

**SESTRAN PARTNERSHIP BOARD- SPECIAL MEETING**

**Remote Meeting via MS Office Teams  
2:00pm Friday 29<sup>th</sup> October 2021**

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<b><u>AGENDA</u></b>	<b>Page Nos.</b>
<b>1. ORDER OF BUSINESS</b>	
<b>2. APOLOGIES</b>	
<b>3. DECLARATIONS OF INTEREST</b>	

**AGENDA A – POINTS FOR DECISION**

- A1. REGIONAL TRANSPORT STRATEGY 2035**  
a) Presentation by Stantec  
b) Report by Jim Stewart
- A2. DATE OF NEXT MEETING**  
The date of the next meeting is scheduled for **10:00am on Friday  
3<sup>rd</sup> December 2021**

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## Regional Transport Strategy 2035: Update Report

### 1 Introduction

- 1.1 The purpose of this report is to update the Board on the completion of the draft Regional Transport Strategy, in advance of wide consultation. The draft RTS concludes a period of preparatory consultations, statutory assessments and engagement. Approval by the Board is sought to allow the full consultation period to commence on the draft RTS Appendix 1.
- 1.2 The report also provides a short update on the STPR2 process, which contains priorities for regional mobility that will shape the content of the RTS and outlines the next steps in the process. In addition, the relationship of the emerging RTS to the ongoing development of the Strategic Transport Projects Review 2 (STPR2) is considered.

### 2 Background and context

- 2.1 A report to the Board on 24 September 2021 ([Report Link](#)), members were updated members on completion of all preceding stages of RTS development:-
  - Main Issues Report
  - Case for Change (CfC)
  - Statutory Assessments (completed to stage)
  - Preliminary Option Appraisal Report
- 2.2 The development of the RTS over the past year, in conforming to Scottish Transport Appraisal Guidance (STAG) processes, has involved a number of defined development stages, some with public consultation elements. The process has been supported and supplemented by a range of engagement activities and opportunities, appropriate to the relevant stages of the RTS. A summary of the process including engagement and consultation activity is provided at Appendix 2.
- 2.3 Board members are reminded that the context for the RTS has ensured very close alignment with national priorities as expressed in NTS2 of reducing inequalities; taking climate action; helping to deliver inclusive economic growth; and improving health and wellbeing.

### 3 RTS draft finalisation

- 3.1 The work to finalise the draft RTS has been continuing since the last meeting of the Board. This has included finalising the work on the Spatial elements of the policy Strategy and taking the Regional Mobility Themes and developing a number of actions and policies for each one.
- 3.2 There were thirteen Regional Mobility Themes discussed at the Board meeting on 24 September. In finalising and completing a review of the draft RTS It was considered that the Regional Mobility Theme identified as “*capitalising on*

*opportunities from new technology*” was a common thread in most of the policies and would have led to unnecessary duplication. Therefore, it was not considered necessary to include this specific individual theme. Following some minor textual adjustments for clarification, the titles but not the intent of the themes has been adjusted and the final draft RTS has the following 12 Mobility Themes;

- Shaping Development and Place
- Delivering Safe Active Travel
- Enhancing Access to Public Transport
- Enhancing and Extending the Bus Service
- Enhancing and Extending the Train Service
- Reallocating Roadspace on The Regional and Local Network
- Improving Integration Between Modes
- Decarbonising Transport
- Facilitating Efficient Freight Movement and Passenger Travel
- Working Towards Zero Road Deaths and Serious Injuries
- Reducing Car Kilometres
- Responding To the Post Covid World

- 3.3 The vision for the RTS is now included in section 4.0 of the RTS and the vision and aim are repeated below.

#### Vision

A South-East of Scotland integrated transport system that will be connected and safe, creating inclusive, prosperous, and sustainable places to live, work and visit, affordable and accessible to all, enabling people to be healthier and delivering the region’s contribution to net zero emissions targets.

SEStran’s aim as an organisation is to make sustainable modes of transport easier, more appealing to use and more accessible.

- 3.4 Policies and Actions have now been developed to provide a framework for delivering the vision to meet the Regional Mobility Themes identified for the region. There are 74 policies with associated actions which are included within the document. Partnership working is key to the delivery of many of the desired outcomes.
- 3.5 It is considered that the strategy and all associated policies and policy actions establish a positive framework which will allow more detailed interventions to be designed and fits well with the aims of the National Transport Strategy.
- 3.6 The RTS sets out a range of policies and actions which will shape investment in transport in the region for the next 10-15 years. Crucially, in response to the Climate Emergency the Scottish Government has set a target to reduce car traffic levels (car km) by 20% by 2030. This is a fundamental point for the RTS to address and it is therefore important to understand car-based travel in the SEStran area in order to appropriately focus initiatives aimed at reducing car-km.
- 3.7 The spatial element of transport and development is fundamental to the RTS and is covered in section 17.0. Whilst providing a framework for all travel and transport in the region, the RTS has a particular focus on regional travel, i.e., travel between local authorities as opposed to travel wholly within local authority areas. To understand

this, although now dated, the census of 2011 provides the most comprehensive and detailed picture of (pre COVID-19) commuting travel in the SEStran region and is consistent with data underpinning the development of STPR2, – this is taken as a proxy for all travel for the purposes of analysis here. Typically, commuting sees a higher share of public transport than for other travel so if anything this may underestimate the scale of the ‘problem’

- 3.8 The Statutory Assessments are integral to the development of the draft RTS. The Environmental Report (ER) Appendix 3 has documented the findings of the SEA carried out in respect of the Draft SEStran Regional Transport Strategy. The high-level nature of the strategy and all associated policies and actions precludes the identification of any specific impacts.
- 3.9 However, in general, the proposed RTS Objectives provide an appropriate high-level platform from which to develop specific schemes, policies, and proposals to address a range of key environmental (as well as socio-economic and wider) issues. Specific individual measures e.g. major infrastructure may require to undertake more comprehensive SEA to fully meet their statutory requirements.
- 3.10 As a result, the consultation version of the Draft RTS is considered to be more robust and effective in terms of addressing relevant environmental issues. This has made the SEA reporting process more efficient and improved the environmental performance of the Draft RTS. In particular, the consultation version of the Draft RTS is now predicted to generate a range of likely significant beneficial effects on the environment and in relation to identified key environmental issues, with no residual significant adverse effects considered likely.
- 3.11 There is a statutory requirement to advertise the publication of the SEA and approval of the SEA is recommended at paragraph 6.3
- 3.12 The Equalities Impact Assessment report (EqIA) and associated reports detail how the draft RTS has been developed and serves to meet the statutory Public Sector Equality Duty, the Fairer Scotland Duty and the Child Rights and Wellbeing Duties. This ensures that equalities issues are integral to the draft RTS. The various reports are appendices 4, 5 6 and 7. The high-level nature of the strategy and all associated policies and actions precludes the identification of any specific impacts.
- 3.13 The objective of these reports is to assess:
- the coverage of key equalities issues, previously consulted upon through the RTS EqIA Assessment Framing Note (Stantec, 2021); and
  - the extent to which the proposed RTS strategy objectives, regional mobility themes, policies and spatial strategy themes address identified key equalities issues.
- 3.14 The high-level assessment provided in the reports demonstrates that in general the proposed RTS Objectives provide an appropriate high-level platform from which to develop specific schemes, policies, and proposals to address identified key equalities issues. This indicates that the RTS Objectives, Policies and Actions are generally compliant with the requirements of applicable equalities duties. Specific



individual measures may be required for more comprehensive Equalities Assessment to fully meet their statutory requirements.

- 3.15 The last Board report noted that the matters regarding deliverability, including powers, roles and responsibilities associated with the RTP role and 'Model 1' status, had been identified within the appraisal process. The report noted these matters would be examined further and proposal(s) prepared on the appropriate governance arrangements to be included in the draft RTS. The proposals outlined in paragraphs 3.16 and 3.17 below acknowledge SEStran's position as a 'Level 1' Regional Transport Partnership and the limited range of statutory functions this conveys coupled with a lack of dedicated funding to support delivery of the RTS, has compromised the delivery of cross-boundary schemes and interventions in the existing RTS.
- 3.16 The Transport (Scotland) Act 2005 allows for arrangements and associated functions that could be developed for cross boundary or multi partner RTS schemes which can be agreed and brought into effect through the provisions of sections 10 and 14 of the 2005 Act. It is proposed that in accordance with these provisions, SEStran should, as appropriate, carry out future consultation with its constituent authorities, to consider use of these powers in order that particular projects or schemes could be taken forward.
- 3.17 This could involve SEStran evolving beyond a model 1 partnership with enhanced and shared powers and functions to effectively deliver interventions; particularly those associated with bus services. Equally it could be that specific projects or schemes could be accomplished by means of SEStran taking on powers and functions under section 14 by agreement with some or all of the constituent authorities to deliver specific projects on their behalf.

#### **4 Strategic Transport Projects Review 2 (STPR 2)**

- 4.1 As frequently reported to Partnership Board meetings, there is a need for the RTS to give due consideration to the finalising of STPR2, which will set out national investment priorities in support of the National Transport Strategy (NTS2). Although it is still the case that STPR2 will not be delivered until the end of 2021 ongoing discussions at a national level with the Regional Reference Group, at specific sub-regional workshops and through Regional Transport Working Group meetings there is a clear indication of the key areas developing through STPR 2. A further round of Regional Transport Working Group meetings in the region will allow close engagement between the draft RTS and the finalised STPR2 priorities.

#### **5 Next Steps**

- 5.1 Subject to approval by the Board, the draft RTS will be issued for formal consultation. The normal 12 week period is being extended by 2 weeks to take account of the Christmas holiday period. The consultation period will run from 1 November until 2021 until 4 February 2022. There is also a statutory requirement to advertise the Strategic Environmental Report along side the draft RTS in a local newspaper.

- 5.2 A virtual engagement hub is prepared which will allow on line participation and the opportunity to comment on the draft RTS and take part in a survey. A link will be available on the SEStran web site. It is also proposed to engage further with partners and stakeholders to support them as they consider further the policies and proposals in the RTS.
- 5.3 Social media, the SEStran website, the SEStran forums and contacting previous consultees will ensure that stakeholders and public are aware that the draft RTS has been published and that there is an opportunity to comment.

## 6 Recommendations

It is recommended that the Board:

- 6.1 Consider the terms of the draft new RTS 2035, and offer comment, as appropriate;
- 6.2 Approve the draft RTS for further consultation and engagement, as set out in this report, all in terms of section 6 of the Transport (Scotland) Act, 2005;
- 6.3 approve the SEA and EqIA for publication alongside the draft RTS;
- 6.4 Delegate to the Partnership Director any minor or non-substantive amendments necessary prior to its publication; and
- 6.5 Note that, following full consultation and engagement, the RTS will be brought back to the Board with recommendations for any changes arising from the consultation and engagement process, prior to onward transmission to the Scottish Ministers.

Jim Stewart  
**Strategy and Projects Officer**  
 22<sup>nd</sup> October 2021

Policy Implications	A new RTS will impact on future strategy development and local transport authorities' plans and strategies.
Financial Implications	Sufficient funds are contained within the projects budget for delivery of the RTS
Equalities Implications	The new RTS has been subject to an Equalities Impact Assessment (EQIA) which is one of the attached papers.
Climate Change Implications	The new RTS has been subject to a Strategic Environmental Assessment (SEA) which is an attached paper.
Appendices	1. SEStran Draft RTS 2022 – 2035 2. Record of RTS development including consultation and engagement to date //(Cont.)

	<ul style="list-style-type: none"> <li>3. Strategic Environmental Assessment Environmental Report</li> <li>4. Equalities Duties Summary Report</li> <li>5. Equalities Impact Assessment Record Report</li> <li>6. Fairer Scotland Duty Assessment</li> <li>7. Child Rights and Wellbeing Impact Assessment</li> </ul>
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# REGIONAL TRANSPORT STRATEGY

Draft for Consultation

October 2021

In partnership with:  **Stantec**



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# Introduction

**SEStran Regional Transport Strategy**

Draft for Consultation

## 1.0 INTRODUCTION

### 1.1 PURPOSE

This Draft Regional Transport Strategy (RTS) for the South-East of Scotland has been prepared by the South-East of Scotland Regional Transport Partnership (SEStran) which was set up under the Transport (Scotland) Act 2005. It covers eight constituent local authorities as shown in Figure 1.1. This Act also set the requirement to produce a statutory RTS to provide a strategic framework for transport management and investment for the Partnership area.

The Draft RTS has been prepared to replace the Regional Transport Strategy 2015 -2025 Refresh published in July 2015. It replaced the original SEStran Regional Transport Strategy 2008 – 2023 published in November 2008.

It is essential that the RTS addresses the transport problems and issues being experienced in the SEStran area. The purpose of this Draft RTS is to set out these challenges and how SEStran proposes to respond to them and to provide an opportunity for consultation and engagement prior to finalising the strategy.

This Draft RTS has been prepared in accordance with RTS development guidance (Transport Scotland, 2006), the Scottish Transport Appraisal Guidance (STAG) and all relevant legislative and policy requirements. It is supported by a suite of evidence drawn from published policy documents, data analysis as well as stakeholder and public consultation. This has been set out in the documentation accompanying the development of the RTS. This includes a STAG Case for Change report which details the problems and issues that need to be tackled by the RTS as well as defining options to address them along with the strategy objectives. The options which emerged from the Case for Change also underwent appraisal with the findings outlined in the STAG Preliminary Options Appraisal report.



Figure 1.1 SEStran Location Plan

The preparation of the new SEStran RTS has also been informed by Strategic Environmental Assessment (SEA) and Equalities Impact Assessment (EqIA) processes, each of which has identified key environmental and equalities issues which need to be addressed in the new RTS. This Draft RTS is accompanied by proportionate SEA and Equalities Duties Assessment Reports which consider how relevant equalities and environmental issues have been taken account of to date and provides recommendations to inform the finalisation of the RTS. These processes along with their associated timescales are illustrated in Figure 1.2.

It also draws upon the findings of the SEStran Main Issues Report published in June 2020. This was substantially prepared prior to the COVID-19 pandemic and therefore primarily reflects pre-pandemic problems and issues. As such, the STAG process has sought to ensure that the RTS is developed upon an evidence base which reflects the latest understanding of problems and issues in the region and reflects travel behaviour changes arising from the pandemic.

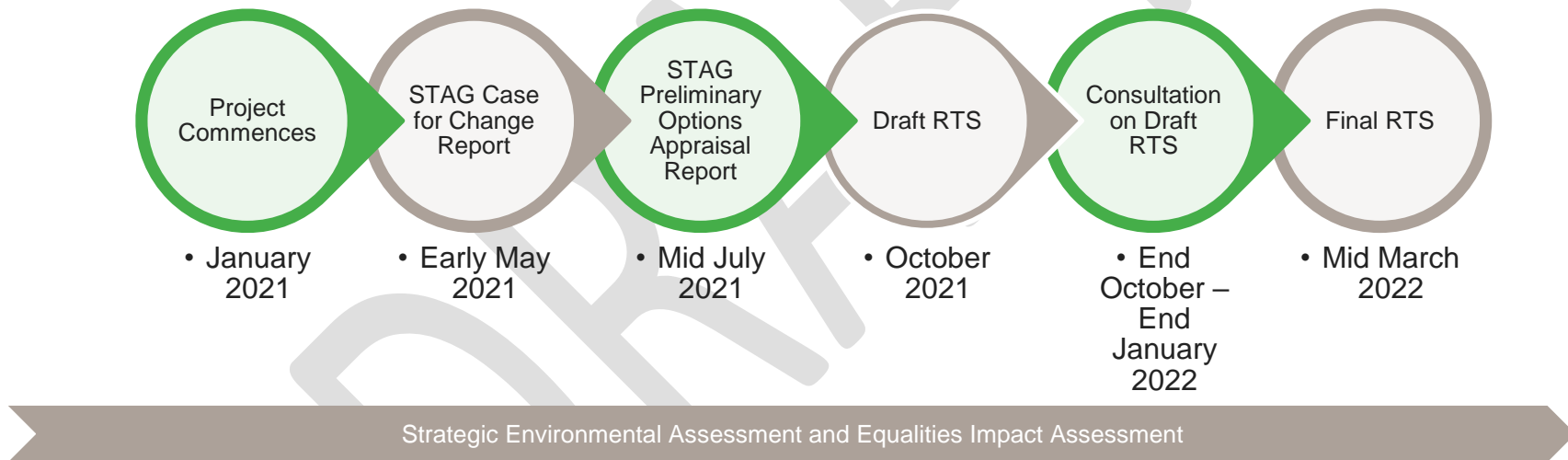
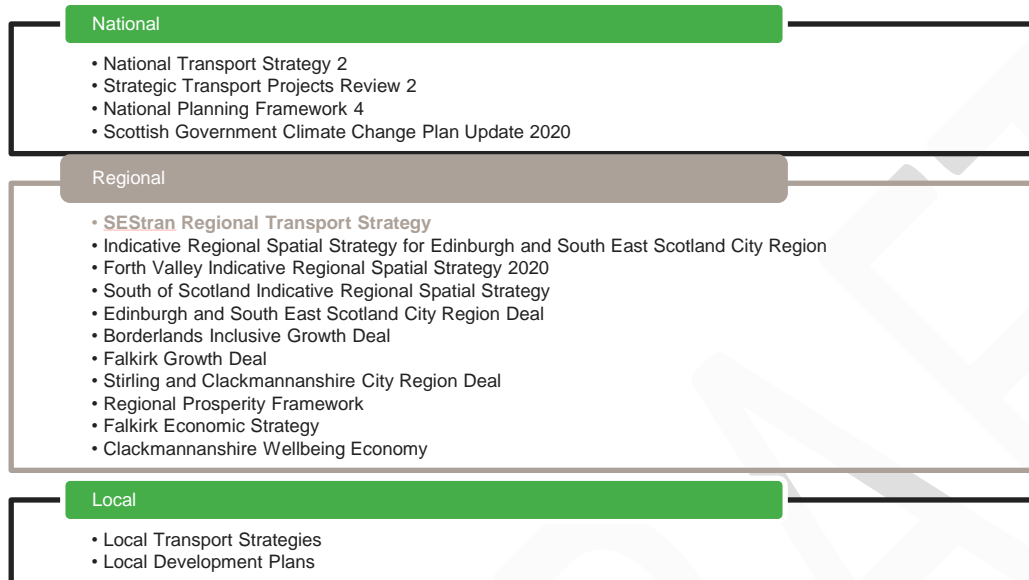


Figure 1.2 RTS Timescales

## 1.2 POLICY CONTEXT



The new Regional Transport Strategy sits within and is being developed in the context of a policy hierarchy which spans the national, regional and local levels. This is illustrated in Figure 1.3 along with some of the key policy documents.

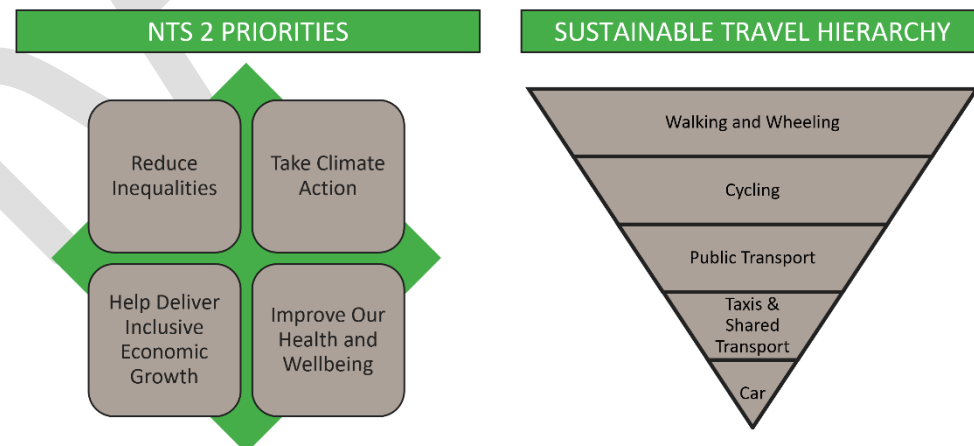
In particular, the RTS is being developed within the policy framework provided by the National Transport Strategy 2 which was published in February 2020. It set out four strategic priorities as well as defining a Sustainable Travel Hierarchy as shown in Figure 1.4. These four priorities and hierarchy have been used to guide the development of this Draft RTS.

**Figure 1.3 Policy Hierarchy**

Alongside this the Scottish Government has also set out ambitious targets to help achieve its overarching target of net zero emissions by 2045. In particular, the Climate Change Plan Update published in December 2020 outlined that by 2030:

- *our roads will contain no new petrol and diesel cars and vans;*
- *car kilometres will have reduced by 20%.*

This policy context has been used to guide the development of the Draft RTS.



**Figure 1.4 National Transport Strategy Policy Framework**



# Context

## SEStran Regional Transport Strategy

Draft for Consultation

## 2.0 CONTEXT

### 2.1 SOCIO-ECONOMIC

The SEStran region covers 8,400km<sup>2</sup> which is just over 10% of Scotland's landmass. It is hugely diverse and includes areas which fall into every one of the Scottish Government's six-fold urban-rural classification. The total population of the SEStran area was estimated as 1,609,070 in 2019. the majority of the population is concentrated in the northern part of the SEStran area with a large, sparsely populated rural hinterland to the south in the Borders and parts of Midlothian and East Lothian. The greatest concentration of population is within the City of Edinburgh which accounts for approximately 33% of the total SEStran region population.

There has also been significant population growth within the SEStran region with a 7.5% increase between 2009 and 2019. The largest growth has been in the City of Edinburgh (13.3%) with the lowest growth in Clackmannanshire (0.5%). In addition, the population has also been aging with the number of people aged 65 years or older in the region increasing by 23.6% over the same time period. West Lothian has seen the highest growth in the elderly population (34.3%).

The population of the SEStran region is projected to grow by 7.4% between 2018 and 2038 although this masks variations across the region as shown in Figure 2.1. In particular, the population of Clackmannanshire and Fife is forecast to decline whilst there is considerable growth expected in Midlothian. The trend towards an aging population is also expected to continue with a 27.7% increase in people of pensionable age over the period.<sup>i</sup> However, it should be noted that these projections do not reflect the potential impact of Brexit on net-migration which has been the primary driver of growth in recent years.

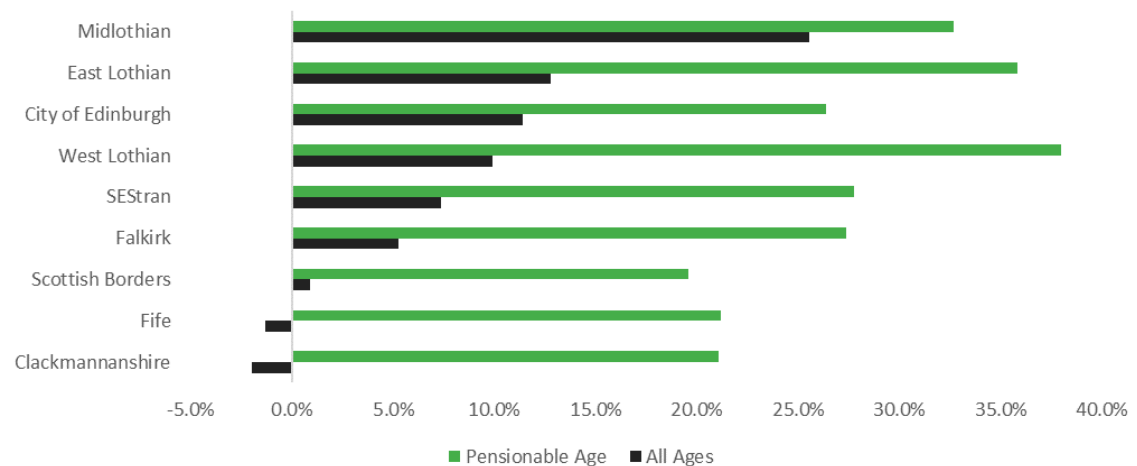


Figure 2.1 Forecast Population Change in SEStran Region 2018 - 2028

In addition, the population is also becoming more dispersed as the average size of a household in the region has decreased by 4.7% from 2.30 in 2001 to 2.19 in 2019.<sup>ii</sup>

These trends will have a range of implications for travel including:

- Increased travel demand linked to a growing and more dispersed population
- Increasing demand for access to healthcare
- More people wanting to use concessionary travel putting increased pressure on public sector finances
- More dependence on public transport and community transport to access essential services

There are variations in levels of employment across the region as illustrated in Table 2.1<sup>iii</sup> although only Clackmannanshire, Falkirk and Fife have an employment rate below the national average. All local authorities have experienced a growth in their employment rates since 2009 with the highest growth being in West Lothian.

**Table 2.1 Employment Rate in the SEStran Region 2019**

LOCAL AUTHORITY	EMPLOYMENT RATE	CHANGE SINCE 2009
Clackmannanshire	74.4%	4.7%
East Lothian	78.9%	3.9%
Edinburgh	75.1%	3.0%
Falkirk	74.1%	1.2%
Fife	73.7%	2.5%
Midlothian	80.4%	4.8%
Scottish Borders	76.2%	1.3%
West Lothian	77.8%	5.1%
<i>Scotland</i>	<i>74.8%</i>	<i>2.8%</i>

## 2.2 LAND-USE PLANNING

Transport demand is closely related to land-use as people travel to reach services like employment, healthcare, retail, education and leisure facilities. Historically, land-use and transport planning have often not been undertaken in a wholly coordinated manner leading to developments which can be difficult to use or access for those without access to a private car. It is critical to achieving nationally set environmental targets (e.g. climate change, air quality) that land-use development and transport are integrated to plan for a future mobility system and low-carbon society. The land-use planning context in the region is influenced by national, regional and local policy. The Scottish Government is currently in the process of preparing the National Planning Framework 4 (NPF4) which will set out a plan for Scotland in 2050. It is anticipated that this will focus on four key outcomes which include:

- Net-Zero Emissions
- A Wellbeing Economy
- Resilient Communities



- Better, Greener Places

In February 2021, the 'Minimum All-Tenure Housing Land Requirement' method paper was published for NPF4. This included housing land allocations for each of the SEStran local authorities for the next 10 years as shown in Table 2.2. In addition, the percentage increase on the existing housing stock that these housing allocations represent has been calculated to provide an indication of the scale of development. This shows that housing could increase by up to 20% in Midlothian whilst the smallest increase would be in Clackmannanshire at just 1.8%. Overall, housing in the region could increase by 8.4% on this basis.

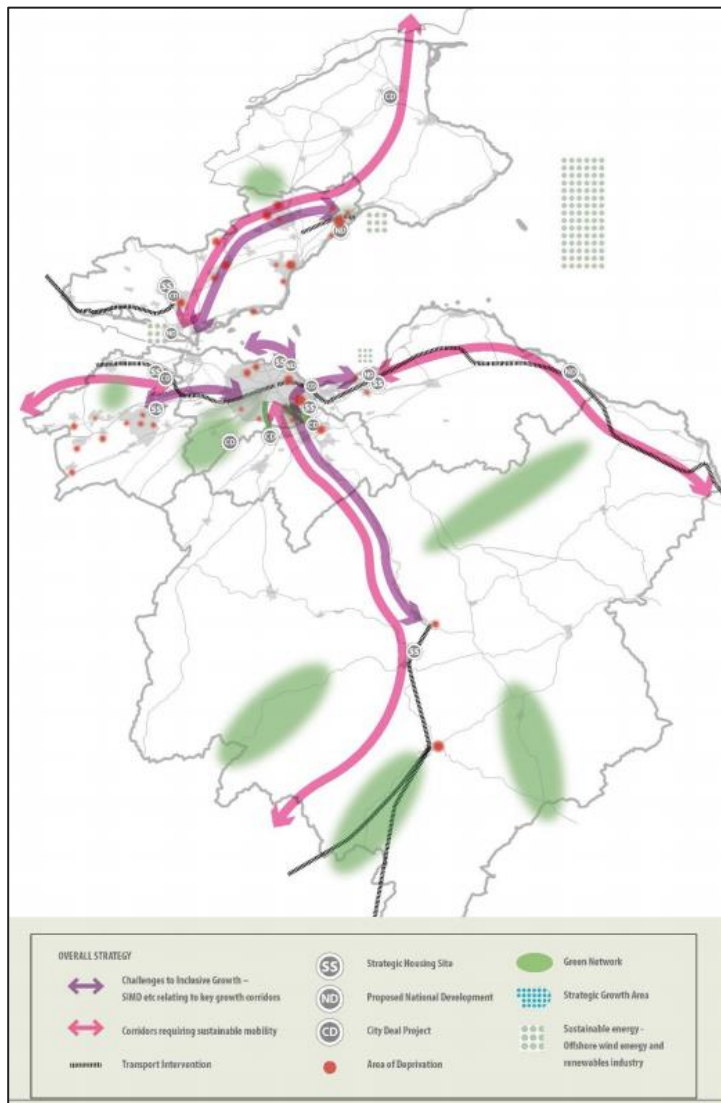
**Table 2.2 10 Year Housing Land Requirements**

AREA	HOUSING LAND REQUIREMENT	TOTAL DWELLINGS (2018)	% OF TOTAL DWELLINGS
Clackmannanshire	450	24,451	1.8%
Fife	5,250	176,500	3.0%
Scottish Borders	1,750	58,296	3.0%
Falkirk	5,250	74,594	7.0%
SEStran	63,200	749,642	8.4%
Edinburgh	27,550	248,314	11.1%
West Lothian	8,850	79,483	11.1%
East Lothian	6,050	47,731	12.7%
Midlothian	8,050	40,275	20.0%

A new duty has been introduced requiring planning authorities, acting individually or in groupings, to produce a Regional Spatial Strategy as soon as is practicable. In the short term, the Scottish Government has invited planning authorities to form regional groupings and develop indicative Regional Spatial Strategies (iRSS) to feed into the consultation on NPF4. There are several iRSS areas that exist across the SEStran area including one for the Edinburgh and South-East Scotland City Region and one covering the Forth Valley area.

