SEStran Regional Transport Strategy

SEA Scoping Report

On behalf of **South East of Scotland Transport Partnership (SEStran)**

GO SEStran
South East of Scotland Transport Partnership

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1 Introduction

1.1 Background

1.1.1 Stantec UK has been commissioned by South East Scotland Transport Partnership (SEStran), acting in their capacity as the Regional Transport Partnership (RTP) for the South East of Scotland, to assist with the preparation of a new Regional Transport Strategy (RTS). This commission includes undertaking a multi-stage Strategic Environmental Assessment (SEA) of the emerging new Regional Transport Strategy for the South East Scotland region ('the emerging RTS') in accordance with statutory requirements. This SEA Scoping Report is the first stage of a SEA process to identify, assess and address any likely significant effects on the environment from the emerging RTS.

1.2 Purpose

1.2.1 This SEA Scoping Report seeks the views of the SEA Consultation Authorities[1] on the proposed scope, methodology, consultation arrangements and level of detail required in undertaking a proportionate and robust SEA of the emerging RTS. The report has been prepared in accordance with the Environmental Assessment (Scotland) Act 2005 ('the 2005 Act').

1.2.2 In accordance with the 2005 Act, the SEA Consultation Authorities are invited to provide comments regarding the proposed scope of and approach to undertaking a SEA of the emerging RTS. Any comments should be provided within the prescribed statutory consultation period (i.e. within 5 weeks of receiving this report) and directed via email to:

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1.3 SEA Scoping Report Content and Structure

1.3.1 This SEA Scoping Report provides all information considered necessary to comply with Section 15 of the 2005 Act. The report has also taken account of the information requirements for Environmental Reports contained in Schedule 3 to the 2005 Act where relevant. Where information pertaining to Schedule 3 is provided in this Scoping Report, this will also be updated as required and included within or appended to each Environmental Report accompanying iterative substantive consultations on the proposed form and content of the emerging RTS.

1.3.2 This Report is structured as follows:

- **Section 1 - Introduction** – the remainder of this section introduces SEStran RTP and outlines relevant statutory requirements relating to the need to undertake a SEA in respect of the emerging RTS;
- **Section 2 – RTS Context and Proposed Content** describes the context in which the emerging RTS is being developed and outlines its proposed form and content, all of which requires to be assessed through this SEA;
- **Section 3 – Key Baseline and Policy Issues** summarises pertinent environmental, equalities and health issues and conditions which must be taken account of within the

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

emerging RTS and therefore within this SEA. The section also considers the likely evolution of the baseline scenario in the absence of the development of a new RTS and identifies the relationship between the emerging RTS and other relevant plans and programmes. Further relevant details are provided in **Appendices A** and **B**;

- **Section 4 – Proposed SEA Framework** describes the assessment framework which, subject to any views expressed by the SEA Consultation Authorities or other consultees, will be used to identify and assess the likely significant effects on the environment of the emerging RTS;

- **Section 5 – Proposed SEA Methodology** builds upon Section 4 by detailing the proposed method of assessing the likely environmental effects of each emerging substantive component of the RTS; and,

- **Section 6 – Next Steps** outlines next steps to be followed in the SEA process and sets out proposed consultation arrangements for the Environmental Reports (ER) which will be published in tandem with each substantive RTS consultation document. This section also confirms how comments in respect of this SEA Scoping Report should be submitted.

1.3.3 The main body of this SEA Scoping Report is supported by two appendices:

- **Appendix A – Baseline Analysis** supports **Section 3** by providing a review of baseline characteristics relevant to the assessment of likely significant environmental effects from the emerging RTS. In accordance with statutory requirements, this appendix includes a description of aspects of the environment which at this stage have the potential to be significantly affected by the emerging RTS. The appendix also identifies relevant issues, problems and objectives which should be taken account of both in the development of the emerging RTS and in this SEA; and,

- **Appendix B – Review of Plans, Programmes and Strategies** supports **Section 3** by providing a review of other plans and programmes of relevance to the emerging RTS. With reference to statutory requirements, this appendix considers the relationship between other relevant plans and the emerging RTS in order to identify the key policy issues which should be considered within the strategy itself and this SEA.

1.4 Overview of SEStran and the New Regional Strategy for South East Scotland

1.4.1 SEStran is the statutory RTP for the South East Scotland region ('the SEStran region')[2], defined by reference to 8 local authority and constituent council ward boundaries from Scottish Borders Council in the south to the Fife Council area in the North.

1.4.2 In accordance with Sections 5 and 6 of the Transport (Scotland) Act 2005, the 1st SEStran RTS was prepared and approved in 2008 for the SEStran region. In July 2015, the SEStran RTS 2015-2025 Refresh was published to take account of RTS projects completed and address policy changes since 2008. Following the publication of the National Transport Strategy 2 in February 2020, a new RTS is now required (as described further in **Section 4.2**). The proposed form and content of the emerging RTS is outlined in **Section 2.3**.

1.4.3 The SEStran region covers an area of approximately 3,180 sq.m and is home to around 28% of Scotland's population. The extent of the SEStran region is shown in **Figure 1.1**.

[2] As designated under Transport (Scotland) Act 2005 and the Regional Transport Partnerships (Establishment, Constitution and Membership) (Scotland) Order 2005

Figure 1.1: SEStran Region

1.5 Statutory Requirements

1.5.1 This SEA Scoping Report responds to statutory provisions within Environmental Assessment (Scotland) Act 2005 (hereafter 'the SEA Act') applicable to preparation of the emerging RTS, which itself requires to be prepared under the Transport (Scotland) Act 2005. The implications of these statutory requirements for this SEA are outlined below.

Regional Transport Strategies

1.5.2 The Transport (Scotland) Act 2005 (as amended) requires RTPs to prepare a RTS for their area and to keep this under review. Section 5(2) of the Act prescribes matters which must be addressed within an RTS, including the need to set out *"how transport will be provided developed, improved and operated so as—*

1. *to enhance social and economic well-being;*
2. *to promote public safety, including road safety and the safety of users of public transport;*
3. *to be consistent with the principle of sustainable development and to conserve and enhance the environment;*
4. *to promote social inclusion;*

5. *to encourage equal opportunities and, in particular, the observance of the equal opportunities requirements;*

6. *to facilitate access to hospitals, clinics, surgeries and other places where a health service is provided;*

7. *to integrate with transport elsewhere*".

1.5.3 SEA and Equalities Duties (EqIA) processes to accord with other relevant legislation (see below) should assist in providing the evidence necessary to demonstrate compliance with these statutory duties.

1.5.4 Section 5(3) of the Act identifies the need for the preparation of an RTS to have regard to any "*current national transport strategy* (NTS)" and relevant guidance issued by the Scottish Ministers. The emerging RTS will therefore need to closely align with and provide a regional framework to help implement Scotland's National Transport Strategy 2 (NTS2), which was published by the Scottish Government in February 2020.

Strategic Environmental Assessment

1.5.5 The 2005 Act requires 'responsible authorities', including regional transport partnerships such as South East of Scotland Transport Partnership (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 (i.e. the emerging RTS). The assessment is carried out by following a staged process of reporting known as Strategic Environmental Assessment (SEA).

1.5.6 The emerging RTS is considered to fall within the scope of Section 5(3) of the 2005 Act as requiring a SEA to be carried out. It is a 'relevant' plan for the purposes of this legislation as it is required in response to administrative and legislative provisions[3] and will influence the development and consenting of future policies and projects, in particular the implementation of the emerging and future Local Development Plans (LDPs) and Local Transport Strategies (LTS). The emerging RTS also satisfies the test of being a 'qualifying' plan, meaning that SEA is required, as it is being prepared for transport purposes, has the potential to set the framework for future development consent of projects (transport and other development) requiring an Environmental Impact Assessment (EIA) and will apply to the whole SEStran region, rather than only to a small area. This means there is no option to exempt the emerging RTS from SEA requirements and that at this stage, the strategy is considered likely to result in significant effects on the environment.

1.5.7 Under the 2005 Act, once the need for SEA of a plan or programme has been established (see above), a three-stage process is required:

- **SEA Scoping** (Section 15): Responsible authorities must provide the SEA Consultation Authorities with sufficient information to enable them to consider the proposed scope, level of detail and consultation period for an Environmental Report to accompany the emerging plan or programme under consideration. **This SEA Scoping Report responds to this legislative requirement**;

- **Preparation of and Consultation regarding an Environmental Report**: The relevant responsible authority must prepare an Environmental Report (ER) to "*identify, describe and evaluate the likely significant effects on the environment of implementing*" the emerging

[3] Namely the requirement under Sections 5 and 7 of the Transport (Scotland) Act 2005 for each statutory Regional Transport Partnership to develop a Regional Transport Strategy, keep it under review and develop a new Strategy if deemed necessary.

plan or programme and its reasonable alternatives. As above, the scope, level of detail and consultation period of the SEA should first be defined through scoping. To ensure full statutory compliance it is proposed that iterative ERs will be prepared to accompany each formal consultation document which contains substantive proposals for inclusion in the RTS. It is therefore proposed to prepare ERs to accompany the Case for Change Report; STAG Appraisal Report; and Draft RTS. The level of detail in each ER will be proportionate to the level of detail included within the corresponding substantive consultation document; and,

- **Preparation of a Post Adoption SEA Statement**: Following modifications as necessary to respond to representations submitted regarding the Draft RTS, SEStran will submit the finalised RTS to the Scottish Ministers for their approval. Following the approval of the RTS, a statement must be prepared to set out, amongst other matters, how environmental considerations have been taken into account in the finalised RTS and how any likely significant effects of the RTS on the environment (as predicted through this SEA) will be monitored.

Other Impact Assessments

This SEA is being carried out alongside the application of relevant 'equalities duties' prescribed through relevant statutory and policy requirements. The proposed approach to integrating the EqIA and SEA of the RTS is detailed in **Sections 4** and **5** of this report, and further details regarding the proposed approach to undertaking the EqIA will be set out within a separate non-statutory **Equalities Duties Assessment Framing Note**.

2 RTS Context and Proposed Content

2.1 Introduction

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

2.2 New Regional Transport Strategy for South East Scotland Key Facts

2.2.1 The key facts relating to the emerging New Regional Transport Strategy for South East Scotland ('the RTS') are detailed in **Table 2.1** below.

Table 2.1: The new RTS for South East Scotland

Responsible Authority	South East of Scotland Transport Partnership
SEA Assessor on behalf of the Responsible Authority	Stantec UK Ltd
Strategy Title	New Regional Transport Strategy for the SEStran Region
Expected Adoption Date	2022
Plan Subject:	Transport
Reason for the Strategy:	A new RTS is required to replace the current RTS for the South East of Scotland, which expires in 2025, to comply with statutory requirements and to address changes in transport needs, impacts, investment priorities, governance arrangements and the policy context since the adoption of the current RTS in July 2015.
Area covered by the Strategy	The South East of Scotland region ('the SEStran region') as designated under the Regional Transport Partnerships (Establishment, Constitution and Membership) (Scotland) Order 2005 as amended. The SEStran region covers the following local authorities: ▪ City of Edinburgh Council ▪ Clackmannanshire Council ▪ East Lothian Council ▪ Falkirk Council ▪ Fife Council ▪ Midlothian Council ▪ Scottish Borders Council ▪ West Lothian Council

2.3 Proposed Form and Content of the RTS

Overview

2.3.1 In accordance with the Transport (Scotland) Act 2005, SEStran prepared the first RTS for the South East Scotland region covering the period 2008 – 2023. In 2015, SEStran published an update to the RTS, covering the period 2015-2025. The emerging RTS is being developed to replace the current RTS once it expires in 2025 and to set out a new long term transport vision,

outcomes and strategic objectives for the South East Scotland region, aligned with the NTS2 (2020).

2.3.2 At this stage it is envisaged that a new RTS for the SEStran region will comprise the following substantive components:

- Vision
- Outcomes and Strategic Objectives
- Policies
- Delivery Framework: Transport Proposals and Interventions.

2.3.3 It is also envisaged that the new RTS will include a Monitoring and Evaluation Framework to support the effective delivery of the substantive components listed above. It should be noted that this list of intended RTS components is not exhaustive and may change through the development of the strategy.

2.3.4 Each substantive component of the emerging RTS will need to be subject to SEA in line with the approach set out within this SEA Scoping Report. To comply with case law requirements, the emerging RTS will need to include a reasoned justification for the inclusion of each substantive component and be supported by a robust evidence base. This evidence base will inform the SEA process as well as being required for strategy preparation purposes.

