GO SEStran
South East of Scotland Transport Partnership

REGIONAL TRANSPORT STRATEGY

Case for Change: SEA Environmental Report

June 2021

In partnership with: Stantec

Document Control Sheet

Project Name: **SEStran Regional Transport Strategy**

Project Ref: **50429**

Report Title: **Case for Change SEA Environmental Report**

Doc Ref: **50429/SEA/002i2**

Date: **June 2021**

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Revision	Date	Description	Prepared	Reviewed	Approved
A	04.06.2021	Draft for comment	AM	AK/DS	SL
B	25.06.2021	Amendments to reflect incorporation of EqIA and SEA recommendations within Case for Change	AM	DS	SL

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1 Introduction

1.1 Background

1.1.1 This Environmental Report (ER) has been prepared to accompany a Case for Change Report which will underpin the development of a new Regional Transport Strategy (RTS) for the South East of Scotland ('SEStran') Regional Transport Partnership (RTP) area.

1.1.2 Stantec UK Ltd (Stantec) has been commissioned by the SEStran RTP to support the preparation of the new RTS. The RTS will set out a new long-term vision for transport across the region for the period up to 2035. It is intended the new RTS will set out a clear framework for how transport and mobility will be provided, developed and improved in the region to meet the aspirations for a sustainable and economically active growth area over the next 10 years and beyond.

1.1.3 Working collaboratively with Stantec, SEStran has produced a Case for Change Report (the 'Case for Change') which seeks input and views from stakeholders on the type and level of change needed on the transport system in south east Scotland to inform the development of the final strategy. This builds upon and takes account of comments received in respect of the SEStran RTS Main Issues Report (June 2020).

1.2 Overview of RTS Case for Change and ER

RTS Case for Change

1.2.1 The Case for Change provides a consolidated evidence base to identify the main transport problems and issues experienced within the SEStran area and sets out proposed strategic components to underpin the development of the new RTS. In doing so, the Case for Change seeks to ensure the RTS is developed upon an evidence base which reflects the latest understanding of problems and issues in the region and reflects travel behaviour changes arising from the COVID-19 pandemic.

1.2.2 As detailed further in **Section 3**, the Case for Change includes the identification of relevant Transport Planning Objectives (TPOs) and associated proposed RTS Objectives, together with the development of an initial options generation matrix. This ER provides a proportionate assessment of the likely environmental effects associated with these proposed substantive components of the Case for Change which are intended to underpin the development of the RTS. This forms part of a multi-stage appraisal and strategy development process which will include a future consultation on the full Draft RTS and an accompanying ER.

1.2.3 At this early stage the initial options generation matrix does not identify individual 'options' (including policies, proposals, actions, schemes and other interventions) or spatially defined schemes but rather forms the starting point for the subsequent development and appraisal of various types of options to achieve the proposed RTS Objectives. All option will be developed further, sifted and appraised through Stage 2 – Preliminary Options Appraisal of the STAG process. Details of options development, appraisal and how the SEA has informed the selection of options (including consideration of reasonable alternatives) will then be set out in the full Draft RTS and accompanying ER in due course.

Strategic Environmental Assessment (SEA)

1.2.4 The Environmental Assessment (Scotland) Act 2005 ('the 2005 Act') requires Responsible Authorities, including RTPs such as SEStran, to assess the likely significant effects on the environment of implementing relevant and qualifying plans and programmes, as defined within the Act. This assessment must also examine the likely significant effects of implementing reasonable alternatives to the plan or programme under consideration. The assessment is

carried out by following a staged process of reporting known as Strategic Environmental Assessment (SEA).

1.2.5 The SEA process is being undertaken from the outset in tandem with the development of the emerging RTS to allow key environmental issues to inform the content of the RTS. This SEA Commentary accompanies the RTS Case for Change Report and builds upon an earlier RTS SEA Scoping Report (Stantec, February 2021) ('the SEA Scoping Report'), which was consulted on with SEA Consultation Authorities[1] from 25th February 2021 for a 35 day period. The SEA Scoping Report set out a proposed SEA Framework (final version included in **Appendix A**) and methodology to underpin all stages of the SEA.

1.3 Purpose and Objectives

1.3.1 This report has been prepared by Stantec to assess the extent to which the Case for Change Report addresses relevant environmental issues. In doing so, this report responds to relevant statutory requirements[2], considers the development of the emerging RTS to date and presents an initial assessment of likely significant effects from the proposed RTS Objectives and initial options generation matrix. This forms the second part in a multi-stage SEA that will be carried out to assess the likely significant environmental effects from the emerging RTS throughout its development.

1.3.2 The objectives of this report are to:

- Assess the coverage of key environmental issues, as previously identified through SEA Scoping, in the identified issues and problems and proposed Transport Planning Objectives (TPO), proposed RTS Objectives and initial options generation matrix set out within the Case for Change Report;
- Assess the extent to which the proposed RTS Objectives and initial options generation matrix address identified key environmental issues with reference to the 2005 Act. Whilst the high level nature of the Case for Change Report precludes the identification of likely significant effects at this stage, the assessment includes testing the compatibility of the proposed RTS Objectives with a suite of 'SEA Objectives' developed at Scoping stage to underpin the SEA process;
- Provide an initial assessment of initial options generation matrix to demonstrate that it comprises all identifiable 'potentially reasonable alternative options' to implement the proposed RTS Objectives, highlight any likely environmental impacts which can be identified at this early stage and develop recommendations to support the further development and appraisal of options; and,
- Contribute to the on-going SEA process for the emerging RTS.

1.3.3 This report is structured as follows:

- **Section 2 – Approach to SEA**: provides an overview of the SEA being undertaken in respect of the emerging RTS;
- **Section 3 – Assessment**: assesses the coverage of key environmental issues within the issues and problems as set out in the Case for Change Report and assesses the

[1] The SEA Consultation Authorities are defined by section 3 of the Environmental Assessment (Scotland) Act 2005 as NautreScot (formerly Scottish Natural Heritage (SNH)), Historic Environment Scotland (HES) and the Scottish Environment Protection Agency (SEPA).

[2] In accordance with Section 14 of the Environmental Assessment (Scotland) Act 2005, this report acts as a statutory Environmental Report insofar as required to accompany each substantive component of the emerging RTS which is subject to public consultation. Within the RTS Case for Change this relates to the proposed RTS Objectives and the initial options generation matrix.

compatibility of the proposed RTS Strategic Objectives the Options with the RTS SEA Framework; and,

- **Section 4 – Recommendation and Next Steps**: builds upon **Section 3** to set out specific recommendations to be addressed at the next stage of the RTS development process. These seek to ensure the avoidance of likely significant adverse environmental effects and improve the effectiveness of the emerging RTS.