Through the development of the RTS and iRSSs it is imperative that there is closer integration between land-use and transport planning in the City Region. It is important to understand where growth opportunities will be created and how these can be delivered in a manner that ensures sustainability and inclusivity through equitable access. In addition, there is a need to join up the delivery plans and priorities for transportation to support ongoing development.

An Interim Regional Spatial Strategy has been prepared for the Edinburgh and South-East Scotland City Region which covers Edinburgh, Fife, West Lothian, Midlothian, East Lothian, Scottish Borders and an overview of the spatial strategy is shown in Figure 2.2. This sets out a



**Figure 2.2 Edinburgh and South-East Scotland City Region iRSS Overall Strategy**

commitment to meeting significant levels of housing growth in the region and providing for sustainable economic development. A key element of this housing delivery focuses around seven strategic sites which include:

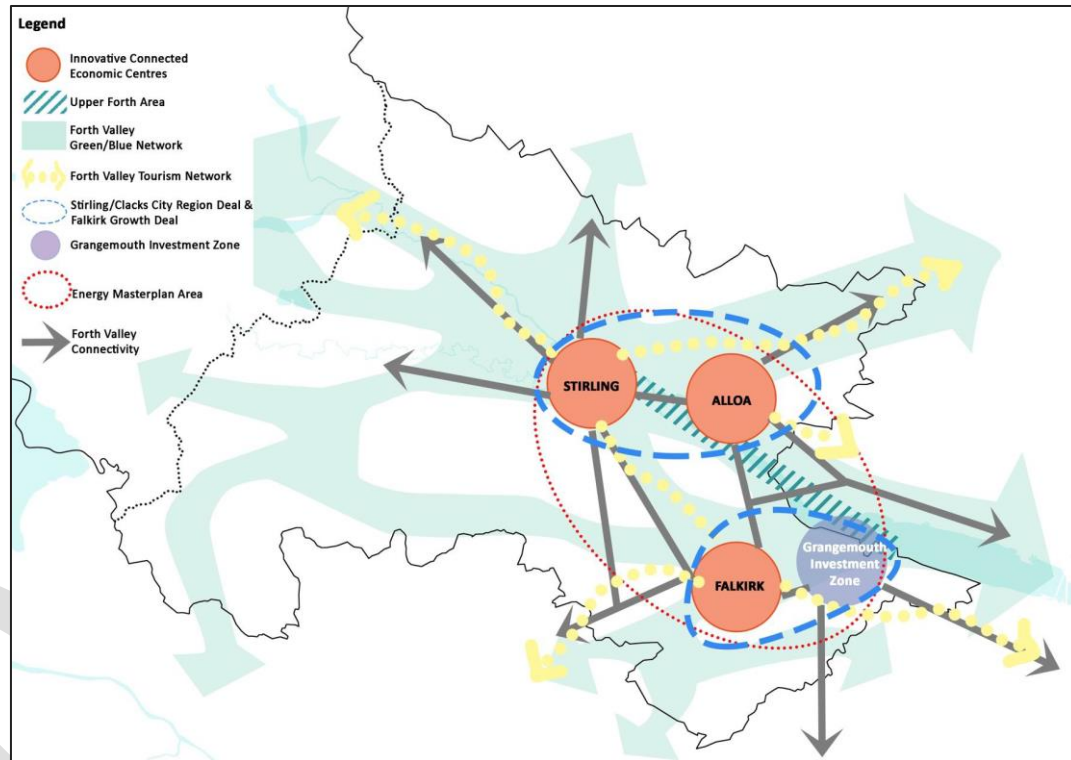
- Blindwells, East Lothian (proposed National Development)
- Shawfair, Midlothian
- Granton, Edinburgh
- Winchburgh, West Lothian
- East Calder, West Lothian
- Dunfermline, Fife
- Tweedbank, Scottish Borders

The iRSS highlights the importance of connectivity to the region noting that it is both about transport infrastructure and strong connections between communities and settlements to ensure there are no barriers to participation. There are concerns that cross-boundary deficiencies in connectivity and affordable public transport options are leading to disconnection from work opportunities, including in more rural areas.

In terms of transport the iRSS strategy focus is twofold. Firstly, to improve the linkages along existing major transport corridors to enhance connectivity beyond the region and, secondly, enhance the inter-region links. For new developments connecting infrastructure needs to be identified and delivered before sites are completed to give the best opportunity for sustainable habits to develop.

The iRSS also outlines that local authorities will aim to ensure that there is a sufficient supply of housing land to meet the housing land requirements to be set out in NPF4 and indicated in Table 2.2. Development policy will promote brownfield sites and minimum levels of density appropriate to urban and edge of urban sites, to promote better public transport and active travel provision and more sustainable neighbourhoods where the density supports a level of local services, public transport and employment opportunities.

Falkirk and Clackmannanshire Councils are working with Stirling Council on the preparation of an RSS for the Forth Valley area. An iRSS has been submitted to the Scottish Government to inform the development of NPF4. This is based around a polycentric approach that notes the strategic relationships across the wider area and central linking role that the region has to play in central Scotland. This is illustrated in Figure 2.3. From a connectivity perspective the iRSS focuses on decarbonising transport through provision of an electric vehicle charging network, active travel and supporting transport infrastructure as well as digital infrastructure. In terms of housing it is highlighted that the NPF4 response to housing targets across the region will influence how the RSS addresses housing need and demand. However, Falkirk is a distinct housing market area with a closer relationship between Stirling and Clackmannanshire areas.



**Figure 2.3 Forth Valley iRSS Overall Strategy**

Furthermore, in June 2020 a draft Edinburgh and South-East Scotland Regional Prosperity Framework was published for consultation. The framework builds on the regional partnership that is delivering the £1.3bn Edinburgh and South-East Scotland City Deal. A series of future regional priorities have been identified based upon supporting the region to flourish, encouraging innovation and supporting resilience. Some major regional opportunities have been identified through the framework development process, each aligning with one or more of these themes. Two major opportunities directly relate to transport which are:

The framework builds on the regional partnership that is delivering the £1.3bn Edinburgh and South-East Scotland City Deal. A series of future regional priorities have been identified based upon supporting the region to flourish, encouraging innovation and supporting resilience. Some major regional opportunities have been identified through the framework development process, each aligning with one or more of these themes. Two major opportunities directly relate to transport which are:

- Re-thinking neighbourhoods, towns, and cities in terms of addressing affordability and connectivity within 20-minute neighbourhoods, and re-shaping High Streets, in both a city centre and a town centre context, focusing on new roles and new uses.
- Promoting sustainable transport and mobility to reduce car dependency across the region by delivering key aspects of the Regional Transport Strategy such as interconnected cross boundary active travel links and better infrastructure for public transport provision. We will provide

affordable, coordinated public transport options for those who live in transport poverty for access to employment, training, and education opportunities.

Furthermore, City Region and Growth Deals have been signed for Stirling and Clackmannanshire, Falkirk and Borderlands. When combined with that for Edinburgh and South East Scotland these will deliver well over a billion pounds worth of investment in infrastructure, innovation and skills into the region. This investment is designed to unlock economic growth and to tackle inequality and deprivation.

It is within this land-use planning and economic development context the Draft RTS has been developed and it has therefore sought to ensure that there is close synergy between what is emerging in the RTS and the emerging land-use proposals.

## 2.3 TRAVEL BEHAVIOUR CHANGE

There is a long-term trend of people making fewer trips, as reflected in the DfT's long-running National Travel Survey. On average people are making 13% fewer trips per annum compared to the mid-1990s. All of the main travel purposes have seen a decline, with only education and some of the less frequent leisure trip categories seeing an increase. The average distance travelled has declined at a lower rate (7%) meaning that the average trip length has increased over this period. Reflecting this, average trip duration has also increased from 20 to 23 minutes. At the UK level, this reduction in travel per person has been offset by growth in population of 15% over this period. Population growth has therefore been the main driver of growth in travel, offsetting the reductions in travel at the individual level. Population projections are therefore a key element of thinking in the RTS development process and are discussed further in Section 2.1.

More recently travel patterns have been influenced by the COVID-19 pandemic with potential long-term implications for how, where, when and how often people travel. This is discussed in detail in Chapter 16.



# Transport Challenges in the Region

**SEStran Regional Transport Strategy**

Draft for Consultation



## 3.0 TRANSPORT CHALLENGES IN THE REGION

### 3.1 DEFINING TRANSPORT PROBLEMS

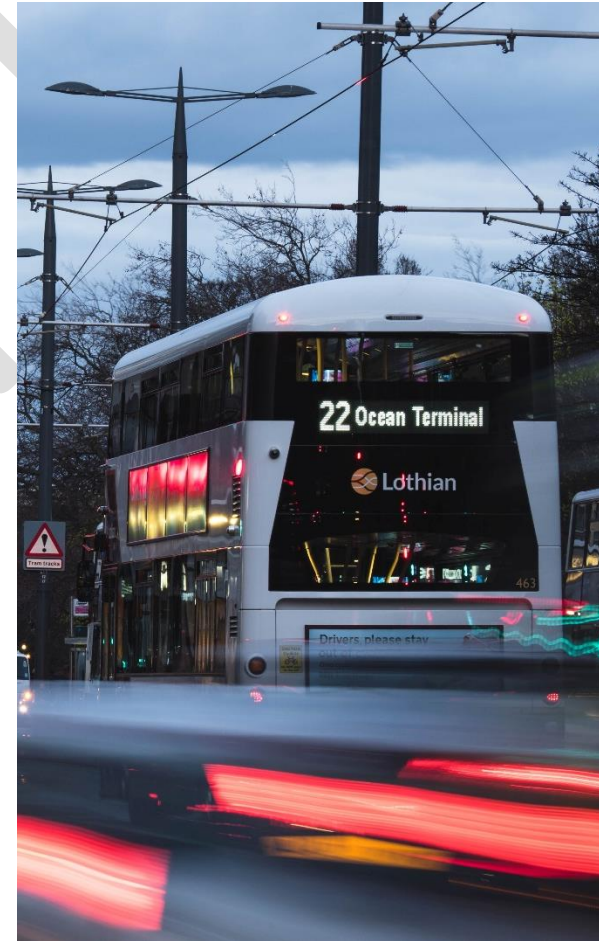
Developing the RTS starts from a set of transport problems and, to a lesser extent, transport opportunities. To be meaningful to the public, the transport problems which the RTS is aiming to address must reflect problems experienced in everyday life by individuals, organisations and businesses in the SEStran area.

From a **user perspective**, these transport problems will impact on individuals and groups including those with protected characteristics but are likely to be related to a relatively small number of parameters which define any travel such as:

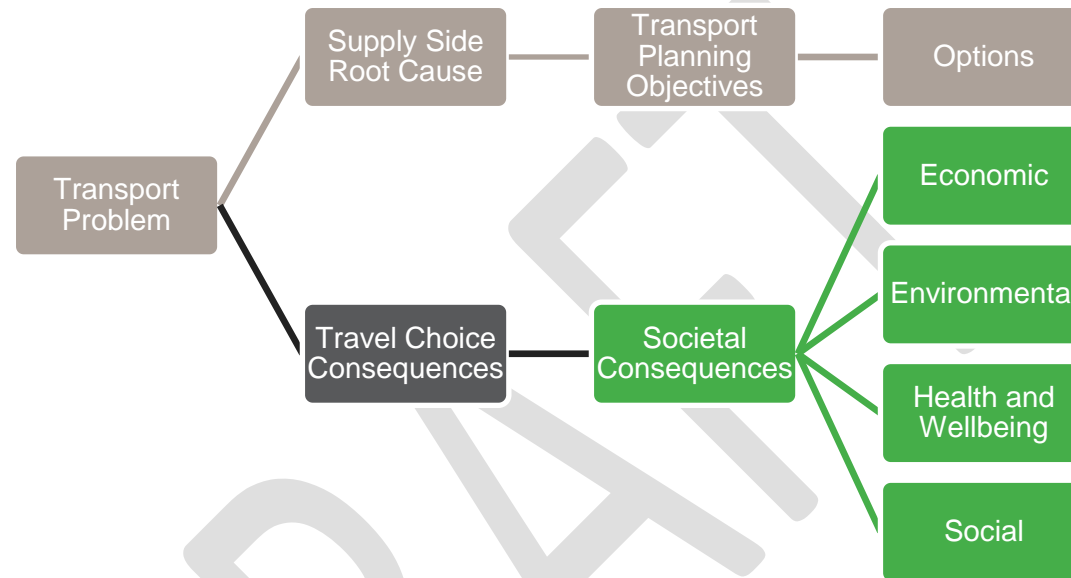
- cost of travel (especially relative to disposable income)
- lack of public transport connectivity
- personal security / safety
- physical accessibility of services
- punctuality of travel (public transport punctuality / congestion making road-based journey times unreliable)
- quality and comfort of journey
- reliability of travel (cancellation of public transport services)
- requirement for excessive interchange
- travel time (relative to other modes)

As shown in the **Problems Framework** illustrated in Figure 3.1, these transport problems as experienced by the user:

- can usually be traced back to a **root cause**, associated with the transport supply-side which in turn informs the identification of Transport Planning Objectives and options
- can have a **travel choice consequence**, e.g., use of less sustainable modes, journeys not being made



- have a wider **societal consequence**, e.g., economic (e.g., wasted time), environmental (e.g., emissions), health & wellbeing (e.g., reduced levels of walking), social (e.g., exclusion from employment opportunities)



**Figure 3.1 Transport Problems Framework**

This Framework has been used to organise and present the transport problems to be addressed in the RTS. These have been identified from a range of sources including:

- **Main Issues Report:** SEStran published a RTS Main Issues Report in June 2020. This was substantially prepared prior to the COVID-19 pandemic and therefore primarily reflects pre-pandemic problems and issues although consideration was given to anticipated impacts.
- **Policy Review:** Over 90 local, regional and national policy documents were reviewed spanning transport, land-use planning, economic development, health, energy, digital connectivity and the environment.
- **Stakeholder Engagement:** Over 130 stakeholders were invited to participate in consultation either through workshops, individual meetings or by responding to briefing notes. In total 11 workshops and 21 meetings took place and 62 written responses were received.
- **Public Consultation:** A public survey was undertaken online over a six-week period between Monday 8<sup>th</sup> March 2021 and Monday 19<sup>th</sup> April 2021. This explored pre-pandemic travel patterns, anticipated post-pandemic travel behaviour along with the reasons for these travel choices. In total 998 responses were received.

- **Case for Change Survey:** The STAG Case for Change was subject to a four-week public consultation period between 29<sup>th</sup> June 2021 and 26<sup>th</sup> July 2021. Responses were collected via an online survey with a total of 21 responses being received.
- In accordance with statutory requirements, **Strategic Environmental Assessment (SEA)** and **Equalities Impact Assessment (EqIA)** processes are being undertaken to respectively assess likely significant environmental impacts and apply relevant equalities duties throughout the RTS development process.

## All Modes

The following problems are common to all modes of transport and are experienced by users regardless of how they choose to travel. On this basis they need to be considered in relation to all modes of transport.

**1. Those living in new developments or travelling to new developments can have long journeys and / or implied car use to undertake day to day activities:** there has been a lack of integration between land-use and transport planning which has led to car dependency for accessing many new developments. Significant land-use development is planned for the region and this requires careful integration with transport to ensure that sustainable transport provision is planned and delivered from the outset.

**2. Use of the transport system brings the risk of collisions and personal injury:** whilst the number of road collisions has been declining over recent years there is still a risk of injury on the road network. Modes of transport which do not utilise the road network (e.g. air, rail, sea) present a significantly lower risk of injury or collision but nonetheless this must still be taken into account.

## Active Travel

Walking and cycling are the most appropriate mode of transport for short journeys. However, analysis has shown that whilst walking was the main mode used for 23% of all journeys in the SEStran region it was only 2% for cycling. This can be linked to the fact that two thirds of households in the SEStran region have no access to a bicycle.

Consultation with active travel groups highlighted that the main barriers to walking and cycling are safety, accessing bikes and a lack of dedicated infrastructure whilst the maintenance and monitoring costs are also a key concern for the infrastructure providers. The lack of cross boundary cycling routes was also raised as a concern along with physical barriers like the Edinburgh City Bypass and River Forth. The public highlighted the quality of walking paths and degree of segregation from traffic when cycling as the factors they were least satisfied with.

**3. Many do not find cycling a realistic option:** low levels of cycling are indicative of the fact that it is unattractive to many potential users. A lack of access to bikes and poor integration across networks are key barriers to greater cycling.





**4. Walking or wheeling is not an attractive option for some short journeys:** whilst levels of walking are higher than cycling it still remains unattractive to many with over a quarter of people in the region not using walking as a mode of transport on a regular basis. This is likely to be particularly the case for people who face mobility impairments or disabilities which make walking or wheeling challenging.

### Public Transport

Analysis of bus journey times highlights that they can be up to five times longer than the equivalent car journey time at peak periods whilst road journey times show there is a high degree of variability between peak and off-peak periods. This affects the attractiveness of bus services. Lothian Buses highlighted that their problems include congestion, road space allocation and service reliability whilst congestion was also acknowledged as a key factor affecting buses by City of Edinburgh Council, Falkirk Council and Fife Council.

Analysis also found that some public transport journeys between the main settlements across the region require two or three interchanges whilst others cannot be undertaken at all within a two-hour time period. Interchange and long journey times are known to be seen as significant barriers to public transport use which will undoubtedly cause people to choose alternative modes for these journeys. Furthermore, a number of locations have been identified which suffer from a combination of deprivation and poor public transport connectivity to healthcare, employment and education. The majority of the most 'at-risk' population was situated in urban areas.

The findings from passenger satisfaction surveys highlighted that around 20% of people have difficulty with the levels of

crowding and availability of seating on train services. These findings reflect pre-COVID circumstances and may therefore change as a result of the pandemic so peak hour crowding on public transport services is a problem that will require ongoing monitoring. However, Network Rail and ScotRail highlighted that there are capacity issues on the Fife Circle and Borders line but that capacity related projects have taken a step back due to post-pandemic uncertainty. There is also a pinch point at Edinburgh Waverley and Haymarket stations resulting from Portobello junction and Abbey Hill junction. Problems with capacity on the East Coast Main Line through East Lothian were also raised by stakeholders.

The same survey also highlighted value for money of rail services as a concern for nearly half of respondents. This along with the findings from a similar survey of bus users which suggests that a quarter of people are dissatisfied with the value for money provided by bus services highlights a potential affordability issue with public transport. Fife Council highlighted that the cost of rail travel is often felt to be disproportionately high in the area. Affordability of transport is a key factor affecting those on low incomes with those in lower income households more likely to travel by bus while people in higher income households are more likely to drive or take the train.

Access to the public transport network can also be challenge for some. Analysis of Scottish Household Survey data identified that 23% of the population of the region have a limiting long-term physical or mental health condition whilst 19% are over the age of 65 with significant growth in elderly population anticipated in the future. These groups along with others like those with disabilities, the mobility impaired and parents with pushchairs can experience physical barriers to accessing public transport networks and services which was highlighted as a particular concern by stakeholders at the active travel workshop citing the need for step free access at stations. Fife Council outlined that some stations in their area are not Disability Discrimination Act compliant.

Up to a third of bus passengers and a quarter of train passengers do not feel safe when travelling by public transport in the evening. These problems are particularly acute for the most vulnerable groups including the young, elderly, disabled, women and ethnic minorities. In addition, a small minority of users also have difficulty accessing public transport information. This is also likely to be higher for non-public transport users who are less familiar with where and how to access public transport information.

**5. Peak period bus-based journey times can be much longer than off-peak:** peak period congestion causes delays which make journey times longer.

**6. Peak period bus-based journey times can be much more variable than off-peak:** as well as being longer journey times are more variable and less reliable at peak periods which can make buses unattractive particularly when people need to travel to and from work.

**7. Some direct public transport journey speeds are slow so journey times are long and not competitive with car:** this makes public transport unattractive compared to car for many trips.

**8. Some travel by public transport requires interchange(s) – adding to journey times, access issues, inconvenience and cost:** similarly this also makes public transport unattractive when people cannot make a direct journey between their origin and destination creating a perceived barrier.

**9. People can't get a seat on some public transport services:** overcrowding on public transport may only be perceived as an inconvenience for many but for some could lead them to choose to travel by car instead. This is particularly the case for vulnerable groups who may have mobility impairments or additional requirements such as parents with pushchairs.

**10. Travel by bus or rail is unaffordable for some particularly the unemployed or those on low incomes:** these are also likely to be those most dependent on the use of public transport.

**11. Some journeys cannot be made by public transport:** lack of direct connections means some journeys are not possible by public transport within a reasonable timescale. This can affect access to essential services like employment, healthcare and education.

**12. Physical access to, and use of the public transport network is a problem or not possible for some users like the elderly, those with disabilities, parents with pushchairs and mobility impaired:** who may be amongst those who are most dependent on public transport to access essential services and can also be those who face the greatest physical barriers to using it.

**13. Vulnerable groups (e.g. young, elderly, disabled, women, ethnic minorities, etc.) not feeling safe on public transport:** these groups are often those who feel the most unsafe when using public transport which can discourage them from using it particularly in the evenings.

**14. People do not have full awareness of their public transport options:** people that do not know how to find out about public transport information will not know what services they could potentially make use of. This is likely to be a particular problem for those with learning difficulties or that have a sight or hearing impairment which may make accessing public transport information more challenging.

### Mixed Mode

Stakeholders highlighted that there are barriers to combining the use of public transport and bikes. The active travel workshop attendees outlined that it was important to integrate bike with bus and train in terms of parking and space on vehicles whilst Fife Council outlined that there are issues with taking bikes on buses and trains.

Rail patronage has grown considerably at the vast majority of stations across the region. This has had a corresponding impact on the demand for Park and Ride. Clackmannanshire Council, Falkirk Council, Fife Council and West Lothian Council all highlighted that many rail station car parks are at capacity.

**15. Combining cycling and public transport use is not possible:** few buses and trains have facilities to carry bikes whilst those that do have low capacity which creates a degree of uncertainty for users.

**16. Preferred Park and Ride station cannot be used due to lack of parking during commuter (i) peak and (ii) inter peak:** some station car parks are full at the beginning of the AM peak and remain so throughout the day meaning there is no capacity available for people travelling later on. This leads to people choosing to use other modes instead or to drive further to reach less popular Park and Ride sites.

## Freight

Road-based freight suffers from some similar problems to public transport in that it suffers from delays and long journey times caused by congestion on the network, and without the priority given to public transport. Analysis found that off-peak journey times can often be much quicker than peak journey times and that they are subject to more variability.

It was also suggested by road freight operators and industry representatives that there is insufficient formal lorry parking in the region, affecting drivers' ability to properly rest and potentially resulting in inappropriate parking. Tired drivers are more likely to have collisions and with freight vehicles being larger and heavier this has more chance of resulting in severe injuries or fatalities. There are currently eight driver rest areas in the region.

The commercial vehicle fleet is also heavily dependent on fossil fuels with only a small proportion being ULEVs. Whilst the switch to alternative fuels is underway for private vehicles this is more difficult to achieve for commercial vehicles as electric vehicle technology has not advanced sufficiently yet to provide a viable alternative to fossil fuels.

Constraints on the rail network including discrepancies in gauge clearance limit the scope to transfer more freight to rail although there are some notable rail freight facilities in the region. In particular, Forth Ports outlined that they are trying to develop Grangemouth as a rail freight hub.

Whilst Forth Ports account for 43% of the total freight through Scottish ports with a high proportion of exports in 2018 (76% of total freight through these ports) the cessation of the DFDS freight ferry service from Rosyth to Zeebrugge in 2018 is likely to have negatively impacted upon these numbers. This has left the region and Scotland as a whole with no direct ferry service to the EU restricting trade links.

**17. In places, peak period commercial vehicle-based journey times can routinely be much longer than off-peak:** congestion causes delays to freight vehicles which increases costs and reduces productivity.

**18. Peak period commercial vehicle-based journey times can be much more variable than off-peak:** unreliable journey times affect the ability to deliver a 'just in time' service affecting supply chains across the economy.

**19. Cost and practicality of rail freight prevents widespread use:** the fixed nature of the rail network makes it impractical for some freight movements.



**20. Commercial vehicle drivers have limited options for secure parking and rest:** whilst rest facilities are available these are insufficient and not always located in the most convenient locations.

**21. Commercial vehicles are currently reliant on fossil fuels in the absence of viable / cost effective alternatives:** ULEV technology has yet to provide a viable alternative for commercial vehicles affecting the ability to decarbonise the sector.

**22. Direct sea-based international connectivity is poor:** there is no ferry service between Scotland and the EU since the cessation of the DFDS freight ferry between Rosyth and Zeebrugge in 2018.

### Car

Car journey times suffer from the same delays on the road network as buses particularly at peak periods. Analysis has shown the variability between peak and off-peak journey times and that peak journey times can be much longer than their off-peak equivalent. Falkirk Council highlighted that most of their transport problems were related to peak-time congestion and that this is especially an issue on the Camelon corridor. Edinburgh Council highlighted the problem of congestion on the A90 which also impacts on buses whilst Fife Council outlined a related problem of congestion on the Forth crossings.

Travel around the region by road can also be slow where some journeys can take over two and a half hours. This illustrates the scale of the region and the fact that, in some areas, the network is still of a low standard. In addition, Fife Council and Scottish Borders Council both highlighted that tight maintenance budgets impact upon the ability to provide a high-quality road network.

Analysis of the public survey results showed that parking costs are a source of dissatisfaction for 45% of respondents across the region with this rising to over half in some parts such as Midlothian. The public survey also highlighted that 38% of respondents were dissatisfied with parking availability in the region. Fife Council outlined that parking is generally operating at capacity in areas at peak



times highlighting that there can be a lack of available parking as a result. Edinburgh Council suggested that this can lead to lots of parking outside the controlled zones. This can be inconvenient for those trying to park whilst also having a negative impact on areas that are affected by overspill parking. Falkirk Council also highlighted that much of the parking provided in town and city centres is privately owned meaning they have no direct control over it.

Fleet transition from fossil fuels to ULEVs also faces barriers. The low proportion of ULEVs owned in the region (0.6% in 2019) highlights that these are yet to be mainstreamed. Analysis also highlighted the low number of electric vehicle charging points in the region which underlines why they are currently not seen as being a practical option for many. Fife Council and Scottish Borders Council both identified another barrier in that SP Energy Networks note significant issues with the capacity of the electricity grid which could lead to issues for provision of adequate charging infrastructure. Edinburgh Council also highlighted a problem for urban residents who live in flats not being able to charge their cars. Finally, whilst the total lifetime costs of an electric vehicle are less than an equivalent petrol vehicle, the higher initial outlay for the vehicle will remain a barrier for some who cannot afford it or that do not consider the whole lifetime cost of owning and operating the vehicle.

**23. In places, peak period car-based journey times can routinely be much longer than off-peak:** peak period congestion causes delays which make journey times longer.

**24. Peak period car-based journey times can be much more variable than off-peak:** as well as being longer journey times are more variable and less reliable at peak periods which may contribute to people being late for work or appointments.

**25. High cost of town / city centre parking:** dissatisfaction with parking charges may lead people to choose not to travel or to switch their destination to an out-of-town location which they know offers free parking rather than travelling in to town or city centres.

**26. Lack of availability of parking is inconvenient:** this creates a mismatch between supply and demand leading to frustration with people potentially favouring locations where they are confident of being able to get parked.

**27. Road-based travel on the regional road network, including some external links (including ports and airports) can be slow even when traffic volumes are relatively low:** some journey times are unattractive due to poor quality roads making travel around the region difficult.

**28. Electric car operation and ownership not practical for all:** constraints around provision of charging infrastructure exist which could inhibit the uptake of electric vehicles.

**29. Cost of electric cars is higher than equivalent ICE cars and too expensive for many at present:** whilst total lifetime costs are less than petrol cars the initial outlay for an electric car is significantly higher which could present a barrier to their uptake unless this differential is eliminated.

Overarching a number of the transport problems is the major negative societal consequence generated by unsustainable travel patterns and high levels of dependence on carbon emitting fossil fuels which drive transport's contribution to the global Climate Emergency. On this basis, responding to the Climate Emergency and enhancing environmental quality are also fundamental matters to be addressed through the RTS.

### 3.2 RTS CONSTRAINTS

One main constraint has been identified through the process of developing the RTS which has emerged through the stakeholder engagement process and by undertaking a review of what has been achieved since the initial SEStran RTS was published in 2008. This document set out an ambitious plan for a range of cross-boundary schemes and interventions which required an integrated approach across a range of industry partners for their successful delivery.

However, upon review of the previous RTS and the refreshed version published in 2015 it was identified that limited progress had been made towards delivering many of the cross-boundary schemes that had been set out within them. This was largely attributed to difficulties with the existing delivery mechanisms and in coordinating cross-boundary and multi-partner schemes. In addition, given SEStran's position as a 'Level 1' Regional Transport Partnership and the limited statutory powers this conveys along with a lack of dedicated funding to support delivery of the RTS, it was highlighted that the current regional governance arrangements present a constraint to the delivery of cross-boundary schemes and interventions emerging from the RTS.

As part of development of the National Transport Strategy 2 work to review transport governance was undertaken by the Roles and Responsibilities Group. The review also recognised this barrier to delivery. The Roles and Responsibilities group continue to consider this issue and until a decision or direction is given this barrier could continue to affect the ability for SEStran and its partners to deliver cross-boundary and multi-partner schemes that emerge from the new RTS.