RTS Components

2.3.5 A new vision and suite of strategic objectives to underpin the new RTS will be implemented through a suite of associated policies and proposals (i.e. proposed transport interventions) which will be included within the emerging RTS and an associated delivery plan. The new RTS will not be supported by dedicated capital funding, so to be effective at securing funding from potential sources to implement strategic interventions, informing decisions at regional and local levels and catalysing further action, the new RTS is likely to focus on setting out a coherent spatially based framework to implement the NTS2 at regional and local levels. In doing so, the RTS will provide an evidence based and detailed regional framework to respond to identified key transport challenges. This will provide a strong foundation for Local Transport Strategies tied directly to local authority funding streams to appraise, develop and implement local interventions aligned with the RTS and NTS2.

2.3.6 Once the RTS is finalised and approved by the Scottish Ministers, the implementation of policies and proposals is expected to be detailed further within subsequent delivery and monitoring reports. These reports, which fall outwith the scope of this SEA, will have the status of live delivery documents and are not likely to result in any significant environmental effects beyond those already identified through this SEA of the emerging RTS, as all substantive RTS proposals and policies will be assessed through the SEA. In the event that future delivery or monitoring reports do set out new substantive policies or proposals not already assessed within this SEA, SEStran would need to consider the implications of this in relation to statutory impact assessment requirements (i.e. the need to undertake a further SEA and/or EqIA as appropriate).

2.4 RTS Development Process

2.4.1 A collaborative approach is being adopted to prepare the emerging RTS, with a strong emphasis on stakeholder engagement from the outset. The preparation of the emerging RTS will also be closely informed by this SEA and the application of relevant ‘equalities duties’ as will be detailed within a separate **SEStran RTS Equalities Duties Assessment Framing Note**.

2.4.2 Building on the SEStran RTS Main Issues Report (2020), this SEA Scoping Report and the **Equalities Duties Assessment Framing Note** seek to identify key environmental and equalities issues for consideration within the new RTS and to outline proposed approaches to undertaking a proportionate and robust statutory impact assessments. These assessments are being used as tools to inform the emerging RTS, rather than simply being statutory reporting exercises. This integrated approach allows the environmental, social and economic implications of all plan components to be tested at the earliest opportunity and for any uncertainties, issues or mitigation requirements identified during impact assessment processes to be addressed during RTS preparation.

2.4.3 In accordance with established Scottish Transport Appraisal Guidance (STAG principles), a three stage process is being applied to prepare a new Draft RTS for the SEStran region:

- **Initial Appraisal: Case for Change**: Development of SMART and evidenced-based Transport Planning Objectives (TPOs) to provide 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. Building on the SEStran RTS Main Issues Report (2020), the next stage of RTS preparation will involve more extensive baseline analysis to identify a suite of key transport problems and issues which should be addressed in the emerging RTS. From this, a corresponding suite of proposed Transport Planning Objectives (TPO), to be referred to as outcomes and strategic objectives, and vision will be defined to provide a strategic framework under which candidate policies, proposals and interventions can be developed. In addition to the TPOs setting out the outcomes for the region in alignment with NTS2, they will also provide the basis for the appraisal of alternative options;

- **Preliminary Options Appraisal**: STAG Appraisal (Summer 2021): detailed appraisal of identified options (policies and proposals) using integrated SEA and STAG criteria (Environment, Safety, Economy, Integration and Accessibility) to establish and evaluate reasonable alternative options for potential inclusion within the Draft RTS to achieve the proposed RTS vision and objectives (TPO). SEA, STAG and equalities duties assessment processes will be integrated to generate a clear audit trail which identifies reasonable alternative options; and,

- **SEStran RTS Preparation**: The outcome of the appraisal (STAG) stage will be the identification of a recommended strategic framework (vision, outcomes and strategic objectives) and corresponding implementation options (policies, proposals and transport interventions) for inclusion in the Draft RTS. All selected components will be drawn together to create a visionary and engaging Draft RTS.

2.4.4 To remain proportionate and effective formal consultation will only be undertaken at the first and third of these stages (Initial Appraisal: Case for Change and Draft RTS), with a representative panel of stakeholder interests instead convened to provide proportionate inputs to the appraisal of options during Stage 2 - Preliminary Options Appraisal.

2.4.5 Following consultation on the Draft RTS, two further stages will need to be completed before the finalised new RTS can be approved:

- Submission of Finalised RTS (March 2022): Following modifications as necessary to respond to representations submitted regarding the Draft RTS, SEStran will submit the Finalised RTS to the Scottish Ministers for their approval in accordance with the Transport (Scotland) Act 2005; and,

- Approval of Finalised RTS (Spring 2022): Subject to ministerial consideration and approval (with potential modifications), SEStran will proceed to adopt the finalised RTS. At this point, the new RTS will supersede the existing SEStran RTS Refresh 2015 – 2025.

3 Key Baseline and Policy Issues

3.1 Introduction

3.1.1 **Section 3.2** summarises pertinent environmental and socio-economic conditions relating to transport in the SEStran region which must be taken account of within the emerging RTS and within this SEA. **Section 3.3** then identifies the relationship between the emerging RTS and other relevant plans and programmes. Each section is supported by detailed baseline and policy reviews provided in **Appendices A** and **B** respectively.

3.2 Overview of Baseline Characteristics

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

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

Grouped Baseline Topics	SEA Environmental Aspects	Key Issues
Air and Climate	Air Quality Climatic Factors	• 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.

3.3 Relationship between the Emerging RTS and Other Relevant Plans

3.3.1 In accordance with the 2005 Act, a review of the relationship between the emerging RTS and other relevant plans and programmes (including legislation, policies and strategies at all spatial scales) has been carried out, as detailed fully within **Appendix B**. This review has identified key requirements, objectives and priorities of relevant plans and their implications for both the emerging RTS itself and for this SEA.

3.3.2 Undoubtedly the most important relationship between the emerging RTS and other plans and strategies is the need for the RTS to provide an appropriate framework to implement the National Transport Strategy 2 (NTS2) at a regional level. Published in February 2020, the NTS2 sets out a holistic vision for a "*sustainable, inclusive, safe and accessible transport system, helping deliver a healthier, fairer and more prosperous Scotland for communities, businesses and visitors*". To deliver this the NTS2 outlines a strategic framework underpinned by four thematic priorities, which form the basis from which decisions will be evaluated on the success of future transport policies and proposals at national, regional and local levels:

- Reduces inequalities
- Takes climate action
- Helps deliver inclusive economic growth
- Improves our health and wellbeing

3.3.3 One of the key priorities identified within the NTS2 is the need to better integrate transport planning, land use/spatial planning and economic development decisions. This highlights the importance of fostering strong bi-directional relationships between the emerging RTS and other emerging regional plans, specifically including the Regional Spatial Strategies (RSS) being developed for the South East Scotland and Forth Valley regions.

3.3.4 From the review of relevant plans and strategies provides in **Appendix B**, it is clear the emerging RTS should:

- Align with relevant existing and emerging policies and proposals within relevant national, regional and local plans and strategies. In particular, the emerging RTS must support the delivery of the 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.

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

3.4 Summary

3.4.1 All of the identified key environmental and socio-economic issues (**Table 3.1**) and key policy issues (listed above) need to be addressed within the emerging RTS in order to effectively tackle pertinent transport problems, support the implementation of other existing and emerging plans and policies, and to allow the plan to contribute to the delivery of sustainable development. A key role of this SEA is therefore to provide a systematic assessment of the emerging RTS to ensure it appropriately addresses all of the identified key issues and therefore contributes to achieving sustainable development.

3.4.2 The identified key issues need to be reflected within a suite of bespoke SEA Objectives which together will form a framework ('the SEA Framework') for use in assessing the performance and likely significant environmental effects of the emerging RTS at all consultation stages. The development of SEA Objectives relating to all identified baseline and policy issues should help to ensure that these issues are appropriately addressed within the emerging RTS itself. Full details regarding the proposed SEA Framework and constituent SEA Objectives are set out in **Section 4**.

4 Proposed SEA Framework

4.1 Introduction

4.1.1 This section sets out the assessment framework which, subject to any views expressed by the SEA Consultation Authorities, will be used to identify and assess the likely significant environmental effects of the emerging SEStran RTS.

4.1.2 The SEA of the emerging RTS will be underpinned by an SEA Framework, comprising a suite of thematic SEA Objectives and associated Guide Questions and spatial criteria. This will be used to assess the likely significant environmental effects of all substantive components of the emerging RTS in an integrated manner. As detailed in **Section 5**, a consistent scoring system will be adopted to assess proposed RTS components against the SEA Framework and to allow likely significant environmental effects to be identified in accordance with the SEA Act.

4.2 Review of the Existing RTS SEA Framework

4.2.1 The starting point of this SEA process is to consider whether the approach adopted to undertake the SEA of the first SEStran RTS (completed in 2008) and consider the environmental implications of the SEStran RTS Refresh 2015 - 2025 remains valid, or if a revised framework is needed to allow this SEA to proportionately and effectively respond to key issues identified in **Section 3**.

4.2.2 The SEA Framework developed to underpin the SEA of the first RTS (approved 2008) was based around five themes and supporting sub-objectives, which represented qualitative criteria that each substantive component of the RTS was tested against throughout its development. These themes and sub-objectives included coverage of pertinent issues including climate change mitigation, protecting the physical environment and tackling inequalities, but only at a high level and with reference to 2010 based emission reduction targets which have since been superseded.

4.2.3 The SEA of the draft 1st SEStran RTS was undertaken in 2006 in the infancy of formal SEA practice in Scotland following the enactment of the 2005 Act. SEA caselaw and best practice has evolved in the interim period, with SEA now best understood as a planmaking tool to review reasonable alternative options and optimise the response of a plan or strategy to key environmental issues rather than being solely a technical reporting exercise.

4.2.4 Following publication of the National Transport Strategy 2 (NTS2) in February 2020, there is now greater emphasis on the role of the transport system in Scotland to reduce inequalities, improve health and wellbeing, further address the climate emergency and to help deliver inclusive economic growth. Changes in SEA best practice combined with the increased centrality of socio-environmental issues in national transport policy, which the emerging RTS must help to implement, points to the need for a new RTS SEA framework to be developed which fully responds to these issues.

4.3 Proposed Scope of RTS SEA Framework

4.3.1 This subsection provides an overview of the topics which need to be considered through this SEA and therefore within the SEA Framework. The scope of the SEA Framework must be sufficiently wide to enable the likely significant environmental effects of the emerging RTS to be identified and addressed in accordance with statutory requirements (**Section 1.5**). From **Section 4.2** it is also clear that the RTS SEA Framework should evolve from the Framework previously adopted for the 1st SEStran RTS in order to address all pertinent environmental issues and reflect current SEA best practice.

4.3.2 As with the previous SEA Framework adopted for the first SEStran RTS, all environmental topics prescribed within Schedule 3 of the SEA Act will need to be addressed within the new SEA Framework. This is because, at this early stage, it is considered that substantive components within the emerging RTS have some potential to result in some significant environmental effects in relation to all of the topics. This does not however mean that the end result of undertaking SEA will be that any significant effects in relation to all of environmental topics are necessarily identified, rather that at this early stage there is some possibility of significant effects occurring and this requires further examination through the SEA process.

4.3.3 In accordance with the SEA Act, the SEA will therefore include an assessment of likely significant environmental effects arising from the emerging RTS in relation to:

a) Biodiversity;

b) Population;

c) Human health;

d) Flora;

e) Fauna;

f) Soil;

g) Water;

h) Air;

i) Climatic Factors;

j) Material assets;

k) Cultural heritage, including architectural and archaeological heritage; and

l) Landscape.

4.3.4 The inclusion of 'population', 'human health' and 'material assets' as SEA topics provides a basis upon which to link this SEA with the equalities impact assessment (EqIA) also required in order to demonstrate compliance with statutory or other relevant equalities duties. The SEA Framework (**Table 4.4**) will therefore include relevant objectives to enable a high-level assessment of likely effects on different demographic groups and health to be included within the SEA and to provide a starting point for the EqIA. More detailed analysis of pertinent equalities issues and likely impacts from the emerging RTS will then be provided in EqIA reports, as will be detailed within a separate non-statutory EqIA Scoping Note.

4.4 Proposed SEA Objectives for the Emerging RTS

4.4.1 **Section 4.2** above indicates that whilst the SEA Framework adopted for the first SEStran RTS addresses relevant issues, a new framework is needed to allow the SEA of the emerging RTS to proportionately and effectively address all pertinent environmental issues and likely effects from the emerging RTS in a co-ordinated manner.

4.4.2 Having regard to relevant statutory requirements (**Section 1.5**), the proposed form and content of the emerging RTS (Section 2), and pertinent environmental issues (Section 3), the proposed SEA Objectives for use in this SEA are listed in **Table 4.1** below. The emphasis on implementing a holistic approach to climate action and tackling inequalities across many of the SEA Objectives is intended to reflect the cross-cutting nature of relevant environmental issues and to provide a

focus to underpin this SEA, rather than disparate environmental issues being assessed separately.

