological
	Ancient Woodland located throughout the corridor	Designated to protect and avoid the degradation of areas of ancient woodland
Water, Flood Risk and Resilience	River Forth	Fluvial Flood Risk
	Brothie Burn	Fluvial Flood Risk
	Black Devon	Fluvial Flood Risk
	Canal Burn	Fluvial Flood Risk
	Moor Loch	Fluvial Flood Risk
	Bluther Burn	Fluvial Flood Risk
	Bourtree Burn	Fluvial Flood Risk
	Blair Burn	Fluvial Flood Risk
	Torry Burn	Fluvial Flood Risk
	Carnock Burn	Fluvial Flood Risk
	Lyne Burn	Fluvial Flood Risk
	Crossford Burn	Fluvial Flood Risk
	Baldrige Burn	Fluvial Flood Risk
	Area of Surface Water Flooding located throughout the corridor	Surface Water Flood Risk
Cultural Heritage	Listed Buildings located throughout the corridor	To preserve and enhance buildings of historical or architectural interest.
	Scheduled Monuments located throughout the corridor	To preserve Scotland's most significant sites and monuments
	Alloa Glebe Conservation Area	To preserve and enhance areas of special architectural or historic interest.
	Old Alloa Conservation Area	
	Clackmannan Conservation Area	
	Kincardine Conservation Area	
	Cullross Conservation Area	
	Charlestown Conservation Area	
	Limekilns Conservation Area	
	Pattiesmuir Conservation Area	
Landscape	Tulliallan Garden and Designed Landscape	To ensure sites cultural significance can be taken into account in the planning process.
	Dunimarle Castle Garden and Designed Landscape	
	Cullross Abbey House Garden and Designed Landscape	



	Valleyfield Garden and Designed Landscape	
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**Kincardine**

- F.1.28 The Kincardine travel corridor extends from Letham, north of Falkirk, to Kincardine, in west Fife. Key strategic road and links include the Kincardine Bridge Road Bridge/A985 and the Clackmannanshire Bridge/A876.
- F.1.29 Environmental features include the Firth of Forth and associated designations, Skinflats RSPB Reserve and areas of Ancient Woodland located throughout the corridor.
- F.1.30 The River Forth and other minor water courses are at risk of fluvial flooding and areas of surface water flood risk at located throughout the travel corridor.
- F.1.31 Environmental designations and issues that have the potential to constrain transport development in the corridor are reported below. When individual schemes, improvements and routes are being developed appropriate environmental assessment will be required to ensure adequate protection and mitigation for the reported features.

Table F.7: Kincardine Corridor Environmental Sensitivities

Kincardine		
SEA Objectives	Environmental Category/Issues	Reason for Designations
Biodiversity, Geodiversity and Soil	Firth of Forth RAMSAR	Wetlands of International Importance
	Skinflats RSPB Reserve	Designated to create, protect and manage important habitats for protected species of plants and wildlife, particularly birds
	Firth of Forth Special Protection Area	Designated to avoid deterioration of the habitats of qualifying species which extends to 27 bird species.
	Firth of Forth Site of Special Scientific Interest	Designated to protect an area of geological and geomorphological features, costal and terrestrial habitats, vascular plants, invertebrates, breeding, passage and wintering birds
	Ancient Woodland located throughout the corridor	Designated to protect and avoid the degradation of areas of ancient woodland
Water, Flood Risk and Resilience	River Forth	Fluvial Flood Risk
	Canal Burn	Fluvial Flood Risk
	Pow Burn	Fluvial Flood Risk
	Muirdyke Burn	Fluvial Flood Risk
	Area of Surface Water Flooding located throughout the corridor	Surface Water Flood Risk
Cultural Heritage	Listed Buildings located throughout the corridor	To preserve and enhance buildings of historical or architectural interest.
	Scheduled Monuments located throughout the corridor	To preserve Scotland's most significant sites and monuments
	Kincardine Conservation Area	To preserve and enhance areas of special architectural or historic interest.
	Letham Conservation Area	

**M80**

- F.1.32 Extending from Banknock to the southwest to Stenhousemuir to the northeast, the M80 corridor incorporates towns such as Denny, Bonnybridge, Dunipace, Larbert and Torwood. Strategic road routes within the corridor include the M80, M876 and M9 Junction 8 (Kinnaird Interchange). Notably, Forth Valley Royal Hospital is also located within the travel corridor.
- F.1.33 Bonnyfield Nature Park Local Nature Reserve and areas of Ancient Woodland are the main environmental designations within the travel corridor.
- F.1.34 Water courses at risk of fluvial flooding include the River Carron and Forth and Clyde Canal as well as several small burns. Areas of surface water flood risk are present throughout the corridor.
- F.1.35 In terms of air quality, the Falkirk Centre AQMA covers an area encompassing part of Falkirk town centre where levels of Nitrogen Dioxide and PM10 exceed UK Air Quality Strategy Objectives. Further, the Banknock and Haggs AQMA covers an area encompassing the junction of the A803 and M80 where levels of Nitrogen Dioxide exceed UK Air Quality Strategy Objectives.

F.1.36 Environmental designations and issues that have the potential to constrain transport development in the corridor are reported below. When individual schemes, improvements and routes are being developed appropriate environmental assessment will be required to ensure adequate protection and mitigation for the reported features.