However, the Transport (Scotland) Act 2005 (2005 Act) allows for arrangements and associated functions that could be developed for cross boundary or multi partner RTS schemes which can be agreed and brought into effect through the provisions of sections 10 and 14 of the 2005 Act. SEStran, in consultation with its constituent authorities and other stakeholders, will consider use of these powers as appropriate in relation to such schemes.



# Vision & Strategy

## Objectives

**SEStran Regional Transport Strategy**

Draft for Consultation



## 4.0 VISION & STRATEGY OBJECTIVES

### 4.1 VISION

The vision for the Regional Transport Strategy has been developed to reflect new national, regional and local policy priorities. It sets out the type of region we want the South-East of Scotland to be and how transport can contribute to achieving that for everyone. The vision also shapes the strategy objectives by providing a high-level context and long-term focus for the strategy.

*A South-East of Scotland integrated transport system that will be connected and safe, creating inclusive, prosperous, and sustainable places to live, work and visit, affordable and accessible to all, enabling people to be healthier and delivering the region's contribution to net zero emissions targets.*

Alongside this is SEStran's aim as an organisation which is to make sustainable modes of transport easier, more appealing to use and more accessible.



## 4.2 STRATEGY OBJECTIVES

Drawing upon the problems outlined in Chapter 3 a series of 29 Transport Planning Objectives (TPOs), each linked to a specific problem, were identified. These were subsequently used to define four Strategy Objectives which provide the strategic framework for the RTS. These are set out below along with the societal outcomes that they will deliver. Key Performance Indicators (KPIs) linked to the Strategy Objectives that can be used for the purposes of monitoring and evaluation of the strategy are provided in Chapter 17.



### 4.3 REGIONAL MOBILITY THEMES

Following on from the Strategy Objectives a set of Regional Mobility Themes were defined which collate the options that have been demonstrated to contribute to the delivering the objectives under a series of relevant headings. They are:

- 1. Shaping development and place
- 2. Delivering safe active travel
- 3. Enhancing access to public transport
- 4. Enhancing and extending the bus service
- 5. Enhancing and extending the train service
- 6. Reallocating road-space on the regional network
- 7. Improving integration between modes
- 8. Decarbonising transport
- 9. Facilitating efficient freight movement and passenger travel
- 10. Working towards zero road deaths and serious injuries
- 11. Reducing car kilometres
- 12. Responding to the post-Covid world

The Regional Mobility Themes have been mapped against the Strategy Objectives in **Table 4.1** which shows the relationships between the two.

**Table 4.1: Mapping of Regional Mobility Themes to Strategy Objectives**

Regional Mobility Themes	Strategy Objective 1: Transitioning to a sustainable, post-carbon transport system	Strategy Objective 2: Facilitating healthier travel options	Strategy Objective 3: Widening public transport connectivity and access across the region	Strategy Objective 4: Supporting safe, sustainable and efficient movement of people and freight across the region
Shaping development and place	✓	✓		✓
Delivering safe active travel	✓	✓		
Enhancing access to public transport	✓		✓	✓

Regional Mobility Themes	Strategy Objective 1: Transitioning to a sustainable, post-carbon transport system	Strategy Objective 2: Facilitating healthier travel options	Strategy Objective 3: Widening public transport connectivity and access across the region	Strategy Objective 4: Supporting safe, sustainable and efficient movement of people and freight across the region
Enhancing and extending the bus service	✓		✓	✓
Enhancing and extending the train service	✓		✓	✓
Reallocating roadspace on the regional network	✓	✓	✓	
Improving integration between modes	✓	✓	✓	✓
Decarbonising transport	✓			
Facilitating efficient freight movement and passenger travel			✓	✓
Working towards zero road deaths and serious injuries				✓
Reducing car-km	✓			✓
Responding to the post Covid world	✓	✓	✓	✓

These Regional Mobility Themes form the structure for the RTS policies and actions which are set out in the subsequent chapters. Our policies set out a statement of intent or provide guidance around decisions and actions which should be undertaken in order to achieve a desired goal. In some instances, they also articulate SEStran's position in relation to key strategic issues.



# Shaping Development and Place

**SEStran Regional Transport Strategy**

Draft for Consultation

## 5.0 SHAPING DEVELOPMENT AND PLACE

### 5.1 OVERVIEW

Transport plays an essential role in linking land-uses and enabling people to get where they need to go. People travel to get to employment, essential services, leisure facilities, where they live and other land-uses so it is key that the transport system caters for this demand in an effective, efficient and sustainable manner. In addition, transport also contributes to our built environments playing an active role in **placemaking** and the attractiveness of spaces to live, work, visit and spend time in.

Planning for transport as part of new developments is essential to ensure that they are created in manner that embeds **sustainable transport provision** from the outset and prevents car dependency from becoming entrenched. This can be achieved by ensuring that the land-use and transport planning process are closely integrated with sustainable principles at their heart. The concept of **Transit Oriented Development** (TOD) should be utilised wherever practical to provide sufficient population density to make high quality, regular public transport services viable. This requires the concentration of major trip generating developments around public transport corridors, stops and stations to be effective.

Placemaking and the development of a high-quality urban realm are also essential to creating spaces that people want to spend time in and feel safe walking, cycling and wheeling to get around. This is closely tied to the concept of **20-minute neighbourhoods** which aim to create attractive, interesting, safe, walkable environments which connect people to the facilities and services for their everyday needs via short, convenient active travel without depending on a car. By designing with this concept in mind, planning focuses on walking, cycling and wheeling rather than car-travel helping to align spatial planning and transport planning at a local scale. It can also enhance the inclusivity of areas through aiding the accessibility of services which may not have been within reach of some people and / or those who do not have access to a car.

The implementation of 20-minute neighbourhoods will be more suited to some parts of the region than others. Urban areas naturally lend themselves more to the concept than rural locations and its application therefore needs to be flexible to reflect the differing characteristics of our communities and given that a high proportion of the region is non-urban. It will require the provision of walking and cycling route infrastructure improvements that join up development sites to wider networks and make **active travel** the most attractive choice for short and medium length journeys.

In some instances, the application of TOD and 20-minute neighbourhood principles may make it possible to explore the implementation of zero car developments. These can be supported by **shared mobility** solutions which break traditional ownership models and allow people access to transport, including cars, on an on-demand basis. Shared Mobility is based upon providing people with short-term access to shared vehicles like

cars, bikes, scooters, etc. on an on-demand basis. This removes the need for vehicle ownership and provides people with a wider range of sustainable transport options than they would have available under the traditional ownership-based approach.

Shared mobility should be an integral part of all significant new developments in the future and will also provide scope to reduce the amount of parking provision as well. This would present an opportunity to increase density or to create additional green space within new developments. In the future electric vehicle charging provision will be a fundamental requirement in all new developments as well.

## 5.2 POLICIES

- a) New developments should be located to (i) reduce the need to travel and (ii) minimise the use of unsustainable modes by the application of Transit Oriented Development (TOD), 20-minute neighbourhood and shared mobility concepts.
- b) 20-minute neighbourhoods should be implemented in urban areas where active travel and shared mobility provision enable sustainable access to local services and amenities in a safe and sustainable manner.
- c) New residential development should be located where connectivity by sustainable modes to existing and planned employment centres as well as key services is high.
- d) New public services should be located where connectivity by active travel and public transport to the public is high but particularly with regards to the location of 'deprived' communities (e.g., health provision should be located with connectivity to health deprived communities in mind).
- e) Local authorities should engage early with SEStran on Local Development Plans and large scale development proposals to assist in the identification of suitable sustainable transport connections to support the development.
- f) Local authorities should seek developer contributions to support the implementation of strategic sustainable transport interventions through appropriate Local Development Plan policies.
- g) Developers should refer to RTS policies when planning their developments to ensure consistency with the principles and aspirations of the RTS.

## 5.3 ACTIONS

- Partner Councils work with SEStran through the statutory planning processes to implement RTS policies with regards to major developments.
- Undertake a regional audit of Local Development Plans, Indicative Regional Spatial Strategies, Regional Economic Strategy, Local Transport Strategies and relevant national plans (including the Strategic Transport Projects Review 2) to identify synergies and areas where partnership working is required to ensure consistency with the policy outlined in the RTS.
- Develop regional guidance around best practice on sustainable transport provision for new developments and local place planning.
- Partner Councils work with SEStran to implement best practice guidance through participation in the planning and development process.



- Work with partner Councils to create a developer contribution mechanism for regionally strategic sustainable transport schemes.
- Pursue legislative change to enforce good practice in transport and connectivity for new developments through the planning system and building regulations.

DRAFT





# Delivering Safe Active Travel

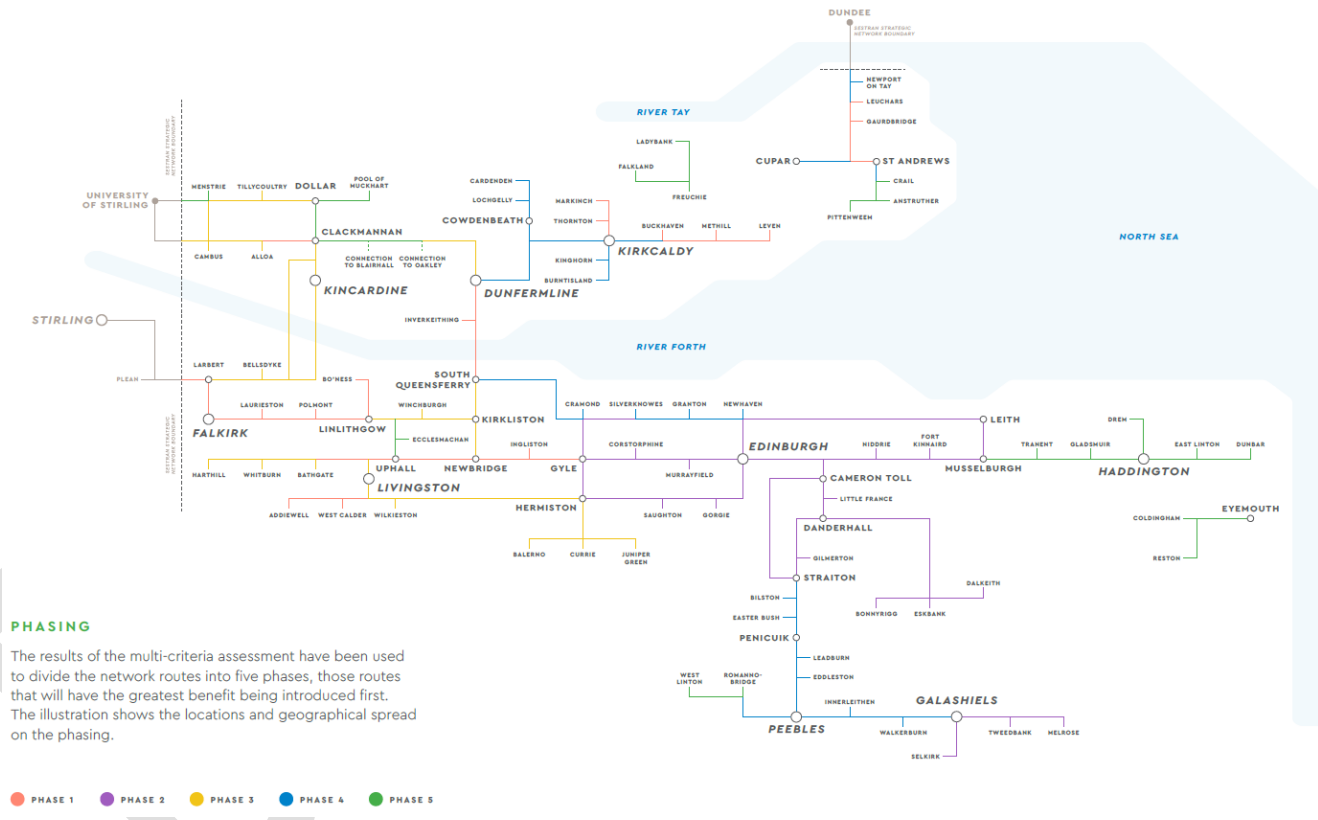
**SEStran Regional Transport Strategy**

Draft for Consultation

## 6.0 DELIVERING SAFE ACTIVE TRAVEL

### 6.1 OVERVIEW

Enabling safe active travel in the region requires the provision of **integrated and high-quality routes** for walking, wheeling and cycling that join up settlements and destinations. High quality routes are continuous, providing an attractive, safe, comfortable, and direct connection linking multiple destinations. They should be physically separated from traffic, have a smooth surface and be appropriately lit so that everyone can use it to walk, cycle or wheel their journey. SEStran has developed an integrated active travel network for the region as illustrated in Figure 6.1.



**Figure 6.1 Strategic Active Travel Network**

The region's active travel network will need a combination of segregated off-road routes and on-road routes making use of reallocated roadsapce where appropriate. The **safety** of people whilst using our active travel networks is paramount and it is essential they are designed to the highest current standard whilst



people's ability to **access bikes** either through supporting the cost of purchasing a personal bike or by providing enhanced coverage of bike sharing schemes like SEStran's GO e-Bike electric cycle hire initiative.

conflicts with vehicles are minimised. The proposed regional network will make use of existing high-quality infrastructure and parts of existing routes that require relatively minor improvements or maintenance, ensuring that well used routes which users are already familiar with can be integrated into a network of longer more strategic cross boundary routes.

When joined in a comprehensive and consistent way, these high-quality routes combine together, resulting in a regional network that will also facilitate longer distance active travel journeys. The next step is now to facilitate its delivery through the process of working with partners. This provides a framework for coordinated development of cross boundary active travel routes connecting cities, towns, neighbourhoods, settlements and public transport hubs.

Active travel also provides important **health and wellbeing** benefits. Promoting these along with the environmental benefits of walking, wheeling and cycling through educational campaigns will be a key means of encouraging greater uptake of these modes. Opportunities will be sought to overcome barriers presented by a public realm and urban environment not designed with active travel users in mind by facilitating placemaking and reducing car dominance. Promotion of current best practices and street design guidance will ensure that all street furniture settings take account of users such as the mobility impaired, blind, deaf, parents with pushchairs, elderly and people in wheelchairs resulting in a network that is **accessible for all**. In our urban environments 20 mph zones, traffic calming, pedestrianisation, walk to school initiatives and other road safety measures (such as minimisation of junction entry and exit flares) will be required to ensure people can walk, wheel and cycle safely.

In 2019 two thirds of households in the SEStran region did not have access to a bicycle. Encouraging the uptake of active travel will therefore depend on increasing

As outlined previously, e-bikes also provide an opportunity to facilitate longer journeys by bicycle than previously would have been possible for many people. The widespread uptake of e-bikes can therefore help to reduce car dependency and contribute to modal shift for a wider range of journeys before.

#### *Case Study: Go e-Bike, SEStran Region*

The Go e-Bike project was developed by SEStran. The project has involved setting up a series of hubs across the region. The hubs are developed with a mix of local community organisations, charities and academic institutions. Each hub is unique and tailored to its community to support long term sustainability.

E-Bikes and support infrastructure are provided based on an assessment of the requirements of the proposed hub in partnership with local stakeholders. There are currently 5 hubs across the region in Buckhaven, Tweeddale, Edinburgh, St Andrews and Livingston with 68 e-bikes available across these sites. To date over 1,000 journeys have been made using the scheme.



## 6.2 POLICIES

- a) The RTS seeks the implementation of measures which improve facilities for those walking, wheeling or cycling.
- b) The progression, implementation and ultimate completion of the SEStran Strategic Network is a key policy.
- c) Active travel infrastructure should be inclusive by design.
- d) The RTS seeks the implementation of initiatives which widen access to bicycle ownership or hire through bike sharing schemes.
- e) Roadspace for active travel should be prioritised in towns and cities in line with the sustainable travel hierarchy and this should be integrated into local strategies and policy documents.

## 6.3 ACTIONS

- Progress the delivery of the SEStran Strategic Network and broader cross boundary networks with partners. Develop further phases of this network to ensure a long-term pipeline of investment.
- Review destinations served by the active travel network to identify gaps and locations where cross boundary schemes may be required to ensure an integrated, high quality network exists.
- Promotional and communication campaigns to highlight the benefits of active travel across the region and encourage people to adopt it where possible.

- Deliver road safety measures that enable people to safely use active travel within in the region.
- Expand the provision of bike sharing initiatives across the region.
- Consider the case for amendments to legislation to ensure that the requirements of all users are appropriately taken into consideration in the planning and implementation of our active travel network.

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# Enhancing Access to Public Transport

SEStran Regional Transport Strategy

Draft for Consultation



## 7.0 ENHANCING ACCESS TO PUBLIC TRANSPORT

### 7.1 OVERVIEW

Providing access to public transport for all is essential to ensure that the region realises a transition to decarbonised transport network in an inclusive manner. Transport is essential to enable people to access essential services like employment, healthcare, retail and education but some people can face physical and other barriers that prevent them from using the public transport services that provide the links to these opportunities. This can lead to disadvantage, social exclusion, deprivation and is a major driver of transport poverty. Furthermore, the impacts tend to be most acute for the most vulnerable groups within the region such as the elderly, the young, those with disabilities or mobility impairments, ethnic minorities, women and people on low incomes.



Tackling this will require coordinated action to tackle a number of related access issues. First and foremost, the public transport system must be **physically accessible** which necessitates measures to improve access to vehicles and at stations, stops and interchanges. At the basic level this requires step free access to enable easy boarding and alighting for all users and particularly those with disabilities or mobility impairments. Improving the environment and security at these locations is also important by ensuring there is adequate lighting and, where appropriate, CCTV provision.

It is also essential that everyone has easy access to the **information** they need to be able to plan journeys. The provision of online only journey planning information is not sufficient for all users and, in particular, those that do not have access to an internet connected device or are not confident



using the internet for these purposes. This means travel planning information needs to be available in variety of formats such as traditional paper copies, large print, braille and audio for those with sight difficulties. This needs to be supported by high quality wayfinding information on the network itself so people do not become lost or confused during their journey. SEStran introduced a Real Time Passenger Information (RTPI) system across the region to provide up to date public transport journey information on the network and assist real time journey planning. There is an opportunity to build upon this and expand this provision.



#### Case Study: Thistle Assistance

Thistle Assistance is an initiative to help people feel safer and more comfortable when using public transport. For example, if you need more time to get to your seat or would like your driver to speak more slowly and clearly then the Thistle Assistance card and app can be used to let transport staff know in an easy and subtle way what extra support is required. The Thistle Assistance card and app are recognised by many public transport operators across Scotland including buses, trains and ferries. It can be used by showing your personalised card or app to their staff so that they will understand what additional assistance you require.

The public transport system should also be **affordable** for all. Bus fares are set by commercial operators whilst on the rail network ScotRail fares are now overseen by Transport Scotland. Multi-operator and multi-mode journeys can incur several different fares with discounts usually limited for those not purchasing season tickets. Opportunities must therefore be explored to provide more affordable fares for those groups most in need. This could be part of a wider **integrated ticketing** scheme incorporating fare capping and measures to reduce two fare trips or a more targeted initiative. Peak spreading could also influence fares policy and reduce the need for premium fares at traditional commuting times which are unaffordable for some users. However, fares are also likely to be influenced by the impacts of the COVID-19 pandemic on public transport demand which are explored further in Chapter 16.

### Case Study: London Integrated Ticketing and Fare Capping

Travelling within and between London Zones was simplified in 2003 with the introduction of Oyster Cards. These allow users to travel via different modes using a single form of payment. This progressed in 2005 to include fare capping, limiting how much a user pays for their journeys across a 24-hour day, or within a week once their accumulative fares add up to a certain amount. After fares reach a 'capped' price, a user can make as many journeys as they wish within that time frame for no further cost. The capping charge varies at peak or off-peak times and whether a user is travelling within or between zones. In 2014, integrated ticketing and fare capping was also introduced for people tapping their contactless bank cards or banking apps on mobile phones which has become more popular than Oyster Cards.



'Tap' Oyster card, contactless or device at a card reader to begin a journey



At the end of the journey, 'tap' out with the same device to ensure all your journeys are logged



At the end of the day or week, your journeys will be logged and fare capping applied if necessary

Wider rollout of **shared mobility** solutions is another means by which access can be improved in the region. This is likely to offer particular benefits for those who do not have access to a private car or own any other form of transport. In addition, it would also benefit those required to spend a disproportionate amount of their income on transport due to forced car ownership. As such, the ability to access a range of transport options on demand without the need to own the mode of transport itself presents significant opportunities to alleviate these burdens and provide more flexible transport solutions.

## 7.2 POLICIES

- a) The public transport network should be physically accessible for all including vulnerable groups such as those with disabilities, mobility impairments and the elderly. This requires full compliance with the requirements of the Disability Discrimination Act.
- b) Public transport information should be provided in a variety of formats to meet the specific needs of all users.
- c) The public transport system should be affordable for all based on their ability to pay.
- d) Shared mobility solutions should be implemented to provide enhanced access to a wider range of transport options without the requirement for ownership.

### 7.3 ACTIONS

- Regional audit to identify stops, stations and interchanges which do not meet accessibility requirements and to develop a prioritised list of interventions.
- Deliver improved public transport information in a variety of formats supported by appropriate wayfinding infrastructure on the transport network.
- Resist pressures to increase public transport fares and explore opportunities to provide more affordable public transport for those least able to pay for it.
- Explore opportunities to deliver integrated ticketing solutions which incorporate fare capping.
- Identify locations where implementation of shared mobility solutions could be beneficial and reduce the requirement for forced car ownership.



# Enhancing and Extending the Bus Service

SEStran Regional Transport Strategy

Draft for Consultation

## 8.0 ENHANCING AND EXTENDING THE BUS SERVICE

### 8.1 OVERVIEW



The bus network is at the heart of the region's public transport system. Almost half (47%) of residents of the region used a bus service at least once a month in 2019. This figure is heavily skewed by Edinburgh though – if Edinburgh residents are excluded, this figure drops to an average of 34%. However, demand has been heavily impacted by the COVID-19 pandemic. To realise our aspirations to decarbonise the region and provide sustainable, affordable access for all, bus services will need to play a pivotal role. The RTS therefore sets out a foundation that seeks to rebuild demand for buses in the wake of the pandemic and that firmly places the role of buses at the centre of the strategy.

Analysis has shown that bus services suffer from delays leading to variable and unreliable journey times. This reduces their attractiveness relative to other modes, particularly the private car, leading to reduced patronage. There is consequently a need to ensure that journey times are reliable on the key regional bus corridors. This can be achieved by the provision of appropriate **bus priority measures** that enable reliable travel around the region. The purpose of bus priority measures should be to provide journey times which are competitive with the car wherever possible. A network of regional, cross boundary quality bus corridors should therefore be developed that link up key urban centres and seek to provide journey times which are competitive with the car wherever possible. These should build upon existing bus priority measures wherever possible supplemented by additional reallocation of roadspace (see Chapter 10), bus lanes, bus gates, bus pre-signals and dedicated busways where appropriate. This should supplement work being undertaken in the region to deliver bus priority measures via Transport Scotland's Bus Partnership Fund. Bus priority should also be designed into major infrastructure schemes. In addition, to be effective, it will be crucial that there is adequate enforcement of bus priority measures to ensure they are not abused by other road users.

Where bus priority measures may not be sufficient to provide the level of journey time competitiveness required on a corridor it may be appropriate to introduce **Bus Rapid Transit (BRT)** instead. BRT may provide a highly effective solution along congested corridors or those requiring much greater bus transport capacity where segregated routes are necessary to give the degree of priority required to buses. These corridors can also be used as enabling infrastructure for more significant fixed link public transport systems like light rail or trams as was the case with the initial link to Edinburgh Airport which started as a BRT route before being converted to tram. As such, where high demand corridors are identified and sufficient priority cannot be provided within the constraints of the existing carriageway consideration should be given to the implementation of BRT systems within the context of the wider public transport network.

In some areas **bus service improvements** will be required to enhance connectivity to essential services. To understand this in more detail analysis was undertaken of the relationship between connectivity to services and levels of deprivation across the SEStran region. This classifies postcodes into three tiers based upon the combination of their deprivation, drawing upon the Scottish Index of Multiple Deprivation 2020, and public transport connectivity problems by a combination of TRACC connectivity analysis and weighting the attractiveness of each destination. The resultant tiers are therefore defined as:

- **Tier 1:** these have the least deprivation and public transport connectivity problems
- **Tier 2:** these show a potential correlation between deprivation and public transport connectivity and are classed as being at risk
- **Tier 3:** these show the greatest correlation between deprivation and public transport connectivity suggesting a relationship exists

The analysis examined connectivity to colleges, universities, employment and hospitals for residents of the SEStran region with Tier 2 and Tier 3 locations shown in Figure 8.1 to Figure 8.4. In the colleges and universities analysis it can be seen that there are variations across the region but in both there are concentrations of Tier 3 postcodes in Edinburgh, West Lothian, Falkirk and Fife in particular. These areas have relatively poor connectivity to tertiary education and relatively low levels of educational attainment (both relative to all postcodes within the same Scottish Government urban / rural classification level).

The findings of the employment analysis are illustrated in Figure 8.3 which highlights a concentration of Tier 3 postcodes around the periphery of Edinburgh as well as in Clackmannanshire and Levenmouth in Fife. In the case of hospitals, shown in Figure 8.4, there are concentrations of Tier 3 postcodes, which are those showing the highest correlation between the SIMD health deprivation index and poor public transport connectivity to healthcare, around the periphery of Edinburgh, in West Lothian, Falkirk, Clackmannanshire and the Levenmouth area of Fife in particular.