4.4.3 To remain focused on addressing identified key environmental issues and provide an objective assessment framework the proposed SEA Objectives do not themselves refer to the transport system, as doing so could limit their applicability to assessing interventions *within* the system rather than also considering the effectiveness of relationships *between* transport, land uses, social interactions and economic activities.

Table 4.1 Proposed SEA Objectives for the emerging RTS

SEA Objective Title	SEA Objective
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.
2. Air Quality and Amenity	Tackle poor air quality, reduce concentrations of harmful atmospheric pollutants and minimise exposure to noise and vibration.
3. 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.
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.
5. Cultural Heritage	Conserve, protect and enhance the historic environment and cultural assets.
6. Landscape	Protect and enhance the landscape character, townscape character and visual amenity.
7. Accessibility	Ensure appropriate and affordable access for all to facilities, services, economic opportunities and social activities.
8. Inclusive Growth	Improve social and economic prosperity for all by enhancing productivity and competitiveness and through reducing societal inequalities.
9. Health	Improve the health of the resident and workplace population, including with respect to physical and mental health and social wellbeing.
10. Material Assets	Manage, maintain and where possible improve the efficient and effective use of natural resources, land and infrastructure to meet identified needs.

4.4.4 These proposed SEA Objectives are designed to complement each other, avoid assessment duplication and relate to the specific content of the emerging RTS, to underpin a proportionate and effective SEA. To demonstrate compliance with statutory requirements, **Table 4.2** below shows the link between the proposed SEA Objectives and the topics specified in Schedule 3 (paragraph 6, points a – m) of the 2005 Act.

Table 4.2: Relationship between Proposed SEA Objectives and the 2005 Act

Proposed SEA Objective		Environmental Topic(s) as per SEA Act-Schedule 3
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.	G
2.	Air Quality and Amenity: Tackle poor air quality, reduce concentrations of harmful atmospheric pollutants and minimise exposure to noise and vibration.	C, H
3.	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.	A, D, E, F
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.	G, I
5.	Cultural Heritage: Conserve, protect and enhance the historic environment and cultural assets.	K
6.	Landscape Protect and enhance the landscape character, townscape character and visual amenity.	L
7.	Accessibility: Ensure appropriate and affordable access for all to facilities, services, economic opportunities and social activities.	B, J
8.	Inclusive Growth: Improve social and economic prosperity for all by enhancing productivity and competitiveness and through reducing societal inequalities.	B, J
9.	Health: Improve the health of the resident and workplace population, including with respect to physical and mental health and social wellbeing.	B, C
10.	Material Assets: Manage, maintain and where possible improve the efficient and effective use of natural resources and infrastructure to meet identified needs.	J

4.4.5 **Table 4.2** demonstrates that there is good coverage of all SEA topics within the proposed SEA Objectives and that they will allow related sustainability issues to be addressed in tandem. This should ensure that any conflicts between either the SEA Objectives or the components of the emerging RTS can be identified and resolved through the SEA process.

4.5 Proposed SEA Framework

4.5.1 To enable this SEA to be undertaken in a proportionate and targeted manner a SEA Framework will be used, comprising:

- The proposed SEA Objectives (see **Table 4.1**);
- A suite of relevant Guide Questions relating to each SEA Objective. Subject to views expressed by the SEA Consultation Authorities, this will 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; and,
- A suite of spatial criteria which are proposed to be considered in the assessment of proposed and reasonable transport interventions and schemes being considered for inclusion within the emerging RTS (as defined in Section 5.2). These criteria relate to environmental criteria prescribed within Scottish Transport Appraisal Guidance (STAG) and will therefore be used where relevant to inform the selection of transport interventions and schemes for inclusion within the emerging RTS, as well as to demonstrate compliance with SEA requirements. The proposed criteria include distance-based thresholds for use in a high level analysis of site specific candidate transport interventions and schemes using geographical information systems (GIS) software, as well as relevant qualitative criteria. Of note, the proposed spatial criteria will be subject to refinement and will only be applied where practicable and appropriate in relation to the stage of the SEA process and the types of transport interventions being proposed.

4.5.2 The proposed SEA Framework is detailed in **Table 4.3** below. During the assessment stage of the SEA a further suite of indicators will be developed to provide a framework for monitoring the likely significant environmental effects of the emerging RTS in accordance with the SEA Act. This monitoring framework will also be used by SEStran to monitor the effectiveness of the new RTS (e.g. to assess whether key targets are being met) and to inform future reviews of the strategy.

Table 4.3: Proposed RTS SEA Framework

Proposed SEA Objectives	Proposed Guide Questions: Will the RTS (component)…	Proposed Criteria to Assess Candidate Transport Interventions and Schemes
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.

Proposed SEA Objectives	Proposed Guide Questions: Will the RTS (component)…	Proposed Criteria to Assess Candidate Transport Interventions and Schemes
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 the historic environment 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?	• Proximity to and potential effects on heritage assets, important archaeological sites and 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? • Improve physical access to employment for all? • Reduce the need to travel?	• Directing high footfall development to highly accessible locations. • Proximity to and impacts on the public transport network. • Proximity to the strategic road network (motorways and trunk roads).

Proposed SEA Objectives	Proposed Guide Questions: Will the RTS (component)…	Proposed Criteria to Assess Candidate Transport Interventions and Schemes
	• 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 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? • Support the implementation of relevant equalities duties, as assessed through separate reporting?	• 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).

Proposed SEA Objectives	Proposed Guide Questions: Will the RTS (component)…	Proposed Criteria to Assess Candidate Transport Interventions and Schemes
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.

5 Proposed SEA Methodology

5.1 Introduction

5.1.1 Building upon the proposed SEA Framework detailed in **Section 4**, this section outlines the proposed methodology to be adopted to undertake the SEA of the emerging RTS.

5.2 Proposed SEA Reporting

5.2.1 With reference to the three-stage process outlined in **Section 2.3** to develop the Draft RTS, SEA including testing of identified options and analysis of reasonable alternatives will be undertaken by a dedicated assessment team throughout the process. Iterative SEA Environmental Reports will be prepared to accompany each formal RTS consultation document (i.e. Initial Appraisal: Case for Change and Draft RTS). SEA findings from analysis undertaken at Stage 2 - Preliminary Options Appraisal and from formal assessment of Draft RTS components will both be reported within the Draft RTS ER to provide a transparent audit trail of decision making regarding the identification, assessment and selection of reasonable alternative options for inclusion within the Draft RTS.

5.2.2 It is proposed to prepare proportionate ER to accompany the Initial Appraisal Case for Change Report and Draft RTS, each of which will be prepared in accordance with this SEA Scoping Report and will provide an assessment of likely significant environmental effects from the substantive components detailed in the corresponding substantive consultation document. Reflecting the iterative content of each RTS consultation document it is likely that the ER prepared to accompany the Case for Change Report will comprise a concise technical note, whereas a longer and more detailed ER will be prepared to accompany the Draft RTS.

5.2.3 In accordance with the 2005 Act, each ER is proposed to include the following:

- A Non-Technical Summary;
- An overview of the form, content and development of the emerging RTS to date;
- Details of the scope and purpose of SEA and the assessment methodology deployed to assess the substantive component(s) proposed within the corresponding RTS document (Case for Change, STAG Appraisal or Draft RTS);
- A summary of the key objectives of other plans and programmes and socio-economic and environmental issues relevant to the emerging RTS and this SEA (to be developed from Section 3 and Appendices A and B of this SEA Scoping Report);
- The results of the SEA of proposed RTS components and identified reasonable alternatives; and,
- Proposals for the implementation and monitoring of the proposed RTS components.

5.2.4 Each iterative ER will contain a series of matrices to assess substantive components of the emerging RTS against the SEStran RTS SEA Framework. All matrix-based detailed assessments of individual components of the emerging RTS will be contained within appendices to the SEA report, with key findings set out within the main body of the report. In accordance with the SEA Regulations, a separate Non-Technical Summary (NTS) document will be prepared to provide the information prescribed within Schedule 3 of the SEA Act and present the key findings of the SEA in non-technical language.

5.3 Proposed SEA Methodology

Overview

5.3.1 Based on the intended form of the emerging RTS, as detailed in **Section 2.3**, it is envisaged that the SEA Framework set out in **Table 4.3** will be used to assess all proposed substantive components as they emerge, together with any identified reasonable alternatives to these (as defined below). The SEA will therefore include assessments of the proposed vision, strategic outcomes and objectives, policies (strategic, modal and area specific), and transport interventions or schemes for inclusion within the emerging RTS.

SEA of Vision and Outcomes and Strategic Objectives

5.3.2 It is important that the vision, outcomes and strategic objectives of the emerging RTS are aligned with the SEA Framework and reflect the identified key environmental issues, as all other RTS components will flow from them. These emerging components will therefore be assessed at the Initial Appraisal: Case for Change stage for their compatibility with each SEA Objective within the SEA Framework, with the assessment updated at later stages to reflect any subsequent refinements to the RTS strategic framework.

5.3.3 Owing to the high-level nature of the RTS vision, outcomes and strategic objectives it is not likely to be possible to identify the significance (in the context of the SEA Act) of predicted effects from their implementation. However, the assessment will seek to provide an indication of any likely significant environmental effects, with any uncertainties also noted. Should the proposed vision, outcomes or strategic objectives be judged to be incompatible with the SEA Objectives, suitable mitigation measures in the form of revised wording will be recommended.

5.3.4 A compatibility matrix similar to **Table 5.1** and an accompanying commentary will be used to record the assessment of the proposed RTS vision, outcomes and strategic objectives.

Table 5.1: Proposed Compatibility Matrix to Assess Vision and Strategic Objectives

SEA Objectives	RTS Vision	RTS Outcome 1	RTS Outcome 2	RTS Strategic Objective 1	RTS Strategic Objective 2	Etc.	Commentary
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.							
2. Air Quality and Amenity: Tackle poor air quality, reduce concentrations of harmful atmospheric pollutants and minimise exposure to noise and vibration.							
3. 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.							
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.							
5. Cultural Heritage: Conserve, protect and enhance the historic environment and cultural assets.							
6. Etc							
KEY	+	Compatible	-	Incompatible	?	Uncertain	
	0	Neutral	~	No Clear Relationship			

SEA of Proposed RTS Policy Options and RTS Policies

5.3.5 All proposed broad policy options (strategic, modal and area specific) and detailed policies, together with any identified reasonable alternatives, will be assessed using the SEA Framework and reported within the Draft RTS ER. For reasons of proportionality this assessment will be undertaken using separate matrices for thematic groups of policy options/policies, with each matrix also assessing the likely effects of any relevant reasonable alternatives identified in relation to these. If a proposed policy option or policy includes multiple discrete transport proposals or interventions, these components will be assessed individually (see below) before contributing to the overall assessment of the relevant broad policy option or detailed policy.

5.3.6 The scoring system and definitions of effect significance which will be used to assess proposed policy options and policies is detailed in **Table 5.2**.

Table 5.2: Proposed Scoring System to Establish Likely Effects

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

5.3.7 The findings of the assessment will be presented within the ERs to accompany the STAG Appraisal Report and the Draft RTS, using matrices similar to that shown in **Table 5.3**. In accordance with statutory requirements, each matrix will include a commentary to:

- Justify the assessment scoring for each assessed policy;
- Identify any likely significant environmental effects; and,
- Identify any mitigation or enhancement measures considered necessary to avoid significant adverse environmental effects or to enhance the performance of the proposed policies.

5.3.8 For brevity and formatting reasons it is not proposed to reproduce the Guide Questions associated with each SEA Objective within the final version of these matrices in each iterative ER. However, the Guide Questions will be used to undertake the SEA and the SEA Framework will be appended to each iteration of the SEStran RTS ER in full.

Table 5.3: Proposed Assessment Matrix for Proposed RTS Policies

Policy Grouping: XX				
SEA Objective	**Policy 1: XX**	**Policy 2: XX**	**Policy 3: XX**	**Commentary**
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.	+	~	++	Assessment of Predicted Effects Mitigation and Enhancement Assumptions Uncertainties
2. Air Quality and Amenity: Tackle poor air quality, reduce concentrations of harmful atmospheric pollutants and minimise exposure to noise and vibration.	+	-	--	Assessment of Predicted Effects Mitigation and Enhancement Assumptions Uncertainties

Policy Grouping: XX				
SEA Objective	**Policy 1: XX**	**Policy 2: XX**	**Policy 3: XX**	**Commentary**
3. 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.	+	?	++	Assessment of Predicted Effects Mitigation and Enhancement Assumptions Uncertainties
Etc.				