Table F.8: M80 Corridor Environmental Sensitivities

M80		
SEA Objectives	Environmental Category/Issues	Reason for Designations
Air Quality and Amenity	Falkirk Centre AQMA No 5 Order 2011	Area where air quality objectives are not being met and where there is a plan in place to improve air quality
	Banknock and Haggs AQMA	
Biodiversity, Geodiversity and Soil	Bonnyfield Nature Park Local Nature Reserve	Designated to protect land because of its special natural interest and/or educational value
	Ancient Woodland located throughout the corridor	Designated to protect and avoid the degradation of areas of ancient woodland
Water, Flood Risk and Resilience	Tor Burn	Fluvial Flood Risk
	Pow Burn	Fluvial Flood Risk
	River Carron	Fluvial Flood Risk
	Little Denny Burn	Fluvial Flood Risk
	Bonny Water	Fluvial Flood Risk
	Forth and Clyde Canal	Fluvial Flood Risk
	Avon Burn	Fluvial Flood Risk
	Area of Surface Water Flooding located throughout the corridor	Surface Water Flood Risk
Cultural Heritage	Listed Buildings located throughout the corridor	To preserve and enhance buildings of historical or architectural interest.
	Scheduled Monuments located throughout the corridor	To preserve Scotland's most significant sites and monuments
	Antonine Wall World Heritage Site Buffer Zone	Designated to protect and recognise sites of Outstanding Universal Value
	Allandale Cottages Conservation Area	To preserve and enhance areas of special architectural or historic interest.

M9

F.1.37 The M9 travel corridor extends from Grangemouth in the west to Edinburgh Park, on the periphery of Edinburgh, in the east and encompasses towns such as Linlithgow, Winchburgh, Kirkliston and Newbridge. Key road routes include the M9 and A8 with strategic rail routes connecting Edinburgh and Glasgow situated along the travel corridor. Notably, other critical pieces of transport infrastructure include connections to Edinburgh airport and the Port of Grangemouth.

F.1.38 Environmental features within the corridor include the Firth of Forth and associated designations and Skinflats RSPB Reserve. Areas of Ancient Woodland are also located within the corridor.

F.1.39 The Firth of Forth is at risk of coastal flooding and water courses including the River Carron, Avon, Almond and Union Canal are at risk of fluvial flooding. Areas of surface water flood risk are located throughout the corridor.

F.1.40 In terms of air quality, the Grangemouth AQMA covers an area encompassing Grangemouth petrochemical complex and adjacent areas where levels of Sulphur Dioxide exceed UK Air Quality Strategy Objectives. The Linlithgow AQMA incorporates Linlithgow and Linlithgow Bridge where levels of PM10 and Nitrogen Oxide exceed UK Air Quality Strategic Objectives. The Newton AQMA covers all of Newton where levels of PM10 exceed UK Air Quality Strategic Objectives. Finally, the Glasgow Road AQMA covers a section of the A8 Glasgow Road from Newbridge Roundabout extending east.

F.1.41 Environmental designations and issues that have the potential to constrain transport development in the corridor are reported below. When individual schemes, improvements and routes are being developed appropriate environmental assessment will be required to ensure adequate protection and mitigation for the reported features.

Table F.9: M9 Corridor Environmental Sensitivities

M9		
SEA Objectives	Environmental Category/Issues	Reason for Designations
Air Quality and Amenity	Grangemouth AQMA	

	Linlithgow AQMA	Area where air quality objectives are not being met and where there is a plan in place to improve air quality
	Newton AQMA	
	Glasgow Road AQMA	
Biodiversity, Geodiversity and Soil	Firth of Forth Site of Special Scientific Interest	Designated to protect an area of geological and geomorphological features, costal and terrestrial habitats, vascular plants, invertebrates, breeding, passage and wintering birds
	Firth of Forth RAMSAR	Wetlands of International Importance
	Firth of Forth Special Protection Area	Designated to avoid deterioration of the habitats of qualifying species which extends to 27 bird species.
	Skinflats RSPB Reserve	Designated to create, protect and manage important habitats for protected species of plants and wildlife, particularly birds
	Ancient Woodland located throughout the corridor	Designated to protect and avoid the degradation of areas of ancient woodland
Water, Flood Risk and Resilience	Firth of Forth	Coastal Flood Risk
	River Carron	Fluvial Flood Risk
	Grange Burn	Fluvial Flood Risk
	Ladysmill Burn	Fluvial Flood Risk
	Westquarter Burn	Fluvial Flood Risk
	River Avon	Fluvial Flood Risk
	Polmont Burn	Fluvial Flood Risk
	Millhall Burn	Fluvial Flood Risk
	Linlithgow Loch	Fluvial Flood Risk
	Union Canal	Fluvial Flood Risk
	Pardovan Burn	Fluvial Flood Risk
	Errick Burn	Fluvial Flood Risk
	Midhope Burn	Fluvial Flood Risk
	Swin Burn	Fluvial Flood Risk
	Niddry Burn	Fluvial Flood Risk
	River Almond	Fluvial Flood Risk
	Brox Burn	Fluvial Flood Risk
	Areas of Surface Water Flood Risk located throughout the corridor	Surface Water Flood Risk
Cultural Heritage	Listed Buildings located throughout the corridor	To preserve and enhance buildings of historical or architectural interest.
	Scheduled Monuments located throughout the corridor	To preserve Scotland's most significant sites and monuments
	Battle of Linlithgow Bridge Battlefield	Designated to protect and recognise Battlefields of cultural significance which have historical association, physical and/or archaeological remains and a battlefield landscape
	Linlithgow – Upper Linlithgow and Union Canal Conservation Area	To preserve and enhance areas of special architectural or historic interest.
	Linlithgow Palace and High Street Conservation Area	
	Kirkliston Conservation Area	
Landscape	House of the Bins Gardens and Designed Landscapes	To ensure sites cultural significance can be taken into account in the planning process.
	Hopetoun House Gardens and Designed Landscapes	
	Dundas Castle Gardens and Designed Landscapes	
	Newliston Gardens and Designed Landscapes	
	Millburn Tower Gardens and Designed Landscapes	

## A801

- F.1.42 Extending from Armadale and Whiteside in the south to M9 Junction 4 in the north, the travel corridor includes towns such as Westfield, Torphichen and Maddiston. Strategic road links within the corridor include the A89, A801 and M9.
- F.1.43 Muiravonside Country Park and areas of Ancient Woodland are the main environmental features throughout the corridor.
- F.1.44 The River Avon, Union Canal and multiple small burns are at risk of fluvial flooding. Areas of surface water flood risk are located throughout the travel corridor.
- F.1.45 Environmental designations and issues that have the potential to constrain transport development in the corridor are reported below. When individual schemes, improvements and routes are being developed appropriate environmental assessment will be required to ensure adequate protection and mitigation for the reported features.