2 Approach to Strategic Environmental Assessment

2.1 Overview

2.1.1 This report builds on a SEA Scoping Report (Stantec, February 2021) which was subject to consultation with the SEA Consultation Bodies between February and March 2021 in accordance with Section 15 of the 2005 Act. The 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;
- Took account of the information requirements for Environmental Reports (ER) contained in Schedule 3 to the 2005 Act (where relevant), including through providing detailed baseline and policy reviews in appendices A and B respectively[3];
- Set out an evidence-based SEA Framework, comprising a set of 10 linked SEA Objectives and associated guide questions and criteria, for use in assessing the likely significant environmental effects of the emerging RTS; and,
- Outlined the proposed methodology to assess the likely significant environmental effects of the emerging RTS throughout its development.

2.1.2 Having regard to all consultation responses provided in respect of the SEA Scoping Report and taking account of relevant policy developments in the interim[4], in overall terms of the proposed SEA Framework and proposed assessment methodology are considered to remain valid. However, the scope of the SEA Framework has been refined in response to comments provided by the SEA Consultation Authorities, with greater focus now included regarding:

- The impact of the COVID-19 pandemic on regional transport issues, acknowledging the impact on transport needs, operations, behaviours and related factors; and,
- An integrated approach to transport and land use planning.

2.1.3 The SEA Framework is provided in **Appendix A** and has been used in this assessment of the Case for Change. The summarised comments received from the SEA Consultation Authorities in response to the Scoping Report and how these have been addressed are provided in **Appendix B**.

2.2 Assessment of the Case for Change Report

Pre-Assessment Phase

2.2.1 The SEA process has directly informed and helped to improve the Case for Change. The initial draft Case for Change was reviewed by the assessment team and advice regarding identified weaknesses and opportunities for enhancement provided to SEStran officers and the wider RTS development team prior to the formal SEA (leading to the preparation of this ER). This identified

[3] In accordance with Sections 14(c) and (d) of the 2005 Act, it is not considered necessary or proportionate to append detailed baseline and policy reviews to this short Environmental Report. Instead, the key environmental and policy issues arising from reviewing baseline environmental characteristics and the relationship of the emerging RTS with other relevant plans and programmes are summarised in **Section 3** below. In accordance with the 2005 Act, updated environmental baseline and policy reviews will be included in the full Environmental Report (ER) that will be prepared to accompany the full Draft RTS in due course.

[4] Including the publication of the *National Transport Strategy 2* (Scottish Government, February 2020).

any gaps or weaknesses that could be addressed to strengthen the Case for Change. As a result of this review the Case for Change as published now considers environmental issues more strongly, including the role of transport in responding to the climate emergency and through recognising that changes to the transport system can impact upon environmental quality.

Methodology

2.2.2 The high-level nature of Case for Change Report precludes the identification of specific likely significant environmental effects. The assessment has 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 (**Appendix A**).

2.2.3 At this stage of the SEA, 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 have been identified. These recommendations (**Section 4**) should be considered as the emerging RTS is developed and addressed in the Draft RTS which will be prepared in due course. For the avoidance of doubt, no changes are considered necessary within the current Case for Change Report specifically to address the requirements of the 2005 Act.

Consideration of Reasonable Alternatives

2.2.4 The 2005 Act requires the likely significant effects of implementing a plan or programme (i.e. the emerging RTS) and reasonable alternatives to be examined, as well as the rationale for identifying reasonable alternatives to be described. The 2005 Act further states that to be considered as reasonable alternatives, options 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;
- 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 be related to the distribution characteristics of future development within the SEStran region.

2.2.5 SEA reporting needs to demonstrate how all reasonable alternative options for all substantive components within an emerging plan have been identified and iteratively assessed in a timely manner. Owing to the strategic nature of the Case for Change, at this stage it has not been possible to identify any reasonable alternatives to the substantive components proposed within the document:

- Any potential reasonable alternatives must relate to the objectives of the plan under consideration, so no reasonable alternatives to the proposed RTS Strategic Objectives could be identified as any alternatives would fundamentally change the strategic direction of the emerging RTS.

- An initial high level and non-spatially defined list of transport options ('the initial options generation matrix') has been defined by SEStran as the starting point to develop options for potential inclusion in the emerging RTS 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 initial assessment of the initial options generation matrix has therefore been 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 at this early stage, and to guide the future development of individual options. Following the Case for Change consultation the reasonableness of any options received will be reviewed. Further development, sifting, testing and assessment of individual options will then follow through the STAG process to inform preparation of the Draft RTS.

3 Assessment

3.1 Introduction

3.1.1 This section assesses the coverage of key environmental issues within all substantive components set out in the Case for Change Report.

3.2 Coverage of Key Environmental Issues

Key Environmental Issues and Policy Requirements

3.2.1 In accordance with Section 14(3) of the 2005 Act, appendices A and B of the SEA Scoping Report (Stantec, February 2021) presented detailed baseline and policy reviews to identify the key environmental issues and policy requirements which should be addressed in the new RTS. These were summarised in **Section 3** of the SEA Scoping Report with reference to the 13 environmental factors ('the SEA topics') prescribed in Schedule 3 of the 2005 Act.

3.2.2 Responses received from the SEA Consultation Authorities to the SEA Scoping Report and from initial engagement with other stakeholders have been reviewed and considered in the preparation of the Case for Change. A summary of the SEA Scoping responses and how these have been addressed in the RTS Case for Change is provided in **Appendix B**.

3.2.3 Environmental Issues are addressed within the following sections of the RTS Case for Change:

- Section 2.0 Socio-economic Context;
- Section 3.0 Transport System and Demand; and
- Section 4.0 The Future Context.

3.2.4 Section 5, the Literature Review, sets out that the Case for Change has been informed by a comprehensive review of over 90 local, regional and national policy documents, including Scotland's National Transport Strategy 2 (NTS2) which provides the national transport policy framework and sets out four interlinked national priorities: Reduces Inequalities; Takes Climate Action; Helps Deliver Inclusive Economic Growth; and Improves our Health and Wellbeing. The Literature Review clearly demonstrates how existing and emerging policy has been used to identify problems, issues, constraints and opportunities which the emerging RTS should address.