SEA of Proposed Proposals and Transport Interventions

5.3.9 As noted in **Section 4**, an integrated assessment process will be carried to satisfy SEA requirements and select transport proposals and interventions for inclusion in the emerging RTS. The assessment criteria used will relate to the indicators listed in the third column on **Table 4.3** and thus will correspond with each of the SEA Objectives within the SEA Framework. Of note, the proposed spatial criteria will be subject to refinement and will only be applied where practicable and appropriate in relation to the stage of the SEA process and the types of transport interventions being proposed. The ER prepared to accompany the Draft RTS will demonstrate that the STAG assessment criteria and process adopted to assess and select interventions for inclusion in the RTS satisfies statutory requirements and sufficiently relates to the SEStran RTS SEA Framework.

5.3.10 As detailed below, reasonable alternatives to proposed transport interventions will be identified and subject to equal assessment. Assessment matrices similar to **Table 5.3** above will be presented to proportionately assess all proposed and reasonable alternative transport interventions and schemes on a thematic basis. In accordance with statutory requirements, the ER to accompany the Draft RTS will also explain the reasons for the rejection of reasonable alternative transport interventions and schemes in favour of those included within the Draft RTS.

Approach to Identifying and Assessing Reasonable Alternatives

5.3.11 The SEA Act requires the likely significant effects of implementing both a plan or programme (i.e. the emerging RTS) and reasonable alternatives to it to be examined, as well as the rationale for identifying reasonable alternatives to be described. The SEA Act further states that to be considered as reasonable alternatives, options (e.g. alternative policy criteria or site allocations) must relate to the plan or programmes' corresponding objectives and geographical scope. To be eligible for consideration in this SEA process, reasonable alternatives must therefore be:

- **Realistic**, in that they are plausible alternatives which could be implemented instead of proposals within the emerging RTS and are consistent with relevant national and other policy frameworks (specifically including the emerging NTS2);
- **Related** to the objectives of the emerging RTS; and,
- Within the **geographical scope** of the emerging RTS, i.e. any reasonable alternatives would need to relate to transport needs, provision or infrastructure within the SEStran region.

5.3.12 As reasonable alternatives must relate to the objectives of the plan under consideration, it is not likely to be possible to identify any clear reasonable alternatives to the RTS vision and objectives, as any alternatives would change the strategic direction of the strategy. However, the following types of reasonable alternatives will be identified where possible and subject to assessment in the same way as the corresponding proposed component of the emerging RTS:

- Alternative broad policy options and detailed policies (including constituent criteria) considered during the preparation of the emerging RTS (at Preliminary Options Appraisal and Draft RTS stages respectively) to implement the proposed SEStran RTS vision and objectives; and,
- At Stage 2 - Preliminary Options Appraisal stage (Summer 2021) a long-list of potential options will be analysed in accordance with STAG principles and the SEA Framework (**Table 4.3**). This means that any transport interventions subsequently considered for inclusion in the resulting Draft RTS will have been demonstrated to appropriately address identified transport problems, issues and opportunities. Other potential options which would not effectively address relevant problems, issues or opportunities would be rejected and not considered as reasonable alternatives.

5.3.13 SEA findings from analysis undertaken at Stage 2 - Preliminary Options Appraisal and from formal assessment of Draft RTS components will both be reported within the Draft RTS ER to provide a transparent audit trail of decision making regarding the identification, assessment and selection of reasonable alternative options for inclusion within the Draft RTS. In addition to providing equal assessment of proposed RTS components (policies, proposals and interventions) and identified reasonable alternatives, the Draft RTS ER will confirm the reason for rejection of any reasonable alternatives in favour of the proposed components.

Approach to Identifying Uncertainties, Assumptions and Mitigation

5.3.14 The identification of any assumptions and uncertainties is an important element of the SEA process, as the emerging RTS will need to be unambiguous to ensure the plan can be implemented as intended. The proposed SEA reporting matrices (**Tables 5.1** and **5.3** above) have been designed to allow uncertainties, inconsistencies and other issues which could undermine the implementation of the emerging RTS to be identified early and effectively within the RTS preparation process. The iterative nature of the SEA process will enable corresponding mitigation and enhancement recommendations to be devised and incorporated into the emerging RTS to address any identified issues, in particular to avoid likely significant adverse effects from occurring.

Assessment of Cumulative Effects

5.3.15 Following from the assessment of all individual substantive components of within the Draft RTS, a further round of qualitative assessment will be conducted at that stage to identify any likely cumulative or synergistic effects as a result of interactions between proposed components (e.g. between proposed policies and/or between proposed interventions). A dedicated cumulative assessment section will be presented in the ER accompanying the Draft RTS to demonstrate compliance with cumulative assessment requirements within the 2005 Act in a proportionate manner.

5.4 Difficulties Encountered

5.4.1 No significant difficulties have been encountered in preparing this SEA Scoping Report.

6 Next Steps

6.1 Proposed Consultation Arrangements

6.1.1 The assessment framework and approach set out in **Sections 4** and **5** of this SEA Scoping Report, amended on the basis of consultation responses where appropriate, will be used to assess the likely environmental effects of the emerging RTS within a series of iterative ERs.

6.1.2 Iterative SEA Environmental Reports will be prepared to accompany each formal RTS consultation document (i.e. Initial Appraisal: Case for Change and Draft RTS), with each being consulted on in tandem for the following durations:

- Initial Appraisal: Case for Change Report – 6 weeks; and,
- Draft RTS – 12 weeks.

6.1.3 SEA findings from analysis undertaken in the interim at Stage 2 - Preliminary Options Appraisal will be included within the Draft RTS ER to provide a transparent audit trail of decision making regarding the identification, assessment and selection of reasonable alternative options for inclusion within the Draft RTS.

6.1.4 An online consultation hub will be used to facilitate consultation regarding both the emerging RTS and the SEA. However, representations and comments also can be made in writing to email and postal addresses which will be confirmed prior to the consultation period commencing for the Initial Appraisal: Case for Change Report.

6.1.5 The SEA consultation opportunities and associated periods set out above are considered to be appropriate and proportionate, taking account of the level of detail that will be included within each corresponding RTS consultation document.

6.2 Request for Comments from the SEA Consultation Authorities

6.2.1 In accordance with the 2005 Act, the SEA Consultation Authorities are invited to provide comments regarding the proposed scope of and approach to undertaking a SEA of the emerging RTS. Any comments should be provided within the prescribed statutory consultation period (i.e. within 5 weeks of receiving this report) and directed via email to:

Duncan Smart – Associate Planner, Stantec UK

Tel: 0141 343 3319

Email: *SestranRTSEnquiries@stantec.com*

Appendix A Baseline Review

A.1 Introduction

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

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

A.1.2 This evidence is then used to:

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

A.1.3 The purpose of this baseline review is therefore to inform both proposals for the emerging RTS and the content of a SEA Framework which will be used to assess all substantive components of the emerging RTS.

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

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

A.2 Overview of Designated Sites

A.2.1 **Table A.1** identifies sites designated at international, national or local level for reasons of biodiversity conservation, geological importance, heritage or landscape value which are considered to have the potential to be affected by the emerging RTS. The site-specific context of these designated sites needs to be considered when characterising the environmental baseline position and identifying the relevance of existing issues and problems to the emerging RTS, as detailed in **Section A.3.**

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

Relevant Sites in the SEStran Region	Designation Type	Qualifying Features / Interests
The SEStran region hosts 10 SPAs: - Greenlaw Moor - Gladhouse Reservoir - Cameron Reservoir - Firth of Tay and Eden Estuary - Firth of Forth - Firth of Forth - Westwater - Slamannan Plateau - Slamannan Plateau - Din Moss - Hoselaw Loch	Special Protection Area (SPA)	The identified SPAs have been designated as they support rare and vulnerable birds (as listed on Annex I of Directive 2009/147/EC on the conservation of wild birds – 'the Birds Directive') and for regularly occurring migratory species.
The SEStran region area hosts 14 SACs: - Peeswit Moss - Threepwood Moss - Whitlaw and Branxholme - Whitlaw and Branxholme - Whitlaw and Branxholme - Whitlaw and Branxholme - Whitlaw and Branxholme - Dogden Moss - Blawhorn Moss - Borders Woods - Borders Woods - Borders Woods - Borders Woods - Borders Woods	Special Area of Conservation (SAC)	The identified SACs have been designated owing to their significant contribution in conserving the 189 habitat types and 788 species identified in Annexes I and II of Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora ('the Habitats Directive').
Eight of the SPAs within the SEStran region are also designated as Ramsar Sites: - Fala Flow - Gladhouse Reservoir - Greenlaw Moor - Din Moss - Hoselaw Loch - Westwater	Ramsar Site	Ramsar Sites are wetlands that are considered to be of international importance under the Ramsar Convention.

Relevant Sites in the SEStran Region	Designation Type	Qualifying Features / Interests
- Cameron Reservoir - Firth of Forth - Firth of Forth		
The SEStran region area hosts 154 SSSIs designated for reasons of biodiversity conservation or important ecological features or mixed: - Abbey St Bathans Woodlands - Adderstonlee Moss - Airhouse Wood - Akermoor Loch - Alemoor West Loch and Meadow - Allan Water, Hillhead - Ashkirk Loch - Avenel Hill and Gorge - Avon Gorge - Back Burn Wood and Meadows - Balerno Common - Ballo and Harperleas Reservoirs - Bankhead Moss - Bemersyde Moss - Berwickshire Coast (Intertidal) - Black Burn - Blawhorn Moss - Blind Moss - Bo'mains Meadow - Branxholme Easter Loch - Branxholme Wester Loch - Buckstruther Moss - Calderwood - Cameron Reservoir - Camilla Loch - Carriston Reservoir - Carron Dams - Carron Glen	Site of Special Scientific Interest (SSSI)	The identified SSSIs have been designated owing to the presence of nationally important or rare habitat types within each.

Relevant Sites in the SEStran Region	Designation Type	Qualifying Features / Interests
- Cassindonald Moss - Catshawhill - Clarilaw Grasslands - Coldingham Common, Long Moss - Coldingham Loch - Colmsliehill Junipers - Cragbank and Wolfehopelee - Craig Leith and Myreton Hill - Craigdilly - Craighall Den - Craigmead Meadows - Crichton Glen - Crook Burn, Dyeshaugh - Cullaloe Reservoir - Dalbeath Marsh - Dalkeith Oakwood - Damhead Wood - Danskine Loch - Darnrig Moss - Denny Muir - Devon Gorge - Dolphinton - West Linton Fens and Grassland - Drone Moss - Dunbog Bog - Dunhog Moss - Earlshall Muir - Faldonside Loch - Fleecefaulds Meadow - Gartmorn Dam - Gattonside Moss - Gladhouse Reservoir - Glenkinnon Burn - Gordon Moss - Habbies Howe - Logan Burn - Hadfast Valley - Henderland Bank - Herman Law and Muchra Cleuchs		

Relevant Sites in the SEStran Region	Designation Type	Qualifying Features / Interests
- Hermand Birchwood - Holl Meadows - Howierig Muir - Hummelknowes Moss - Inner Tay Estuary - Isle of May - Jedwater Woodlands - Kilconquhar Loch - Kingside Loch - Kippilaw Moss - Kirkhope Linns - Kirkton Burn Meadow - Langtonlees Cleugh - Lielowan Meadow - Lindean Reservoir - Lindores Loch - Linhouse Valley - Linlithgow Loch - Linn Mill - Lochcote Marsh - Lochmill Loch - Lockshaw Mosses - Long Moss - Drinkstone Hill - Longnewton Cutting - Lurgie Loch - Lynnwood - Whitlaw Wood, Slitrig - Makerstoun - Corbie Craigs to Trows' Craigs - Minto Craigs - Morton Lochs - Mount Bog - Newtown St Boswells Woods - North Berwick Law - North Fife Heaths - Nut Wood - Otterston Loch - Papana Water - Park Hill and Tipperton Mosses		

Relevant Sites in the SEStran Region	Designation Type	Qualifying Features / Interests
- Pease Bridge Glen - Peeswit Moss - Philpstoun Muir - Pickletillem Marsh - Plora Wood - Redden Bank Lime Works - Riskinhope - Roscobie Hills - Roslin Glen - Selkirk Racecourse Moss - Slaidhills Moss - Slamannan Plateau - St Mary's Loch - Star Moss - Steelend Moss - Swallow Craig Den - Swinkie Muir - Tailend Moss - The Hirsel - Threepwood Moss - Tweedsmuir Hills - Tweedwood - Gateheugh - Waltonhill and Cradle Den - Wester Craiglockhart Hill - Westwater Reservoir - Whim Bog - Whitlaw Bank to Hardies Hill - Whitlaw Rig - Whitmuirhall Loch - Williamhope - Woodhall Dean - Woodhead Moss - Yetholm Loch - Arthur's Seat Volcano - Bilston Burn - Black Loch (Abdie) - Burnmouth Coast - Din Moss - Hoselaw Loch		

Relevant Sites in the SEStran Region	Designation Type	Qualifying Features / Interests
- Dollar Glen - Duddingston Loch - Ferry Hills - Firth of Forth - Foulden Burn - Greenlaw Moor - Lammermuir Deans - North Esk Valley - Petershill - Rammer Cleugh - Skolie Burn - St Michael's Wood Marshes - Traprain Law - Whitlaw Mosses		
The SEStran region hosts 3 NNRs: - Blawhorn Moss - Isle of May - Tentsmuir	National Nature Reserve (NNR)	NNRs are designated to further the conservation and study of wildlife, habitats or geological features of special interest.
The SEStran region hosts 19 SSSIs designated for reasons of geological importance: - Agassiz Rock - Bangley Quarry - Carlops Meltwater Channels - East Kirkton Quarry - Garleton Hills - Grieston Quarry - Hareheugh Craigs - Hewan Bank - Invertiel Quarry - Keith Water - Lintmill Railway Cutting - Lynslie Burn - Mill Glen - Old Cambus Quarry - Oxendean Burn - Palmers Hill Railway Cutting - Roscobie Quarry	Site of Special Scientific Interest (SSSI)	Geological SSSIs are designated owing to the presence of nationally important or rare geological features.