Table F.10: A801 Corridor Environmental Sensitivities

A801		
SEA Objectives	Environmental Category/Issues	Reason for Designations
Biodiversity, Geodiversity and Soil	Muiravonside Country Park	Designated as a park in the countryside that affords opportunities to the public for enjoyment in the countryside or open-air recreation
	Ancient Woodland located throughout the corridor	Designated to protect and avoid the degradation of areas of ancient woodland
Water, Flood Risk and Resilience	Gilston Burn	Fluvial Flood Risk
	Union Canal	
	Manuel Burn	
	Bowhouse Burn	
	River Avon	
	Logie Water	
	Couston Water	
	Bridghouse Burn	
	Barauchlaw Burn	
	Areas of Surface Water Flood Risk located throughout the corridor	Surface Water Flood Risk
Cultural Heritage	Listed Buildings located throughout the corridor	To preserve and enhance buildings of historical or architectural interest.
	Scheduled Monuments located throughout the corridor	To preserve Scotland's most significant sites and monuments
	Battle of Linlithgow Bridge Battlefield	Designated to protect and recognise Battlefields of cultural significance which have historical association, physical and/or archaeological remains and a battlefield landscape
	Torphichen Conservation Area	To preserve and enhance areas of special architectural or historic interest

## M8

- F.1.46 The M8 travel corridor spans from Bauldhouse in the west to the A720 (Edinburgh City Bypass) in the east and encompasses Whitburn, Blackburn, Bathgate, Livingston, Mid Calder, East Calder, Uphall, Broxburn, Ratho, Balerno, Curry and Baberton. Strategic road and rail links within the travel corridor include the M8, A71, A8 and several train stations such as Livingston North and South, Uphall and Bathgate. In addition, the travel corridor provides access to Edinburgh Airport.
- F.1.47 Easter Inch Moss and Seafeld Law Local Nature Reserve and Almondell and Calderwood Country Park are the primary environmental features within the travel corridor. Area of Ancient Woodland are located throughout the corridor.
- F.1.48 Water courses at risk of fluvial flooding include the River Almond, Union Canal and Water of Leith as well as several minor burns. Areas of surface water flood risk are located throughout the travel corridor.
- F.1.49 In terms of air quality, the Broxburn AQMA covers an area incorporating West Main Street eastwards from, but not including the junction with School Road, Buchan Lane (part), Straiton Road (part), Greendykes Road (part), Strathbrock Place (part), East Main Street, Primrose Court (part), Easter Road (part), Dunnett Way (part), Hunter Gardens, A89 eastwards from Hunter Gardens to western boundary of service station, Broxburn where levels of

Sulphur Dioxide exceed UK Air Quality Strategy Objectives. The Glasgow Road AQMA covers a section of the A8 Glasgow Road from Newbridge Roundabout extending east where levels of Nitrogen Dioxide exceed UK Air Quality Strategy Objectives.

F.1.50 Environmental designations and issues that have the potential to constrain transport development in the corridor are reported below. When individual schemes, improvements and routes are being developed appropriate environmental assessment will be required to ensure adequate protection and mitigation for the reported features.

Table F.11: M8 Corridor Environmental Sensitivities

M8		
SEA Objectives	Environmental Category/Issues	Reason for Designations
Air Quality and Amenity	Broxburn AQMA	Area where air quality objectives are not being met and where there is a plan in place to improve air quality
	Glasgow Road AQMA	
Biodiversity, Geodiversity and Soil	Skolie Burn Site of Special Scientific Interest	Designated to protect an area of geological and biological interest
	Easter Inch Moss and Seafeld Law Local Nature Reserve	Designated to protect land because of its special natural interest and/or educational value
	East Kirkton Quarry Site of Special Scientific Interest	Designated to protect an area of geological interest
	Petershill Site of Special Scientific Interest	Designated to protect an area of geological and biological interest
	Tailend Moss Site of Special Scientific Interest	Designated to protect an area of biological interest
	Calderwood Site of Special Scientific Interest	Designated to protect an area of biological interest
	Almondell and Calderwood Country Park	Designated as a park in the countryside that affords opportunities to the public for enjoyment in the countryside or open-air recreation
	Ancient Woodland located throughout the corridor	Designated to protect and avoid the degradation of areas of ancient woodland
Water, Flood Risk and Resilience	River Almond	Fluvial Flood Risk
	White Burn	Fluvial Flood Risk
	Bickerton Burn	Fluvial Flood Risk
	Breich Water	Fluvial Flood Risk
	Harwood Water	Fluvial Flood Risk
	Bathgate Water	Fluvial Flood Risk
	Bog Burn	Fluvial Flood Risk
	Foulshiels Burn	Fluvial Flood Risk
	West Calder Burn	Fluvial Flood Risk
	Killandean Burn	Fluvial Flood Risk
	Lochshot Burn	Fluvial Flood Risk
	Beugh Burn	Fluvial Flood Risk
	Union Canal	Fluvial Flood Risk
	Ryal Burn	Fluvial Flood Risk
	Caw Burn	Fluvial Flood Risk
	Gogar Burn	Fluvial Flood Risk
	Water of Leith	Fluvial Flood Risk
	Areas of Surface Water Flood Risk located throughout the corridor	Surface Water Flood Risk
Cultural Heritage	Listed Buildings located throughout the corridor	To preserve and enhance buildings of historical or architectural interest.
	Scheduled Monuments located throughout the corridor	To preserve Scotland's most significant sites and monuments
	Bangour Village Hospital Conservation Area	To preserve and enhance areas of special architectural or historic interest