3.2.5 Having regard to all consultation responses and relevant policy, a suite of key environmental issues and policy requirements for the emerging RTS is presented in **Table 3.1** and listed at 3.2.7 below. The suite of key environmental issues originally identified within the SEStran RTS SEA Scoping Report have been refined to reflect:

- The impacts of the Covid-19 pandemic on regional transport issues; and,
- The need to ensure all aspects of the historic environment are considered, not only those considered to be important.

Table 3.1 Key Issues Relevant to the SEStran RTS SEA

Grouped Baseline Topics	SEA Environmental Aspects	Key Issues
Air and Climate	Air Quality Climatic Factors	• 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. • The need to mitigate climate change including through promoting sustainable land use patterns and the decarbonisation of the transport sector. • 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.
Physical Environmental	Biodiversity, Flora & Fauna, Soil, Water, Cultural Heritage, Landscape	• The need to conserve and enhance biodiversity interests including sites designated for their ecological importance. • The need to maintain, restore and expand valued habitats and to safeguard protected species. • The need to protect and enhance green infrastructure assets. • The need to prioritise the redevelopment of previously developed (brownfield) land • The need to protect sites designated for their geological interest. • The need to protect and enhance the quality of water sources and the water environment • 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). • The need to protect and enhance cultural heritage assets and their settings. • The need to conserve and enhance landscape character and to protect visual amenity.
Social and Economic	Population (including relevant socio-economic issues), Health, Material Assets	• 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). • The need to align with and support the implementation of 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). • The need to develop an integrated and efficient transport system which meets identified needs and supports projected population growth whilst effectively managing travel demand. • The need to support the growth of key economic sectors and to deliver sustainable and inclusive economic growth. • The need to tackle deprivation and severance and to improve access to key amenities and economic opportunities for all demographic groups and communities. • The need to provide transport services appropriate to meet the needs of the projected ageing population.

3.2.6 These issues and requirements should be reflected within the emerging RTS and taken account of in the associated SEA. It should be noted that whilst key population and health issues need to be addressed in the SEA, these are also considered where relevant in the implementation of applicable equalities duties (refer to separate **Case for Change Equalities Duties Report**).

3.2.7 Existing and emerging policy requirements which the emerging RTS should take account of include the need to:

- 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 recent National Transport Strategy 2 (2020), as well as the implementation of the approved SESplan Strategic Development Plan 2013 (SDP) and the adopted and emerging LDPs and SDPs within 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;
- 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.

3.2.8 Whilst all of the key environmental issues covered in **Table 3.1** and policy requirements listed above should be addressed in the new RTS, the following must be afforded particular importance given their significance at national and international levels:

i. Responding to the climate emergency;

ii. Improving air quality; and,

i. Contributing to the delivery of sustainable and inclusive economic growth (discussed in detail within **Appendix A** of the separate **Case for Change Report Equalities Duties Commentary**).

Coverage of Key Environmental Issues in Case for Change Report

3.2.9 The context for the emerging RTS is set out in Sections 2 and 3 of the RTS Case for Change which consider socio-economic and transport system and demand matters respectively. These sections outline pertinent baseline conditions and begin to forecast future trends and predictions with regards to demographics and transport use. Section 4, then introduces the factors likely to influence the future demand for travel in the south east of Scotland. It identifies three factors which need to be taken into consideration in the development of the new RTS:

- Land-Use Development
- Transport Innovation
- Travel Behaviour Change

3.2.10 Section 7 of the Case for Change Report presents the problems, issues, constraints and opportunities as evidenced in Sections 2, 3, 4, 5 and 6 which influence and underpin the preparation of the emerging RTS.

3.2.11 Identifying user-perspective transport problems in the SEStran area was the first step in the preparation of the new RTS. The Case for Change contains a Problems Framework which identifies that the root cause of transport problems is usually associated with the supply of transport, the transport problems then affect travel choices and the subsequent consequences of travel choices have a wider economic, environmental, health and wellbeing and social consequences. The RTS seeks to address the identified problems by developing Transport Planning Objectives (TPOs) with options generated to deliver the TPOs. Identified problems have been categorised in relation to the NTS2's sustainable travel hierarchy:

- All Modes
- Active Travel
- Public Transport
- Mixed Mode
- Freight
- Car

3.2.12 Each problem is high level in nature and framed around the experience of users of the transport system and network. In overall terms the section of the Case for Change which defines transport provides a good level of coverage of identified key environmental issues and policy requirements, although the user-based framing of problems inherently gives prominence to issues regarding meeting population needs and improving health outcomes. However,

underpinning a number of the identified transport problems is the major negative societal consequence generated by unsustainable travel patterns and dependencies on carbon emitting fossil fuels which drive transport's contribution to the global climate emergency. On this basis, responding to the climate emergency and ensuring the maintenance and enhancement of environmental quality are also fundamental matters to be addressed through the new RTS.

3.2.13 With reference to the SEA topics:

- *Biodiversity, Flora and Fauna* is not addressed in the Case for Change Report, either directly or indirectly. There is no coverage of safeguarding or supporting protected species, designated sites or habitats within the TPOs or Options. The transport benefits of green infrastructure are not considered and the links between active travel, green networks and additional health benefits from being closer to nature are not explored.

- *Population, Human Health and Material Assets* is given good coverage throughout the Case for Change and across the problems, TPOs and Options. Section 2 sets the socio-economic context and Section 3 covers infrastructure related issues.

- *Soil and Water* are addressed in Section 4 where the importance of integrating land-use planning and transport planning and understanding where growth opportunities will be created so that these can be delivered in a manner that ensures sustainability and inclusivity and optimal use of land. Protecting soil resources and water quality is not considered.

- *Air Issues* are covered in Section 3 where rates of emissions and trends are set out and Air Quality Management Areas (AQMAs) are discussed. Section 4 highlights the detrimental impact high transport emissions can have on the environment, ecosystems and the quality of air and considers alternative fuels which can be employed to reduce transport emissions and improve air quality. Coverage of Air Issues 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.

- *Climate* issues are considered in Section 4 with regards to how using alternatives to fossil fuels to power vehicles can lower climate implications and also considers the climate risks associated with a drive towards electric vehicles without an associated push to alter travel behaviour. By adopting a user focused approach, direct effects on social and economic issues are prioritised rather than environmental issues, meaning that climate issues are less prominent, however it is acknowledged that transport users unsustainable travel patterns and dependence on fossils result in overarching major negative environmental effects and therefore addressing the user related problems indirectly positively impacts on climate issues.