Relevant Sites in the SEStran Region	Designation Type	Qualifying Features / Interests
- Thornylee Quarry - Whiteadder Water		
The SEStran region hosts 1 Regional Park: Pentland Hills Regional Park	Regional Parks	The Pentland Hills Regional Park was designated in 1986, the majority of which is in private ownership, with statutory duties carried out by City of Edinburgh Council, Midlothian Council and West Lothian Council to their constituent parts of the park. It covers an area of 90 sq km. The regional park designation was created to enable the coordinated management of recreation and other land uses such as farming and forestry.
The SEStran region hosts 1 UNESCO World Heritage Site: Edinburgh World Heritage Site	World Heritage Sites	The Old and New Towns of Edinburgh became a UNESCO World Heritage Site in 1995. The site covers an area of approximately 4.5km2 and contains nearly 4,500 individual buildings as well as ancient monuments, designed landscapes, and conservation areas. The United Nations Educational, Scientific and Cultural Organization (UNESCO) recognises World Heritage Sites as places of outstanding cultural, historical or scientific value.
The SEStran region area hosts 1,475 Scheduled Monuments and 25,174 listed buildings.	Scheduled Monuments (SM)	A wide range of historic structures within the SEStran region area have been designated as either Scheduled Monuments or Listed Buildings, including hill forts, chapels, standing stones, bridges, castles and cairns. Scheduled Monuments are designated owing to their historical significance whilst buildings are listed owing to their features of architectural importance.
The SEStran region hosts 180 Conservation Areas across all of the local authority areas.	Conservation Areas	The designated Conservation Areas are centred upon clusters of Listed Buildings or other structures of architectural importance.
The SEStran region hosts two National Scenic Areas: - Upper Tweeddale - Eildon and Leaderfoot	National Scenic Areas	NSAs are areas which are nationally important for their scenic quality. There are 40 NSAs mainly in the more remote and mountainous areas of Scotland all of which were originally identified in 1978 by the Countryside Commission for Scotland (CCS) in its publication 'Scotland's Scenic Heritage'. They represent the best areas of the type of scenic beauty popularly associated with Scotland and for which it is renowned. NSAs have been recognised within the planning system since 1980. In 2010 the Scottish Ministers issued directions to local authorities under provisions in section 263A of the Town and Country Planning (Scotland) Act 1997 (inserted by section 50 of the Planning etc. (Scotland) Act 2006) to designate the current suite of 40 NSAs, thereby affording statutory protection to their special qualities when making planning decisions.

Implications of Environmental Designations for the emerging RTS and SEA

A.2.2 The Firth of Forth SPA covers a significant portion of the SEStran coastal area, covering a range of estuarine and coastal habitats, stretching from the coasts of Fife and East Lothian moving inland to Alloa. The SPAs features include invertebrate-rich intertidal flats and rocky shores and areas of saltmarsh, lagoons and sand dune. The boundary of the SPA mostly follows that of the Firth of Forth Site of Special Scientific Interest and slightly overlaps with Forth Islands SPA. The Firth of Forth is also designated as a Ramsar site. There are 10 SPAs in the SEStran region. SPAs have been designated as they support rare and vulnerable birds (as listed on Annex I of Directive 2009/147/EC on the conservation of wild birds – 'the Birds Directive') and for regularly occurring migratory species. The emerging RTS must protect and support the management of all internationally and nationally designated sites in pursuit of their defined conservation objectives.

A.2.3 The Old and New Towns of Edinburgh UNESCO World Heritage Site covers an area of approximately 4.5km^2. The United Nations Educational, Scientific and Cultural Organization (UNESCO) recognises World Heritage Sites as places of outstanding cultural, historical or scientific value. The emerging RTS must protect, preserve and enhance the qualities of the UNESCO World Heritage Site.

A.2.4 The Pentland Hills Regional Park is one of only three Regional Parks in Scotland, covering around 90km^2. The emerging RTS should protect or enhance where possible the special landscape and cultural qualities of the Pentland Hills Regional Park.

A.2.5 The SEStran region hosts two of the 40 National Scenic Areas of Scotland (Upper Tweeddale & Eildon and Leaderfoot). The emerging RTS should provide an appropriate level of protection and enhancement opportunities for landscapes designated at the national level

A.3 Environmental and Socio-economic Baseline Conditions

A.3.1 Informed by **Table A.1**, the following section outlines the current environmental conditions (including with respect to population, health and infrastructure) within the area likely to be affected by the emerging RTS, namely the SEStran region. This review also identifies associated existing environmental problems and issues which the emerging RTS should address and which should be considered throughout this SEA process.

A.3.2 As set out in Section A.1, the qualitative baseline will be presented in three distinct categories, each in accordance with the required SEA objectives as shown below:

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

6.2.2 The key issues for the region as identified in the baseline are summarised in Section 3 of this Scoping Report.

Air and Climate

Air and Noise

A.3.3 There are 15 Air Quality Management Areas (AQMAs) in the SEStrans region to monitor air pollutants. These are Edinburgh (Edinburgh Centre, Glasgow Road, St Johns Road, Great Junction Street, Inverleith Road, Salamander Street), East Lothian (East Lothian AQMA), Falkirk (Grangemouth, Haggs, Falkirk Centre), Fife (Bonnygate, Appin Crescent) and West

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

A.3.4 The Scottish Government has published Strategic Noise Action Plans (SNAP) as directed by the Environmental Noise (Scotland) Regulations 2006. The Edinburgh Agglomeration NAP identifies a number of candidate noise management areas (CNMAs) including the A70, A71, A702 and A902, notable for their onward connections to the wider SEStran region. Overall, it shows there is a decrease in noise levels across the city. With regard to rail noise levels, ongoing improvements to track maintenance have resulted in a significant reduction in noise from operational railway across GB. More widely, the Transportation Noise Action Plan 2019-2023 sets out the intended approach to noise management across Scotland and identifies major road transport corridor CNMAs, with 12 in West Lothian, 10 in Fife, 9 in Falkirk, 2 in Edinburgh, 2 in East Lothian, 1 in Midlothian, with none identified in Clackmannanshire or Scottish Borders Council areas. These areas are identified in END Noise Mapping Round 3 as places near major roads with more than 3 million vehicle passengers per year. A further three Rail CNMAs were identified (2 in Linlithgow and 1 in Kirkaldy) identified having more than thirty thousand train passages per year.

Climatic Factors

A.3.5 The latest available reporting indicates that Greenhouse Gas (GHG) emissions across the SEStran region vary, with City of Edinburgh having the highest emissions in the SEStran region in 2018 (emitting 8.3kt per km^2, followed by Falkirk (7.6kt per km^2) and Clackmannanshire (3.2kt per km^2). This reflects the distribution of both population and fossil fuel reliant industries within the SEStran area. The remaining local authorities in the SEStran region emit less than 2.5kt per km^2)[4]. With regard to low carbon energy generation[5], as of 2019, Fife generated 4,684 MWhr, Scottish Borders generated 3,630MWhr and City of Edinburgh generated 2,018 MWhr from a range of onshore wind, solar, biomass and hydropower sources.

A.3.6 Further analysis of transport emissions within the SEStran region and the relationship between the transport network and GHG emissions from other sectors will be undertaken and reported during the development of the emerging RTS.

Climate Change Impacts

A.3.7 The UK Climate Change Risk Assessment (2017) projects that climate change will lead to an increase in the severity and frequency of severe weather, sea level rise, flooding and climate events including higher precipitation events. This could adversely impact on the functioning and performance of transport infrastructure and the overall transport network. The SESplan Strategic Development Plan (2013) identifies the effects of climate change as a key consideration for future development and infrastructure development, recognising that both urban and rural environments will need to withstand and respond to the effects of climate change in the period to 2032.

A.3.8 Further analysis of the need to adapt to climate change and for transport infrastructure to be climate resilient will be undertaken and reported during the development of the emerging RTS. Similarly, transport provision within the SEStran region will at times be affected by weather related travel issues such as extreme heat and cold.

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

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

Physical Environment

Biodiversity, Flora & Fauna

A.3.9 **Table A.1** above identifies the qualifying features of relevant European sites (SPAs, SACs and Ramsar sites) and sites designated at the national level and benefiting from statutory protection within the SEStran region for specific reasons of ecological important or biodiversity conservation.

Soil

A.3.10 Overall, the SEStran region comprises a mix of urban, semi-urban and rural landscapes. The SEStran region is made up of a mixture of a wide range of soils including alluvial soils, brown soils, mineral gleys, peaty gleys and small localised areas of peatland[6].

A.3.11 Throughout the SEStran region, agricultural land quality is varied, with a mixture of class 2, 3.1 and 3.2 (land capable of producing a wide range of crops to land capable of producing consistently high yields of crops) around the coastal areas and in a large proportion of the Scottish Borders. The remaining areas are a mixture of urban, class 4,5 and 6 (non-agricultural (urban) and land capable of producing a narrow range of crops to land capable of use as improved grassland)[7].

Water

A.3.12 The main waterbodies within the SEStran region include the River Forth/Forth Estuary, River Tay/Tay Estuary, River Eden, River Tyne, River Tweed and Liddel Water. Other notable lochs and reservoirs within the SEStran region includes Central Fife, Ochil Hills, Pentland Hills, Moorfoot Hills, Lammemuir Hills and Upland Areas South of Peebles.

A.3.13 SEPA Flood Risk Mapping indicates a high to medium risk of coastal flooding at the River Forth/Forth Estuary and the River Tay/Tay Estuary at the northern boundary of the SEStran region. Elsewhere in the region, there is a high to medium risk of river flooding along the lochs, rivers, canals and reservoirs across the region, with areas surface water flooding present throughout.

Landscape

A.3.14 Other than the mixture of urban and semi-urban areas across the region, the remainder of the region comprises rural landscapes encompassing small villages, hamlets, untouched rural landscapes and protected open green spaces such as the Pentland Hills and Lomond Hills Regional Parks. A large proportion of the SEStran region includes the coastline running down the south east of Scotland. Throughout the SEStran region, green belt corridors can be found around Clackmannanshire, Dunfermline, Edinburgh, Falkirk and Grangemouth and St Andrews aimed to protect and enhance their character, landscape setting and identity.

A.3.15 The SEStran region hosts two National Scenic Areas; Upper Tweeddale and Eildon and Leaderfoot. These make up 40 NSAs across Scotland, recognised as the best areas for scenic beauty across Scotland.

Cultural Heritage

A.3.16 As set out in **Table A.1**, the SEStran region hosts 1,475 Scheduled Monuments and 25,174 listed buildings. Across all of the local authority areas, there are 180 conservation areas. The

[6] National Soil Map of Scotland. Available at: https://map.environment.gov.scot/Soil_maps/?layer=1#

[7] National scale land capability for agriculture. Available at: https://map.environment.gov.scot/Soil_maps/?layer=1#

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

Socioeconomics

Population

A.3.17 The SEStran region encompasses 8 local authorities, namely Clackmannanshire, City of Edinburgh, East Lothian, Falkirk, Fife, Midlothian, Scottish Borders and West Lothian, covering an area of approximately 3,180 sq.m, hosting around 28% of Scotland's population. The SESplan SDP identifies Edinburgh City Centre as the regional town centre for the whole of the SESplan area, recognising its role as the largest centre and its key role for retail, business and tourism. The SDP also recognises Livingston, Kirkaldy, Dunfermline and Glenrothes as the strategic town centres.