	Livingston Village Conservation Area	
	Mid Calder Conservation Area	
	Uphall Conservation Area	
	Broxburn Conservation Area	
	Kirknewton Conservation Area	
	Ratho Conservation Area	
	Balerno Conservation Area	
	Currie Conservation Area	
	Juniper Green Conservation Area	
Landscape	Hatton House Garden and Designed Landscape	To ensure sites cultural significance can be taken into account in the planning process.
	Malleny Garden and Designed Landscape	

Edinburgh Orbital

- F.1.51 Extending from Barnton to Newcraighall, the travel corridor follows the route of the A720 (Edinburgh City Bypass) and includes a number of strategic road links including the A90, A902, Gogar Roundabout, Hermiston Gate Roundabout, Sheriffhall Roundabout, Old Craighall Roundabout and the A1.
- F.1.52 Environmental designations within the corridor include the Cammo Estate LNR, Straiton Pond LNR and Bonally Country Park. Areas of Ancient Woodland located throughout the corridor.
- F.1.53 Water courses at risk of fluvial flooding include the River Almond, River North Esk, Union Canal and Water of Leith and a number of areas at risk of surface water flooding are located throughout the travel corridor.
- F.1.54 Environmental designations and issues that have the potential to constrain transport development in the corridor are reported below. When individual schemes, improvements and routes are being developed appropriate environmental assessment will be required to ensure adequate protection and mitigation for the reported features.

Table F.12: Edinburgh Orbital Corridor Environmental Sensitivities

Edinburgh Orbital		
SEA Objectives	Environmental Category/Issues	Reason for Designations
Biodiversity, Geodiversity and Soil	Cammo Estate Local Nature Reserve	Designated to protect land because of its special natural interest and/or educational value
	Bonally Country Park	Designated as a park in the countryside that affords opportunities to the public for enjoyment in the countryside or open-air recreation
	Straiton Pond Local Nature Reserve	Designated to protect land because of its special natural interest and/or educational value
	Dalkeith Oakwood Site of Special Scientific Interest	Designated to protect an area of biological interest
	Ancient Woodland located throughout the corridor	Designated to protect and avoid the degradation of areas of ancient woodland
Water, Flood Risk and Resilience	River Avon	Fluvial Flood Risk
	Gogar Burn	
	Loch Ross	
	Union Canal	
	Water of Leith	
	Bonally Burn	
	Howden Burn	
	Burdiehouse Burn	
	Park Burn	
	Dean Burn	

	River North Esk	
	Areas of Surface Water Flood Risk located throughout the corridor	Surface Water Flood Risk
Cultural Heritage	Listed Buildings Located throughout the corridor	To preserve and enhance buildings of historical or architectural interest.
	Scheduled Monuments located throughout the corridor	To preserve Scotland's most significant sites and monuments
	Battle of Pinkie Battlefield	Designated to protect and recognise Battlefields of cultural significance which have historical association, physical and/or archaeological remains and a battlefield landscape
	Swanston Conservation Area	To preserve and enhance areas of special architectural or historic interest
	Morton Mains Conservation Area	
	Dalkeith House and Park Conservation Area	
Landscape	Millburn Tower Gardens and Designed Landscape	To ensure sites cultural significance can be taken into account in the planning process.
	Dalkeith House (Palace) Gardens and Designated Landscape	

## A1

F.1.55 The A1 travel corridor extends from Musselburgh, east of Edinburgh, to the Scotland-England Border. It includes towns such as Prestonpans, Tranent, Haddington, North Berwick, Dunbar and Eyemouth. Strategic road and rail links within the corridor include the A1, A199 and the East Coast Mainline.

F.1.56 Environmental features of prominence include the Firth of Forth and associated designations as well as multiple SSSI, SPA, SAC and areas of Ancient Woodland located throughout the corridor.

F.1.57 The Firth of Forth is at risk of coastal flooding and water courses including the River Esk and Tyne are at risk of fluvial flooding. Areas of surface water flood risk are situated across the travel corridor.

F.1.58 In terms of air quality, The Musselburgh High Street AQMA incorporates High Street (A199) from its junction with Newbigging and extending westwards to the junction with Bridge Street and Mall Avenue where levels of Nitrogen Dioxide exceed UK Air Quality Strategy Objectives.

F.1.59 Environmental designations and issues that have the potential to constrain transport development in the corridor are reported below. When individual schemes, improvements and routes are being developed appropriate environmental assessment will be required to ensure adequate protection and mitigation for the reported features.