- *Cultural Heritage* receives only indirect coverage in the Case for Change. Transport network capacity issues are identified as contributing to relevant transport problems with capacity considered a particular issue at certain times of year when there are large numbers of tourists in the region. The TPO to widen public transport connectivity and access across the region will indirectly help to support heritage assets by improving access to them.

3.2.14 The analysis presented above indicates that the Case for Change includes a good level of coverage of many key environmental issues. However, a number of weaknesses and opportunities in relation to individual environmental topics have also been identified.

3.3 Assessment of Transport Planning Objectives and Proposed RTS Objectives

3.3.1 The Case for Change Report records how the SMART and evidence-based Transport Planning Objectives (TPOs) were developed. It provides the robust basis necessary to underpin the development and assessment of sound candidate policies, proposals and transport interventions for potential inclusion within the emerging RTS. It has involved extensive baseline analysis of the socio-economic context and the transport system and demand.

3.3.2 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

3.3.3 The Case for Change identifies 29 TPOs, which in turn act as the foundation for 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

Transport Planning Objectives

3.3.4 A high-level assessment of the compatibility of the 29 identified TPOs with the SEA Objectives included in the RTS SEA Framework (Appendix A) is presented in **Table 3.2** below.

Table 3.2 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	The TPOs provide adequate coverage of the Climate Change SEA Objective through seeking to facilitate and

SEA Objective	Relevant Transport Planning Objectives (TPO)
infrastructure, facilitating a low carbon economy and adapting to accommodate the effects of climate change.	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.
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.

3.3.5 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.

RTS Strategic Objectives

3.3.6 The Case for Change itself includes an assessment of the alignment between the identified 29 TPOs and four proposed RTS Objectives, which demonstrates that the proposed RTS Strategic Objectives provide good coverage of individual TPOs whilst setting out a manageable number of RTS Strategic Objectives to underpin the development of wider RTS components.

3.3.7 An assessment of the compatibility of the proposed RTS Strategic Objectives with the SEA Objectives defined within the RTS SEA Framework (Appendix A) is presented in **Table 3.3** below.

Table 3.3 Compatibility of RTS Objectives with SEA Framework

SEA Objectives	RTS Objectives				Commentary
	Transitioning to a Sustainable, Post-Carbon Transport System	*Facilitating Greater Physical Activity*	*Widening Public Transport Connectivity and Access Across the Region*	*Supporting Safe, Sustainable and Efficient Movement of People and Freight Across the Region*	
1. **Health:** Improve the health of the resident and workplace population, including with respect to physical and mental health and social wellbeing.	+	+	+	+	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. 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. 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. By seeking to reduce personal injuries, RTS Objective 4 relates well to the Health SEA Objective. Overall, the Health SEA Objective is well represented throughout all RTS Objectives.
2. **Accessibility:** Reduce the need to travel and ensure appropriate and affordable access for all to facilities,	+	+	+	+	The Accessibility SEA Objective receives good coverage across all 4 of the RTS Objectives.

SEA Objectives	RTS Objectives				Commentary
	Transitioning to a Sustainable, Post-Carbon Transport System	*Facilitating Greater Physical Activity*	*Widening Public Transport Connectivity and Access Across the Region*	*Supporting Safe, Sustainable and Efficient Movement of People and Freight Across the Region*	
services, economic opportunities and social activities.					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. 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. Objectives 3 and 4 aim to address safety on public transport for vulnerable groups.
3. **Material Assets:** Manage, maintain and where possible improve the efficient and effective use of natural resources, land and infrastructure to meet identified needs.	+	?	?	?	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. 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.

SEA Objectives	RTS Objectives				Commentary
	Transitioning to a Sustainable, Post-Carbon Transport System	*Facilitating Greater Physical Activity*	*Widening Public Transport Connectivity and Access Across the Region*	*Supporting Safe, Sustainable and Efficient Movement of People and Freight Across the Region*	
4. **Productivity, Competitiveness and Innovation**: 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.	+	+	+	+	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. RTS Objectives 3 and 4 give particularly good coverage of this SEA Objective by seeking to improve accessibility and efficiency.
5. **Air Quality and Amenity**: Tackle poor air quality, reduce concentrations of harmful atmospheric pollutants and minimise exposure to noise and vibration.	+	+	+	+	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. 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. 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

SEA Objectives	RTS Objectives				Commentary
	Transitioning to a Sustainable, Post-Carbon Transport System	*Facilitating Greater Physical Activity*	*Widening Public Transport Connectivity and Access Across the Region*	*Supporting Safe, Sustainable and Efficient Movement of People and Freight Across the Region*	
					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. By seeking to provide safe, sustainable and efficient movement RTS Objective 4 aligns with this SEA Objective. 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.
6. **Climate Change Mitigation**: Decarbonise the transport sector and support wider efforts to mitigate climate change.	+	+	+	+	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. 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. 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

SEA Objectives	RTS Objectives				Commentary
	Transitioning to a Sustainable, Post-Carbon Transport System	*Facilitating Greater Physical Activity*	*Widening Public Transport Connectivity and Access Across the Region*	*Supporting Safe, Sustainable and Efficient Movement of People and Freight Across the Region*	
					change however it should be emphasised that the public transport system needs decarbonised before it can fully support climate change mitigation efforts. 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. 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.
7. **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.	+	?	?	?	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. 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

SEA Objectives	RTS Objectives				Commentary
	Transitioning to a Sustainable, Post-Carbon Transport System	*Facilitating Greater Physical Activity*	*Widening Public Transport Connectivity and Access Across the Region*	*Supporting Safe, Sustainable 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. .
8. **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.	+	?	?	?	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. 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.
9. **Cultural Heritage:** Conserve, protect and enhance the historic environment and cultural assets.	+	?	?	?	RTS Objective 1 is predicted to have an overall positive effect on the Cultural Heritage SEA Objective as it seeks to enhance environmental quality. 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

SEA Objectives	RTS Objectives				Commentary
	Transitioning to a Sustainable, Post-Carbon Transport System	*Facilitating Greater Physical Activity*	*Widening Public Transport Connectivity and Access Across the Region*	*Supporting Safe, Sustainable 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.
10. **Landscape:** Protect and enhance the landscape character, townscape character and visual amenity.	+	?	?	?	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. 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.
KEY:	+	Compatible	-	Incompatible	
	0	Neutral	~	No Clear Relationship	
	?	Uncertain			

3.3.8 The assessment provided in **Table 3.3** 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.

3.3.9 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 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) it will be important for the RTS to include a holistic and visionary strategic framework. The emerging RTS would therefore benefit from the development of an over-arching holistic Vision and clearer linkages between Strategic Objectives to bring these together and from the outset clarify what the RTS seeks to achieve. This would ensure that any lower-level options developed mainly to address one RTS Strategy Objective either contribute to or at least avoid adverse effects on the other Strategic Objectives.