A.3.18 The total population of the local authorities which make up the SEStran region was estimated to be 1,609,070 people in 2019[8]. This is an increase of 7% since 2009, when the population was 1,497,020 people[9]. Within this period, the SEStran region has experienced a 4.1% rise since 2009 in those aged 0-15, a 4.5% rise in the population aged 16-64 and a 23.6% rise in those aged 65+. This shows that the SEStran region has an ageing population, with a substantial rise in people over 65 in the ten-year period 2009-2019.

A.3.19 In terms of population projections, the population of the SEStran area is projected to steadily increase, culminating in a 7.6% increase in population by 2043 from 1,609,070 (2018) to 1,731,454[10]. Of all the local authority areas in the SEStran region, Midlothian is projected[11] to see the greatest increase in population to 2043 (+31%) to 119,637, followed by East Lothian (+15.1%) to 121,743 and Edinburgh which is projected to increase by 13.1% to 2043 to have a population of 585,566. The local authorities projected to experience a decrease in population by 2043 are Fife (-2.1%) to 364,164 and Clackmannanshire (-2.9%) to 49,924 people.

A.3.20 With regard to housing, the SESplan SDP and adopted LDPs in the SEStran region provide an up to date estimation of housing need and housing land requirements (HLRs) (all tenure, private and affordable) in accordance with the Scottish Planning Policy (2014). A more detailed review of anticipated housing development is provided within the policy review in Appendix B.

A.3.21 Higher education institutions in the SEStran region are mainly confined to cities and larger towns such as University of Edinburgh, Queen Margaret University, Heriot Watt University, Edinburgh Napier University, University of St Andrews. The region also hosts several further education institutions such as Edinburgh College, Forth Valley College, Fife College and Borders College Scotland.

A.3.22 Throughout the SEStran region[12], around 77% of those aged 16-64 are economically active, of which 75% are in employment, slightly higher than the Scottish average (74%). Of those in employment, 66% are employees, with 8% classed as self-employed. Of the population in the SEStran region that are working age (16-64), around 4% are unemployed, slightly higher than

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

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

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

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

[12] NOMIS annual population survey (2019)

the Scottish average (3.6%). Of those in employment in the region, 25% work in professional occupations, followed by associate professional & technical occupations (16%) and managers, directors and senior officials (9%).

A.3.23 With regard to deprivation, the Scottish Index of Multiple Deprivation (SIMD)[13] is a relative measure of deprivation across small areas in Scotland. It looks at multiple deprivation based on employment, education, health, access to services, crime, and housing in addition to income. Overall, areas of deprivation are widely dispersed throughout the region, with the least deprived 10% most commonly found in East Lothian, Midlothian and Scottish Borders. Of all the local authorities in the SEStran region, East Lothian is the only local authority without a datazone within the most deprived 5% of the country. A more detailed assessment of equalities and deprivation across the SEStran region will be provided in the Equalities Impact Assessment (EqIA), to be developed in conjunction with the emerging RTS.

Human Health

A.3.24 The NHS Health Boards which serve the SEStran region are the Forth Valley, Fife, Lothian and Borders Health Boards[14]. The hospital provision within each of the health boards is as follows; Forth Valley (5), Fife (2), Lothian (21), Borders (5).

Life expectancy[15] in the SEStran region (2017-2019) is similar across the Health Boards which serve the region, with NHS Lothian having the highest life expectancy for females (82.12) and NHS Borders having the highest male life expectancy of the region (79.15). The lowest life expectancy (2017-2019) for females is in NHS Forth Valley (81.12), while for males, NHS Fife had the lowest male life expectancy (77.3). This shows that there is a larger disparity in life expectancy for males across the SEStran region than females.

A.3.25 Further analysis of health impacts will be provided within the EqIA and emerging RTS.

Material Assets

A.3.26 Within the SEStran region, the City of Edinburgh is at the top of the retail hierarchy, recognised in SESplan as the principal retail, office and tourism centre of the region. As of 2019, Edinburgh has an estimated population of 524,930 people, the most populous of all of the local authorities in the SEStran region, followed by Fife (373,550) and West Lothian (183,100)[16]. Edinburgh plays a critical role in the tourism industry for the SEStran region and all of Scotland; Edinburgh and the Lothians was the destination of choice for 42% of international overnight stays in 2016[17], generating £1.5 billion of expenditure in the region and attracting 30 million day and overnight visitors by 2019[18].

A.3.27 Key transport routes and infrastructure within the SEStran region include the Forth Rd Bridge, A90 Queensferry Crossing, A720 Edinburgh City Bypass, M8, M9, M90, A1, A68 and A92. These main routes adjoin b-routes and other minor roads, providing key connections across the SEStran region and into wider Scotland. The road network provides key links to the regions ports and airports, most notable Grangemouth, Leith, Rosyth and Methil Docks and Edinburgh Airport.

[13] SIMD (2020) https://simd.scot/#/simd2020/BTTTFTT/9/-4.0000/55.9000/

[14] NHS Health Boards Map https://www.scot.nhs.uk/mapofscotlandshowversion-2/

[15] Scottish Public Health Observatory https://scotland.shinyapps.io/ScotPHO_profiles_tool/

[16] NOMIS Population estimates - local authority based by single year of age (2019)

[17] Tourism in Scotland, Scottish Government (2018) https://www.gov.scot/publications/tourism-scotland-economic-contribution-sector/pages/3/

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

A.3.28 With regard to traffic movements, two of the top five local authorities with the highest traffic volumes in Scotland (Edinburgh & Fife) are found within the SEStran region; with the top 5 LAs accounting for 34% of all traffic on Scotland's roads[19]. This data was gathered prior to the ongoing Covid-19 pandemic. Since then, passenger usage of all modes of transport across Scotland have significantly reduced, with the latest statistics in January 2021 showing reductions in rail journeys (-90%), air travel (-80%), concessionary bus journeys (-70%), ferries (-65%), walking (-55%), car journeys (-45%) and cycling (-40%)[20]. This change is temporary and likely to recover to 2019 levels following the end of the pandemic.

A.3.29 Rail infrastructure in the SEStran region provides extensive connections throughout Scotland via the Forth Railway Bridge and also down to the North of England via North Berwick and onwards to London. Of the top 5 railway stations in Scotland, the SEStrain region features both Edinburgh Waverly and Haymarket which had the highest entries and exits 2019-2020 in Scotland, enabling 32,465,202 and 2,980,386 journeys respectively[21]. Rail services in the region include:

- Clackmannanshire: served by the Stirling to Alloa line, with direct connectivity more focused towards Glasgow than Edinburgh,
- East Lothian/Borders: local service to North Berwick and Dunbar, with East Coast and Cross Country also serving Dunbar and Berwick-upon Tweed, providing rail access to the east coast of the Scottish Borders.
- Fife: serves the Fife Circle, providing services to Dundee, the north-east and other services to Perth and the North.
- Midlothian and Scottish Borders: are served by the Borders Railway; and
- West Lothian: is served by four main train services: Edinburgh – Shotts (Carstairs) – Glasgow, dinburgh – Bathgate – Glasgow, Edinburgh – Falkirk High – Glasgow mainline, Edinburgh – Falkirk Grahamston – Dunblane – the latter two also serving Falkirk.

A.3.30 The opening of the Edinburgh Tram linking York Place and Edinburgh Airport in 2014, provided a high capacity public transport option for the western corridor of Edinburgh. SEStran continue to support the extension of the tram network within Edinburgh and beyond, providing a more sustainable transport option for the region. The SEStran region is also served by multiple bus services connecting urban and rural settlements. Services are predominantly run and timetables by private operators, although SEStran are exploring the feasibility of a high-quality orbital bus service for the region.

A.3.31 With regards to air and sea travel, Edinburgh Airport both serves the SEStran region and is a nationally important asset in terms of providing an international gateway for travellers and cargo. Ports in the SEStran region include Rosyth, Grangemouth and Leith docks.

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

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

[19] Transport Scotland, Scottish transport Statistics No 38 (2019) https://www.transport.gov.scot/media/47300/scottish-transport-statistics-2019.pdf

[20] COVID-19 Transport Trend Data - 25 - 31 January 2021 https://www.transport.gov.scot/publication/covid-19-transport-trend-data-25-31-january-2021/

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

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

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

A.4.4 In relation to the environmental topics prescribed in Schedule 2 of the 2005 Act, it should firstly be noted that environmental impacts from individual transport infrastructure projects would depend on their locational, design and operational characteristics, as would be assessed through the consenting of each project rather than through the emerging RTS. However, in the absence of the emerging RTS and if the resident and workplace populations of the SEStran region increase in line with projections:

- **Population**: Demand for transport would outstrip supply, leading to overcrowding of transport infrastructure, increased congestion and delays on the transport network. This could impede the delivery of inclusive growth and stifle economic productivity, as well as resulting in physical environmental and health impacts (see below). It could also lead to a requirement for new major transport infrastructure to cope with increased demand, which if not co-ordinated could itself result in a range of environmental impacts;

- **Health**: Demand for, and use of, road transport of transport would increase in line with population growth, whilst opportunities to encourage transport modal shift to active and public transport would be lost. Additionally, if a significant switch to active modes of transport is not achieved, physical and mental health issues including obesity, inactivity, poor air quality and social exclusion would continue to adversely affect the resident population of the SEStran region. Ill-health is therefore likely to deteriorate and could result in life expectancy stagnating or even reducing;

- **Biodiversity, Flora & Fauna**: If not carefully co-ordinated (i.e. through the emerging RTS), the need for new major transport infrastructure to cope with increased demands could put pressure on biodiversity, including the loss and fragmentation of habitats. Unchecked increases in traffic and noise could also result in habitat degradation and species disturbance;

- **Soil**: If not carefully co-ordinated, the need for new major transport infrastructure to cope with increased demands could lead to the loss of important soil resources, soil erosion and land contamination;

- **Water**: If not carefully co-ordinated, the need for new major transport infrastructure to cope with increased demands could result in increased flood risks and the pollution of the water environment;

- **Air Quality & Climatic Factors**: In the absence of better integration between transport planning and land use/spatial planning, and substantial modal shifts towards sustainable modes, an increase in road traffic associated with projected population growth would increase fossil fuel combustion, carbon emissions and local atmospheric pollution, in particular greater release of particulate matter. This could lead to worsening air quality and

act against wider policy efforts to decarbonise key economic sectors, including transport, to mitigate climate change. A failure to tackle existing areas of poor air quality and more generally to improve air quality could result in the need for local authorities within the SEStran region to designate further Air Quality Management Areas (AQMAs) and implement associated Air Quality Action Plans (AQAP), which could adversely impact on the functioning of the transport network;

- **Material Assets**: Transport infrastructure and provision would struggle to cope with changing transport demands whilst opportunities to encourage transport modal shift to active and public transport would be lost. The absence of the emerging RTS could result in the failure of SEStran and constituent local authorities to attract the substantial public and private sector funding needed to adequate maintain existing transport infrastructure, better integrate transport modes and to deliver the new or upgraded infrastructure required to meet the needs of a rising population. This would jeopardise the ability of SEStran, as the statutory RTP for the South East of Scotland area ('the SEStran region'), to support the delivery of sustainable and inclusive economic growth;

- **Cultural Heritage**: If not carefully co-ordinated, the need for new major transport infrastructure to cope with increased demands could increase development pressures in areas of historical or archaeological interest and could undermine the integrity and setting of sensitive heritage assets;

- **Landscape**: If not carefully co-ordinated, the need for new major transport infrastructure to cope with increased demands could adversely impact on the landscape character of and key landscape features within the SEStran region area, as well as adversely affecting visual amenity.

Appendix B Review of Plans and Programmes

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

B.2 Review of Relevant Plans and Programmes

B.2.1 This section sets out a proportionate review of plans and review of other plans and programmes of relevance to the emerging RTS and the associated SEA. This review will be updated as required throughout the preparation of the emerging RTS to take account of policy developments and will be appended to each iteration of the Environment Report (ER) which will accompany each substantive RTS consultation document. Table B.1 below is arranged by International, National and Local Policy levels and applies the same topic groupings as used in **Appendix A**: Air & Climate, Physical Environmental and Socioeconomics and Interrelated Effects[22].

[22] Note that Interrelated Effects refers to policies with wide relevance to all objectives where relevant.