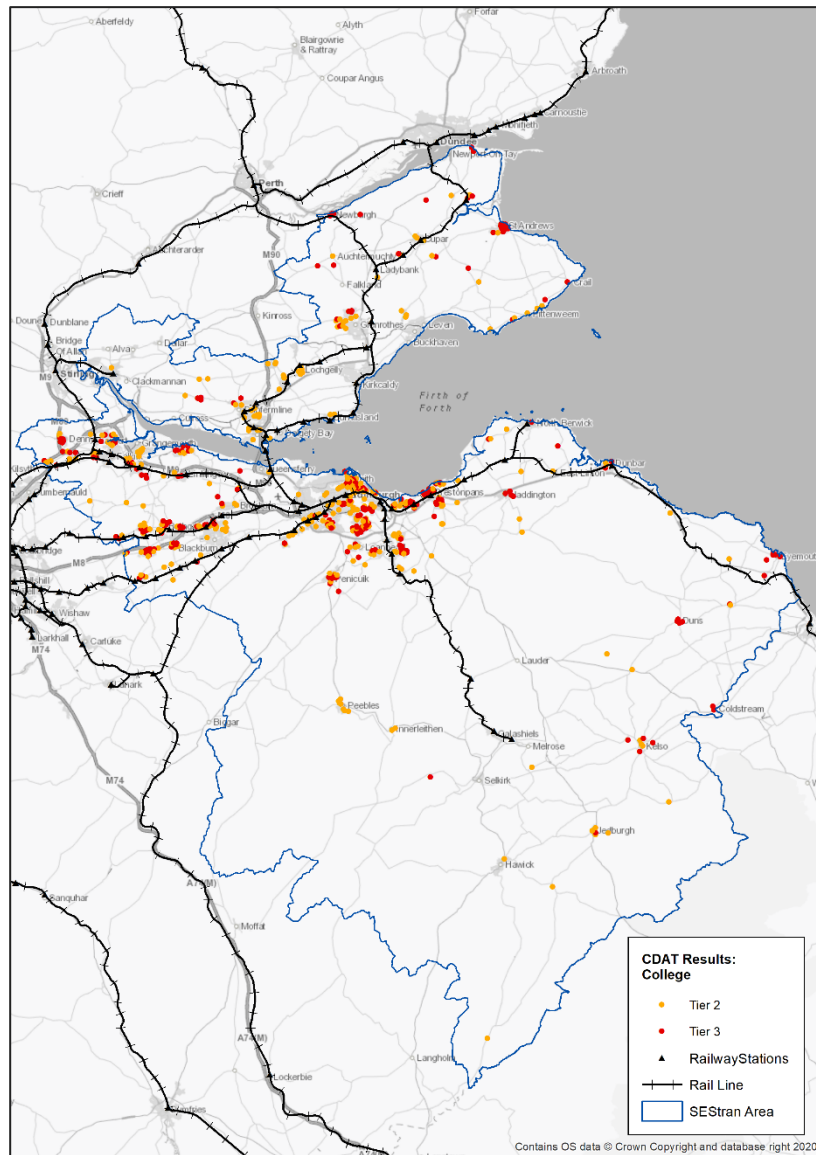


Figure 8.1 Connectivity to Colleges

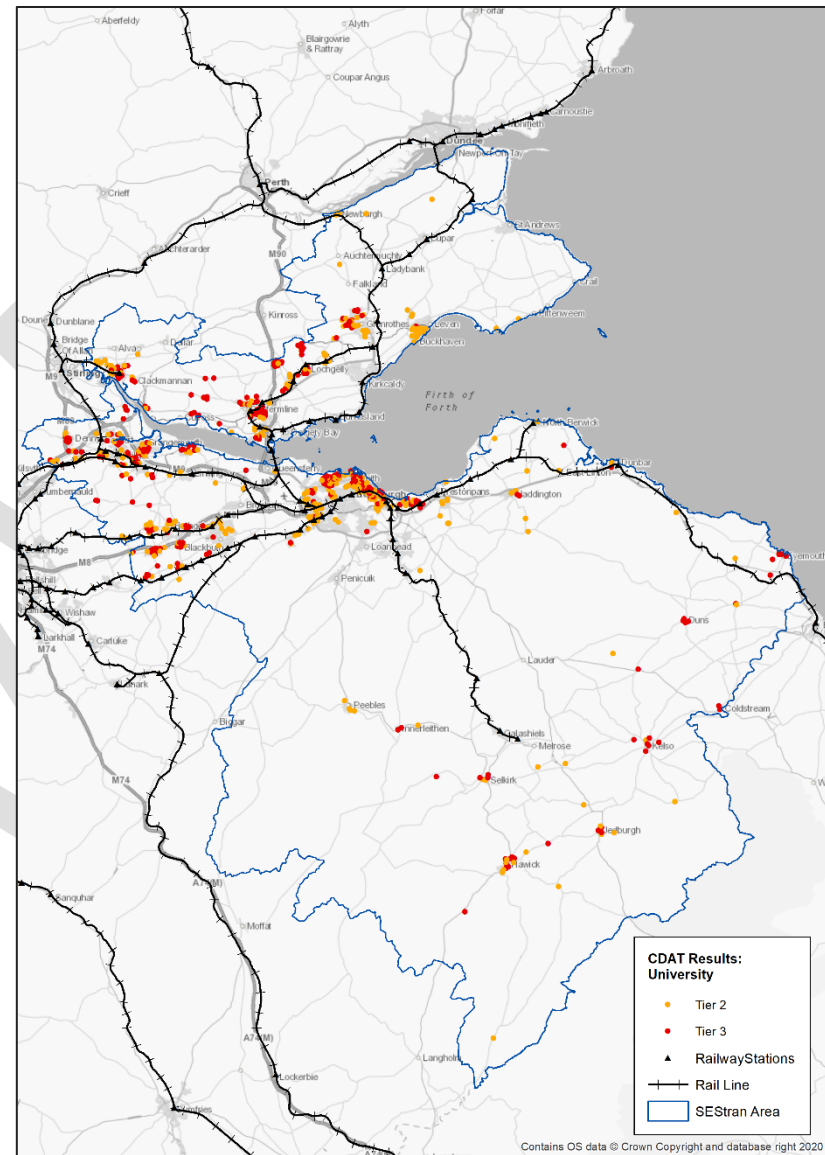


Figure 8.2 Connectivity to Universities



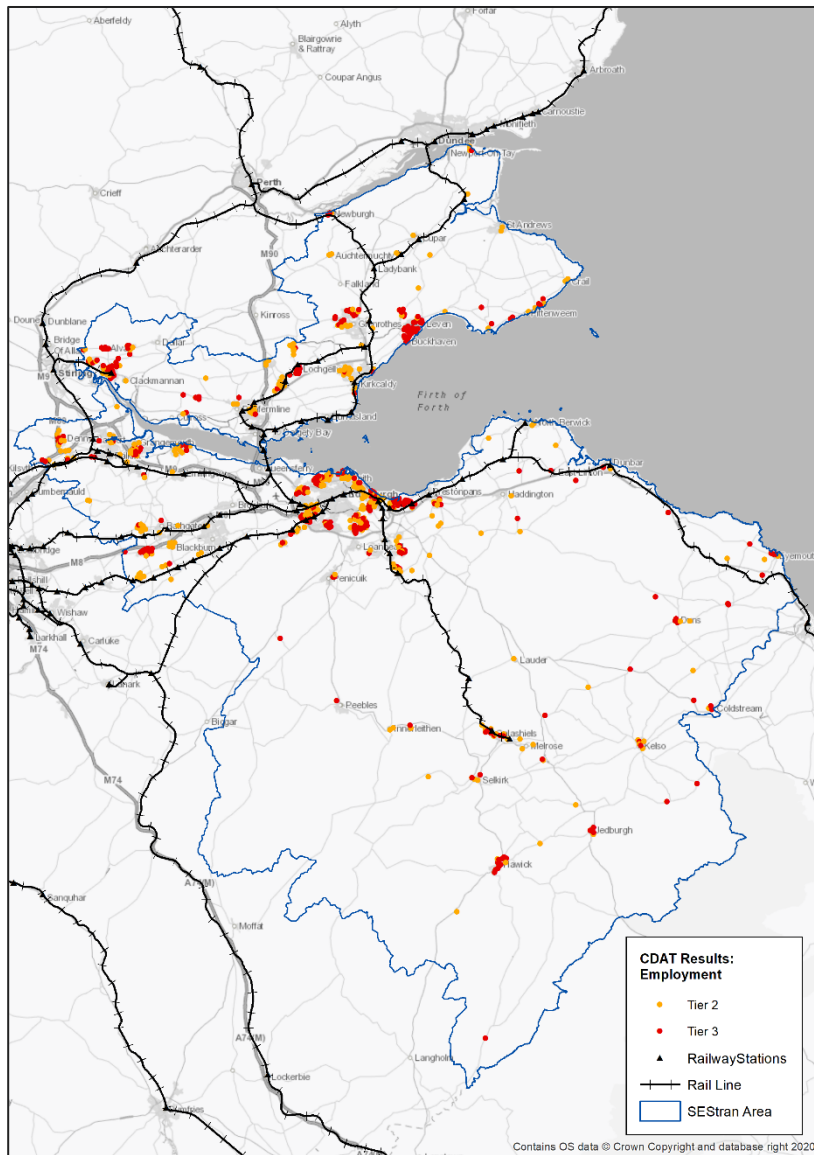


Figure 8.3 Connectivity to Employment

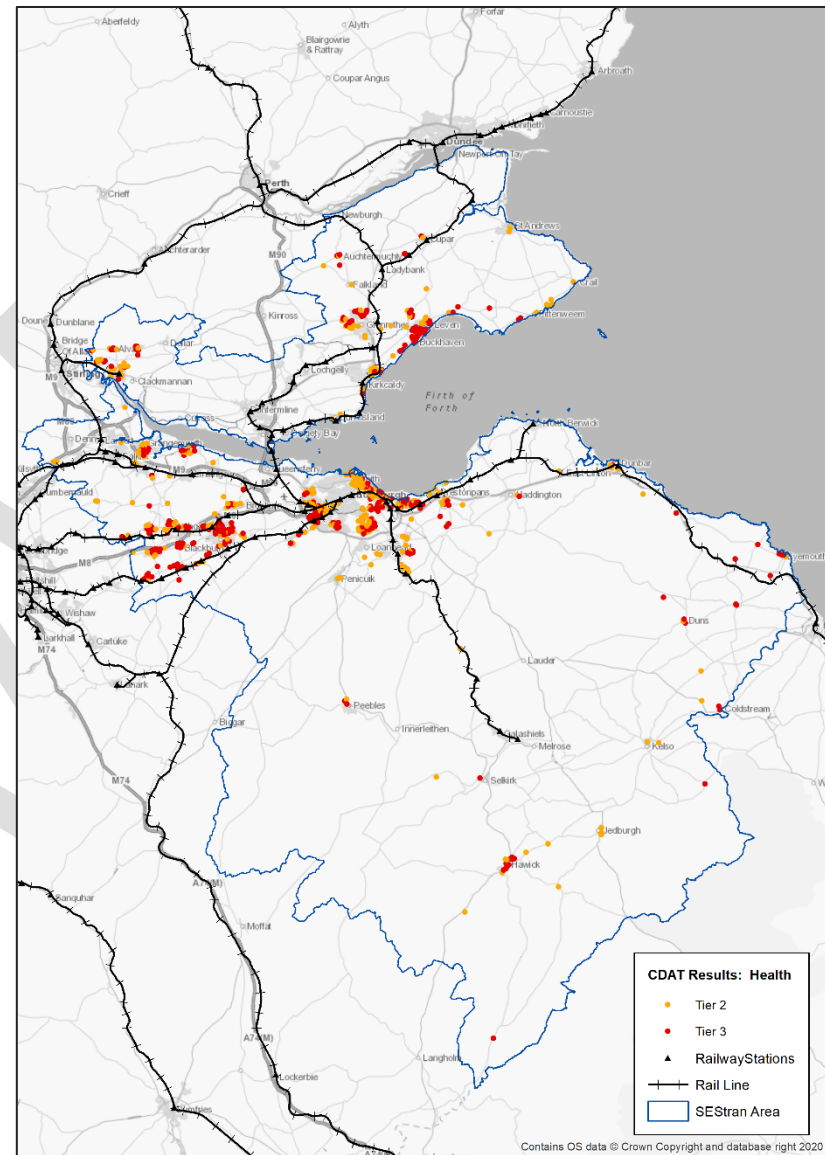


Figure 8.4 Connectivity to Healthcare

This analysis highlights locations across the region where public transport services need to be enhanced to improve access to essential services and reduce the likelihood of people suffering from transport induced deprivation. In these, and potentially other locations, a combination of **new bus services** or **increased frequencies** on existing bus services could help to reduce transport poverty and deprivation. It is important that services are responsive to the needs of the region's users which may require later or earlier services in some instances (e.g., for leisure purposes or for access to shift related employment). In addition, there are parts of the region that could benefit from direct public transport connectivity where multiple interchanges are currently required. Some of our main settlements require three interchanges when travelling between them by public transport whilst others have journey times that exceed two hours making them unattractive to most users. Consequently, inter-local authority bus use (outside Edinburgh) is very low. More direct bus services, at least part of the day, could alleviate these problems and reduce car dependence for journeys between locations out with Edinburgh. Furthermore, journey times could be improved by the provision of more express services making use of bus priority measures.

In more rural areas it may not be viable to provide scheduled bus services due to the level of demand and associated costs of providing them. In these instances, the provision of **Demand Responsive Transport (DRT)** may be more appropriate. SEStran has undertaken a Strategic Demand Responsive Transport Study which has set out a series of conclusions and recommendations about how to overcome the challenges facing DRT in the region.

The Transport (Scotland) Act 2019 provides **new powers** in relation to buses including the ability to introduce Bus Service Improvement Partnerships and Local Franchising. The application of these powers may be appropriate in some instances to deliver the enhancements to the bus network required in the region and will be explored as part of the suite of potential interventions to improve public transport provision.

It is possible that **connected autonomous vehicles** will be increasingly used as part of the bus network in the region in the future as well. The CAVForth project will see a fleet of five autonomous buses operate a scheduled service between Ferrytoll Park and Ride in Fife, across the Forth Road Bridge to Edinburgh Park. It is one of the world's most complex and ambitious autonomous bus pilot projects and could provide the foundation for more widespread implementation of similar services across the region.

## 8.2 POLICIES

- a) Bus priority measures should be implemented to deliver a network of regional, cross boundary quality bus corridors that link up key urban centres building upon existing bus priority measures.
- b) The purpose of bus priority measures should be to provide journey times which are competitive with the car wherever possible.
- c) Bus priority should also be designed into major infrastructure and new development schemes.
- d) Bus priority measures should be supported by adequate enforcement measures.
- e) Consideration should be given to the implementation of BRT on high demand corridors where sufficient priority cannot be provided within the constraints of the existing road network.

- f) Service improvements should be implemented in locations identified as at most risk of a combination of transport poverty and deprivation.
- g) Demand Responsive Transport should be implemented where traditional scheduled bus services are unfeasible particularly in rural and remote areas.
- h) The application of bus related powers granted through the Transport (Scotland) Act 2019 should be explored to support the delivery of an enhanced bus network in the region.
- i) Opportunities for the more widespread usage of connected autonomous vehicles for the provision of bus services should be kept under review pending the outcome of the CAVForth pilot project.

### 8.3 ACTIONS

- Undertake a Regional Bus Connectivity study for non-Edinburgh travel to identify settlement pairs where travel demand is high and bus services are poor as a means to promoting new routes and connectivity (in partnership with other policies).
- Undertake a Regional Bus Priority study which will identify regional, cross boundary quality bus corridors and key bus priority interventions to reduce bus journey times and improve bus journey time reliability where Edinburgh is likely to be a focus.
- Deliver the bus priority interventions funded by Transport Scotland's Bus Partnership Fund and subsequently identified by the Regional Bus Priority study.
- Undertake further analysis to develop options to improve bus service connectivity to areas identified as being poorly connected to essential services and suffering from related deprivation. This could include increased service frequencies, new services, more direct services and / or more express services.
- Work with partners to implement new direct and express services to link settlements across the region that require multiple interchanges or excessively long journey times.
- Implement the findings of the SEStran Strategic Demand Responsive Transport Study
- Review the bus powers detailed in the Transport (Scotland) Act 2019 and identify if they could be implemented across all or parts of the region as part of an integrated strategy to enhance the bus network.
- Review the findings of the CAVForth pilot project and identify whether there are further opportunities for provision of bus services using connected autonomous vehicles in the region.



# Enhancing and Extending the Train Service

**SEStran Regional Transport Strategy**  
Draft for Consultation

## 9.0 ENHANCING AND EXTENDING THE TRAIN SERVICE

### 9.1 OVERVIEW

The rail network plays a key role linking up the region as well as providing connectivity to external locations. The region has benefitted from the construction of the Borders Railway which opened in September 2015. The line carried 1,737,000 passengers by the end of its fourth year of operation (October 2019) which is over 22% more than during its first year. Whilst demand has subsequently been impacted by the COVID-19 pandemic this nonetheless highlights the role that new rail infrastructure can have in driving public transport usage across the region. Indeed, evaluation published by Transport Scotland of both the Borders Railway and Airdrie Bathgate Rail Link (opened in 2010) has demonstrated the value of these investments to the SEStran area.

The pandemic has had a significant impact upon public transport demand and has reversed the previous long-term trend of growth in patronage on the rail network. The longer-term implications of this are currently uncertain but in the short-term there is likely to be some consolidation around the rail industry. However, enhancing and extending the train service within the region is still regarded as a fundamental component of the strategy as a viable public transport alternative will be essential to encourage modal shift and facilitate decarbonisation and network efficiency.

In the east the rail network is less densely developed than other parts of Scotland, notably around the Glasgow conurbation. There may consequently be greater opportunities to **expand the rail network** in the region and these should be explored through appropriate appraisal and business case development. This approach has seen the successful commitment to the reopening of the Levenmouth rail link which will connect Leven and Cameron Bridge to the network.

Similarly, more of the region's towns and settlements could be connected to the existing rail network by the provision of **new stations**. This is particularly important where significant new





developments are proposed and opportunities should be sought to connect these to the rail network where appropriate. SEStran supports the existing commitments to deliver new stations at East Linton (East Lothian), Reston (Scottish Borders) and Winchburgh (West Lothian). Proposals for new stations in other locations should be subject to detailed appraisal but would be supported in principle.

Enhancements to **rail services** can also deliver improved public transport connectivity. This could take a number of forms such as more direct through services between locations reducing the need for interchange on existing routes or increased frequencies on particular routes or at key times of the day. Analysis has identified that there may be merit in exploring enhanced cross Edinburgh services to cater for demand between East Lothian, Midlothian and the Scottish Borders to, for example, Edinburgh Park / South Gyle. Opportunities should therefore be sought to improve existing rail services including longer trains, more frequent services, new routes, earlier and later services on an ongoing basis taking into account emerging travel demand patterns including the possible reduction of peak commuter demand in the wake of the COVID-19 pandemic. However, the RTS opposes reductions in rail service frequencies or levels of provision unless it can be clearly demonstrated that there will be no net detriment to the region's communities and residents particularly those most vulnerable to social exclusion. In addition, this should take cognisance of the at-risk areas identified as potentially suffering from a correlation between a lack of public transport connectivity to essential services and deprivation outlined in Chapter 8.

Many parts of the region's rail network, such as Edinburgh Waverley and the East Coast Main Line, suffer from **capacity constraints** which limit the ability to provide additional services. The resolution of capacity constraints like these will be necessary in some instances to enable the provision of new stations, new routes and increased service frequencies. The further electrification of the rail network is also essential in the decarbonisation of transport with the Borders line, Fife Circle and parts of the East Coast Main Line yet to be electrified. Transport Scotland and Network Rail have an ongoing programme of investment managed through five-year long Control Periods. It is subsequently important to ensure that investment in the region's rail network is programmed into these Control Periods to ensure capacity constraints and other issues are addressed.

In the longer term there are potential opportunities to link the region into the emerging **High Speed Rail** network for the UK via a link to north east or north west England. This would provide faster journey times and enhanced inter-regional links bringing reductions in short-haul flights and economic benefits to both locations. The business case and technical feasibility of High Speed Rail serving the east coast of Scotland requires further development and SEStran will support Transport Scotland along with the UK Government in investigating these further.

At the other end of the spectrum our urban areas could benefit from wider implementation of **light rail and tram** solutions. There are a range of proposals for extensions to the existing Edinburgh Tram network with the Newhaven tram extension being due to become operational in Spring 2023. Any further extensions will require appraisal and business cases to be developed accordingly. Beyond this there may be opportunities to introduce light rail systems in other parts of the region within existing dense urban areas or as part of new developments. Again, these initiatives are supported in principle, particularly where they create a step-change in public transport quality.

It is also essential that our rail network is **affordable** and not seen as only for better-off commuters. There has been a historical disparity in rail fares across Scotland and within the region itself. Fares rationalisation should therefore be explored to provide more equitable access to train services across Scotland as part of a strategy to make public transport within everyone's means.

In the future there is also scope for greater **automation and innovation** to be integrated into the heavy and light rail network. Automated train operations (ATO) offer predictable running times, higher capacity, energy optimisation, automated and computerised failure detection and response, enhanced safety as well as the potential for driverless train operation. ATO is expected to considerably alter the interaction between infrastructure and the day to day running of rail operations. Some automated and driverless rail systems are already in operation such as the Docklands Light Railway (DLR) in London and opportunities for driverless operation across the region should be kept under review.

## 9.2 POLICIES

- a) Opportunities should be explored with partners to expand the rail network in the south-east of Scotland through new lines and stations where appropriate, cost effective and in line with strategy objectives.
- b) The RTS supports the delivery of new stations at Reston, East Linton, Winchburgh and at Leven and Cameron Bridge as part of the delivery of Levenmouth rail link.
- c) Opportunities should be explored with partners to introduce new services including more direct links across the region and enhanced cross city connections.
- d) The resolution of key capacity constraints on the rail network should be taken forward as a priority.
- e) The full electrification of the rail network in the region should be delivered in line with Transport Scotland's decarbonisation strategy.
- f) Opportunities to link the region to the emerging High Speed Rail network should be explored. The RTS supports reduced cross-border rail journey times as a means to improve competitiveness with short haul flights and reduce emissions.
- g) Further opportunities to expand the regional light rail and tram network should be explored and are supported in principle.
- h) The rail network should be affordable for all and opportunities for fares rationalisation across Scotland should be explored to ensure parity of access and affordability.

## 9.3 ACTIONS

- Support / undertake appraisal and business case development for new rail infrastructure including lines, stations and services.
- Work with Transport Scotland and Network Rail to deliver new rail infrastructure in the region where appraisal and business case development has demonstrated its merits.
- Investigate the merits of introducing enhanced cross Edinburgh train services to cater for demand between East Lothian, Midlothian and the Scottish Borders to Edinburgh Park / South Gyle.
- Identify capacity constraints upon the rail network and appropriate resolutions to enable the provision of passenger and freight services that meet both current and future needs.



- Work with Transport Scotland and Network Rail to seek the acceleration of the electrification of the rail network of the region.
- Support Transport Scotland and the UK Government in the development of a business case for High Speed Rail serving south-east Scotland.
- Undertake appraisal and business case development for new light rail and tram links within the region.
- Pursue Scottish Government for a national review of rail fares and a rationalisation of fares across Scotland.
- Develop a concordat / partnership agreement with rail operators and associated rail industry partners to foster even closer working relationships and deliver rail related priorities.



# Reallocating Roadspace on the Regional and Local Network

SEStran Regional Transport Strategy

Draft for Consultation

## 10.0 REALLOCATING ROADSPACE ON THE REGIONAL AND LOCAL NETWORK

### 10.1 OVERVIEW

Encouraging more people to use public transport and active travel will depend upon the provision of high-quality infrastructure that makes these modes as attractive as possible in comparison to car. In some instances, this may require parts of the road network to be reallocated in order to give greater priority to alternative modes. There are a number of ways in which roadspace could be reallocated including to:

- **Walking and Wheeling:** widening footways provides more room for walking and wheeling whilst upgraded links can make previously dangerous or unappealing routes suitable for a much wider range of users including those with mobility impairments or disabilities.
- **Cycling:** depending on traffic volumes and speeds, cycle lanes or fully segregated cycleways provide dedicated space for cyclists and prevent them from having to mix with general traffic making it safer and more appealing to a wider range of users.
- **Shared Use Active Travel:** rather than being dedicated to pedestrians or cyclists alone shared use facilities can be used by both making them attractive to all types of active travel.
- **Buses:** facilitating bus priority measures such as bus-ways, bus lanes, pre-signals and gates that enable buses to avoid congestion and provide a quicker journey time, particularly at peak periods, compared to cars.
- **Freight:** the provision of loading bays and dedicated freight only lanes are ways in which access can improved freight vehicles. There is also the possibility of enabling HGVs and / or LGVs access to some bus lanes.

In the case of freight it is important to strike a balance between ensuring goods can access our urban areas in an efficient manner whilst also minimising the adverse impacts these have on other users of the network, particularly public transport, and the environment. For example, whilst allowing goods vehicles access to bus lanes may increase efficiencies of deliveries it could have an adverse impact on public transport services leading to fewer people choosing to travel by bus as a result whilst also contributing negatively to air quality in urban areas.

Overall, the goal of roadspace reallocation needs to be to reduce reliance on private cars and encourage the use of more sustainable alternatives. Opportunities should therefore be sought throughout the region to reprioritise the regional and local road network in line with sustainable travel hierarchy. This approach should be reflected in the roadspace allocation within new developments as well.

### 10.2 POLICIES

- a) The RTS encourages the reallocation of roadspace away from general traffic to specific groups of road users including for public transport and active travel.

- b) The principles of the sustainable transport hierarchy should be applied to reprioritise the local and regional road network wherever possible.
- c) The sustainable travel hierarchy should be used as a material consideration to prioritise the allocation of roadspace within new developments in the region.
- d) SEStran will work with local authority partners to deliver locally and regionally significant roadspace reallocation initiatives.
- e) Opportunities to provide roadspace reallocation to support the efficiency of freight movements should be explored where these will not significantly disadvantage public transport users, communities or the environment.

### 10.3 ACTIONS

- Develop a framework and set of criteria to assist partners in identifying and delivering local and regional road space reallocation proposals. This should be undertaken in an inclusive way and in line with the National Transport Strategy's sustainable travel hierarchy.
- In collaboration with bus operators, undertake analysis of regional and cross-boundary corridors where congestion is impacting on bus operations and identify locations where roadspace reallocation may be required.
- Explore the shared use of bus / commercial vehicle lanes through the development and implementation of the SEStran Freight Strategy



# Improving Integration between Modes

SEStran Regional Transport Strategy

Draft for Consultation

## 11.1 OVERVIEW

The creation of a network of **multi-modal mobility hubs** across the region will be important in delivering improved integration. These physical spaces within the public realm will combine public transport interchanges with facilities for active travel and shared mobility solutions to create an attractive, seamlessly integrated sustainable travel hub supplemented with enhanced ancillary facilities and information features to both attract and benefit travelers. They should be co-located with key points on major public transport corridors like rail stations, bus stations or key bus stops as they constitute a vital element in supporting the role of high-frequency public transport within cities, large towns and smaller settlements. Multi-modal mobility hubs can be developed in a range of contexts, from city centres to rural areas, and at differing scales to suit the local circumstances. So, there is no 'one-size fits all' approach to their

Source: SHARE-North. Autodelen.net



Source: SHARE-North, Autodelen.net

design and the facilities at each must be tailored to it individually as outlined in the SEStran Mobility Hubs study published in March 2020. Transport provision should range from public transport and shared mobility provision (e.g., bike sharing, car sharing, electric scooter sharing, etc.) to ancillary mobility services like EV charging, bike parking and repairs as well as digital information provision. Supplementary services like wi-fi, parcel lockers, fitness or play areas and other urban realm improvements can also be provided as well. Local access to multi-modal mobility hubs should be facilitated by high quality active travel routes that enable safe walking, wheeling and cycling. The first phase of delivery will involve implementing the eight pilot locations identified in the SEStran Mobility Hub study ahead of a wider rollout.



### *Electric Scooter Sharing*

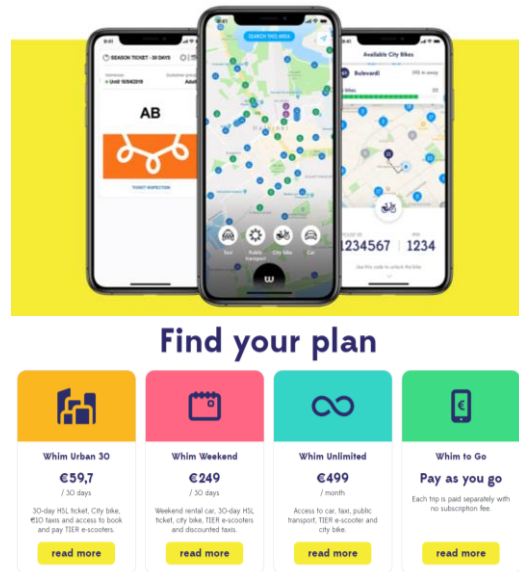
It is currently illegal to ride an electric scooter on a footway or road in the UK although they are subject to trials within four Future Transport Zones in England. It is anticipated that these will establish the foundations for regulations that will enable use of electric scooters and open up opportunities to introduce scooter sharing schemes across the country. Nonetheless, legislative and safety issues surrounding electric scooters remain at this time and these will need to be taken into consideration before any decisions are taken to introduce scooter sharing schemes in the region.

Where appropriate multi-modal mobility hubs should also be linked to enhanced **park and ride** provision. The demand for park and ride may be impacted in the wake of the COVID-19 pandemic. However, in some locations it may still be appropriate to provide additional or new park and ride capacity and where this is the case this should be accompanied by measures to support the development of multi-modal mobility hubs wherever possible. Ongoing investment and where appropriate capacity improvements should be encouraged at local rail stations where there is evidence of sufficient residential catchments both in terms of walk, cycle and drive-in catchment. Any increased capacity should be evaluated relative to potential increases in vehicle kilometres or impact on local community networks in line with the established investment hierarchies. Priority should be given to rail stations which have good strategic links and are easily accessible for all modes, including opportunities to interchange between bus and rail. Priority should also be given to addressing localised parking issues at existing park and ride sites where there is evidence of overspill and excessive parking which impact on local residential networks. In addition, whilst the term park and ride is indicative of car based travel, increasing car parking at existing sites should be assessed in the context of other opportunities to improve accessibility by active travel and bus.

**Mobility as a Service (MaaS)** envisages users buying transport services (including public transport, car usage, access to active travel, taxi, demand responsive transport, etc.) as packages based on their needs instead of buying the means of transport itself or in a series of distinct packages. It is being driven by digital innovation which presents the opportunity to combine transport provision through a single platform. The



implementation of MaaS within the region presents an opportunity to create a seamlessly integrated sustainable travel system that meets the needs of users as effectively and efficiently as possible. However, given the uncertainty at this time around the ways that MaaS will develop there is a need for the public sector and bodies like MaaS Scotland to guide and shape MaaS provision to ensure its successful delivery by supporting a broad, collaborative and multi-modal approach.



#### Case Study: Whim, Helsinki

In Helsinki, MaaS Global is the first commercial start-up to develop a MaaS subscription service. This was created in October 2016 through the launch of its Whim app. It offers several levels of service, ranging from a pay-as-you-go option to an unlimited use package which includes public transport, taxis, bike and car-sharing.

Whim was enabled by Finnish Ministry of Transportation legislation, which itself was informed by the deregulation of their telecoms market, making it mandatory for public transportation to allow access to their Application Programming Interfaces (APIs) and ticketing systems on vendor platforms. Phase one of the legislation came into effect in January 2018, with phase two implemented in January 2019.

Whim now has 13,000 active users per month in Helsinki and has expanded its service to several other European cities, including Antwerp and Birmingham. Within Helsinki, Whim currently has less than 1.5% of the total mobility market but aims to shift the market from ownership to usership, with its unlimited package costing less than car ownership.

Any MaaS scheme in the SEStran region would need to be capable of meeting the differing needs of both urban and rural areas which must be considered when planning the ecosystem. The geographical scale at which a MaaS scheme operates also needs to be considered as artificial boundaries could be created which limits its effectiveness. On this basis, a regional scheme may be most effective. In urban areas, MaaS will predominantly provide a more comprehensive sustainable mobility package that provides an attractive alternative to the private car leading to a reduced need for ownership and usage.

In our rural areas, MaaS needs to ensure that people are provided with effective and affordable links to essential services particularly for those that do not own a car. Rural residents with lower levels of independence are likely to be the users who have the greatest potential to benefit from MaaS as shown in Figure 11.1.<sup>iv</sup> Within this group, planned journeys, where the person knows in advance where they want to go, are likely to be those with the greatest opportunity to be delivered by new transport methods through MaaS. Here, users typically have more notice to consider their journey method ahead of time. They also have a greater degree of flexibility over their journey compared to commuting or spontaneous trips. In rural areas, MaaS providers and transport operators should be seeking to increase convenience, decrease cost or ideally do both in order to help create a desirable proposition for passengers.