3.3.10 Going forward the SEA process will be used to test the relationship between the proposed RTS Strategic Objectives and individual options in order to maximise likely significant beneficial effects and avoid or minimise likely significant adverse effects from the RTS when read and implemented as a whole.

3.4 Initial Options Generation Matrix

Options Development Process

3.4.1 At this early stage the RTS Case for Change includes an initial options generation matrix which does not identify individual 'options' (including policies, proposals, actions, schemes and other interventions) or spatially defined schemes but rather forms the starting point for the subsequent development and appraisal of various types of options to achieve the proposed RTS Strategic Objectives. All option will be developed further, sifted and appraised through Stage 2 – Preliminary Options Appraisal of the STAG process.

3.4.2 The initial options generation matrix identifies all potential option types to address relevant transport problems outlined in the Problems Framework and key issues identified within the RTS Case for Change. The matrix demonstrates clear linkages between identified transport problems, TPOs, RTS Strategic Objectives and high level option types, which at this early stage have not been spatially defined and do not relate to individual transport schemes. High level option types were classified into three types:

- Policy Measures: guiding legal and regulatory matters, and perhaps steering the types of capital and revenue measures which may be appropriate to specific policies.
- Capital Measures: for the construction of new infrastructure 'on the ground', either physical or technical. Tend to be one off investments.
- Revenue Measures: Spending to support services or initiatives e.g. bus services, promotional campaigns etc which is often ongoing on an annual basis.

Influence of Policy Drivers

3.4.3 NTS2 and the Scottish Government's NPF4 Position Statement (2020) both call for greater integration between transport and spatial planning. Options developed for potential inclusion in the emerging RTS therefore need to have regard and in some cases facilitate actions and priorities contained in regional and local spatial planning documents, including emerging Regional Spatial Strategies (RSS).

3.4.4 Options identified through Transport Scotland's emerging Strategic Transport Projects Review 2 (STPR2[5]) informed development of the initial options generation matrix. It is acknowledged that any individual options developed for the RTS need to be fully integrated with proposals being developed through other processes including STPR2 and through land use plans at local and regional levels.

Assessment of Initial Options Generation Matrix

3.4.5 The Case for Change Report contains an initial list of 67 potential option types which have been generated to meet the TPOs and in response to the issues and problems, as identified through data analysis and stakeholder engagement.

3.4.6 Using the Problems Framework the alignment of high level option types with the identified 29 TPOs and problems is assessed in the RTS Case for Change itself. The initial options generation matrix shows how each identified option type will contribute to addressing identified TPOs and individual transport problems. It is however noted that at this stage the matrix does not demonstrate the specific alignment between high level option types and the four proposed RTS Strategic Objectives, as further technical and spatial definition of individual options would be needed in order to undertake a meaningful assessment.

3.4.7 A high-level assessment of the compatibility of the high level option types included in the initial options generation matrix with the SEA Objectives set out in the RTS SEA Framework (**Appendix A**) is presented in **Table 3.4** below.

Table 3.4 Compatibility of RTS Initial Options with SEA Objectives

SEA Objective	Initial Options
Climate Change: Respond to the climate emergency by decarbonising infrastructure, facilitating a low carbon economy and adapting to accommodate the effects of climate change.	There are a range of high level options which relate to this objective. These include but are not limited to, measures to reduce car use, improved public transport options, land use planning measures including 20 minute neighbourhoods and active travel schemes.
Air Quality and Amenity: Tackle poor air quality, reduce concentrations of harmful atmospheric pollutants and minimise exposure to noise and vibration.	The RTS Objective to transition to a sustainable post carbon transport system is supported by a number of high level options which relate to improving air quality and reducing harmful pollutants.
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. All high level options which involve delivering new infrastructure should have regard for their potential impact on biodiversity, geodiversity and soil and opportunities to enhance the physical environment should be included within option parameters and detailed design where feasible.
Water, Flood Risk and Resilience: Conserve, protect and enhance water environments, water quality and water resources, whilst adapting to	There is relatively poor coverage of this SEA Objective within the identified high level options. The development of any new transport infrastructure should not detrimentally impact water

[5] STPR2 is being carried out to help deliver the vision, priorities and outcomes for transport set out in NTS2 and aligns with other national plans such as the emerging National Planning Framework (NPF4) and the Scottish Government's Climate Change Plan. STPR2 will guide the national transport investment programme for the next 20 years. It has a two phased approach, with Phase 1 identifying themes and packages which could meet short-term requirements. The Phase 1 process resulted in 20 interventions being identified to be taken forward between Transport Scotland and partner organisations. The outcomes of Phase 2 are expected to be published in Autumn 2021.

climate change and reducing flood risks.	environments or result in flood risk at the site of the new infrastructure or increase flood risk elsewhere.
Cultural Heritage: Conserve, protect and enhance all aspects of the historic environment, including archaeological sites and cultural assets.	Opportunities to conserve, protect and enhance the historic environment and cultural assets have not been specifically identified at this early stage.
Landscape: Protect and enhance the landscape character, townscape character and visual amenity.	Landscape considerations receive only limited coverage in the high level options at this early stage. Placemaking schemes to improve the quality of the built environment for walking and cycling have the potential to protect and enhance landscape and townscape character and amenity.
Accessibility: Ensure appropriate and affordable access for all to facilities, services, economic opportunities and social activities.	The initial options generation matrix includes options which would improve accessibility between communities and key services and facilities giving good coverage to the Accessibility SEA Objective. Options designed to facilitate better access to transport for all those in society and for it to be shaped to cater for the needs of all are included. Options to improve journey times, frequency and reliability of public transport are also included.
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 through Options to improve ticket costing, improving access to public transport and active travel schemes and through Options to improve freight transport.
Health: Improve the health of the resident and workplace population, including with respect to physical and mental health and social wellbeing.	This SEA Objective is well represented both directly and indirectly. Options to improve safety and security on routes to public transport, on public transport itself and at hubs and stations contribute to this meeting this objective. Options to enhance walkability and cycling infrastructure and make active travel and attractive choice goes towards improving mental and physical health.
Material Assets: Manage, maintain and where possible improve the efficient and effective use of natural resources, land and infrastructure to meet identified needs.	This SEA Objective receives good coverage. Multiple Options relate to enhancing existing infrastructure meeting the manage, maintain and improve criteria of this Objective. Options include new and enhanced park and rides, investment in electric bike infrastructure and rail enhancements to support freight modal shift to rail. Options to provide new infrastructure should be carefully developed to ensure efficient use of natural resources and land and the need for this should be clearly measured and established.