Table F.13: A1 Corridor Environmental Sensitivities

A1		
SEA Objectives	Environmental Category/Issues	Reason for Designations
Air Quality and Amenity	Musselburgh High Street AQMA	Area where air quality objectives are not being met and where there is a plan in place to improve air quality
	Firth of Forth RAMSAR	Wetlands of International Importance
Biodiversity, Geodiversity and Soil	Firth of Forth Site of Special Scientific Interest	Designated to protect an area of geological and geomorphological features, costal and terrestrial habitats, vascular plants, invertebrates, breeding, passage and wintering birds
	Firth of Forth Special Protection Area	Designated to avoid deterioration of the habitats of qualifying species which extends to 27 bird species.
	Aberlady Bay Local Nature Reserve	Designated to protect land because of its special natural interest and/or educational value
	Garleton Hills Site of Special Scientific Interest	Designated to protect an area of geological interest
	Traprain Law Site of Special Scientific Interest	Designated to protect an area of geological and biological interest
	North Berwick Law Site of Special Scientific Interest	Designated to protect an area of biological
	John Muir Country Park	Designated as a park in the countryside that affords opportunities to the public for enjoyment in the countryside or open-air recreation
	Barns Ness Coast Site of Special Scientific Interest	Designated to protect an area of geological and biological interest
	Pease Bay Coast Site of Special Scientific Interest	Designated to protect an area of biological and geological interest
	Pease Bridge Glen Site of Special Scientific Interest	Designated to protect an area of biological interest



	Old Cambus Quarry Site of Special Scientific Interest	Designated to protect an area of geological interest
	Siccar Point Site of Special Scientific Interest	Designated to protect an area of geological interest
	St Abb's Head to Fast Castle Special Area of Conservation	Designated to avoid deterioration of the vegetated sea cliffs
	St Abb's Head to Fast Castle Special Protection Area	Designated to avoid deterioration of the habitats of qualifying species
	St Abb's Head to Fast Castle Site of Special Scientific Interest	Designated to protect an area of biological and geological interest
	Coldingham Common, Long Moss Site of Special Scientific Interest	Designated to protect an area of biological interest
	Drone Moss Site of Special Scientific Interest	Designated to protect an area of biological interest
	St Abb's Head National Nature Reserve	Designated to protect land because of its special natural interest and for nationally or internationally important habitats and species
	Coldingham Loch Site of Special Scientific Interest	Designated to protect an area of biological interest
	Berwickshire and North Northumberland Coast Special Area of Conservation	Designated to avoid deterioration of the habitats of qualifying species
	Berwickshire Coast (Intertidal) Site of Special Scientific Interest	Designated to protect an area of biological interest
	Burnmouth Coast Site of Special Scientific Interest	Designated to protect an area of biological and geological interest
	Foulden Burn Site of Special Scientific Interest	Designated to protect an area of biological and geological interest
	River Tweed Special Area of Conservation	Designated to avoid deterioration of the habitats of qualifying species
	Whiteadder Water Site of Special Scientific Interest	Designated to protect an area of geological interest
	River Tweed Site of Special Scientific Interest	Designated to protect an area of biological interest
	Abbey St Bothans Woodlands Site of Special Scientific Interest	Designated to protect an area of biological interest
	Ancient Woodland located throughout the corridor	Designated to protect and avoid the degradation of areas of ancient woodland
Water, Flood Risk and Resilience	Firth of Forth	Coastal Flood Risk
	River Esk	Fluvial Flood Risk
	River Tyne	Fluvial Flood Risk
	Biel Water	Fluvial Flood Risk
	Hedderwick Burn	Fluvial Flood Risk
	Brox Burn	Fluvial Flood Risk
	Eye Water	Fluvial Flood Risk
	Hill Burn	Fluvial Flood Risk
	Ale Burn	Fluvial Flood Risk
	Areas of Surface Water Flood Risk located throughout the corridor	Surface Water Flood Risk
Cultural Heritage	Listed buildings located throughout the corridor	To preserve and enhance buildings of historical or architectural interest.
	Scheduled Monuments located throughout the corridor	To preserve Scotland's most significant sites and monuments
	Battle of Pinkie Battlefield	Designated to protect and recognise Battlefields of cultural significance which have historical association, physical and/or archaeological remains and a battlefield landscape
	Battle of Prestonpans Battlefield	
	Musselburgh Conservation Area	To preserve and enhance buildings of historical or architectural interest.
	Inveresk Conservation Area	
	Preston Conservation Area	
	Tranent Conservation Area	
	Harlawhill Prestonpans Conservation Area	
	Cockenzie and Port Seton Conservation Area	
	Haddington Conservation Area	



	Aberlady Conservation Area	
	Gullane Conservation Area	
	Drem Conservation Area	
	Athelstaneford Conservation Area	
	Dirleton Conservation Area	
	North Berwick Conservation Area	
	Whitekirk Conservation Area	
	East Linton Conservation Area	
	Tynninghame Conservation Area	
	Stenton Conservation Area	
	West Barns Conservation Area	
	Belhaven Conservation Area	
	Dunbar Conservation Area	
	Spott Conservation Area	
	Innerwick Conservation Area	
	Oldhamstocks Conservation Area	
	Cockburnspath Conservation Area	
	St Abbs Conservation Area	
	Coldingham Conservation Area	
	Eyemouth Conservation Area	
	Ayton Conservation Area	
	Foulden Conservation Area	
Landscape	Dalkeith House (Palace) Gardens and Designed Landscape	To ensure sites cultural significance can be taken into account in the planning process.
	Pinkie House Garden and Designed Landscape	
	Cockenzie House Garden and Designed Landscape	
	Seton House (Palace) Garden and Designed Landscape	
	Gosford House Garden and Designed Landscape	
	Luffness Garden and Designed Landscape	
	Lennoxlove Garden and Designed Landscape	
	St Mary's Pleasance (Haddington Garden) Garden and Designed Landscape	
	Stevenson House Garden and Designed Landscape	
	Grey Walls (High Walls) Garden and Designed Landscape	
	Dirleton Castle Garden and Designed Landscape	
	Balgone House Garden and Designed Landscape	
	Leuchie Garden and Designed Landscape	

## A701

F.1.60 Extending from Loanhead in the north to Carlops in the south, the A701 travel corridor encompasses towns such as Bilston, Roslin, Auchendinny and Penicuik. Strategic road links in the corridor include the A701 and A702.

F.1.61 Environmental features within the corridor include Roslin Glen Country Park and a number of SSSI and areas of ancient woodland located throughout.