Table B.1 Policy documents of relevance at Scoping Stage

SEA Topic	Relevant Plans, Programmes and Strategies
International[23]	
Air and Climate: Air & Climatic Factors	World Health Organization (1999) Guidelines for Community Noise, WHO Air Quality Guidelines, United Nations (1979) Geneva Convention on Long Range Transboundary Air Pollution, The United Nations Framework Convention on Climate Change (UNFCCC) (1992), Kyoto Protocol to the UN Convention on Climate Change (2005), United Nations (2009) The Copenhagen Accord, United Nations (2010) Cancun Adaptation Framework, United Nations (2016) Paris Agreement. European / EU legislation and plans now of indirect relevance include: Ambient Air Quality Directive 2008/50/EC and Air Quality Framework Fourth Daughter Directive 2004/107/EC, Environmental Noise Directive 2002/49/EC, Renewable Energy Directive 2009/28/EC
Physical Environment: Biodiversity, Flora & Fauna, Soil, Water, Cultural Heritage & Landscape	The Ramsar Convention on Wetlands (1971), EU Convention on the Agreement on the Conservation of African – Eurasian Migratory Waterbirds (2006) (The Bonn Convention), United Nations (1992) The Rio Convention on Biodiversity, Strategic Plan for Biodiversity 2011 - 2020 + Aichi Biodiversity targets, UNESCO (1972) Convention Concerning the Protection of the World Cultural and Natural Heritage. European / EU legislation and plans now of indirect relevance include: Convention on the Conservation of European Wildlife and Natural Habitats - The Bern Convention (1981), Birds Directive 2009/147/EC/, Habitats Directive 92/43/EEC as amended by 97/62/EC, Convention for the Protection of the Architectural Heritage of Europe (Granada Convention), European Landscape Convention (The Florence Convention).
Socio-economics: Population, Human Health & Material Assets	United Nations (2016) Habitat III (Quinto), United Nations Economic Commission for Europe (1998) Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters (The Aarhus Convention), World Health Organisation (2004) Children's Environment and Health Action Plan for Europe
Interrelated Effects	Johannesburg Declaration on Sustainable Development, Communication COM (2005) 666: Taking Sustainable use of resources forward European / EU legislation and plans now of indirect relevance include: Strategic Environmental Assessment (SEA) Directive 2001/42/EC European Spatial Development Perspective (ESDP) (97/150/EC), Environmental Impact Assessment Directive 2014/52/EU amending Directive 2011/92/EU
National (UK) - legislative and policy frameworks informed by relevant higher-level frameworks	

[23] Some European Union (EU) legislation remains of indirect relevance.

Air and Climate: Air & Climatic Factors	The Environment Act 1995, The Air Quality Standards Regulations (2010) as amended, Air Quality Strategy for England, Scotland, Wales and Northern Ireland, UK's Air Quality Action Plan (Defra, revised January 2016), Defra (2011) Air Quality Plans for the Achievement of EU Air Quality Limit Values for Nitrogen Dioxide (NO2) in the UK: List of UK and National Measures, Climate Change Act 2008, DECC (2011) UK Renewable Energy Roadmap, DECC (2014) UK National Energy Efficiency Action Plan, HM Government (2017) UK Climate Change Risk Assessment 2017
Physical Environment: Biodiversity, Flora & Fauna, Soil, Water, Cultural Heritage & Landscape	Wildlife and Countryside Act 1981, Environmental Protection Act 1990, The Protection of Badgers Act 1992, Conservation of Habitats & Species Regulations 2010 (as amended), UK National Ecosystem Assessment (2011) UK National Ecosystem Assessment: Understanding Nature's Value to Society, The Conservation of Habitats and Species Regulations 2010 as amended, JNCC (2012 The UK Post 2010 Biodiversity Framework, Natural Environment and Rural Communities Act 2006, HM Government (2018) 25 Year Environment Plan, Environmental Protection Act 1990 Part SEA, Good Environmental Status, DECC (2010) Department for Transport (2011) National Policy Statement for Ports, The Marine and Coastal Access Act (2009), Department for Environment, Food & Rural Affairs (2011) UK Marine Policy Statement, The Ancient Monuments and Archaeological Areas Act (1979) National Parks and Access to the Countryside Act (1949), Forestry Act (1967)
Socio-economics: Population, Human Health & Material Assets	The Enterprise and Regulatory Reform Act (2013), Equality Act (2010), Health Effects of Climate Change in the UK 2008 - An update of the Department of Health Report 2001/2002, Health Protection Agency (2009) Health Strategy for the United Kingdom 2, Health and Safety Executive (2009) The Health and Safety of Great Britain: Be Part of the Solution, Sustainable Development Commission (2010) Sustainable Development: The Key to Tackling Health Inequalities, HM Treasury (2014) National Infrastructure Plan, HM Government (2009) The UK Renewable Energy Strategy.
Interrelated Effects	HM Government (2005) The UK Sustainable Development Strategy, Defra (2011) Mainstreaming Sustainable Development, Department for Transport (2008) Delivering a Sustainable Transport System, HM Government (2005) One Future – Different Paths. Shared Framework for Sustainable Development.
National (Scotland) - legislative and policy frameworks informed by relevant higher-level frameworks	
Air and Climate: Air & Climatic Factors	Air Quality (Scotland) Regulations (amended) 2016, Cleaner Air for Scotland - the road to a healthier future, The Environment Act 1995 & Part IV of the Environment Act 1995 Local Air Quality Management Policy Guidance, The Environmental Noise (Scotland) Regulations 2006, Transportation Noise Action Plan, Planning Advice Note 1/2011: Planning and Noise, Climate Change (Scotland) Act 2009 and Orders + New Climate Change Bill, The Scottish Government's Climate Change Plan, Third Report on Proposals and Policies 2018-2032, Switched On Scotland: A Roadmap to Widespread Adoption of Plug-in Vehicles 2013, 'Climate Ready Scotland'- Scotland's Climate Change Adaptation Programme, Transportation Noise Action Plan (2019-2023) Update to the Climate Change Plan 2018-2032, Scottish Government.
Physical Environment: Biodiversity, Flora & Fauna, Soil, Water, Cultural Heritage & Landscape	Nature Conservation (Scotland) Act 2004, Wildlife and Natural Environment (Scotland) Act 2011, Scottish Government: Scottish Forestry Strategy 2006 and Implementation Plan 2015 – 2018, It's in your Hands: Scotland's Biodiversity Strategy (2005), 2020 Challenge for Scotland's Biodiversity (2013), Scotland's Biodiversity, a Route Map to 2020 (6 Big Steps for Nature), Scotland's Biodiversity List, Scottish Biodiversity Strategy indicators, Scottish Government and its Key Agencies: The Scottish Soil Framework (2009), State of Scotland's Soils Report 2011, National Soil Map of Scotland, Soil Monitoring Action Plan & Implementation Plan, Contaminated Land (Scotland) Regulations 2000 as amended, Scottish Government's

	Statutory Guidance: Edition 2 (2006), Getting the best from our land: A Land Use Strategy for Scotland 2016 – 2021, Water Environment and Water Services (Scotland) Act 2003, Water Environment (Controlled Activities) (Scotland) Regulations 2011 as amended (CAR), Groundwater Protection Policy for Scotland: Environmental Policy (SEPA, 2009), River Basin Management Plan for the Scotland River Basin 2015 – 2027, Flood Risk Management (Scotland) Act 2009, Scottish Canals Asset Management Strategy 2019-30, Marine (Scotland) Act 2010, The Historic Environment Scotland Policy Statement 2016, Our Place in Time - The Historic Environment Strategy for Scotland 2014, Historic Environment Circular 1, The Town and Country Planning (Historic Environment Scotland) Amendment Regulations 2015 , The Historic Environment (Scotland) Act 2014, Planning (Listed Buildings and Conservation Areas) (Scotland) Act 1997, Ancient Monuments and Archaeological Areas Act 1979 (as amended, 2014), Planning (Listed Buildings and Conservation Areas) (Scotland) Act 1997 (as amended, 2014), PAN71 Conservation Area Management 2004, Scotland's Scenic Heritage, SNH Landscape Policy Framework, Planning etc. (Scotland) Act 2006, Creating Places: The Scottish Government's policy statement on architecture and place, National Parks (Scotland) Act 2000, Scotland's Landscape Charter.
Socio-economics: Population, Human Health & Material Assets	General Registers of Scotland: National Population Projections, Equality Act 2010 (as amended specific to Scotland), Scottish Government: Fairer Scotland Action Plan, Going Further: Scotland's Accessible Travel Framework, National Bus Travel Concession Scheme for Older and Disabled Persons (2006 and amended), Scotland's Economic Strategy (2015), Town Centre Action Plan, Scottish Government: Let's Get Scotland Walking - A National Walking Strategy 2014, Cycling Action Plan for Scotland, A Healthier Scotland - Actions and Ambitions on Diet, Activity and Healthy Weight 2017, Mental Health Strategy 2017 – 2027, Good Mental Health for All, Scottish Government: Go Safe on Scotland's Roads It's Everyone's Responsibility: Scotland's Road Safety Framework to 2020, Audit Scotland (2011) Transport for Health and Social Care, Scottish Government: Short Life Working Group (2013) Healthcare Transport Recommendations, A connected Scotland - Tackling social isolation and loneliness and building stronger social connections, Going Further: Scotland's Accessible Travel Framework, Scottish Government: Good Places, Better Health. A New Approach to the Environment and Health in Scotland: Implementation Plan (2008), Creating Places (2013), Place Standard Tool (2016), Scottish Planning Policy (2014), National Planning Framework 3 (2014), Scottish Government: Equally Well (2008), First Equally Well Review (2010), Second Equally Well Review (2014), Equally Well Implementation Plan and Outcomes Frameworks (2008), Transport (Scotland) Act 2005, Scotland's Energy Strategy 2017, Switched On Scotland Roadmap 2013, Switched On Scotland Phase Two: An Action Plan for Growth, Infrastructure Investment Plan (2015), Scotland's NTS2 (2020), Strategic Transport Projects Review 2 Phase 1 Report (2021), Scottish Planning Policy (2014), National Planning Framework 3 (NPF3) (2014), NPF4 (emerging).
Interrelated Effects	National Transport Strategy 2 (NTS2) (2020), NTS2 1st Annual Delivery Plan (2020), Strategic Transport Projects Review 2 (STPR2) (emerging), National Planning Framework 4 (NPF4) (emerging), Scottish Planning Policy (2014), NPF3 (2014), Place Principle (2019) Designing Streets (2010), Infrastructure Commission for Scotland Report, Scotland's Economic Strategy 2015, Infrastructure Investment Plan (2015), Cycling Action Plan for Scotland, National Walking Strategy, Delivering the Goods - Scotland's Rail Freight Strategy (2016), Rail Enhancements & Capital Investment Strategy, Scottish Ferries Plan, National Roads Development Guide, Climate Ready Scotland Adaptation Programme (2019), Scotland's 3rd Land Use Strategy (Consultation Draft 2020), The Scottish Governments Programme for Government (2020-2021), The Scottish Government's Infrastructure Investment Plan 2021-22 to 2025-26 (2021)
SEStran Region - policy frameworks informed by relevant higher-level frameworks	

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

B.3 Key Policy Considerations

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

International

B.3.2 Mitigating and adapting to climate change is a critical policy consideration at an international level with multiple agreements in place to address the climate emergency. The UNFCCC is the forum for international action on climate change with the aim of stabilising GHG concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system. The UNFCCC focuses on mitigating (reducing) GHG emissions, adapting to climate change, reporting of national emissions, and financing of climate action in developing countries. Agreed at COP 21, the Paris Agreement commits signatories to reducing global greenhouse gas emissions with the long-term goal of withholding a temperature increase by no more than 2%. In addition, the Cancun Adaptation Framework recognises that adaptation required to given same priority as mitigation including reducing vulnerability and increasing resilience. Any major transport infrastructure development set out in the emerging RTS should contribute to meeting the requirements and targets set out in international climate change policies and agreements.

B.3.3 As the United Kingdom formally left the European Union (EU) in 2020, European legislation and associated policies are no longer of direct relevance to domestic policies or strategies such as the RTS. However, EU legislation has historically developed policy frameworks to address environmental issues which have subsequently been implemented at UK and Scotland levels, and prior to leaving the EU, existing EU legislation was transposed and incorporated into UK and Scottish legislation. This means some EU legislation remains of indirect relevance to the emerging RTS in terms of having established frameworks and requirements which the RTS will still need to implement in accordance with UK and Scottish legislation.

National

B.3.4 The Scottish Government's update to the Climate Change Plan 2018-2032 (2020) sets out a commitment to reduce greenhouse gas emissions to 75% of 1990 levels by 2030, 90% by 2040 and net-zero by 2045. The Plan recognises the key role that the decarbonisation of transport will play in reducing Scotland's emissions.

B.3.5 The upgrade to the Climate Change Plan follows on from the publication of Climate Ready Scotland Adaptation Programme in 2019 which sets out the current state of the climate in Scotland including average rainfall increases, temperature rises and changes in mean sea level around the UK. The Programme sets out low and high emission scenarios, predicts a high emissions prediction of a summer temperature increase of 2.6°C and a winter temperature increase of 2.2 °C by 2070 with associated changes in rainfall in the summer (14% drier) and in winter (18% wetter). The transition to a low-carbon transport system will be critical to mitigating and adapting to the impacts of climate change in Scotland. This is backed up by several national policy documents, including NTS2.