3.4.8 A number of identified high-level options cut across multiple themes and SEA Objectives:

- Options which relate to encouraging active travel through improved routes, infrastructure, and hire schemes cover the health objective in terms of improving physical and mental wellbeing as a result of the known positive effects of exercise on both. Encouraging active travel also meets the air quality and amenity objective in that the more people there are using active travel means the less there are using vehicles which contribute to noise and levels of harmful emissions which affect air quality.

- Options to improve accessibility through integration of services, shared mobility, creation of new railway lines, stations and tram extensions and improvements to journey times give good coverage to the accessibility SEA objective.

- Some options have a clear beneficial relationship with one SEA Objective but the potential to adversely impact on others. For example, the tram extensions and new railway lines align well with the accessibility and material assets objectives in that there is potential to provide better access to public transport and make efficient use of existing infrastructure but depending on implementation factors there remains the potential for adverse physical environmental impacts.

3.4.9 The high-level and non-spatial nature of all options identified at this early stage means that the initial options generation matrix provides only limited direct coverage of the Biodiversity, Landscape and Cultural Heritage SEA Objectives. However, the ability of individual options to generate positive environmental outcomes requires to be considered through further development and appraisal, as many environmental impacts (beneficial or adverse) would depend upon how and where an option is implemented rather than the basic parameters of initial options themselves.

3.4.10 Following the Case for Change consultation, the 67 option types listed within the initial options generation matrix will be subject to further development, sifting and appraisal within Stage 2 - Preliminary Options Appraisal of the RTS development process. All option types will require further technical and spatial development to define them in more detail and provide geographic specificity (where appropriate) prior to individual options being formally assessed in accordance with the methodology outlined within the SEStran RTS SEA Scoping Report (February 2021). To avoid duplication or gaps this approach will integrate the application of relevant criteria from the STAG Technical Database with the SEStran RTS SEA Framework (**Appendix A**).

4 Recommendation and Next Steps

4.1 Introduction

4.1.1 Building upon the analysis in **Section 3**, this section identifies specific recommendations to be addressed in the next stages of the RTS development process to further enhance the consideration of key environmental issues. These recommendations should be considered as the emerging RTS is developed and addressed in the Draft RTS which will be prepared in due course. For the avoidance of doubt, no changes are considered necessary within the current Case for Change Report specifically to address the requirements of the 2005 Act.

4.2 Coverage of Key Environmental Issues

4.2.1 The Case for Change has good coverage of most environmental issues and no major omissions have been identified, although direct coverage of Biodiversity, Heritage and Landscape SEA Objectives is relatively light. To address the weaknesses identified in **Section 3.2** regarding the absence of explicit coverage of some environmental issues, in the next stage of RTS development consideration should be given to identifying the need to protect and enhance environmental quality as an overarching key issue.

4.2.2 **Section 3.4** has identified some weaknesses in the coverage of key environmental issues in the initial options generation matrix. This is expected at this early stage as the key technical, spatial and implementation parameters of individual options (including policies, proposals, actions, schemes and other interventions) still require to be developed. However, opportunities to enhance the coverage of key environmental issues should be explored as options are further developed, sifted, refined and subject to formal appraisal:

- To allow the RTS to fully address the climate emergency and thereby more closely align with the NTS2, in the next iteration of the emerging RTS a clear strategy to address the climate emergency through embedding mitigation and adaptation actions into the transport system should be developed. This should recognise the centrality of tacking the climate emergency within transport policy rather than only considering climate impacts as an outcome from addressing user-based transport problems; and,

- Consideration should be given to the likely impact of options, both beneficial and adverse, on physical environmental topics including Biodiversity, Geodiversity and Soil, Cultural Heritage and Landscape. The need to protect, conserve and enhance environmental aspects should also be considered in all options ultimately selected for inclusion within the emerging RTS.

4.3 Enhancing the RTS, the Objectives & the Options

4.3.1 The assessment of identified TPOs, proposed RTS Strategic Objectives and initial options generation matrix provided in **Section 3** indicates that these substantive components of the emerging RTS are all compatible with the SEA Framework (**Appendix A**). However, the emerging RTS would benefit from the development of an over-arching holistic Vision to bring together the RTS Strategic Objectives and from the outset make it clear what the RTS seeks to deliver and achieve.

4.3.2 All option types listed within the initial options generation matrix require further definition and testing as at present they represent high level aspirations and generic option types with little detail provided. As individual options are developed they should continue to be assessed for coverage and compatibility against both the RTS Strategic Objectives and SEA Objectives. Any identified tensions or adverse impacts should be identified resolved at the earliest opportunity and opportunities to enhance the sustainability performance of all options should be explored throughout their development. To support this, relevant criteria from the RTS SEA Framework

(**Appendix A**) and STAG[6] criteria will be applied to undertake a detailed options appraisal prior to the preparation of the Draft RTS, with the appraisal process fully documented in formal SEA reporting to accompany the Draft RTS.

4.4 Next Steps

4.4.1 This SEA Environmental Report is being published for consultation alongside the Case for Change Report which has been prepared to underpin the preparation of the new RTS for the SEStran area. This forms the first part of a multi-stage process which will include a detailed options appraisal process and future consultation on a full draft RTS.

4.4.2 In accordance with the 2005 Act and best practice the SEA process is being carried out from the outset and in tandem with the development of the emerging RTS to allow key environmental issues to inform the content of the new RTS. All consultation feedback received in respect of the Case for Change Report and this ER will be reviewed and used to inform and refine the proposed RTS Strategic Objectives and the development of individual options derived from the initial options generation matrix. The next stage will be the development and appraisal of individual options to implement the proposed RTS Strategic Objectives (and thereby address all identified TPOs) through Stage 2 – Preliminary Options Appraisal of the STAG process and application of the SEA Framework to test all emerging options.