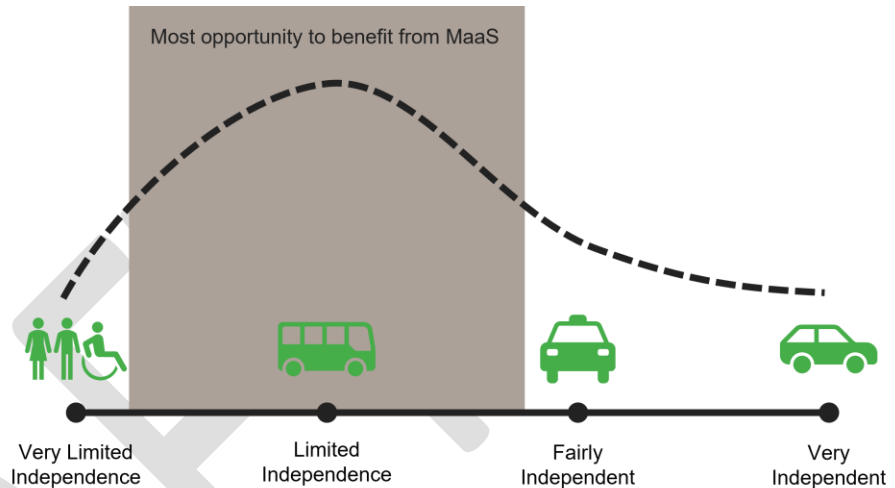


Figure 11.1 Rural Independence and Opportunity for MaaS Adoption

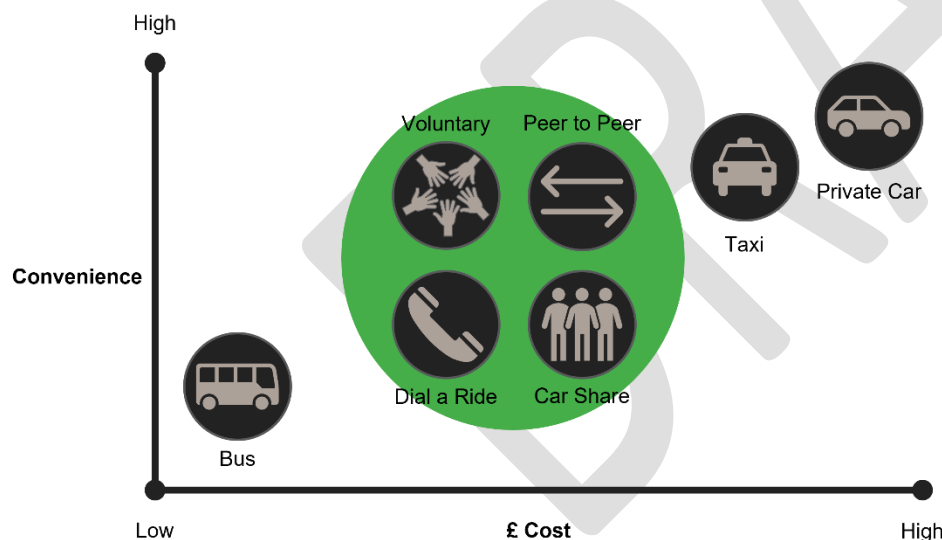


Figure 11.2 Convenience v Cost of Rural Transport Modes

The greatest opportunity lies in the field of **Demand Responsive Transit (DRT)** as illustrated in Figure 11.2. Whilst DRT is not a new concept and is already widely operating across rural areas in the region, there are opportunities to deliver DRT services to a wider user base at a lower cost to users. The opportunity for transport suppliers is to make more use of existing spare capacity on their services. This capacity comes in the form of spare seats, empty running and vehicle downtime. Innovation can help to tackle these inefficiencies by increasing viability of services, making booking services easier and smarter routing. The benefit to customers would be optimised services providing better accessibility and meeting their needs more effectively. DRT should play a much wider role than it does currently, by harnessing emerging booking and

scheduling technology; by partnership and integration between existing DRT operators and with the wider public transport network; and viewed as a realistic alternative to unsuitable fixed-route bus services. To achieve this, it will require changes in funding priorities, as well as greater support for the community transport providers who face particular challenges of finance and human resources.

Where fixed-route or demand responsive bus services are not viable **subsidised taxis** may provide the only viable alternative to ensure people have access to the transport that they require. These involve a fleet of taxi vehicles which, in addition to their normal core service, operate a bookable, shared, demand-responsive public transport service. The service utilises a centrally operated call centre to take passenger bookings, integrating with local bus, rail, and other transport networks to ensure connectivity and seamless travel.

More broadly **taxis, ride sourcing and community transport** all have a role to play in providing mobility where public transport is not available or convenient as well as where people do not have access to their own private transport. In particular, these can provide vital links for people who are elderly, require special assistance or, for mobility or other reasons, cannot access public or other private transport.

Finally, the further rollout of **bike-buses** presents an additional opportunity to improve integration between modes. These have been successfully introduced by Borders Buses with 23 bike friendly vehicles now available with space for between 2 - 4 bikes. These have enabled people to combine bike and bus journeys where previously this wouldn't have been possible. In the future similar provision should also be further extended on train services where practical.

## 11.2 POLICIES

- a) A network of integrated, multi-modal mobility hubs should be implemented across the region starting with the 8 pilot locations identified in the SEStran Mobility Hub study.
- b) Local access to multi-modal mobility hubs should be facilitated by high quality active travel routes that enable safe walking, wheeling and cycling.
- c) Park and ride provision should be enhanced where there is evidence of sufficient residential walk, cycle and drive-in catchment and where there is evidence of localised parking issues such as overspill and excessive parking which impact on local residential networks.
- d) The implementation of a regional MaaS scheme is supported in principle.
- e) Opportunities to expand DRT provision should be sought and to make the most efficient usage of capacity available on existing transport services.
- f) Opportunities should be sought to expand the provision of bike-buses across the region to facilitate more integrated journeys.
- g) Where practical opportunities should be sought to enable the secure carriage of bikes on trains.

### 11.3 ACTIONS

- Identify a network of region multi-modal mobility hub locations building upon the initial pilot locations along with the infrastructure and services required at each taking into account their location and the anticipated scale of demand.
- Deliver the eight pilot multi-modal mobility hubs as defined in the SEStran Mobility Hub study.
- Review the findings of electric scooter sharing pilot schemes and determine whether their implementation in the region is feasible and appropriate.
- Identify locations where increased park and ride capacity may be required taking into account findings from recent SEStran and ScotRail park and ride studies.
- Deliver a regional MaaS pilot scheme with a view towards establishing the long-term viability of MaaS in the region.
- Work with DRT and community transport operators to deliver more widespread and efficient usage of services in areas where traditional fixed-route bus services are inappropriate.
- Support provision of taxis, ride sourcing and community transport for vulnerable groups and people without adequate access to public or private transport.
- Work with partners to deliver more buses in the region with the facilities to carry bikes.
- Pursue improved provision of trains equipped with facilities for the safe carriage of bikes.



# Decarbonising Transport

**SEStran Regional Transport Strategy**

Draft for Consultation

## 12.0 DECARBONISING TRANSPORT

### 12.1 OVERVIEW

In the SEStran region, the transport sector is responsible over 26% of CO<sub>2</sub> emissions<sup>v</sup>, the majority of which derives from road transport, which is highly dependent on fossil fuels. This high contribution to emissions has detrimental impacts on the environment, ecosystems, and air quality notably for those living in densely populated urban areas and near main roads. As the Scottish Government is aiming to phase out the need for new petrol and diesel cars by 2030 as outlined in the Update to the Climate Change Plan published in December 2020, it is paramount to critically consider alternative fuels and environmentally friendly technologies, not only for cars, but across the transport sector. Overall, a holistic solution is required to decarbonise the transport sector which prioritises the sustainable travel hierarchy. However, where travel by private vehicle is necessary it is essential that a transition to alternative fuel sources is facilitated to minimise carbon emissions.



**Electric vehicles (EVs)** are currently viewed as the future of road transport and are gaining in market share, with pure EVs accounting for nearly 5% of new car sales in 2020.<sup>vi</sup> There are numerous benefits to EV use including zero exhaust emissions and lower levels of noise. EVs therefore offer the potential to make a significant contribution to decarbonising the private vehicle fleet and tackling the Climate Emergency. Battery technology is also becoming more advanced and with more widespread uptake there has been an associated decline in EV costs. This decline is expected to bring the price of an EV into line with an equivalent fossil fuel powered car in the coming years.

The manufacture of EVs remains a carbon intensive process, they require electricity which can come from fossil fuelled power stations, and the mining required to provide materials for batteries brings its own environmental issues. There is some debate about



how much less carbon intensive an EV is over its lifecycle compared to a fossil fuelled car, but there is little doubt that where a car trip has to be made, it is better made in an EV. At present, once someone purchases an EV, their per-mile travel costs are substantially reduced.

However, there are still many factors **hindering the uptake** of EVs. Despite the benefits of lower operating costs, the price of an EV remains uncompetitively high compared to a traditional fossil fuel powered car preventing some people from entering the market. Whilst grants were previously available from Central Government to support the uptake of EVs these are now winding down. There is potential for local or regional incentives to be offered in their place or alternatively to wait for the market to respond to increased demand and drive down prices.

In addition, whilst the technology is developing, range anxiety is still prevalent due to battery capabilities and a still developing network of charging infrastructure which can further dissuade potential buyers. There are many options for the provision of charging infrastructure ranging from being fully market led to fully public sector led.

The capability of the **electrical grid** to provide the capacity required for a widespread rollout of EVs is also an issue – analysis of this at the regional and local level remains at a relatively early stage. This is likely to vary across the region and there may be local areas where upgrades are required to support the necessary charging infrastructure to facilitate the fleet transition.

A shift to alternative fuels will also have implications for **tax revenues** due to a loss of fuel duty and VAT which may require consideration of how we pay to use the road network. Therefore there is a key risk that the decarbonisation of the car fleet in particular brings renewed traffic growth, as users feel 'greener' and the costs to the user are reduced. This unintended consequence would lead to other negative impacts such as **congestion, delays** and **unreliable journey times**. As such, a range of policy measures which may include new taxes or road user charges, encouraging modal shift to public transport and active travel will still need to be pursued to achieve both decarbonisation aspirations and an efficient and sustainable transport system. The replacement of one set of taxes (fuel duty and VAT) with another (e.g., road user charging) risks creating 'winners and losers'. Therefore, the impacts of any such change would need careful assessment from an equalities perspective.

In addition to EVs, **electric bikes** (e-Bikes) have also now emerged as genuine alternative mode to private car for some journeys. The assistance provided by the battery either through peddling (pedelecs) or via a throttle lets you cover longer distances making trips that were only viable for committed cyclists more accessible to a wide range of people. In addition, e-cargo bikes are also becoming a potential option for last-mile freight logistics and deliveries. Electric scooters are also being trialled as a form of urban mobility and are discussed further in Chapter 11. Furthermore, electric drive has already been adopted for the region's trams and much of the rail network with its further electrification discussed in Chapter 9.

Nonetheless, whilst electric power appears to be emerging as the dominant technology it will not necessarily be appropriate for all modes of transport. For example, large vehicles like buses and HGVs could have difficulty in carrying batteries large enough to power them suggesting



decarbonisation of these modes may require **alternative fuels** such as green hydrogen. Similar to EVs there are a range of issues around the provision of the necessary supporting infrastructure for these alternative fuels and there may be a need for public sector investment or partnerships to ensure that suitable alternative fuels are available for commercial vehicles, and buses along with the network of fuelling infrastructure they need.

## 12.2 POLICIES

- a) The RTS seeks the implementation of measures which facilitate the decarbonisation of the vehicle fleet including cars, buses, vans, trains, ships and aircraft in line with national requirements.
- b) The RTS recognises the risks associated with lower car running costs and supports measures (subject to equality impacts) to prevent renewed growth in private car travel, and to encourage the use of alternative modes in line with the NTS 2 sustainable travel hierarchy.
- c) The RTS seeks the roll out of EV charging infrastructure to support decarbonisation of car-based travel.

## 12.3 ACTIONS

- Pursue Scottish Government for effective national strategy / guidance / specifications on fleet decarbonisation and rollout of appropriate and future-proofed supporting infrastructure. This should include legislation to manage on-street charging provision and provision of chargers in new developments.
- Working with the private sector and partners to develop a regional electric vehicle investment and charging strategy, with associated technical guidance, including a spatial strategy across the area for long journey rapid charging facilities and for local area hub / community charging.
- Develop and coordinate a regional information strategy including messaging around the need to ensure EVs are not regarded as a green light to increased car use and the range of issues associated with this.
- Collate data / knowledge around green hydrogen / fuel cell technology, EV charging technology (e.g. on street / at home / workplace / forecourt) and regularly monitor both emerging technology and trends.
- Facilitate pilot projects to encourage transition to alternative fuels for all modes.
- Support alternative fuels for modes such as commercial vehicles and buses by actively engaging in and funding pilot projects across the region.



# Facilitating Efficient Freight Movement and Passenger Travel

SEStran Regional Transport Strategy

Draft for Consultation

## 13.0 FACILITATING EFFICIENT FREIGHT MOVEMENT AND PASSENGER TRAVEL

### 13.1 OVERVIEW

The efficient movement of people and freight around the region requires high quality transport networks which are fit for purpose and that minimise the impacts of congestion and delays on journey times. To achieve this in some instances there is likely to be a requirement for **targeted infrastructure investment** particularly aimed at tackling congestion hotspots. On the strategic road network whilst traffic management will be key these should also incorporate bus priority and active travel measures where relevant and practical.

There will also be a need to adapt our transport networks to be **resilient** in the face of the impacts of climate change by ensuring they are able to accommodate extreme weather events and by providing appropriate diversionary routes in the event that incidents require primary routes to close temporarily.

Enhanced **external connections** may also be required in some instances to ensure the region remains competitive and linked to key external markets. The loss of the ferry link to Europe from Rosyth in 2018 has reduced trade links with Europe and opportunities should be sought to reestablish direct passenger and freight links with the continent where appropriate and viable. Alongside this there is need to support international air connections through Edinburgh Airport and to seek to ensure that the number of direct linkages is maximised in the wake of the reduced demand created by the COVID-19 pandemic. Furthermore, there may also be a need to upgrade the strategic road network that links the region to surrounding areas where it has been identified as a potential impediment to the efficient intra-regional movement of people and freight due to a lack of capacity, long or unreliable journey times.

For freight the provision of new **rest facilities** for commercial vehicle drivers on the strategic road network should be explored. There are currently eight driver rest areas in the region. These help to reduce tiredness amongst drivers which has safety implications for all road users. The provision of additional rest areas would provide additional opportunities for drivers to take breaks and reduce the likelihood of incidents occurring on the region's strategic road network due to tiredness.

The region could also benefit from the introduction of **Freight Consolidation Centres** in key locations. The majority of goods travelling between south-east Scotland and other regions arrive from either north-west England or west central Scotland. For those goods destined for Edinburgh city centre, that means that they will likely travel via the M8 or A702 from north-west England. A consolidation centre located close to the A720 City of Edinburgh Bypass between its junctions with the M8 and A720 could serve freight vehicles from both regions. From there, a dedicated consolidation centre vehicle(s) could serve Edinburgh ideally powered using alternative fuels. Further support could be provided for the consolidation centre vehicle(s) through the permitted use of bus lanes as discussed in Chapter 10.

For goods from the south and north east England, Leith Port could act as an eastern consolidation centre, potentially rail connected where goods could be brought in by road or rail. Given the port's proximity to Edinburgh city centre, the 'last mile' could be undertaken by cycle logistics or electric temperature-controlled vans. Opportunities should also be explored to implement micro-consolidation centres which are smaller facilities that can be placed close to the areas that they serve. Often no bigger than a shipping container, they are particularly suited to high density urban areas where space is at a premium. Usually served by cycle logistics and smaller electric vans, these can be sited in locations such as squares or car parks. Where possible these should be linked to multi-modal mobility hubs discussed in Chapter 11 which offer the possibility of integrating (semi) urban deliveries with pick-up points (click & collect) at key interchanges.

#### *Case Study: SEStran, SURFLOGH & ZEDIFY E-Cargo Bike Pilot*

Through the SURFLOGH project SEStran are working with a ZEDIFY Scotland to design an e-cargo bike last mile delivery pilot in the City of Edinburgh. ZEDIFY have received £50,000 funding to boost e-cargo bike deliveries within Edinburgh launching with a new delivery hub in Spring 2021. As an international collaboration, SURFLOGH aims to green 'last mile/first mile' delivery, developing cargo hubs that are really 'smart', efficient and sustainable. The project is a collaborative transnational partnership focused on shared and exchanged information from different perspectives, backgrounds and nationalities.

It will also be important to seek to facilitate modal shift from road to **rail freight** where appropriate. Rail freight is typically well suited to regular journeys of bulk commodities over longer distances where the paths can be scheduled on the rail network. However, there are a number of constraints on the rail network that can inhibit the ability to increase the amount of rail freight carried. **Gauge clearance** is highest on the East Coast Main Line but there are parts of the region's rail network where lower gauge clearances restrict the type of freight containers that can be carried upon them. This particularly affects rail movements to the North and East, as much of the network north of the Forth is W8 or below. Enhancements to gauge clearances therefore present an opportunity to broaden the range of rail freight services operating in the region.

In some instances, the gauge clearance on the route may be sufficient but there may be insufficient **train paths** to allow more freight services to operate. This has been established as one of the key barriers to increasing rail freight with particular constraints identified on the East Coast Main Line and at Edinburgh Waverley. The introduction of pass loops offers potential to alleviate some of these constraints by enabling trains wait off the main line before rejoining it once it is clear. If one or more of these loops were introduced, then the case for further services to existing terminals or new facilities could be strengthened and suitable opportunities for their implementation should be explored.

Switching from road to rail freight may not always be commercially viable for logistics providers and the companies they serve. On this basis there may be a requirement to provide more **funding support** to facilitate modal shift for these journeys. This could help to stimulate new rail freight services between locations where services currently do not exist or to increase volumes on some existing services. One opportunity is for

a multi-user freight train running a regular circuit serving locations such as Grangemouth, Inverness and Aberdeen moving goods arriving at port around the region and to / from North East Scotland. However, funding would be required to procure wagons and support an initial trial.

The use of mainline railway stations as hubs for freight, utilising carriages to deliver parcels into the city and town centres, and therefore **integrating freight and passenger services**, has a long history in the UK. Changes in carriage and locomotive design as well as increased focus on security and higher passenger numbers meant that this service ceased, however reduced passenger demand through changes to working patterns as a result of the COVID-19 pandemic could allow spare capacity to be utilised off-peak for parcels or other types of freight. This could then be collected by vehicles or cycle logistics from platforms to be taken to their destination. As such, opportunities for innovative passenger train forming which incorporates the ability to carry freight should be explored.

In the future **automation and innovation** is likely to play an increasingly prominent role in freight and logistics as well. Unmanned aircraft systems, i.e., drones, can act as an airborne inspection agent to observe vehicles prior to trips taking place to ensure there are no safety issues before it embarks. This can assist workers at airports, ports and stations to carry out manual checks even if they are in a different location. There has been some development of drone technology to aid delivery services with last-mile freight for parcels which are under a certain weight with both airborne and land-based robots being developed.

#### *Case Study: Amazon Scout*

These robots autonomously navigate residential neighbourhood routes for last mile parcel delivery services. They operate at a walking speed and can navigate around pedestrians, pets and other things that cross their paths. Amazon Scout robots are currently undergoing a pilot within Washington in the USA and the company has subsequently announced plans to bring the autonomous delivery robots to the UK after establishing an Amazon Scout team at their Cambridge Development Centre.



On the road network vehicle platooning could help to increase freight capacity and reduce costs. This involves a lead vehicle, which is generally driven by a human driver who can navigate the road traffic and route, followed by other vehicles which are driverless. This technology has not been implemented as a viable commercial product but there are active pilots which show potential. In 2016, the first cross-border truck platooning trial was successful in reaching its destination in the Port of Rotterdam. This form of automation could also therefore begin to emerge as a viable means of transportation during the lifetime of the new RTS.

Furthermore, there is scope for sea vessels to operate without the need to have a large crew as they could be automated or piloted via remote control. This has many safety benefits as less workers would be exposed to harsh sea conditions making the movement of freight less hazardous. Whilst this is unlikely to be adopted immediately, there may be a phasing of implementation resulting in a mix of traditionally crewed vessels and autonomous vessels sailing at the same time.

## 13.2 PASSENGER AND FREIGHT POLICIES

- a) The RTS supports targeted infrastructure investment, including new road links or increased road and junction capacity:
  - only in line with the Transport Scotland sustainable travel and investment hierarchies and when all other avenues are exhausted
  - where significant economic opportunities would otherwise not be realised or are being severely impacted under the status quo
  - where bus priority and / or active travel is integral where appropriate
- b) The transport network should be robust and resilient to adapt to the impacts of climate change with suitable diversionary routes in place for instances when key primary routes are required to close temporarily.
- c) Opportunities should be sought to reestablish direct passenger and freight ferry links with Europe where appropriate and viable.
- d) The RTS supports maximising international air linkages through Edinburgh Airport.

## 13.3 FREIGHT POLICIES

- a) Additional locations for commercial vehicle driver rest areas on the strategic road network should be investigated.
- b) Freight Consolidation Centres should be implemented at key locations on the strategic network including potentially on the A720 Edinburgh City Bypass and Leith Port.
- c) Micro-consolidation centres should be implemented in conjunction with multi-modal mobility hubs and supported by sustainable last mile logistics including cycle logistics and electric vans.
- d) Opportunities should be sought to enhance gauge clearances on the rail network to enable a wider range of freight wagons and containers to operate on the region's network and for the number of rail freight services to be increased accordingly.
- e) The RTS seeks the implementation of passing loops and other appropriate infrastructure that will enable additional train paths for rail freight services to be provided in the region.
- f) Where appropriate funding support should be used to implement new or enhanced rail freight services in the region.
- g) Opportunities for innovative passenger train forming which incorporates the ability to carry freight should be explored.
- h) Beneficial innovation and automation should be used to increase the efficiency of freight and logistics networks across the region.

## 13.4 PASSENGER AND FREIGHT ACTIONS

- Work with partners to identify locations where targeted infrastructure investment may be required and work to deliver it where appropriate.
- Work with partners to undertake analysis to identify locations most vulnerable to the impacts of climate change and where diversionary routes are least adequate and develop a set of interventions to improve the resiliency of the strategic transport network.
- Engage with partners to explore opportunities to reintroduce ferry links to Europe.
- Engage with Edinburgh Airport to support the development of international air linkages.

### 13.5 FREIGHT ACTIONS

- Undertake analysis to identify locations where additional commercial vehicle driver rest areas may be required on the strategic road network.
- Work with partners to identify, through the further development of the SEStran Freight Strategy, locations where Freight Consolidation Centres could be located.
- Implement micro-consolidation centres alongside the delivery of multi-modal mobility hubs with supporting cycle logistics and electric vans last mile logistics.
- Work with partners to identify, through the further development of the SEStran Freight Strategy, locations where gauge clearances should be increased to enable new and enhanced rail freight services to operate in the region.
- Work with partners to identify, through the further development of the SEStran Freight Strategy, locations where passing loops or other capacity improvements may be required to provide additional train paths for rail freight services.
- Further develop proposals for new rail freight services including a potential multi-user freight train running a regular circuit between Grangemouth, Inverness and Aberdeen as part of the development of the SEStran Freight Strategy.
- Pursue the rail industry to undertake a pilot of freight carriage on passenger trains.
- Identify opportunities to implement innovation and automation in the freight and logistics industry in the region including the delivery of relevant pilot projects.





# Working Towards Zero Road Deaths and Serious Injuries

SEStran Regional Transport Strategy  
Draft for Consultation

## 14.0 WORKING TOWARDS ZERO ROAD DEATHS AND SERIOUS INJURIES

### 14.1 OVERVIEW



The number of reported road collisions to Police Scotland in the region has decreased by 43% between 2010 and 2019. This demonstrates a general trend towards improving road safety. It is important to build upon this success by implementing further **road safety measures** across the region. These should be targeted at locations with collision clusters on both the strategic and local road network. Whilst it is important to minimise the number of incidents that occur on our road network the priority is to reduce the number of casualties and interventions should focus on delivering this. In some instances, there will be merit in implementing higher value road safety improvements to engineer out risks at locations where collision clusters continue to occur. This could include more significant infrastructure measures such as roundabouts, junction amendments and carriageway widening.

On some roads there may be a need for a comprehensive approach to safety along the entire route rather than treatment of isolated collision clusters. Typically, the risk of injury is greater in the rural environment where speeds are higher and there is scope for conflicts between high speed through traffic and low speed vehicles entering and exiting junctions and accesses. Furthermore, many of these older road layouts have more restricted geometry and visibility as well. On these corridors there may be a need for **Route Action Plans** that consider both the current and future needs of the network to determine whether changes to the existing carriageway, junction types or road layout may be necessary. Improving junction safety in rural areas by considering aspects like protected right turns and improved sightlines as well as reviewing the junction provision can help to reduce the number of people killed or seriously injured on the road network.

Frustration can also be a cause of collisions which can often occur on single carriageway rural routes when slow moving vehicles such as tractors and HGVs can create long delays and convoys of traffic. Usually, this results from a lack of **safe overtaking opportunities**. On some routes there may consequently be a requirement to provide climbing lanes and, where appropriate, sections of dual carriageway to address the

safety issues this creates. In particular, this needs to be considered in the case of regionally strategic freight corridors where there is likely to be a higher proportion of HGVs and other large vehicles.

In some locations it may also be appropriate to review and amend **speed limits** to reflect the characteristics of the road network and the nature of the environment. SEStran supports a national review of speed limits whilst also seeking local amendments to speed limits to improve safety where appropriate. In some instances, this may need to be accompanied by physical or geometric changes to the road network or active monitoring of speeds to enforce reduced speed limits as without these measures there is unlikely to be a significant change in drivers' mean speed. In our urban environments this could include implementation of 20 mph zones with associated traffic calming and other road safety measures to provide a safe environment for all users of the road network, particularly vulnerable groups like people walking, wheeling and cycling.

**Automation and innovation** will also have a role to play in making our roads safer. It ultimately aims to complement the existing network by applying technological advancements to enhance the efficiency and safety for network users. Automation can generally be split up into automated features and automated capabilities. Automated features are already present in cars available on the market today, such as automatically regulating a safe distance to the vehicle ahead, lane assist technologies, blind spot detection or cameras and sensors when cars are reversing. The capability of an automated vehicle refers to several systems or automated features which collectively work together to conduct an overall task with little or no human intervention creating a connected autonomous vehicle. This is an attractive concept as it has the potential to revolutionise the way people can be transported, i.e., driving time could be spend productively engaging in other activities.



These vehicle automation advancements can be complemented by **Intelligent Transport Systems (ITS)** that manage the transport network via the utilisation of 'big data' and artificial intelligence to implement the most effective solutions to improve network efficiency and safety. ITS

integrates technologies including sensors, computers, electronics, communication devices and other automated technologies within transport infrastructure and individual vehicles with the aim being to improve efficiency, safety, sustainability, travel time reliability and to reduce the cost of travel.

Together these measures will help the region to deliver its contribution to achieving the target of **zero fatalities and serious injuries** in road transport by 2050 as defined in Scotland's Road Safety Framework.

## 14.2 POLICIES

- a) The RTS supports the implementation of road safety schemes on the regional network targeted at locations of collision clusters and corridors where a consistent and comprehensive approach is required to safety along the entire route.
- b) SEStran supports a national review of speed limits whilst also seeking local amendments to speed limits to improve safety where appropriate.
- c) In urban environments 20 mph zones, traffic calming and other road safety measures should be used to provide a safe environment for all users of the road network.
- d) Automation and innovation should be used to make our roads safer and more efficient by combining the benefits of automated features and capabilities with Intelligent Transport Systems.
- e) Target zero fatalities and serious injuries on the region's roads by 2050.

## 14.3 ACTIONS

- Identify collision cluster locations for the implementation of road safety schemes.
- Develop Route Action Plans for key rural corridors which require a coordinated approach to road safety along their route where there is greater scope for conflict between high speed through traffic and slow turning traffic..
- Undertake analysis to identify single carriageway routes with high proportions of HGVs and other large vehicles where the implementation of safe overtaking opportunities may be required to prevent frustration which can lead to unsafe overtaking manoeuvres.
- Pursue a national review of speed limits.
- Identify locations where local speed limit amendments may be required to improve safety.
- Provide supporting infrastructure, including the implementation of Intelligent Transport Systems at appropriate locations across the road network in the region, to enable the safe operation of connected autonomous vehicles.



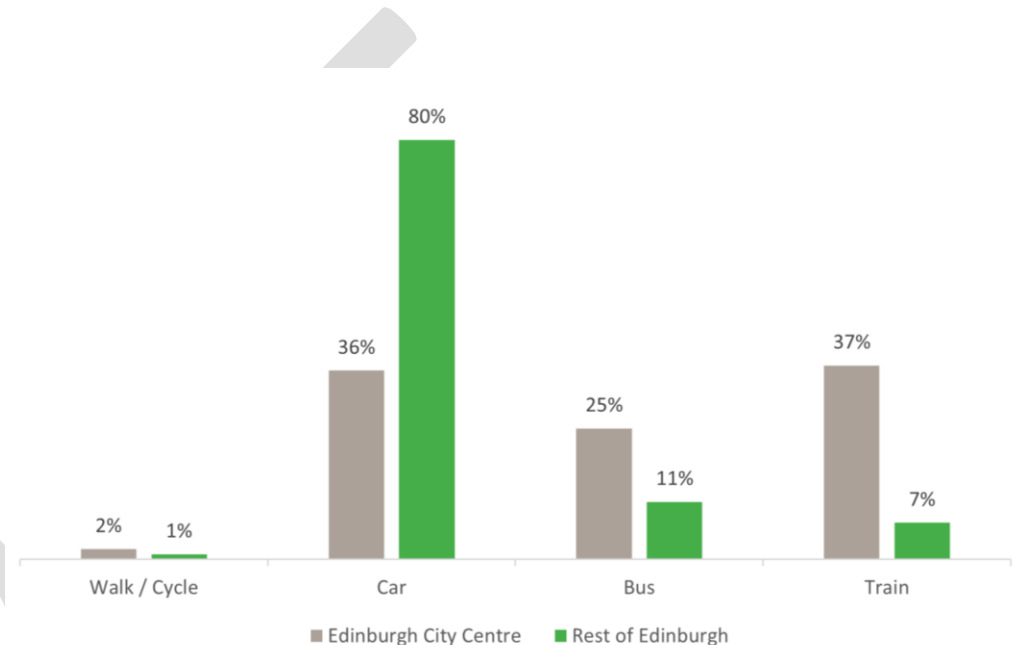
# Reducing Car Kilometres

**SEStran Regional Transport Strategy**  
Draft for Consultation

## 15.0 REDUCING CAR KILOMETRES

### 15.1 OVERVIEW

In some instances, the use of a car will be essentially unavoidable. This is likely to be particularly the case in the more rural and isolated parts of the region although some journeys within urban parts of the region are also currently heavily car dependent as well – where no practical alternative currently exists. The Scottish Government has set out a target to reduce car kilometres by 20% by 2030. To achieve this in south-east Scotland the focus will be upon reducing **‘avoidable’** car kilometres in the first instance with a particular emphasis on single occupancy car journeys. These are journeys that could be more readily undertaken by alternative modes of transport but that are currently undertaken by car. For example, in Figure 15.1 it can be seen that 80% of the commuting journeys into Edinburgh to locations outside the city centre are made by car. This equates to ~49,000 car trips and presents a much greater opportunity to reduce car kilometres than journeys into the city centre where public transport usage is already much higher. In rural areas there may be much less scope to reduce car kilometres but there may be more opportunities to reduce single occupancy car journeys in the first instance.