F.1.62 Water courses at risk of fluvial flooding include the River North Esk and multiple small burns. Areas of surface water flood risk are located across the travel corridor.

F.1.63 Environmental designations and issues that have the potential to constrain transport development in the corridor are reported below. When individual schemes, improvements and routes are being developed appropriate environmental assessment will be required to ensure adequate protection and mitigation for the reported features.

Table F.14: A701 Corridor Environmental Sensitivities

A701		
SEA Objectives	Environmental Category/Issues	Reason for Designations
Biodiversity, Geodiversity and Soil	Bilston Burn Site of Special Scientific Interest	Designated to protect an area of biological and geological interest
	Hewan Bank Site of Special Scientific Interest	Designated to protect an area of geological interest
	Roslin Glen Site of Special Scientific Interest	Designated to protect an area of biological interest
	Roslin Glen Country Park	
	Black Burn Site of Special Scientific Interest	Designated to protect an area of biological interest
	Carlops Meltwater Channels Site of Special Scientific Interest	Designated to protect an area of geological interest
	Auchencorth Moss Site of Special Scientific Interest	Designated to protect an area of biological interest
	Ancient Woodland located throughout the corridor	Designated to protect and avoid the degradation of areas of ancient woodland
Water, Flood Risk and Resilience	Bilston Burn	Fluvial Flood Risk
	River North Esk	Fluvial Flood Risk
	Boghall Burn	Fluvial Flood Risk
	Glencourse Burn	Fluvial Flood Risk
	Loon Burn	Fluvial Flood Risk
	Black Burn	Fluvial Flood Risk
	Braidwood Burn	Fluvial Flood Risk
	Areas of Surface Water Flood Risk located throughout the corridor	Surface Water Flood Risk
Cultural Heritage	Listed Buildings located throughout the corridor	To preserve and enhance buildings of historical or architectural interest.
	Scheduled Monuments located throughout the corridor	To preserve Scotland's most significant sites and monuments
	Battle of Rullion Green Battlefield	Designated to protect and recognise Battlefields of cultural significance which have historical association, physical and/or archaeological remains and a battlefield landscape
	Mavisbank Conservation Area	To preserve and enhance buildings of historical or architectural interest.
	Battle of Roslin Battlefield	
	Roslin Conservation Area	
	Howgate Conservation Area	
Landscape	Mavisbank Garden and Designed Landscape	To ensure sites cultural significance can be taken into account in the planning process.
	Penicuik Conservation Area	
	Roslin Glen and Hawthornden Castle Gardens and Designed Landscapes	
	Penicuik Gardens and Designed Landscapes	
	Newhall Garden and Designed Landscapes	

### A703

F.1.64 The A703 travel corridor extends from Leadburn to Traquair. It includes towns such as Eddleston, Peebles, Cardona, Innerleithen and Walkerburn. The main road links within the corridor include the A703 and A72.

F.1.65 Environmental features include the River Tweed and associated designations, a number of SSSI and areas of Ancient Woodland.

F.1.66 The River Tweed and other small burns are at risk of fluvial flood risk and areas of surface water flood risk are located throughout the travel corridor.

F.1.67 Environmental designations and issues that have the potential to constrain transport development in the corridor are reported below. When individual schemes, improvements and routes are being developed appropriate environmental assessment will be required to ensure adequate protection and mitigation for the reported features.

Table F.15: A703 Corridor Environmental Sensitivities

A703		
SEA Objectives	Environmental Category/Issues	Reason for Designations
Biodiversity, Geodiversity and Soil	Dundreich Plateau Site of Special Scientific Interest	Designated to protect an area of biological interest
	River Tweed Special Area of Conservation	Designated to avoid deterioration of the habitats of qualifying species
	River Tweed Site of Special Scientific Interest	Designated to protect an area of biological interest
	Nut Wood Site of Special Scientific Interest	Designated to protect an area of biological interest
	Plora Wood Site of Special Scientific Interest	Designated to protect an area of biological interest
	Ancient Woodland located throughout the corridor	Designated to protect and avoid the degradation of areas of ancient woodland
Water, Flood Risk and Resilience	Eddleston Water	Fluvial Flood Risk
	Shiplaw Burn	Fluvial Flood Risk
	Longcote Burn	Fluvial Flood Risk
	River Tweed	Fluvial Flood Risk
	Soonhope Burn	Fluvial Flood Risk
	Haystoun Burn	Fluvial Flood Risk
	Crookston Burn	Fluvial Flood Risk
	Quair Water	Fluvial Flood Risk
	Leithen Water	Fluvial Flood Risk
	Walker Burn	Fluvial Flood Risk
	Areas of Surface Water Flood Risk located throughout the corridor	Surface Water Flood Risk
Cultural Heritage	Listed Buildings located throughout the corridor	To preserve and enhance buildings of historical or architectural interest.
	Scheduled Monuments located throughout the corridor	To preserve Scotland's most significant sites and monuments
	Innerleithen Conservation Area	To preserve and enhance buildings of historical or architectural interest.
	Pebbles Conservation Area	
	Eddleston Conservation Area	
Landscape	Portmore Gardens and Designed Landscapes	To ensure sites cultural significance can be taken into account in the planning process.
	Kailzie Gardens and Designed Landscapes	
	Traquair House Gardens and Designed Landscapes	

## A72

F.1.68 Extending from Blyth Bridge to Lyne Station on the River Tweed, the A72 travel corridor is a strategic road link for the Scottish Borders.

F.1.69 Environmental features include the River Tweed and Upper Tweeddale National Scenic Area. Areas of Ancient Woodland are located throughout the travel corridor.

F.1.70 The River Tweed and other small burns are at risk of fluvial flood risk and areas of surface water flood risk are situated across the travel corridor.