4.4.3 As detailed previously in the SEA Scoping Report, in accordance with the 2005 Act a full Environmental Report (ER) will be prepared to accompany the Draft RTS for consultation, with all relevant information requirements prescribed in Section 14 and Schedule 3 of the 2005 Act addressed in that ER. This will include the identification of all likely significant environmental effects (with appropriate mitigation measures if required) from all proposed RTS components, a detailed review of the approach adopted to identify and assess reasonable alternative options, and full details of how all comments received from the SEA Consultation Authorities at each previous stage have been taken account of in SEA and RTS development process.

[6] STAG is objective-led rather than solution-led therefore using it avoids pre-conceived solutions being brought forward without considering other options which may meet the identified problems or opportunities.

Appendix A SEStran RTS SEA Framework

SEA Objectives	Guide Questions: *Will the RTS (component)…*	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.	• Contribute to decarbonisation of the transport system? • Promote modal shift towards sustainable and active travel? • Support a sustainable pattern of development which minimises energy consumption and GHG emissions? • Reduce reliance on car travel? • Promote the use of clean fuels and technologies? • Enhance the resilience of infrastructure to adverse weather and the effects of climate change?	• Support a sustainable pattern of development that facilitates achieving carbon neutrality. • Impacts on climate change mitigation: modal shifts and GHG emissions or saving (construction and operational phases) • Resilience to adverse weather and the effects of climate change.
2. Air Quality and Amenity: Tackle poor air quality, reduce concentrations of harmful atmospheric pollutants and minimise exposure to noise and vibration.	• Maintain or enhance air quality? • Decrease noise and vibration levels at sensitive locations? • Reduce exposure to poor air quality? • Prevent and reduce emissions of harmful pollutants?	• Proximity to and impacts on existing Air Quality Management Areas (AQMA). • Proximity to congestion pinch points. • Likely operational emissions.
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.	• 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? • Support the protection and enhancement of valued species and habitats? • Support safeguarding against habitat loss or fragmentation? • Support the protection and enhancement of protected trees and important woodland areas? • Protect and enhance important soil resources?	• 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). • Proximity to and impacts on designated woodlands, important trees or hedgerows and other valued habitats. • Potential impacts on protected species.

SEA Objectives	Guide Questions: *Will the RTS (component)…*	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.	• Avoid deterioration and enhance the overall, ecological and chemical classification of water bodies and the water environment in accordance with the Water Framework Directive? • Affect the volume of surface water runoff into or abstraction from water bodies? • Minimise the risk of flooding to people, property, infrastructure and environmental assets? • Manage residual flood risks appropriately and avoid new flood risks? • Seek to minimise new development in areas prone to flood risk or mitigate the potential for such risk?	• Proximity to Flood Risk Zones. • Proximity to and impacts on the WFD status of waterbodies and aquifers. • Resilience to flood risk.
5. Cultural Heritage: Conserve, protect and enhance all aspects of the historic environment, including archaeological sites and cultural assets.	• Conserve, protect and enhance the integrity, character and setting of heritage assets? • Preserve important archaeological sites and protect potential unknown archaeological resources? • Protect, promote, and where appropriate, enhance the historic environment?	• Potential effects on designated or undesignated heritage assets or their settings.
6. Landscape: Protect and enhance the landscape character, townscape character and visual amenity.	• Protect and enhance landscape character? • Safeguard important landscape and townscape features? • Protect visual amenity and valued views? • Prevent urban sprawl? • Maintain and enhance the attractiveness of the public realm?	• Proximity to and impacts on designated landscapes. • Impacts on visual amenity and key views. • Impacts on settlement integration or coalescence.
7. Accessibility: Ensure appropriate and affordable access for all to facilities, services, employment, economic opportunities and social activities.	• Implement the NTS2 Sustainable Travel Hierarchy across the SEStran region?	• Directing high footfall development to highly accessible locations.

SEA Objectives	Guide Questions: *Will the RTS (component)…*	Criteria to Assess Candidate Transport Options
	• Improve physical access to employment for all? • Reduce the need to travel? • Increase the accessibility of public services, economic opportunities and markets? • Improve the accessibility and integration of the transport network? • Improve the accessibility of education infrastructure, in particular by active travel and public transport? • Enhance access to active travel routes? • Reduce congestion and allow for greater journey time reliability? • Help reduce severance effects of the transport network?	• Proximity to and impacts on the public transport network. • Proximity to the strategic road network (motorways and trunk roads). • Proximity to and impacts on identified congestion pinch points. • Proximity to and impacts on the accessibility of community facilities, public services and key amenities. • Proximity to and impacts on the accessibility of education infrastructure.
8. Inclusive Growth: Improve social and economic prosperity for all by enhancing productivity and competitiveness and through reducing societal inequalities.	• Support better integration of land-use/spatial planning, transport planning and economic development decisions? • Help to integrate labour and housing markets to meet identified population needs in a sustainable manner? • Support the delivery of existing and emerging spatial strategies at national, regional and local levels? • Promote the co-location of synergistic economic activities and land uses? • Support efficient freight movement? • Support increased and diversified employment opportunities? • Address transport needs resulting from existing and changing demographic characteristics? • Address transport needs resulting from existing and changing socio-economic characteristics?	• Economic development, employment benefits and social value unlocked by the intervention. • Ability to help reduce identified inequalities (as assessed through separate reporting). • Support the creation of safe and attractive public realm. • Contribution to area-based regeneration and socio-economic renewal. • Impacts on transport efficiency. • Impacts on freight movement. • Proximity to and impacts on key employment locations (existing and planned).

SEA Objectives	Guide Questions: *Will the RTS (component)…*	Criteria to Assess Candidate Transport Options
	• Support the implementation of relevant equalities duties, as assessed through separate reporting?	
9. Health: Improve the health of the resident and workplace population, including with respect to physical and mental health and social wellbeing.	• Facilitate and encourage use of public transport and active travel? • Improve access to recreational opportunities and facilities? • Reduce the negative impacts of transport on human health, especially in terms of pollution and air quality? • Reduce the likelihood of transport-related road accidents and casualties? • Improve access to healthcare facilities? • Safeguard sensitive environmental receptors to maintain and enhance human health?	• Proximity to and impacts on access to healthcare facilities. • Proximity to and impacts on active travel networks. • Proximity to and impacts on open space provision and accessibility.
10. Material Assets: Manage, maintain and where possible improve the efficient and effective use of natural resources, land and infrastructure to meet identified needs.	• Implement the NTS2 Sustainable Investment Hierarchy across the SEStran region? • Unlock the delivery of housing to meet identified needs? • Prioritise the re-development of previously developed land? • Support the provision of adequate infrastructure, services and facilities to meet identified needs?	• Alignment with or ability to support land-use/spatial planning and economic development decisions. • Proximity to and impacts on the delivery of major development allocations and committed developments. • Facilitate the redevelopment of previously developed land. • Proximity to and impacts on vacant and derelict land (VDL). • Impacts on best and more versatile agricultural land. • Impacts on natural resources, including the extraction of mineral resources.