11,000 car trips into Edinburgh city centre



49,000 car trips into Edinburgh's suburbs



Figure 15.1 Cross Boundary Commuting into Edinburgh 2011



The first step to achieving a reduction in ‘avoidable’ car kilometres is to ensure that suitable **alternative modes** are in place. This is discussed in detail in relation to the other Regional Mobility Themes which set out our approach to enhancing the region’s active travel, public transport and shared mobility provision including:

- 1. Shaping development and place
- 2. Delivering safe active travel
- 3. Enhancing access to public transport
- 4. Enhancing and extending the bus service
- 5. Enhancing and extending the train service
- 6. Reallocating road-space on the regional network
- 7. Improving integration between modes

Alongside these there will also be a requirement for **measures to reduce car use**, particularly where a reasonable alternative exists. SEStran supports the implementation of Edinburgh’s Low Emission Zone (LEZ) as a means of improving air quality and, to a lesser extent, potentially reducing traffic and in the city. Additional demand management measures may be required in urban areas across the region to discourage short car trips which could include parking management and charges, reduced parking provision, improved enforcement of parking regulations and Workplace Parking Levies. It is also likely that congestion and road user charging will become more prominent considerations again as the shift to EVs impacts upon fuel taxation and they could also have a role to play in helping to reduce avoidable car use.

Whilst there is no aspiration to put measures in place to restrict car ownership the RTS seeks to provide alternatives that make it less necessary and, in particular, to reduce the need for multi-car households. The provision of **trip sharing and car sharing** services are means by which the need to own a car, or an additional car, can be reduced. Trip sharing or carpooling is one of the most well-known forms of shared mobility where people with similar travel requirements share one vehicle rather than make separate trips. SEStran already provides the Tripshare platform to facilitate trip sharing in the region although the COVID-19 pandemic is likely to reduce the willingness for people to trip share with strangers whilst the virus remains a threat. On this basis there is a need to examine best practice for a sustainable delivery model for the future.

Car sharing differs from trip sharing in that people share access to a vehicle, like bike sharing, rather than sharing a journey with someone. This means people can enjoy the freedom and benefits of the car without the responsibilities and costs of owning one. Customers typically access vehicles by joining a car sharing organisation that provides a fleet of vehicles in the local area and wider rollout of car sharing vehicles across the region could help to reduce the need to own a car by allowing people to hire one as and when required.

### Case Study: Co-wheels, Midlothian and East Lothian

Co-wheels are the UK's biggest car sharing company providing car sharing facilities in East Lothian at Musselburgh and Dunbar and Midlothian at Dalkeith. Cars are available 24 hours a day, seven days a week and can be booked by the hour, day or as long as you want.

Vehicles were also previously available in Haddington and North Berwick but were removed in June 2019 due to low usage.

Increasing usage of car sharing will be dependent upon provision of a comprehensive network of vehicles across the SEStran region.



Other factors can also influence the extent to which people need to travel by car including **land-use planning policy**, which is discussed in Chapter 5, and levels of **digital connectivity**, which is enabling more flexible and agile working practices whilst reducing the need for people to travel. In more peripheral parts of the region there may also be a need to expand **Park and Ride** provision to enable people to switch from car to public transport for at least part of their journey which is discussed further in Chapter 11.

A combination of all these factors will be required to enable the region to make an active contribution to delivering the Scottish Government's target. It will consequently require both improvements to active travel and public transport along with measures to discourage car use to be effective.

## 15.2 POLICIES

- a) The RTS seeks the implementation of low and zero emission zones where appropriate alternatives are provided and supports the delivery of the Edinburgh Low Emission Zone.
- b) The RTS is supportive of appropriate demand management measures where suitable active travel and public transport alternatives are in place.
- c) Further expansion of trip sharing and car sharing services should be undertaken across the region to reduce the need for car ownership.
- d) Ongoing expansion and upgrading of digital connectivity is supported to reduce the need to travel and enable the adoption of flexible and agile working patterns.
- e) Park and Ride provision should be enhanced where required to enable car journeys to transfer to public transport for at least part of the trip.
- f) Where appropriate support behaviour change and the use of more sustainable modes of transport by a combination of enhanced infrastructure, information provision, innovation and measures to discourage car use.

### 15.3 ACTIONS

- Undertake further analysis to identify the scope and scale of 'avoidable' car kilometres across the region which can then be targeted through improved information, improvements to public transport and appropriate demand management measures.
- Research demand management measures which may be appropriate for the region including parking management and charges, reduced parking provision, improved enforcement of parking regulations, Workplace Parking Levies as well as congestion and road user charging.
- Drawing upon the analysis undertaken, develop and implement an action plan to deliver measures in the SEStran region to support the delivery of the Scottish Government's car traffic reduction target across the region.
- Explore the most effective model for regional delivery of trip sharing and car sharing services across the region.



# Responding to the Post Covid World

SEStran Regional Transport Strategy

Draft for Consultation

## 16.0 RESPONDING TO THE POST COVID WORLD

### 16.1 OVERVIEW

The COVID-19 pandemic and its potential aftermath has introduced a high degree of uncertainty into all aspects of transport planning. The short-term picture (during the pandemic and the various levels of restriction) is well understood with the impacts on transport demand in Scotland illustrated in Figure 16.1.

During the pandemic there has been a decline in public transport usage whilst cycling and car use has increased. Walking is down overall but has fluctuated and at times has been above pre-pandemic levels. Demand for all modes has been noticeably impacted by the level of restrictions in place at a given time whilst active travel can also be seen to be seasonal and weather dependent as well.

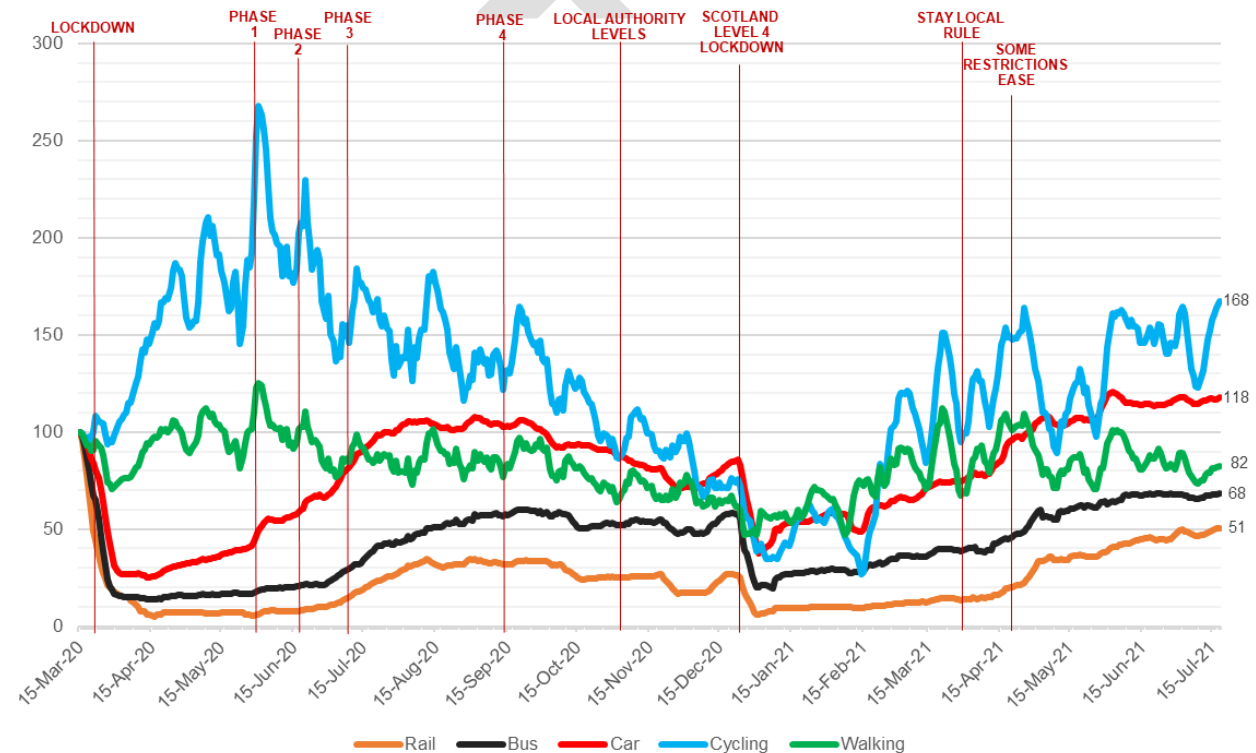


Figure 16.1 Indexed Travel Demand by Mode in Scotland 15<sup>th</sup> March 2020 to 18<sup>th</sup> July 2021

However, there is significant uncertainty regarding the structural changes in peoples' behaviour once the pandemic is behind us and the extent to which some of the travel behaviour changes witnessed during the pandemic will become embedded long-term. There are a wide range of

surveys (with businesses and the public) and other data which provide an indication of what the post-pandemic world might look like. SEStran has undertaken a Travel Attitudes Survey throughout the pandemic with Wave 2 being reported in March 2021, and this provides a useful summary of what is now something of an emerging consensus. The key findings are shown in Figure 16.2.

## Looking to the future

### Challenges..



#### Expectations for the future

(% of eligible population who agree):  
I'd prefer my children to avoid public transport for the foreseeable future

67%

I'd prefer to avoid public transport for the foreseeable future

63%

### Opportunities...



#### Expectations for the future

(% of eligible population who agree):  
I would like to use local shops and businesses more often

62%

Longer term I would like to make fewer non-essential journeys

54%

Longer term I would like to work from home more often

49%

### Activities would like to do MORE often than before Covid-19



31%

Walking, wheeling or cycling for leisure



24%

Visiting friends and relatives



23%

Eating and drinking out



21%

Going places for sport/entertainment

### Activities would like to do LESS often than before Covid-19



28%

Going to pick up/drop off parcels



28%

Visiting shops



30%

Going to education



39%

Commuting to work

In general terms, these stated intentions represent an acceleration of many of the trends which were already underway and outlined in Section 2.3. The unknown here is the extent to which these stated intentions become reality as and when the pandemic is fully behind us, and all restrictions are lifted. It is likely that there will be a degree of oscillation in peoples' behaviour before a new equilibrium is reached.

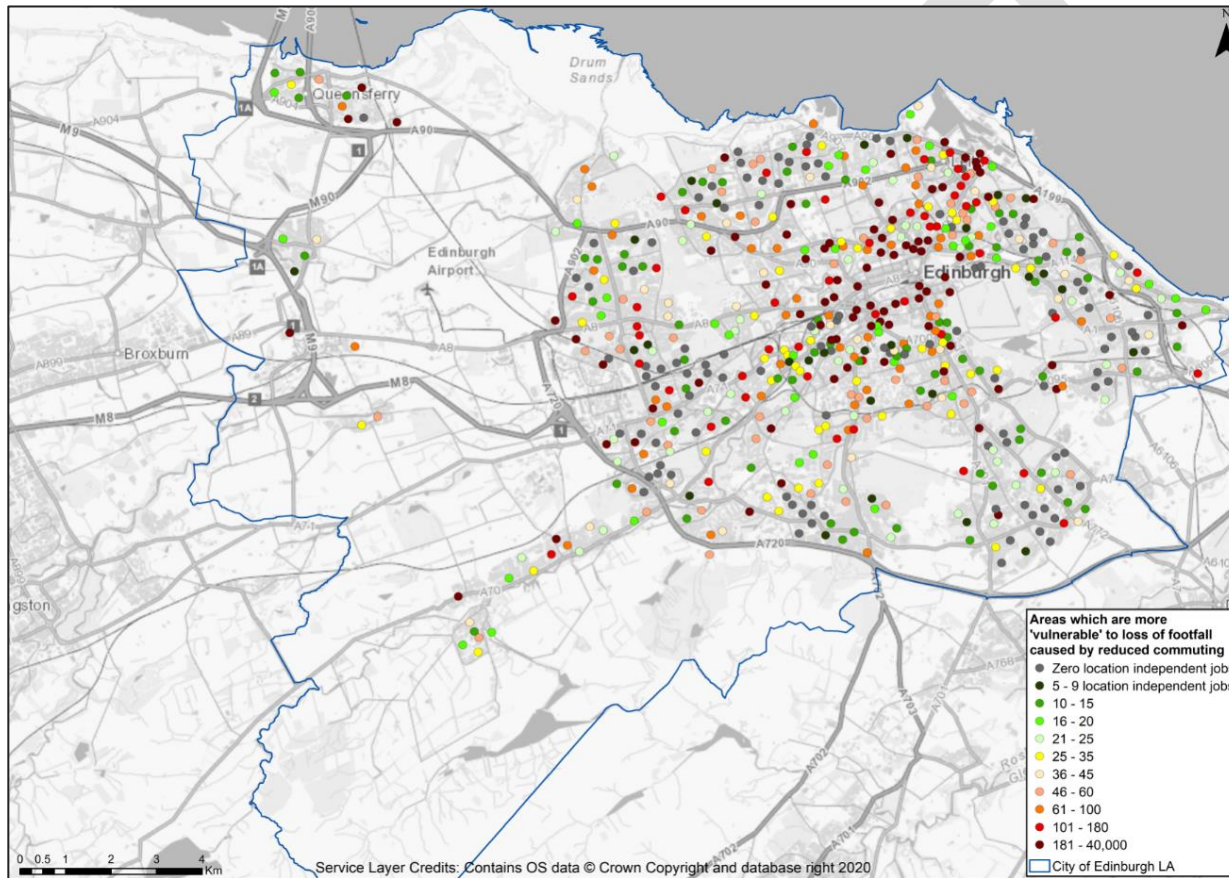
**Figure 16.2 Anticipated Travel Behaviour Changes Post COVID-19 Pandemic**

reached. The level of behavioural change that this new equilibrium represents relative to 2019 is however impossible to estimate at this stage.



The main components which will determine this change will be:

First and foremost is **reduced commuting**. This will be focussed on 'location independent' jobs, i.e., the jobs which can most easily be done without being at the workplace. As an example, the analysis presented in Figure 16.3 shows the number of jobs in the Information & Communication, Professional, Scientific & Technical and Financial and Insurance Services industries in the City of Edinburgh, by datazone.



It can be seen that the darkest dots are concentrated in the city centre and along public transport corridors. Fewer people travelling to these jobs would therefore disproportionately affect the demand for public transport and the fact that many of these jobs will be based on the conventional working day means that peak hour demand for public transport could be significantly reduced. This could have implications for high-capacity public transport provision both now and with respect to future investments.

These areas with high numbers of location independent jobs are therefore at risk of much **reduced footfall** with all the implications for businesses which rely on this footfall for their trade. If this happens at scale, there may be a need to re-

Figure 16.3 Location Independent Jobs in Edinburgh



purpose office buildings and more generally the areas affected by a loss of their main purpose for being. A substantial policy response may be required to revitalise these areas.

The impact of reduced commuter footfall would be amplified by the more general shift away from high-street shopping to **online shopping**. Town and city centres may have to innovate and develop a new style of retail, hospitality, cultural and leisure offer if they are to retain their role as focal points.

Allied to this, there will be a redistribution of footfall to neighbourhoods where people are now **working from home** more often. Assuming people do leave their homes, there will be opportunities in retail and hospitality in these areas, as well as providers of other services. This would of course be beneficial in terms of aspirations for more 'local' living, working and shopping as represented by the 20-minute neighbourhood concept discussed in Chapter 5.

As noted in Section 2.3, **business travel** has been declining for some time. With the widespread adoption of platforms such as Zoom and MS Teams, the move to remote meetings has been rapidly accelerated by the pandemic. Whilst there will undoubtedly be some return of business travel, all the evidence suggests it will be at a lower level than before.

The SEStran survey has indicated however that **leisure travel** will increase, again reflecting medium term trends. In part this may reflect less time spent commuting and shopping freeing up time for more leisure-based activities.

The surveys also suggest a residual **reluctance to use public transport** due to lasting concerns about the virus and perhaps a greater awareness of the risk of infectious diseases more generally. This allied to reduced commuting trips could have major implications for the



finances of public transport delivery. Commercial services may now require subsidy and subsidised services may now require more subsidy. In response to reduced fares revenue, frequencies may be reduced and / or services may be withdrawn, diminishing public transport connectivity and potentially adding to car use. Public transport operators may therefore have to review the nature of the services they provide (or are specified to provide) in response to a new, more leisure-focussed and cautious public. Current models of season tickets may also need to be revised to account for the more flexible travel patterns likely to be adopted by many who previously commuted five days per week.

In the longer term, as the **link between the workplace and the home** is reduced or broken completely for some types of jobs, some may reconsider where they wish to live. This is likely to lead to a more dispersed population which may bring pressures to the communities affected by in-migration and a mix of environmental and travel impacts.

More generally, structural changes resulting from the pandemic may bring significant **changes to the economy** and the types of activity undertaken at different locations, with retail perhaps being the sector most 'at risk' from permanent changes in behaviour.

Overall, this highlights some of the uncertainties surrounding the post-pandemic world. It has accelerated a number of long-term travel behaviour change trends including increased working from home, more online shopping, reduced trip making, decline in bus use and increased car use. In addition, it has also stimulated new travel behaviours including a decline in the previously growing train patronage and increases in walking and cycling as illustrated in Figure 16.4.

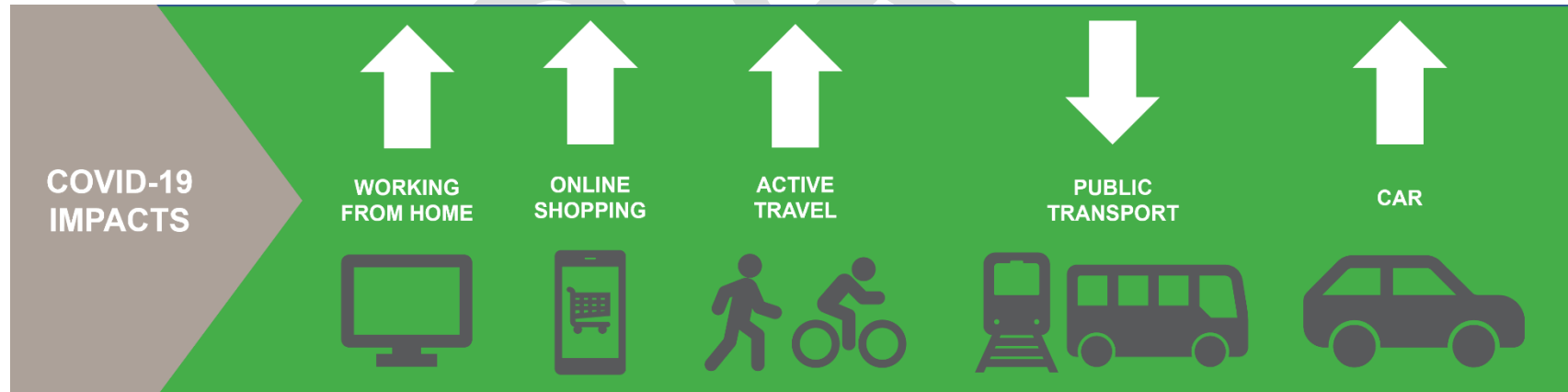


Figure 16.4 Overview of COVID-19 Impacts

As noted above, the key issue here is the scale of these impacts and the implications could range from transformative to marginal. It is unknown the extent to which these changes will become embedded long-term but, at the very least, it is likely to take time for travel patterns to stabilise and return to close to pre-pandemic levels. Peak period commuting could be particularly affected if there is a permanent shift to increased home and flexible working potentially leading to less strain on public transport services and less congestion on the road network at these times. It is also unclear how public transport demand will recover in the wake of the pandemic. This means the RTS covers a period of ongoing uncertainty, and it will be crucial to keep its policies under review to adapt to the future uncertainties and changes.

## 16.2 POLICIES

- a) The RTS recognises that the Covid-19 pandemic is anticipated to have a wide range of permanent impacts on transport and society and will monitor and respond to these.
- b) The RTS will be flexible in responding to these changing travel behaviour trends and adapt accordingly as it becomes clearer what the 'new normal' will entail.
- c) Measures to mitigate the impacts of the Covid-19 pandemic and the resulting implications for towns and cities will be supported providing they maintain consistency with the wider policy set out in the RTS.

## 16.3 ACTIONS

- Produce a biennial monitoring report setting out key regional transport and behavioural trends set against the trend over the decade pre Covid (2010-19) including both the bus and rail supply side and road network congestion.
- Drawing on the findings of the monitoring reports, revisit the RTS when the post-covid picture has stabilised to determine any policy adjustments required to reflect the 'new normal' circumstances.



# Spatial Strategy

**SEStran Regional Transport Strategy**

Draft for Consultation

## 17.0 SPATIAL STRATEGY

### 17.1 SPATIAL CONTEXT

The RTS sets out a range of policies and actions which will shape investment in, and the management of transport in the region for the next 20 years. Crucially, in response to the Climate Emergency the Scottish Government has set a target to reduce car traffic levels (car km) by 20% by 2030. This is a fundamental point for the RTS to address and it is therefore important to understand car-based travel in the SEStran area in order to appropriately focus initiatives aimed at reducing car-km. Whilst providing a framework for all travel and transport in the region, the RTS has a particular focus on **regional travel**, i.e., travel *between* local authorities as opposed to travel wholly *within* local authority areas. To understand this, although now dated, the census of 2011 provides the most comprehensive and detailed picture of (pre COVID-19) *commuting travel* in the SEStran region – this is taken as a proxy for all travel for the purposes of analysis here. Typically, commuting sees a higher share of public transport than for other travel so if anything this may underestimate the scale of the ‘problem’.

#### How significant is regional travel?

The chart in Figure 17.1 shows the total volume of commuting trips (by all modes) within the SEStran area by main geographical movement. The highest volume of commuting (36%) was *within SEStran local authorities excluding Edinburgh* (e.g., within Fife) with a further 31% of trips being *within Edinburgh*. Commuting *between* local authorities accounts for the remaining **one third** of all commuting wholly within the SEStran area. The dominance of Edinburgh as an employment centre is obvious though, with Edinburgh the destination for around 45% of all commuting trips amongst SEStran residents. **Total commuting within the SEStran area can be thought of as roughly in thirds – 1/3 within Edinburgh, 1/3 within the other seven council areas, and 1/3 between the eight council areas.**

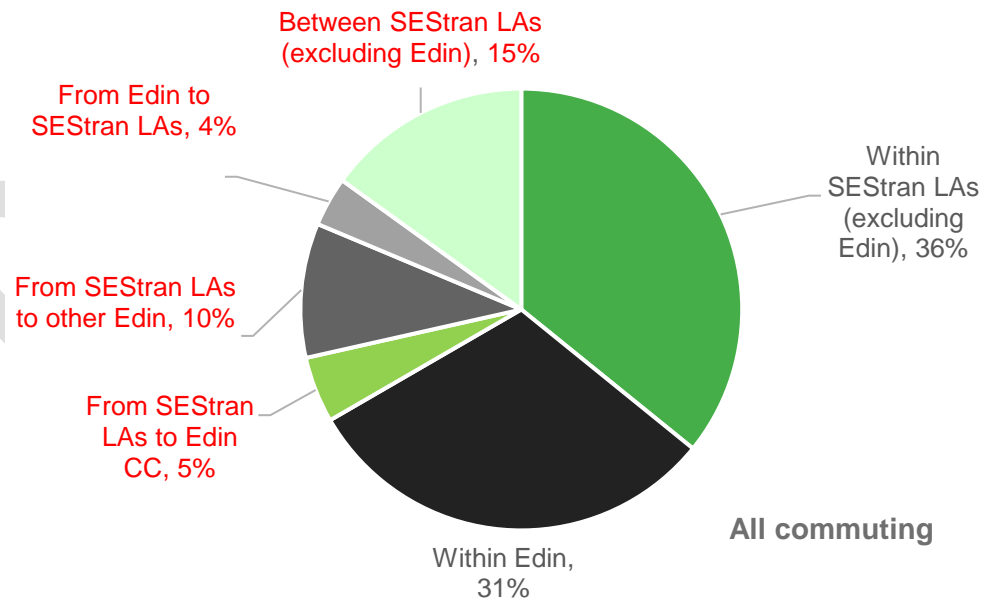


Figure 17.1 Commuting by All Modes within SEStran Region





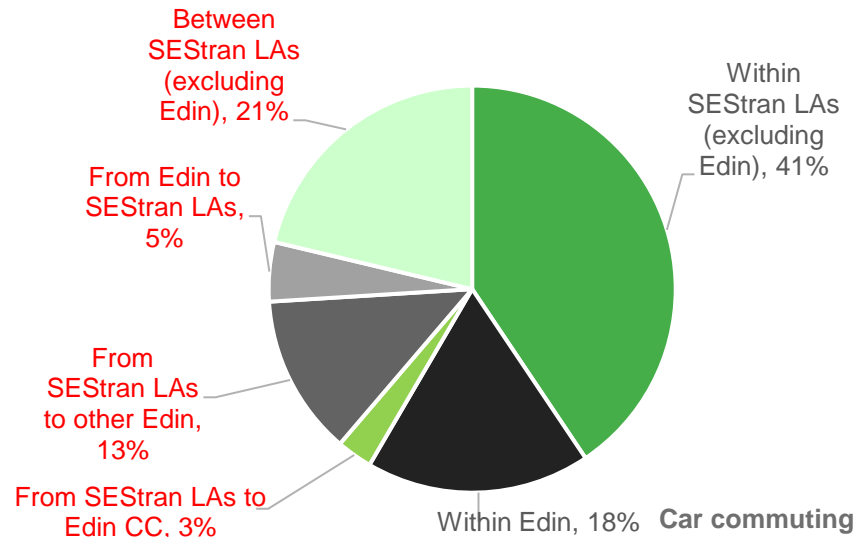


Figure 17.2 Commuting by Car within SEStran Region

#### How does mode share differ?

These different types of commuting trips have very different **mode shares** as shown in Figure 17.3. It can be seen how dominant car-based travel is for all commuting trips except *within Edinburgh* and *from SEStran local authorities to Edinburgh city centre*. The contrast in car mode share between travel from outside Edinburgh to Edinburgh city centre (37%) and the rest of Edinburgh (81%) is particularly stark. The mode share of car is highest when commuting *between SEStran LAs (excluding Edinburgh)* at almost 90% and bus only accounts for 7% of these trips. **With the exception of trips to Edinburgh city centre, regional commuting between council areas is therefore heavily dominated by car** (85%) with public transport usage very low by comparison (12%). Within council areas there is a big contrast

#### How significant is regional car travel?

If only car-based commuting is considered as shown in Figure 17.2, the proportion of commuting *between* local authorities rises to **42%**. As these trips will be longer than many car trips within council areas, travel between council areas likely accounts for **around half of all car commute km** in the SEStran area. Note that car-based commuting from outside Edinburgh to Edinburgh city centre accounts for a very small proportion of car commuting at 3%. Any attempt to reduce car travel in the SEStran area therefore requires a 'whole region' approach. **Car-based commuting with the SEStran area can be thought of as roughly 20% *within* Edinburgh, 40% *within* the other seven council areas, and 40% *between* council areas (20% involving Edinburgh).**

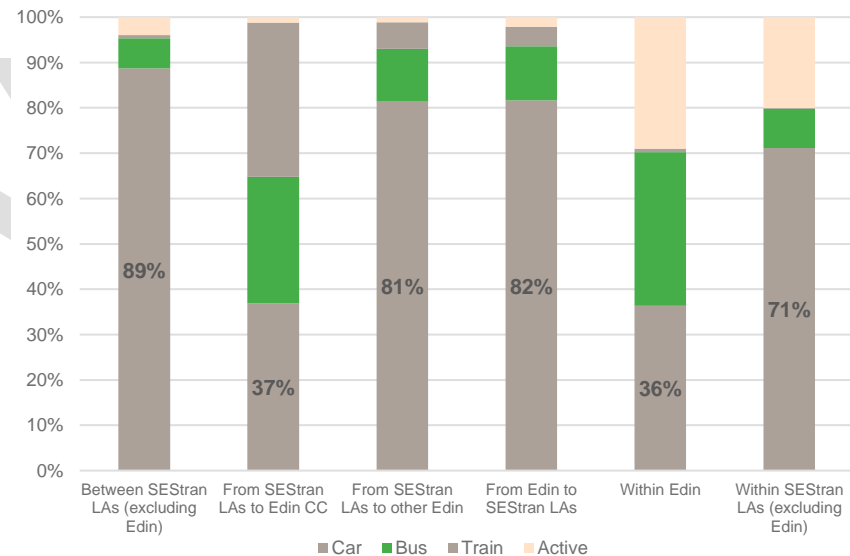


Figure 17.3 Mode Share for Regional Commuting

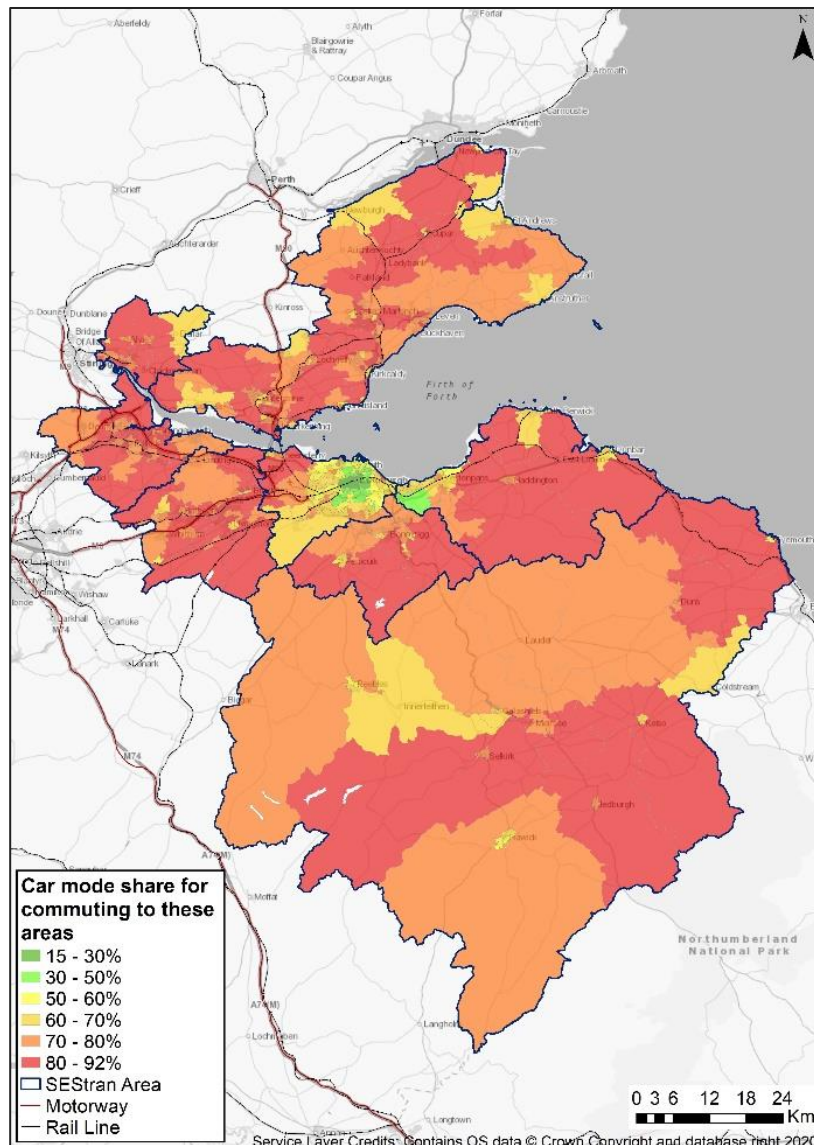


Figure 17.4 Car Mode Share for Regional Commuting

between Edinburgh with high public transport and active travel mode share and the other SEStran council areas where the mode share of car is around double that of Edinburgh. Further illustrating this, Scottish Household Survey Travel Diary data suggests that if Edinburgh is excluded, 80% of SEStran residents use the bus less often than once a fortnight.