F.1.71 Environmental designations and issues that have the potential to constrain transport development in the corridor are reported below. When individual schemes, improvements and routes are being developed appropriate environmental assessment will be required to ensure adequate protection and mitigation for the reported features.

Table F.16: A72 Corridor Environmental Sensitivities

A72		
SEA Objectives	Environmental Category/Issues	Reason for Designations
Biodiversity, Geodiversity and Soil	Upper Tweeddale National Scenic Area	Designated to protect an area with several special qualities including diverse scenery, historical continuity, green pastoral valleys, expansive hills with open views and a variety of woodland and trees.
	River Tweed Special Area of Conservation	Designated to avoid deterioration of the habitats of qualifying species
	River Tweed Site of Special Scientific Interest	Designated to protect an area of biological interest
	Ancient Woodland located throughout the corridor	Designated to protect and avoid the degradation of areas of ancient woodland
Water, Flood Risk and Resilience	Tarth Water	Fluvial Flood Risk
	Lyne Water	Fluvial Flood Risk
	River Tweed	Fluvial Flood Risk
	Areas of Surface Water Flood Risk located throughout the corridor	Surface Water Flood Risk
Cultural Heritage	Listed Buildings located throughout the corridor	To preserve and enhance buildings of historical or architectural interest.
	Scheduled Monuments located throughout the corridor	To preserve Scotland's most significant sites and monuments

A7

- F.1.72 The A7 travel corridor extends from Danderhall, south east of Edinburgh, to Gorebridge in Midlothian. It includes towns such as Dalkeith, Bonnyrigg, Newbattle and Newtongrange. Strategic road and rail links include the A7, Sheriffhall Roundabout/A720 and the Borders Railway.
- F.1.73 The primary environmental feature within the corridor is the Dalkeith Oakwood SSSI. Areas of Ancient Woodland are located throughout the travel corridor.
- F.1.74 Water courses at risk of fluvial flooding include the River Esk (North and South) and small burns. Areas of surface water flood risk are located across the travel corridor.
- F.1.75 Environmental designations and issues that have the potential to constrain transport development in the corridor are reported below. When individual schemes, improvements and routes are being developed appropriate environmental assessment will be required to ensure adequate protection and mitigation for the reported features.

Table F.17: A7 Corridor Environmental Sensitivities

A7		
SEA Objectives	Environmental Category/Issues	Reason for Designations
Biodiversity, Geodiversity and Soil	Dalkeith Oakwood Site of Special Scientific Interest	Designated to protect an area of biological interest`
	Ancient Woodland located throughout the corridor	Designated to protect and avoid the degradation of areas of ancient woodland
Water, Flood Risk and Resilience	River North Esk	Fluvial Flood Risk
	River South Esk	Fluvial Flood Risk
	Dalhousie Burn	Fluvial Flood Risk
	Gore Water	Fluvial Flood Risk
	Areas of Surface Water Flood Risk located throughout the corridor	Surface Water Flood Risk
Cultural Heritage	Listed Buildings located throughout the site	To preserve and enhance buildings of historical or architectural interest.
	Scheduled Monuments located throughout the site	To preserve Scotland's most significant sites and monuments
	Dalkeith House and Park Conservation Area	To preserve and enhance buildings of historical or architectural interest.
	Newbattle Conservation Area	

	Eskbank and Ironmills Conservation Area	
	Dalhousie and Cockpen Conservation Area	
	Newtongrange Conservation Area	
	Temple and Arniston Conservation Area	
	Gorebridge Conservation Area	
Landscape	Dalkeith House (Palace) Gardens and Designed Landscape	To ensure sites cultural significance can be taken into account in the planning process.
	Newbattle Abbey Gardens and Designed Landscapes	
	Meville Castle Gardens and Designed Landscapes	
	Arniston Gardens and Designed Landscapes	

#### A7-68

- F.1.76 Extending from Pathhead in the north to Hawick and Jedburgh in the south, the travel corridor includes towns and villages such as Fala, Heriot, Stow, Lauder, Galashiels, Melrose, Selkirk and St Boswells. Strategic road and rail links within the corridor include the A7, A68, A698 and the Borders Railway.
- F.1.77 Environmental features within the travel corridor include Vogrie Country Park, the River Tweed and Eildon and Leaderfoot National Scenic Area as well as several SSSI, SPA, SAC and areas of Ancient Woodland located throughout the travel corridor.
- F.1.78 Water courses at risk of fluvial flooding include the River Tweed and other small burns. Areas of Ancient Woodland are located throughout the travel corridor.
- F.1.79 Environmental designations and issues that have the potential to constrain transport development in the corridor are reported below. When individual schemes, improvements and routes are being developed appropriate environmental assessment will be required to ensure adequate protection and mitigation for the reported features.

Table F.18: A7 – A68 Corridor Environmental Sensitivities

A7 – A68		
Biodiversity, Geodiversity and Soil	Vogrie Country Park	Designated as a park in the countryside that affords opportunities to the public for enjoyment in the countryside or open-air recreation
	Circhton Glen Site of Special Scientific Interest	Designated to protect an area of biological interest
	Fala Flow RAMSAR	Wetlands of International Importance
	Fala Flow Special Protection Area	Designated to avoid the deterioration of winter habitats of qualifying bird species.
	Fala Flow Site of Special Scientific Interest	Designated to protect an area of biological interest
	Airhouse Wood Site of Special Scientific Interest	Designated to protect an area of biological interest
	River Tweed Special Area of Conservation	Designated to avoid deterioration of the habitats of qualifying species (active raised bogs and degraded raised bog)
	Threepwood Moss Special Area of Conservation	Designated to avoid deterioration of qualifying interests
	Threepwood Moss Site of Special Scientific Interest	Designated to protect an area of biological interest
	Colmsliehill Junipers Site of Special Scientific Interest	Designated to protect an area of biological interest
	Gordon Moss Site of Special Scientific Interest	Designated to protect an area of biological interest
	Avenel Hill and Gorge Site of Special Scientific Interest	Designated to protect an area of biological interest
	Gattonside Moss Site of Special Scientific Interest	Designated to protect an area of biological interest
	Eildon and Leaderfoot National Scenic Area	Designated to protect an area with several special qualities including landscape diversity, views from hill summits, richly wooded scene, array of historic buildings and the River Tweed
	Bemersyde Moss Site of Special Scientific Interest	Designated to protect an area of biological interest
	Glenkinnon Burn Site of Special Scientific Interest	Designated to protect an area of biological interest
	River Tweed Site of Special Scientific Interest	Designated to protect an area of biological interest