Appendix B Review of SEA Scoping Consultation Responses

Table B1: Summary of SEA Scoping Consultation Responses – Issues for RTS Development

SEA Consultation Body	Comment	Response
NatureScot	Scoping Report emphasises the 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. NatureScot notes the enhanced importance of addressing both the climate emergency and biodiversity emergency since NTS2 was published. This should be addressed in the final RTS but also that the Scoping Report should highlight that the vision and other aspects of the RTS will be considered against the context of the pandemic. NatureScot recommends that this change in context should be clearly acknowledged in the RTS Case for Change. As part of the options appraisal and eventual interventions to be proposed, impacts of the pandemic throughout the lifetime of the emerging RTS should be considered. This context should also take account of the Strategic Transport Projects Review (STPR2) Phase 1 Report and recommendations published in February 2021. Annex A - Section A.3.28 states reductions in journeys due to Covid-19 are temporary and expected to recover to 2019 levels. NatureScot notes 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.	The Initial Appraisal: Case for Change SEA Report has taken account of the impacts of the Covid-19 pandemic on regional transport issues, as will the final RTS. The impact on transport needs, operations, behaviours and related factors is clearly acknowledged. These impacts are considered alongside other factors affecting changes to transport needs and provision over the 20-year period of the RTS.
	Welcomes the issues scoped into the assessment and the emphasis on using the SEA process to inform the emerging RTS (section 2.4.2) and the stated use of SEA as a planmaking tool (section 4.2.3). Notes the added value that the approach brings (as is set out in the Scoping Report). Identifies key environmental opportunities for the RTS, including: *"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.*	The Initial Appraisal: Case for Change report considers a range of key environmental opportunities, as will the emerging RTS, including those submitted by NatureScot.

SEA Consultation Body	Comment	Response
	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".	
	NatureScot notes 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.	The emerging RTS will consider the value of natural infrastructure in the context of the RTS, particularly with regard to the networks, connections and storage relating to the enabling of transport infrastructure development, including the promotion of active travel.
	Welcomes 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.	Integrated approach to transport and land use planning to be adopted in emerging RTS.
	Following the inclusion of inclusive growth as one of the SEA Objectives, NatureScot notes potential tensions between inclusive growth and other 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.	The Inclusive Growth SEA Objective has been identified to provide coverage of the 'population' SEA topic prescribed within the 2005 Act. The 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 be an over-riding consideration.
	Notes importance of making sure that our 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 has identified 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.

Table B2: Summary of SEA Scoping Consultation Responses - Assessment Issues

SEA Consultation Body	Comment	Response
Historic Environment Scotland	Notes 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, recommendation that "'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".	The Cultural Heritage SEA Objective was amended to read 'Conserve, protect and enhance all assets of the historic environment including archaeological sites and cultural assets'.

SEA Consultation Body	Comment	Response
	HES notes that proximity is to be used as an assessment criterion for the assessment of spatially specific options. HES queries the use of a quantitative distance-based methodology for the assessment of impacts on setting. HES states the importance of taking qualitative factors into account when assessing impacts on heritage assets. HES provides 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 have been 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.
	Agreement with proposed 3 stage process of assessment with a representative panel of stakeholder interests convened to input during Stage 2: Preliminary Options Appraisal. HES recommends that HES is invited to participate in the Stage 2 appraisal panel to ensure early and effective consultation on the draft RTS.	We note and welcome the willingness of HES to participate in the Stage 2 - Preliminary Options Appraisal panel.
	HES recommends 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.	Provision of a full baseline and policy review is being deferred until the full ER that will accompany the Draft RTS at which time the baseline can be expanded to include HES suggestions.
	Remove reference to The Historic Environment Scotland Policy Statement 2016 and replace with the Historic Environment Policy for Scotland (2019) (HEPS). Also notes that the Historic Environment Circular 1 has now been superceded by the Historic Environment Scotland Circular. Under relevant regional PPS, amend to include the Forth Bridge World Heritage Site Management Plan.	Provision of a full baseline and policy review is being deferred until the full ER that will accompany the Draft RTS, at this stage this comment will be actioned.
	HES in agreement with proposed consultation periods of 6 weeks for the Initial Appraisal: Case for Change Report and its ER, and 12 weeks for the Draft RTS and its ER.	None required.
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 are to be 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.

SEA Consultation Body	Comment	Response
	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.	Both quantitative and qualitative methods will be used to assess risks to biodiversity resources throughout the region.
	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.	Provision of a full baseline and policy review is being deferred until the full ER that will accompany the Draft RTS, suggested amendments to the baseline will be made at that stage.
	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.	Provision of a full baseline and policy review is being deferred until the full ER that will accompany the Draft RTS, suggested amendments to the baseline will be made at that stage.
	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 stakeholders the analysis and decision-making process to arrive at the list of preferred options.	The Initial Appraisal: Case for Change Report has resulted in the development of SMART and evidence-based Transport Planning Objectives (TPOs) which provide the robust basis for the development and assessment of candidate policies, proposals and transport interventions in the emerging RTS in addition to providing the basis for the appraisal of alternative options. At Stage 2, the Options Appraisal (STAG Appraisal) process will then use integrated SEA and STAG criteria to establish and evaluate the impacts of reasonable alternative options for potential inclusion in the emerging RTS. A representative panel of stakeholder interests will be convened to provide proportionate inputs to the appraisal of options including reasonable alternatives.
	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.	The willingness of NatureScot to participate in the Stage 2 - Options Appraisal panel is noted and welcomed.
	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 will be prepared to accompany each formal RTS consultation document, including the Initial Appraisal: Case for Change Report. The Environmental Report which accompanies the Draft RTS will also be consulted on for a 12 week consultation period.

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