The map shown in Figure 17.4 further illustrates how dominant use of the car is for commuting to all parts of the region with the exception of Edinburgh and Edinburgh city centre in particular. Commuting into the region's other urban areas and rural areas sees a typical mode share of 70% or more and more than 80% in the areas shaded red here.

### How important is commuting to Edinburgh for residents of the other seven local authority areas?

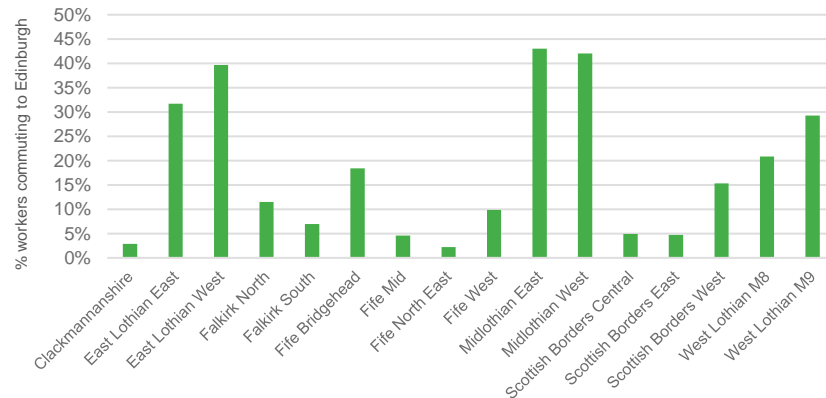
To analyse this, the SEStran area has been divided up into a number of local authority sub areas which are shown in Figure 17.7.

Edinburgh is clearly the main employment centre, but its importance varies across the region. There is very low dependence (<5% of resident workers) on Edinburgh jobs in Clackmannanshire, Fife Mid, Fife North East, Borders Central and Borders East.

In contrast, there is high dependence (30%+) on Edinburgh jobs in Midlothian (East and West) and East Lothian (East and West). Typically, around 80% of Edinburgh residents work in an Edinburgh workplace.

These trends are illustrated in Figure 17.5.

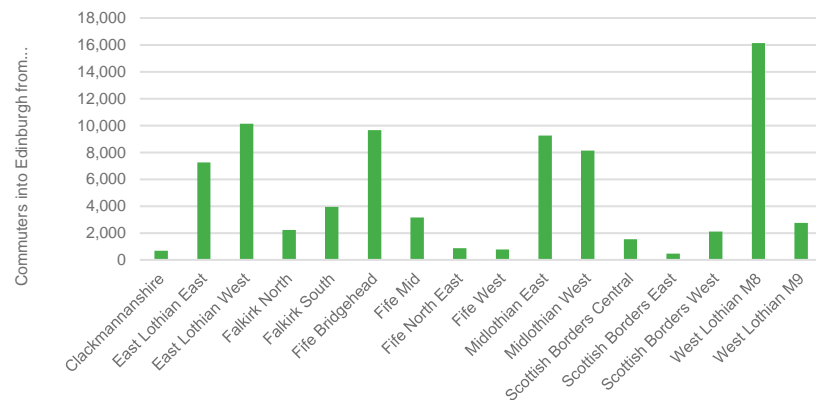




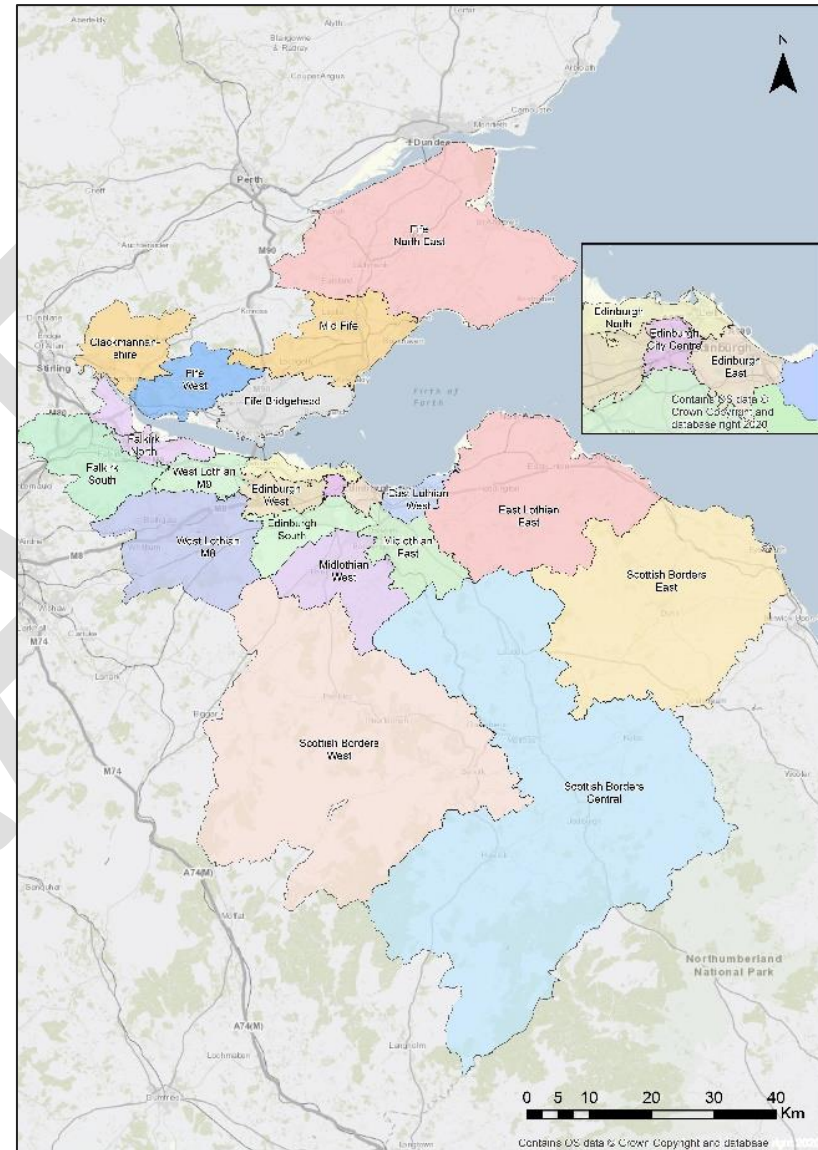
**Figure 17.5 Percentage of Workers Commuting to Edinburgh**

### What are the commuting volumes into Edinburgh?

The largest commuting movement into Edinburgh in volume terms is from the West Lothian M8 sector. Similar volumes (7.5-10k) commute into Edinburgh from the Midlothian East and West, Fife Bridgehead and East Lothian West and East sectors as shown in Figure 17.6.



**Figure 17.6 Commuting Volumes into Edinburgh**



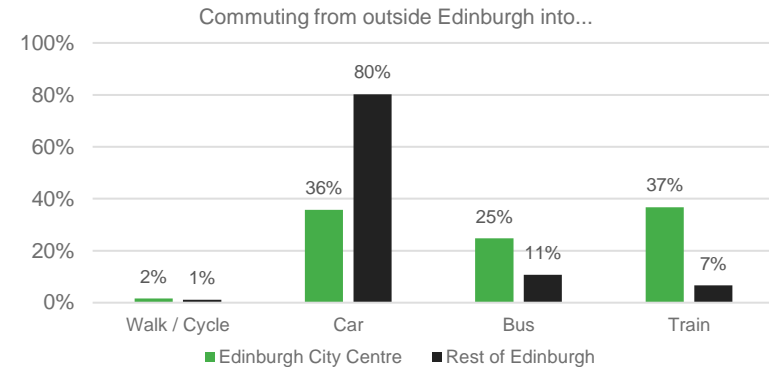
**Figure 17.7 SEStran Region Sub Areas**

### Commuting into Edinburgh is therefore a major source of congestion, pollution and noise

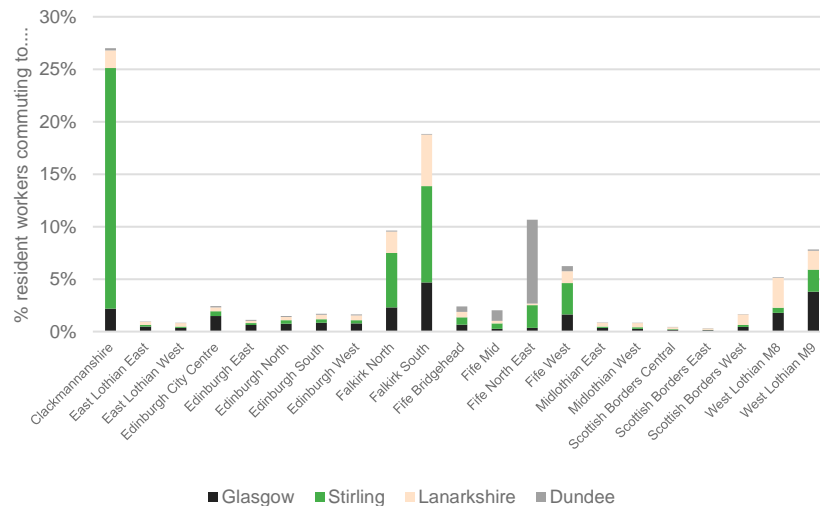
Of all car-based commuting trips with workplaces in Edinburgh, around half come from outside Edinburgh – so at least half of car-based emissions (from commuting) in Edinburgh are caused by cross boundary car commuters.

Commuting into Edinburgh has a markedly different profile with the mode share of car into Edinburgh's suburbs more than double that of the city centre as illustrated in Figure 17.8. This is primarily due to the availability and cost of parking, and congested journey times to the city centre along with the city centre being the focal point of the local and regional public transport network.

In 2011 there were around 90,000 people who lived outside Edinburgh and worked in Edinburgh - of these around 1/3 worked in the city centre and 2/3 worked elsewhere in Edinburgh.



**Figure 17.8 Commuting from Outside Edinburgh by Mode**



**Figure 17.9 Commuting to Neighbouring Areas**

### How important is commuting to neighbouring cities / areas for SEStran area residents?

There are significant (>5% of resident workers) outflows:

- (i) to Stirling from Clackmannanshire, Falkirk north and Falkirk south
- (ii) to Lanarkshire from Falkirk south
- (iii) to Dundee from Fife north-east

These trends are illustrated in Figure 17.9.

## What are the commuting volumes into these other cities?

The highest volume of out-commuting is from Clackmannanshire to Stirling and from Falkirk south to Glasgow, Stirling and Lanarkshire, to which there are also outflows from West Lothian as shown in Figure 17.10. There is also a significant cross-Border outflow from Borders east to the Berwick-upon-Tweed area (not shown due to data limitations). Collaboration with neighbouring local authorities and regional transport partnerships will be required to deliver measures to ensure these commuting flows are sustainable.

## 17.2 DEFINING REGIONAL CORRIDORS

To further understand the nature of regional travel within and to / from the SEStran area, a set of 'regional corridors' have been defined which form the 'building blocks' of regional travel across the area. These corridors are shown in Figure 17.11 and were defined based on travel between the local authority sub areas as defined above.

- **East coast:** Connecting Berwickshire and East Lothian to Edinburgh and beyond, and England
- **Midlothian east:** Connecting the Bonnyrigg / Dalkeith / Gorebridge triangle to Edinburgh and beyond - also main connection to Galashiels area
- **Midlothian west:** Connecting Penicuik / Loanhead to Edinburgh and beyond - also main connection to Peebles area.
- **Borders central:** Connects the central Borders to Midlothian and Edinburgh via the A7 and A68 corridors
- **Borders west:** Connects the western Borders to Midlothian and Edinburgh
- **Cross Edinburgh:** Provides across and around Edinburgh connections for a wide range Connects the central Borders to Midlothian and Edinburgh via the A7 and A68 corridors
- **West Lothian north-south:** Connects the M8 at Bathgate with the M9 at Polmont accessing the Grangemouth area
- **Fife west:** Connects the Dunfermline area with Kincardine / Alloa
- **Fife central:** Connects East Fife, Kirkcaldy and Glenrothes with Dunfermline / Queensferry
- **Fife east:** Connects East Fife, to Kirkcaldy and Glenrothes

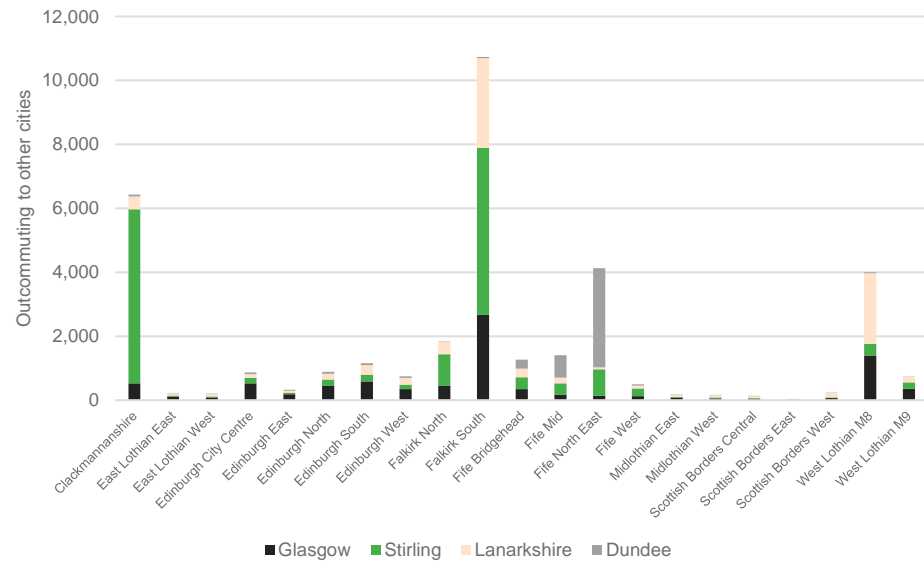


Figure 17.10 Commuting Volumes to Neighbouring Areas

- **West Lothian south:** A key travel corridor linking west central Scotland, West Lothian and east central Scotland and Fife
- **West Lothian north:** Links Falkirk, West Lothian to Edinburgh
- **Falkirk central:** A central corridor providing external connections to Stirling and North Lanarkshire as well as Kincardine and West Lothian
- **Tay Bridges:** Rail connection and road link between East Fife and Dundee
- **Queensferry:** National north-south and east-west road and rail corridor linking Fife, Edinburgh and West Lothian
- **Kincardine:** Connects west Fife and Clackmannanshire with Falkirk and motorway network
- **Borders – Lanarkshire:** Connects the Borders east west movements to south Lanarkshire
- **Clacks north east:** Links Clackmannanshire to the north

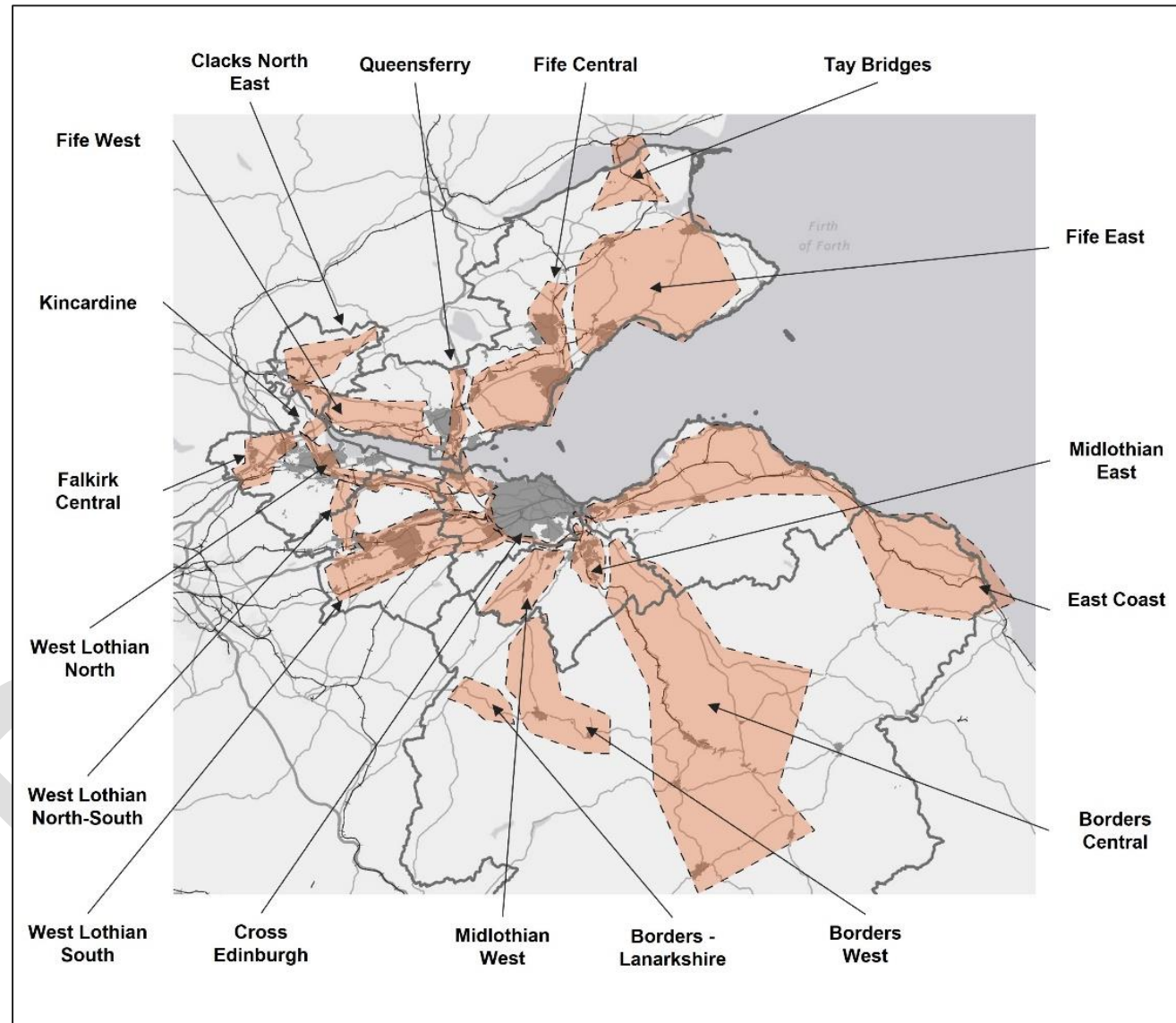


Figure 17.11 Regional Corridors



By allocating census data for each local authority sub area to local authority sub area movement to the series of corridors that would be used in making each movement, a picture of (home to work) commuting travel volumes by mode which uses each corridor was generated as shown in Figure 17.12. This includes commuting into and out of the SEStran area.

The volume of travel (line width) and the share of active travel, bus, train and car-based travel (pie charts) varies widely across the region. The highest regional travel volumes are seen in the West Lothian south, Cross Edinburgh, West Lothian north, Queensferry and east coast corridors, which account for 60% of all regional travel. Travel volumes are much lower in corridors where there is little 'through' traffic. Local travel will be the predominant factor in these areas.

Levels of active travel are typically low but are slightly higher in the corridors in closer proximity to Edinburgh. The use of public transport varies widely from 2% to over 30%. This typically reflects the provision of rail services in particular, and the amount of travel in the corridor destined for central Edinburgh. Overall rail at 10% accounts for a higher proportion of regional commuting than bus at 9%, reflecting the longer distances involved in regional rather than local commuting. Car based travel accounts for 80% of commuting and peaks in corridors where public transport is very limited. The table below sets out a high level 'audit' of these **regional corridors** from the perspective of regional bus, rail, park and ride and road travel.

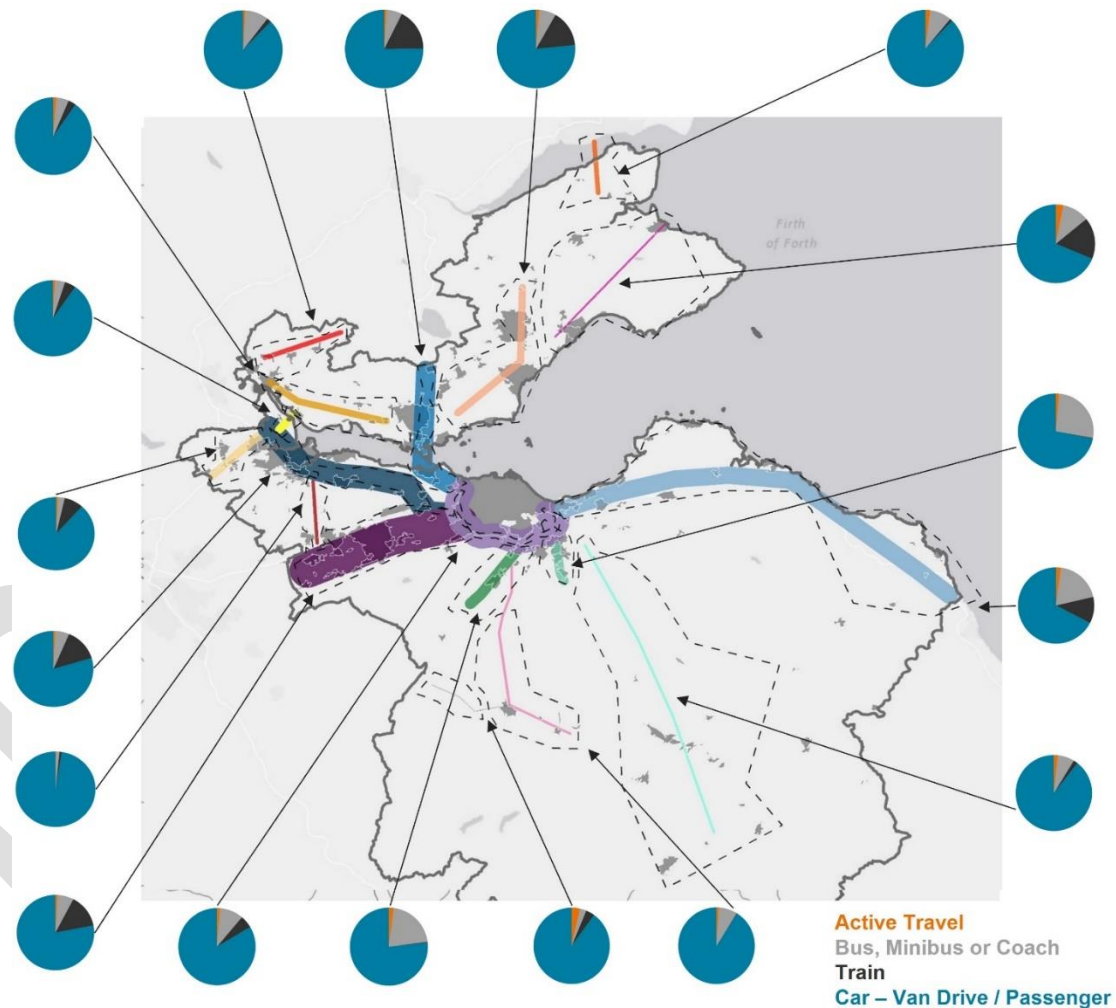


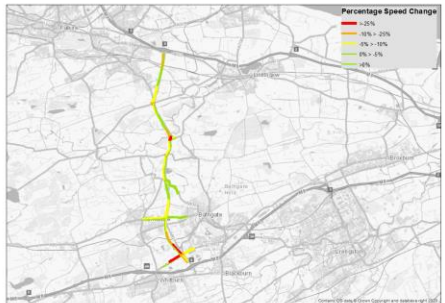
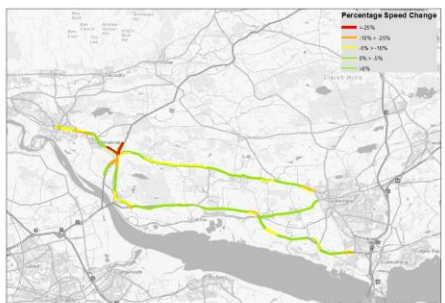
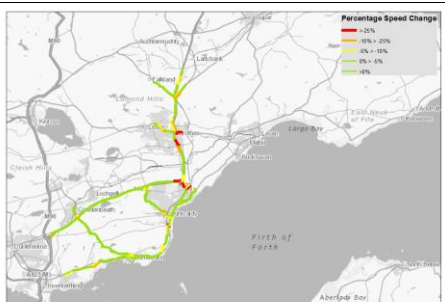
Figure 17.12 Regional Corridor Commuting Demand

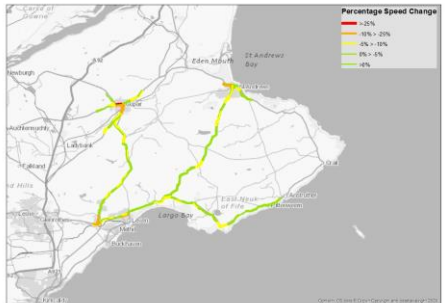
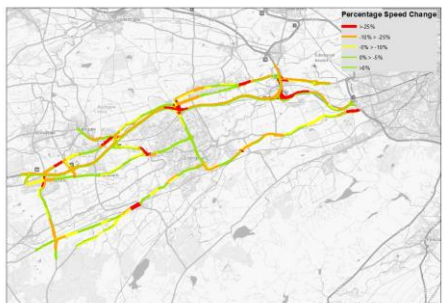
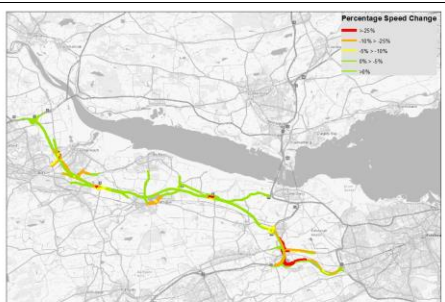
Corridor	Regional Bus Connections	Rail	Park and Ride	Key Trunk and Regional Roads	Typical Congestion Locations on Trunk and Regional network <sup>1</sup>
<b>East coast</b>	East Coast Buses – North Berwick, Dunbar and Haddington to Edinburgh CC. One Musselburgh- Midlothian connection. Borders Buses connect east of Dunbar to Edinburgh and Berwick upon Tweed.	East Coast Mainline to Edinburgh (occasional Glasgow) and stations south of the border. North Berwick and Dunbar local services. Reston and East Linton stations being delivered.	Rail based P&R available at most stations, limited at some locations. High-capacity park and choose at Wallyford and Newcraighall with plentiful capacity. New options at Reston and East Linton stations	A1 (dualled from Edinburgh to Dunbar) A198 linking coastal settlements A199 Musselburgh-Edinburgh Congestion focussed at western end of corridor in Musselburgh and Old Craighall	
<b>Midlothian east</b>	Lothian Buses provide many connections to Edinburgh south and city centre and a Penicuik – Musselburgh service Borders Buses traverse corridor from Carlisle / Hawick / Galashiels, Jedburgh and Kelso	Borders Railway	Modest rail-based P&R at Borders Railway stations Sheriffhall bus-based P&R with plentiful capacity	A7, A772 and A6106 linking eastern Midlothian and A720 / Edinburgh Congested corridor along A7, in Dalkeith and on approaches to Sheriffhall. Incidents on A720 cause blocking back into the corridor.	
<b>Midlothian west</b>	Lothian Buses provide many connections to Edinburgh south and city centre and a Penicuik – Musselburgh service Borders Buses traverse corridor from Galashiels via Peebles	None	Bus based P&R at Straiton with plentiful capacity	A701 A703 A702 Congestion typically seen on A701 through Bilston and at A703 / A702 junction. Incidents on A720 cause blocking back into the corridor.	