	Faldonside Loch Site of Special Scientific Interest	Designated to protect an area of biological interest
	Tweedwood – Gateheugh Site of Special Scientific Interest	Designated to protect an area of biological interest
	Lindean Reservoir Site of Special Scientific Interest	Designated to protect an area of biological interest
	Whitlaw and Branhholme Special Conservation Area	Designated to avoid deterioration of the habitats of qualifying species
	Whitlaw Mosses Site of Special Scientific Interest	Designated to protect an area of biological and geological interest
	Whitlaw Rig Site of Special Scientific Interest	Designated to protect an area of biological interest
	Selkirk Racecourse Moss Site of Special Scientific Interest	Designated to protect an area of biological interest
	Whitmuirhall Loch Site of Special Scientific Interest	Designated to protect an area of biological interest
	Clarilaw Grassland Site of Special Scientific Interest	Designated to protect an area of biological interest
	Dunhog Moss Site of Special Scientific Interest	Designated to protect an area of biological interest
	Longnewton Cutting Site of Special Scientific Interest	Designated to protect an area of biological interest
	Woodhead Moss Site of Special Scientific Interest	Designated to protect an area of biological interest
	Catshawhill Site of Special Scientific Interest	Designated to protect an area of biological interest
	Minto Craigs Site of Special Scientific Interest	Designated to protect an area of biological interest
	Ashkirk Loch Site of Special Scientific Interest	Designated to protect an area of biological interest
	Long Moss - Drinkstone Muir Site of Special Scientific Interest	Designated to protect an area of biological interest
	Kirkton Burn Site of Special Scientific Interest	Designated to protect an area of biological interest
	Hummelknowes Moss Site of Special Scientific Interest	Designated to protect an area of biological interest
	Whitlaw Bank to Hardies Hill Site of Special Scientific Interest	Designated to protect an area of biological interest
	Borders Wood Special Area of Conservation	Designated to avoid deterioration of qualifying interests
	Lynnwood – Whitlaw Wood, Slitrig Site of Special Scientific Interest	Designated to protect an area of biological interest
	Ancient Woodland located throughout the corridor	Designated to protect and avoid the degradation of areas of ancient woodland
Water, Flood Risk and Resilience	Tyne Water	Fluvial Flood Risk
	Gala Water	Fluvial Flood Risk
	Armet Water	Fluvial Flood Risk
	Leader Water	Fluvial Flood Risk
	Boondreigh Water	Fluvial Flood Risk
	River Tweed	Fluvial Flood Risk
	Yarrow Water	Fluvial Flood Risk
	Ettrick Water	Fluvial Flood Risk
	Trow Burn	Fluvial Flood Risk
	Rule Water	Fluvial Flood Risk
	Jed Water	Fluvial Flood Risk
	Areas of Surface Water Flood Risk located throughout the corridor	Surface Water Flood Risk
Cultural Heritage	Listed Buildings located throughout the site	To preserve and enhance buildings of historical or architectural interest.
	Scheduled Monuments located throughout the site	To preserve Scotland's most significant sites and monuments
	Battle of Ancrum Moor Battlefield	Designated to protect and recognise Battlefields of cultural significance which have historical association, physical and/or archaeological remains and a battlefield landscape
	Battle of Philiphaugh Battlefield	
	Battle of Darnick Battlefield	
	Pathead and Ford Conservation Area	To preserve and enhance buildings of historical or architectural interest.

	Edgehead Conservation Area	
	Dewartown Conservation Area	
	Borthwick and Crichton Conservation Area	
	Newlandrig Conservation Area	
	Fala Dam Conservation Area	
	Fala Conservation Area	
	Stow Conservation Area	
	Lauder Conservation Area	
	Smailholme Conservation Area	
	Redpath Conservation Area	
	Newstead Conservation Area	
	Gattonside Conservation Area	
	Melrose Conservation Area	
	Darnick Conservation Area	
	Clintmains Conservation Area	
	Dryburgh Conservation Area	
	St Boswells Conservation Area	
	Bowden Conservation Area	
	Selkirk Conservation Area	
	Midlem Conservation Area	
	Ancrum Conservation Area	
	Minto Conservation Area	
	Jedburgh Conservation Area	
	Denholm Conservation Area	
	Hawick Conservation Area	
Landscape	Prestonhall Garden and Designed Landscape	
	Thirlestane Castle Garden and Designed Landscape	
	Mellerstane Gardens and Designed Landscape	
	Carolside and Leadervale Gardens and Designed Landscape	
	Bowland Garden and Designed Landscape	
	Abbotsford Garden and Designed Landscape	
	Fairniess Garden and Designed Landscape	
	Bemersyde Garden and Designed Landscape	
	Dryburgh Abbey Garden and Designed Landscape	
	Mertoun Garden and Designed Landscape	
	The Haining Garden and Designed Landscape	
	Bowhill Garden and Designed Landscape	
	Monteviot Garden and Designed Landscape	