B.3.6 The National Transport Strategy 2 (2020) sets out the transport strategy for Scotland over the next 20 years, seeking to deliver a transport system which is sustainable, inclusive, safe and accessible across Scotland. NTS2 provides a strategic framework comprising four key priorities and associated enablers to ensure that NTS2:

- **"Reduces inequalities:** providing fair access to services that are accessible and affordable for all;

- **Takes Climate action:** to help deliver the net-zero emissions target, adapting to the effects of climate change and promoting greener, cleaner choices;

- **Helps to deliver inclusive economic growth**; which is efficient, reliable, high quality and innovative; and,

- **Improves our health and wellbeing:** delivering a safer and secure Scotland, with a wide variety of travel choices for communities".

B.3.7 NTS2 also sets out proposals (as stated in the Scottish Government's Climate Change Plan) to reduce reliance on private transport to help to address the ongoing climate emergency, including a reduction in car kilometres by 20% in 2030, an ambition to phase out new petrol and diesel cars by 2032, decarbonise Scotland's passenger railways by 2035 and decarbonise scheduled internal Scottish flights by 2040. The delivery of inclusive economic growth is also a key pillar of NTS2, seeking to increase the resilience of Scotland's transport system and foster greater integration of transport and wider infrastructure policies and investments. It aims to increase Scotland's competitiveness and help Scotland to become an innovative leader in beneficial transport innovations.

B.3.8 The consultation draft of Scotland's 3rd Land Use Strategy was published in December 2020, setting out the Governments vision for achieving sustainable land use in Scotland. The Strategy sets out a set of key considerations for climate change adaptation & mitigation, understanding the need for climate resilience and the improvement of flood management within our urban landscapes. Post-consultation, the final draft of the Strategy is anticipated to be published in March 2021.

B.3.9 The Scottish Governments Programme for Government (2020-2021) is guided by the National Performance Framework. This edition focuses on protecting and renewing Scotland, addressing the ongoing impact of Covid-19 on health, the economy and society and in supporting the transition to net-zero emissions. Two key interrelated policy issues that the SEStran RTS must respond to are encapsulated by this target: delivering sustainable economic growth through climate change adaptation, and enhanced infrastructure investment.

B.3.10 The Scottish Government's Infrastructure Investment Plan 2021-22 to 2025-26 (2021) sets out priorities for public investment through a long-term strategy. With progress updated annually, it sets out why the Scottish Government invests, how it invests and what it intends to invest up to 2040 by sector. This Infrastructure Investment Plan focuses on the importance of infrastructure investment to aid in the recovery from the economic, health and social harm from Covid-19 and also to address the adjustments required following the UKs exit from the EU in December 2020.

B.3.11 Scotland's Economic Strategy (2015) sets out the long-term vision for Scotland's economic prosperity with £11bn worth of planned investment in Scotland's infrastructure. The Economic Strategy sets four priorities for delivering sustainable economic growth in Scotland; investment, innovation, internalisation and inclusive growth. Of most relevance to the SEStran region, the Strategy identified a number of major projects such as the Queensferry Crossing (now completed) and an £850m investment in the St James Quarter, a 1.7m sq. ft mixed use development in Edinburgh City Centre. The Scottish Governments Programme for Government 2020-2021 identifies the importance of transport in Scotland's Covid-19 recovery, identifying a suite of investment plans for transport improvements across Scotland such as £500m for bus priority infrastructure over the next 5 years, a £17m low carbon transport loan scheme and £100m for active travel infrastructure in 2020/2021. These improvements will help aid the Covid-19 recovery but also contribute towards the movement towards the decarbonisation of Scotland's transport infrastructure.

B.3.12 The National Planning Framework 3 (2014) designates a suite of National Developments which benefit from Scottish Government support in policy terms and sets out a national spatial strategy to deliver sustainable economic growth. This includes planned investment in key economic

sectors and infrastructure, identifying improved digital and transport connectivity as one of the four key planning outcomes for the plan. National Developments within the SEAStran region of relevance to transport are Freight on Forth, Grangemouth investment Zone, Borders Railway, Central Scotland Green Network (CSGN), new non-nuclear baseloads at Longannet and Cockenzie and improvements to Edinburgh Airport. The CSGN aims to transform the environment of Central Scotland by 2050 to contribute towards sustainable economic growth and population wellbeing. The CSGN is framed around 5 themes and several outcomes are relevant to biodiversity and conservation including improving resilience of habitats and species as a result of integrated habitat networks and increasing/creating habitat including woodland and green infrastructure / green networks.

B.3.13 The Scottish Government's Infrastructure Investment Plan (2015) sets out the Scottish Government's infrastructure investment priorities and plans up to 2040 including EGIP, strategic roads projects, high speed rail, Glasgow subway modernisation, low emission vehicle infrastructure, active travel infrastructure and accessibility improvements to infrastructure.

B.3.14 The emerging RTS must take account of all priorities identified in this policy review, including NTS2, Scotland's Economic Strategy, NPF3 and the Infrastructure Investment Plan especially with regard to transport climate change and inclusive growth. The emerging RTS also needs to be aligned with emerging policy priorities including the recommendations of STPR2 and the emerging NPF4.

Regional

B.3.15 The SESplan Strategic Development Plan (2013) sets out the vision and spatial strategy for the SESplan region to 2032, guiding future development and land use at a strategic level and also through the implementation of Local Development Plans (LDPs) for the constituent local authorities in the region. The SDP identifies existing and proposed employment land and housing commitments across the 13 Strategic Development Areas (SDA's) in the region as follows:

Strategic Development Areas	Committed Housing Units (from previous LDPs)	Strategic Employment Land (from previous LDPs)	Proposed Employment land allocated in the SDP
Regional Core (West Edinburgh, South East Edinburgh, Edinburgh City Centre, Edinburgh Waterfront)	41,500	247ha	20ha
East Coast (East Lothian, Eastern Borders)	8,400	76ha	n/a
Midlothian/Borders (A7/A68/Borders Rail Corridor (Midlothian), A701 Corridor (Midlothian), Central borders, Western Borders)	15,500	124ha	25ha
Fife Forth (North Dunfermline, Ore/Upper Level Valley)	6,700	411ha	n/a
West Lothian (West Lothian)	22,300	123ha	n/a
Total	94,400 units	981ha	45ha

B.3.16 To address the needs of the projected growing population (+10% by 2043), the emerging RTS must take account of all planned housing and infrastructure developments, ensuring transport is able to meet the projected increases in demand whilst also promoting sustainable development which helps to meet climate change targets in international, regional and local policy.

B.3.17 The Proposed Strategic Development Plan (SESplan2) (2016) was rejected by Scottish Ministers in May 2019 on the basis that its consideration of strategic transport infrastructure issues in the region, including consideration of cross-boundary requirements, was not accompanied and reinforced by a full Transport Appraisal. The emerging RTS is likely to be approved prior to the development of the replacement SESplan Regional Spatial Strategy (as that will follow NPF4 in 2022), but the emerging RTS will need to take account of transport issues noted in the SESplan2 Proposed Plan and the reasons for the rejection of that plan by the Scottish Ministers.

B.3.18 The Edinburgh & South East Scotland City Region Deal aims to stimulate regional growth through the implementation of a number of strategic projects in the SEStran region[24] worth £1.3bn over the next 15 years. Of this, £156m has been allocated for transport improvements including £120m for A720 Sheriffhall roundabout and £20m for public transport infrastructure, with an additional £313 million allocated to deliver housing development in the region. The Deal recognises its importance in delivering targets previously set out in the SDP including the core A8/A9 sustainable transportation measures to provide long term resilience and improving connectivity between neighbouring local authorities. Elsewhere, the Borderlands Inclusive Growth Deal (Scottish Borders only), Falkirk Growth Deal and Stirling & Clackmannanshire City Region Deal all aim and set out funded infrastructure projects to foster inclusive economic growth.

B.3.19 The SEStran Strategic Network Plan identifies plans for the development and enhancement of the strategic transport network, providing a framework of cross boundary active travel routes connecting cities, towns and other settlements throughout the region. This will be achieved through new active travel proposals such as the East Lothian Cycle Highway, new travel hubs/park and rides and through major proposals such as planned major residential development at Blindwells and Gallatown in addition to mixed use proposals at Grangemouth, Longannet and Edinburgh West.

B.3.20 The emerging RTS will build upon the work of the previous SEStran RTS 2015-2025 refresh, published to take account of 2011 census data, updated national objectives, internal connectivity, new road accident national targets, project updates, implementation changes, and strategies and initiatives developed since 2008 publication. It focuses mainly on the environmental and infrastructure capacity concerns of the growing demand on transport infrastructure in the SEStran region, taking account of the implications of the SDP and the need for enhancements in internal and external connectivity for the region. It sets a number of targets to do this including maintaining and improving accessibility to key business/employment locations for all, increase public transport access to employment for the most deprived communities by at least 10% after 15 years and working towards the Scottish Governments target of returning to 2001 traffic levels by 2021.

Local

B.3.21 Policies and guidance to guide development at the local level is provided via Local Development Plans (LDPs) and Local Transport Strategies. The emerging RTS will need to take account of transport pressures as a result of current and emerging development set out in the adopted LDPs in the region, in addition to significant infrastructure developments identified in emerging LDPs such as City Plan 2030, expected to be adopted in Spring 2022. The RTS will also need to take account of existing transport issues and objectives set out in Local Transport Strategies

[24] With the exception of Clackmannanshire which is part of the Stirling and Clackmannanshire City Region Deal.

across the SEStran region and be cognisant of the potential development of new LTS in tandem with (rather than following) the RTS. This includes the Edinburgh City Mobility Plan, which is expected to be approved by the City of Edinburgh Council in February 2021.

B.3.22 An overview of relevant infrastructure development proposals and housing land targets across the 8 local authorities in the SEStran region is provided below.

Local Authority	Adopted LDP	Relevant LTS	Strategic Infrastructure Developments Identified[25]	Housing requirements to end of plan period.
City of Edinburgh	Edinburgh Local Development Plan (2016)	City of Edinburgh Local Transport Strategy (2014-2019) City of Edinburgh Transport 2030 Vision (2010-2030) Edinburgh Airport Masterplan (2016-2040) Edinburgh City Mobility Plan (in draft)	- New tram and rail infrastructure in west Edinburgh - Improvements to Edinburgh Airport - Improvements to road capacity - Sheriffhall Junction upgrade - Extension of ocean drive development to increase port capacity - Eastfield Road and Gogar Link Road	29,510 homes covering period 2009-2024.
East Lothian	East Lothian Local Development Plan (2018)	East Lothian Local Transport Strategy (2018-2024)	- Blindwells new settlement. - Targeted improvements in air quality for Musselburgh and Tranent High Streets.	12,850 homes. SESplan indicated a requirement for a further 3820 dwellings between 2024 and 2032.
Scottish Borders	Scottish Borders Local Development Plan (2016)	Scottish Borders Local Access & Transport Strategy (in draft)	- Transportation interchange improvements between main town centres - Improvements to local road network. - Future railways extension between St Boswells and Hawick - Updates to A1, A7 and A68 - New rail station at Reston	12,506 covering 2009-2025), with 565 new housing allocations in the LDP.
West Lothian	West Lothian Local Development Plan (2018)	n/a	- Junction 3 M9 at Linlithgow - Duntarvie, winchburgh junction - Avon Gorge to Falkirk - A71 west calder station park and ride - New Winchurgh Rail station - West Lothian (HS2)	7,249 homes to 2024.
Midlothian	Midlothian Local Development Plan (2017)	Midlothian Transport Strategy (2007-2010)	- A720 Sheriffhall Junction Grade Separation - Shawfair SDA A720/A68 Junction at Newton Farm - A701 relief road and A702 Link with associated junctions - Orbital bus route A720 bypass	8350 homes to 2024.

[25] Not a comprehensive list of all improvements identified.

Local Authority	Adopted LDP	Relevant LTS	Strategic Infrastructure Developments Identified[25]	Housing requirements to end of plan period.
Fife	Fifeplan (2017)	Local Transport Strategy for Fife (2006-2026)	- Associated infrastructure requirements for Longannet power station, Rosyth Port, Burntisland Port, Fife Energy Park and Inverkeithing Port. (Fife Energy Corridor).	18,263 homes to 2026.
Falkirk	Falkirk Local Development Plan 2 (2020)	Falkirk Council Local Transport Strategy (2014)	- M9 Junction improvements - M80 junction improvements - A801 Avon Gorge Improvement - Falkirk Bus Station	6894 homes to 2030
Clackmannanshire	Clackmannanshire Local Development Plan (2015)	Clackmannshire Local Transport Strategy (2010)	- A908 corridor improvements - Shillinghill roundabout junction upgrades - Junction improvements for B908/B909 and B908/Branshill road - B9140 road safety improvements	7172 homes to 2035.