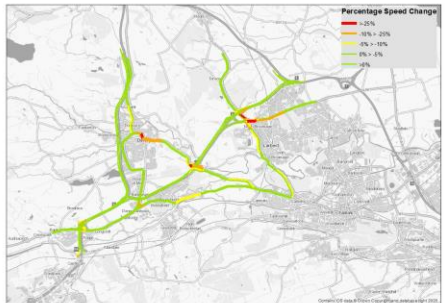
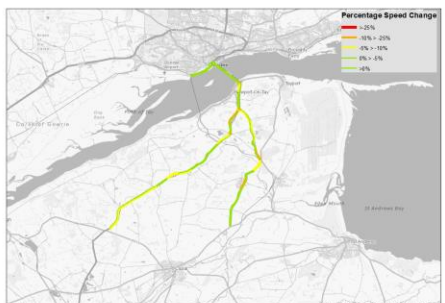
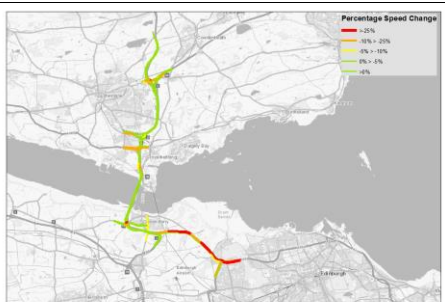
<sup>1</sup> Based on 'INRIX' traffic data, 2019 AM Peak, green areas showing free flow travel speed and shades to red showing slower speeds due to traffic congestion

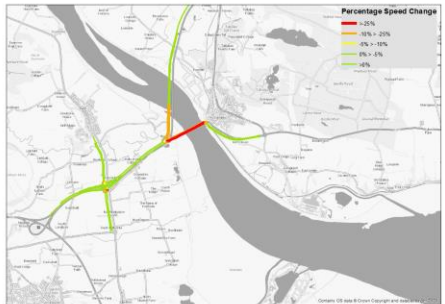
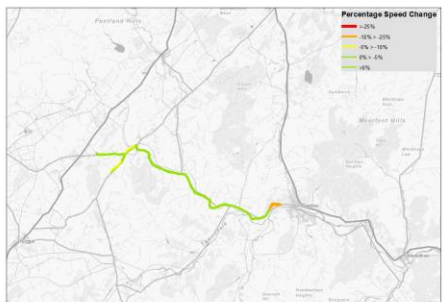
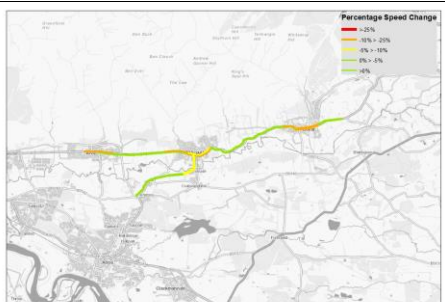
Corridor	Regional Bus Connections	Rail	Park and Ride	Key Trunk and Regional Roads	Typical Congestion Locations on Trunk and Regional network <sup>1</sup>
<b>Borders central</b>	Borders Buses connect A7 and A68 communities to Midlothian and Edinburgh Services from Carlisle / Hawick / Galashiels and Jedburgh and Kelso	Borders Railway	Tweedbank P&R, modest provision at Stow	A7 A68 A6091 Routes are typically congestion free	
<b>Borders west</b>	Borders Buses traverse corridor from Galashiels via Peebles	None	Nearest for users of the corridor is bus-based P&R at Straiton with plentiful capacity	A703 A72 Routes are typically congestion free	
<b>Cross Edinburgh</b>	None on A720 and few orbital buses inside City Bypass Virtually all cross-Edinburgh movements require interchange in Edinburgh	All via Edinburgh city centre - very few through Edinburgh connections	None other than national rail	A720 City Bypass. Previous Edinburgh ring road used as diversion The corridor is typically heavily congested at peak and shoulder peak periods. Sheriffhall, M8, Gogar and other junctions (on-slips) are often the focus	



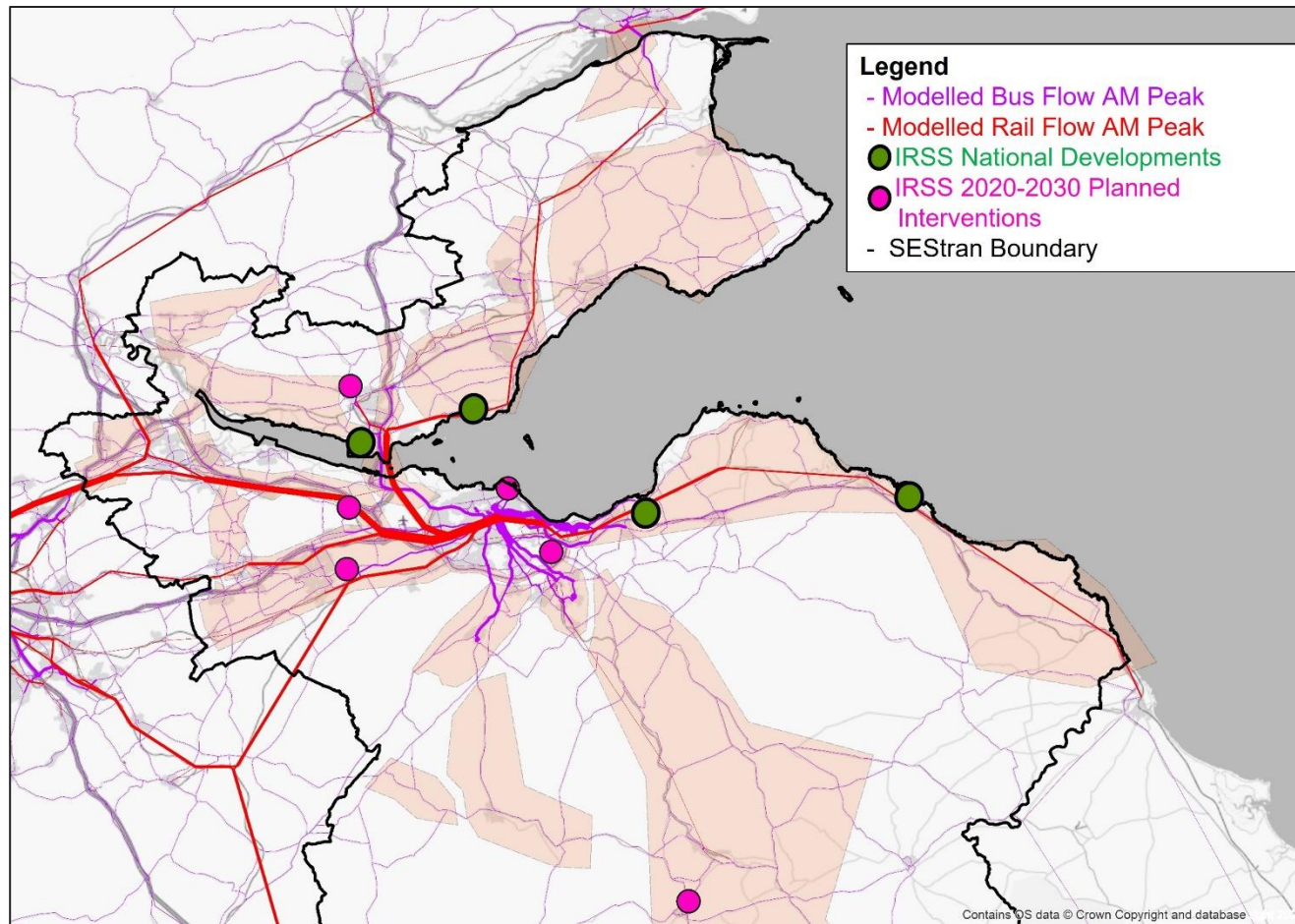
Corridor	Regional Bus Connections	Rail	Park and Ride	Key Trunk and Regional Roads	Typical Congestion Locations on Trunk and Regional network <sup>1</sup>
<b>West Lothian north-south</b>	None	None	None	A801 A706 A800 Avon Gorge is a pinch point for larger vehicles. Congestion at A801 / A706 roundabout	
<b>Fife west</b>	A985-based service between Glasgow and Falkirk, and Dundee, St Andrews, Dunfermline, Kirkcaldy, Glenrothes and Dunfermline and Alloa	None	None	A985 Dunfermline to Kincardine, A907, A91 Congestion identified at A977 / A907 roundabout	
<b>Fife central</b>	Many connections to main towns in Clackmannanshire, Falkirk, Edinburgh, Glasgow, Dundee	All cross forth services - Fife Circle, ScotRail and UK	All station car parks but limited capacity Main volume parking is at Kirkcaldy and Markinch (with plentiful capacity at the latter)	A92 M90 to Glenrothes, A921 coast road Congestion identified at A92 / A921 Redhouse Roundabout and A92 Queensway roundabout in Glenrothes	

Corridor	Regional Bus Connections	Rail	Park and Ride	Key Trunk and Regional Roads	Typical Congestion Locations on Trunk and Regional network <sup>1</sup>
<b>Fife east</b>	St Andrews to Edinburgh (via East Neuk), Dundee, Glasgow. Leven to Edinburgh connections	Stations north of Markinch provide local and national connections <i>Levenmouth link</i>	Leuchars station	A915 A91 A917 Routes are typically congestion free although some congestion evident in Cupar	
<b>West Lothian south</b>	Lothian County and FirstBus services to Edinburgh west and city centre - focussed on A89 / A899 and A71 Services to Glasgow	Airdrie-Bathgate line Shotts Line Carstairs Line	Many rail options to Edinburgh, Glasgow, Stirling but capacity often limited. Tram / bus at Ingliston with plentiful capacity Bus at Hermiston with plentiful capacity	M8 A71 A70 A89 Widespread congestion across the corridor – A71, A8, M8, A89 all affected	
<b>West Lothian north</b>	Falkirk to Edinburgh Stirling to Edinburgh, via Linlithgow Linlithgow Bo'ness	Edinburgh-Stirling line Edinburgh-Falkirk High – Glasgow Queen Street	Many rail options to Edinburgh, Glasgow, Stirling but capacity often limited. Tram / bus at Ingliston with plentiful capacity	M9, A904 Limited congestion around the M9 until approaching Newbridge roundabout	

Corridor	Regional Bus Connections	Rail	Park and Ride	Key Trunk and Regional Roads	Typical Congestion Locations on Trunk and Regional network <sup>1</sup>
<b>Falkirk central</b>	Falkirk to Glasgow services Falkirk – Dunfermline Glasgow to Clackmannanshire, Fife and Dundee	Edinburgh-Falkirk High – Glasgow Queen Street, Alloa to Glasgow services	Many rail options to Edinburgh, Glasgow, Stirling but capacity often limited	M876, M80 Main routes are typically congestion free but issues around M876 Junctions 2 and 3	
<b>Tay Bridges</b>	Scottish Citylink Dundee / Edinburgh Regional Fife to Dundee services	Edinburgh to Dundee and Aberdeen LNER / CrossCountry	None, Leuchars closest option	A92 Tay Bridge Routes are typically congestion free	
<b>Queensferry</b>	National services to Perth, Edinburgh, West Lothian, Glasgow, Edinburgh Airport Regional Fife to Edinburgh (west and city centre) connections	Cross forth services - Fife Circle, ScotRail Aberdeen and Dundee services and LNER / CrossCountry services	Bus - Ferrytoll and Halbeath with plentiful capacity Rail - Inverkeithing and a range of other smaller station car parks	A90 & M90 Barnton / M9 to Kelty Significant congestion on the A90 approaches to Edinburgh. Congestion on approach routes to M90 in Fife as roads converge to cross the Forth.	

Corridor	Regional Bus Connections	Rail	Park and Ride	Key Trunk and Regional Roads	Typical Congestion Locations on Trunk and Regional network <sup>1</sup>
<b>Kincardine</b>	A key link for service between Glasgow and Falkirk, and Dundee, St Andrews, Dunfermline, Kirkcaldy, Glenrothes and Alloa	None – Alloa via Stirling only	None	Kincardine and Clackmannanshire bridges, M876 connection to M9 Congestion on Kincardine Bridge and at Kincardine Bridge / Clackmannanshire Bridge roundabout	
<b>Borders – Lanarkshire</b>	None	None	None - but connects to Glasgow rail options in South Lanarkshire (e.g., Lanark, Carluke)	A72 Routes are typically congestion free	
<b>Clacks north east (external)</b>	FirstBus provide connections to Stirling and Kinross	None	None	A91 – links Clackmannanshire and west Fife to M90 at Kinross and Stirling Routes are typically congestion free but evidence of congestion through the biggest settlements on the A91.	

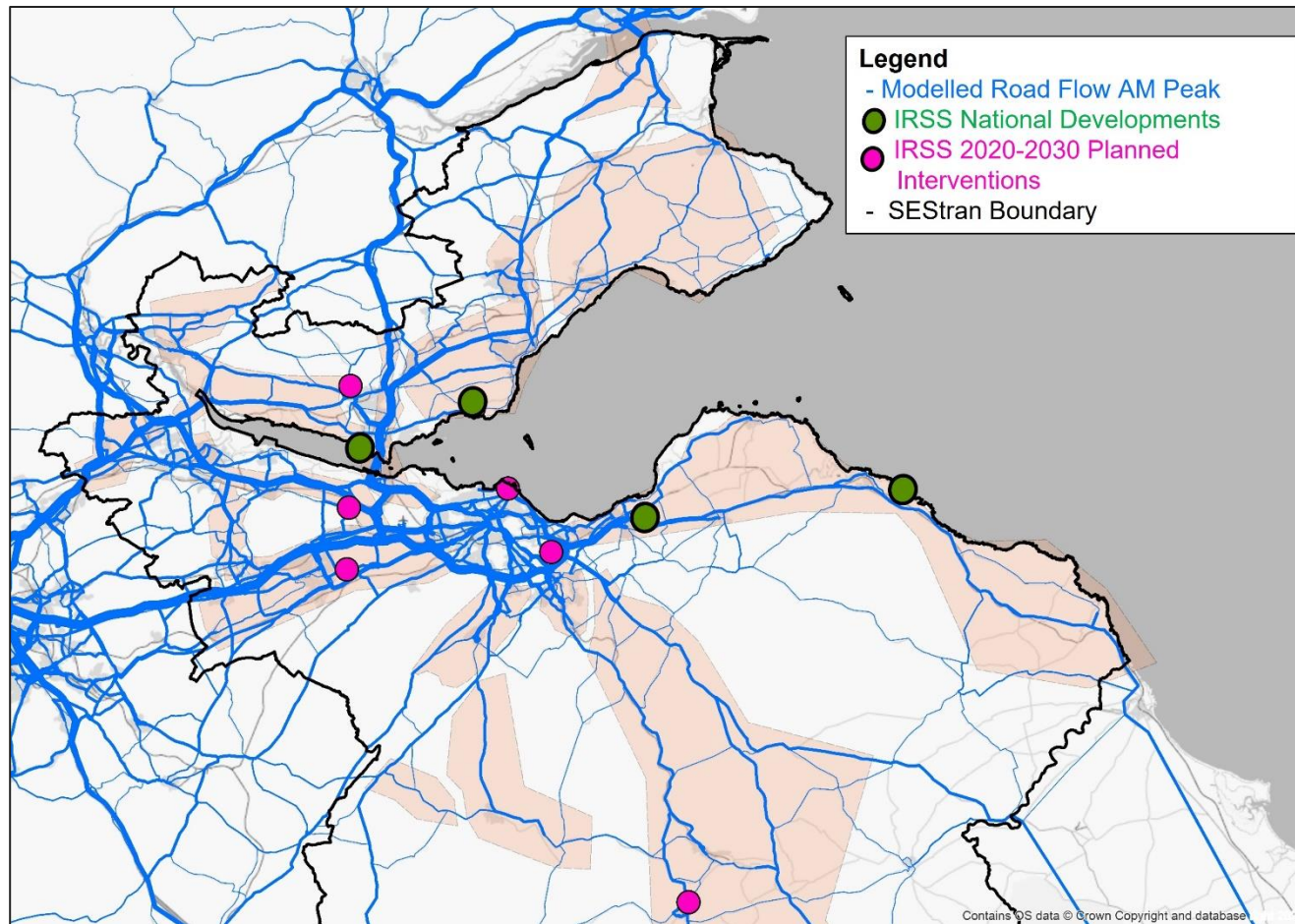




**Figure 17.13 Regional Bus and Rail Demand**

*Spatial Strategy (IRSS) for Edinburgh and South East Scotland City Region.*

Finally, Scotland's national transport model<sup>1</sup> has been used to provide a benchmark of regional flows (for all travel purposes) along these corridors at the network level, for firstly bus and train as shown in Figure 17.13, and secondly car / commercial vehicle shown in Figure 17.14, using varying bandwidths to represent travel volumes<sup>1</sup>. Within this model, it is possible to assign only travel *between* local authorities and the graphics here and overleaf show the resulting pattern of flows for the modelled base year (2018). Also included for context are the seven '2020-2030 Planned Interventions -Strategic Sites' and the 'National Developments' as indicated in the interim *Regional*



**Figure 17.14 Regional Road Network Demand**

congestion illustrated in the previous section is caused by the convergence of routes into pinch-points including the City Bypass, the Queensferry corridor and the M8 approaches to Edinburgh. The north-south West Lothian corridor movement can be clearly seen here but there is very little in the way of equivalent bus travel in this corridor. The gradual build-up of traffic on the East Coast and Borders corridors can also be seen. These graphics provide an indication of where regional car-based volumes are highest and also where regional bus travel is lowest – information which can be used in the subsequent development of initiatives aimed at reducing car km and improving regional public transport connectivity.

The current importance of rail compared to bus for regional travel is well demonstrated here. For bus, there is a concentration of regional travel in the Midlothian corridors and the connections from Musselburgh in particular. The absence of regional orbital bus travel in Edinburgh is clearly illustrated. Many other parts of the region see very little in the way of regional bus travel in particular, confirming the earlier census data-based analysis.

The relative importance of the different elements of the region's road network is also clearly seen here. The motorway network provides a focus for regional travel, and it can be seen how the

### 17.3 REGIONAL SPATIAL STRATEGY - PRINCIPLES

The RTS does not set out, and commit to, specific transport projects but instead sets a direction of travel and a policy environment in which individual projects should be progressed. In terms of *where* interventions are required, there are perhaps two main themes to the spatial strategy:

- **Theme 1** - Reducing car-km and car mode share which has been the focus of the above sections
- **Theme 2** - Better connecting communities affected by deprivation to a wider range of opportunities which is discussed in Chapter 8

#### Theme 1 - Reducing car-km and car mode share

- Aside from travel into central Edinburgh, car is very much the dominant mode across the SEStran area. A 'whole-region' approach is therefore required if the level of car km and associated emissions and energy usage is to be reduced – targets are unlikely to be met by incremental infrastructure improvements only.
- Edinburgh is home to around 45% of the region's jobs, so 55% of commuting by residents of the area does not involve Edinburgh – commuting between non-Edinburgh SEStran local authorities has a 90%+ car mode share. Reducing car-based commuting to Edinburgh's suburbs and into the region's other major settlements and employment centres is a key priority.
- Car-based commuting from outside Edinburgh into Edinburgh's suburbs in particular contributes heavily to congestion and emissions in the city. Other than on the corridor of approach, public transport connectivity around Edinburgh's suburbs is poor – more direct connections and improved interchange is necessary to allow easier movement between corridors and avoid the need to travel through the city centre if using public transport.
- Direct cross-Edinburgh and round Edinburgh connectivity by public transport is very limited leading to high car use for trips around Edinburgh. Cross-Edinburgh and orbital connectivity improvements are required to narrow the gap between car and public transport for these trips.
- Congestion continues to be a problem on radial corridors approaching Edinburgh. Bus priority and park and ride opportunities should be significantly extended into the Lothians providing car users with an earlier and easier opportunity to switch to bus, tram or train.
- Regional public transport across the area remains Edinburgh-focussed and use of bus for travel between local authorities is limited. Initiatives to improve regional bus connectivity should be targeted where car-based travel volumes are high. Park and Ride, and associated town centre measures should be used to encourage a switch to more sustainable modes early in the journey.
- Regional public transport connectivity must be a focus for planning of the 'Strategic Sites' and the 'National Developments' in the IRSS (and NPF4 when it emerges).
- There is greatest scope to encourage mode shift from car where public transport is already more competitive and relatively small improvements in public transport (or disincentives to car use) can make the change happen. Regional projects should be developed and assessed in this context.



- There is greatest scope to reduce car-km in corridors in an absolute sense where the volume of car travel is high and these have been identified here. Regional projects which aim to reduce car-km should be developed and assessed in this context, i.e., to maximise car-km reductions per £ spent.

## **Theme 2 - Better connecting communities affected by deprivation to a wider range of opportunities**

- The RTS has identified locations where poor public transport connectivity may be contributing to deprivation. These locations have been identified separately for more rural and more urban areas. Where tackling inequalities is the objective, these areas should be the primary geographical focus of improving connectivity and hence life opportunities.

These connectivity improvements should be focussed on improving employment, training and educational opportunities, as well as making it easier for people to access key services including health facilities and affordable retail opportunities.



# Monitoring

**SEStran Regional Transport Strategy**

Draft for Consultation

## 18.0 MONITORING

### 18.1 OVERVIEW

It will be crucial to monitor the RTS to understand how successful it is being in delivering the Strategy Objectives. As such, a set of Key Performance Indicators (KPIs) linked to the Strategy Objectives have been defined and set out below. The KPIs closely reflect those developed for the purposes of monitoring the National Transport Strategy 2. These will be used to measure the change in the performance of the transport system of the region against an established baseline prior to the implementation of the RTS.

Monitoring reports will be produced on a biennial basis setting out the key regional transport and behavioural trends against the KPIs. In addition, these monitoring reports will also contain an overview of progress towards the defined actions outlined in relation to each of the Regional Mobility Themes.

### 18.2 KEY PERFORMANCE INDICATORS

#### Strategy Objective 1: Transitioning to a sustainable, post-carbon transport system

##### KPIs for Monitoring and Evaluation

- Transport emissions in the SEStran region (Department for Business, Energy & Industrial Strategy)
- Number of Air Quality Management Areas (Scottish Transport Statistics)
- Proportion of road vehicle fleet which is ULEVs (DfT Vehicle Licensing Statistics)

#### Strategy Objective 2: Facilitating healthier travel options

##### KPIs for Monitoring and Evaluation

- Number of bikes available for private use by households (Scottish Household Survey Travel Diary)
- Adults (16+) - frequency of walking in previous seven days (Scottish Household Survey Travel Diary)
- Main mode of travel – walking (Scottish Household Survey Travel Diary)
- Main mode of travel – bicycle (Scottish Household Survey Travel Diary)

**Strategy Objective 3:** Widening public transport connectivity and access across the regionKPIs for Monitoring and Evaluation

- Use of local bus services in previous month (Scottish Household Survey Travel Diary)
- Use of local train services in previous month (Scottish Household Survey Travel Diary)
- Main mode of travel – bus (Scottish Household Survey Travel Diary)
- Main mode of travel – rail (Scottish Household Survey Travel Diary)
- Satisfaction with public transport (Scottish Household Survey Travel Diary / Transport Focus surveys)
- Percentage of average weekly household expenditure on transport (Scottish Transport Statistics)
- Connectivity and deprivation analysis for key healthcare, education and employment destinations (CDAT tool)

**Strategy Objective 4:** Supporting safe, sustainable and efficient movement of people and freight across the regionKPIs for Monitoring and Evaluation

- Public transport labour market catchments of largest employment sites (TRACC)
- Reported road collisions (Scottish Transport Statistics)
- Perceptions of safety and security on bus services (Scottish Household Survey Travel Diary)
- Perceptions of safety and security on train services (Scottish Household Survey Travel Diary)
- Road journey times by time period (INRIX)
- Ratio of peak journey time to inter peak journey time (INRIX)
- Typical number of interchanges between major settlements (TRACC)
- Congestion delays experienced by drivers and car occupants (Scottish Household Survey Travel Diary)
- Average freight lifted by UK HGVs in the SEStran region (Scottish Transport Statistics)
- Foreign and domestic freight at Forth Ports (Scottish Transport Statistics)
- Breakdown of Forth Ports freight by commodity (Scottish Transport Statistics)
- Tonnes of air freight lifted at Edinburgh Airport (Scottish Transport Statistics)



# References

**SEStran Regional Transport Strategy**

Draft for Consultation

## 19.0 REFERENCES

- i [Population Projections for Scottish Areas \(2018-based\) | National Records of Scotland \(nrscotland.gov.uk\)](https://www.nrscotland.gov.uk/population-projections)
- ii [statistics.gov.scot : Average Household Size](https://statistics.gov.scot/collections/average-household-size)
- iii <https://www.gov.scot/collections/labour-market-statistics/>
- iv Adapted from Transport Catapult: Ready for Innovation – The Opportunity for Innovation in Rural Transport
- v Local Authority territorial CO2 emissions estimates (kt CO2), Department for Business, Energy & Industrial Strategy
- vi <https://www.smm.co.uk/vehicle-data/car-registrations/>



Development and consultation stages of RTS

Stage of RTS Development	TYPE	DATE
<b>Main Issues Report</b>		
Consultation on main issues for area with Local Authority Partners	Face to face workshop	February 2019
Consultation on main issues for area with key stakeholders across public transport, freight, local authority, NHS	Face to face workshop	May 2019
<b>Case for Change</b>		
Stakeholder Engagement (Stakeholder Engagement: Over 130 stakeholders were invited to participate in consultation either through workshops, individual meetings or by responding to briefing notes. This included multi discipline workshops attended by senior Local Authority officers.	Online face to face	January through to May 2021
Online Public Consultation	Non statutory online	8 March 2021 to 19 April 2021.
Chief Officers of Transportation		26 May 2021 25 August 2021
Equalities and Access to Healthcare Forum		31 March 2021 30 September 2021
Integrated Mobility Forum		27 April 2021 7 October 2021
Freight Forum		19 May 2021
<b>Statutory Assessment</b>		
Strategic Environmental Assessment scoping with Statutory SEA Authorities	Statutory	22 February to 26 March
Case for Change Survey (for SEA requirements)	Statutory online	29 June 2021 to 26 July 2021
Equalities Impact Assessment: SEStran RTS Equalities Duties Assessment Framing Note		March 2021
<b>Initial Options Appraisal</b>		
Regional Transport Working Group Meeting 1	Online	9 June 2021
City Region Deal Directors Group discussion and presentation	Online	14 June 2021
Regional Transport Working Group Meeting 2	Online	28 July 2021
<b>Draft RTS</b>		
Online consultation via virtual engagement room	Online	1 November 2021 to 4 February 2022
Engagement sessions to be determined	Online	tbc

October 2021



South East of Scotland  
Transport Partnership



# REGIONAL TRANSPORT STRATEGY

**SEA Environmental Report**

October 2021

In partnership with:  **Stantec**



## Document Control Sheet

**Project Name:** SEStran Regional Transport Strategy

**Project Ref:** 50429

**Report Title:** Draft RTS SEA Environmental Report

**Doc Ref:** 50429/SEA/003i1

**Date:** October 2021

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<b>For and on behalf of Stantec UK Limited</b>				

Revision	Date	Description	Prepared	Reviewed	Approved

This report has been prepared by Stantec UK Limited ('Stantec') on behalf of its client to whom this report is addressed ('Client') in connection with the project described in this report and takes into account the Client's particular instructions and requirements. This report was prepared in accordance with the professional services appointment under which Stantec was appointed by its Client. This report is not intended for and should not be relied on by any third party (i.e. parties other than the Client). Stantec accepts no duty or responsibility (including in negligence) to any party other than the Client and disclaims all liability of any nature whatsoever to any such party in respect of this report.

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## Appendices

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Appendix C	SEA Framework
Appendix D	SEA of Transport Planning Objectives and RTS Objectives
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Appendix F	RTS Transport Corridors – Environmental Commentaries

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# 1 Introduction

## 1.1 Background

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

## 1.2 How to Comment on this Environmental Report

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

## 1.3 Statutory Requirements

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

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

## 1.4 Report Structure

### 1.4.1 This report is structured as follows:

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

## 2 Overview of SEStran Regional Transport Strategy

### 2.1 Introduction

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

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

#### Overview

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

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

## 2.3 RTS Development Process

2.3.1 A collaborative approach has been adopted to prepare the Draft RTS, with a strong emphasis on stakeholder engagement from the outset. The preparation of the emerging RTS has also been closely informed by this SEA and the application of relevant 'equalities duties' as detailed within a separate **SEStran RTS Equalities Duties Report**.

2.3.2 In accordance with established Scottish Transport Appraisal Guidance (STAG principles), a three stage process has been adopted to prepare the new Draft RTS:

- **Initial Appraisal: Case for Change:** Development of SMART and evidenced-based Transport Planning Objectives (TPOs) and RTS strategy objectives to provide the robust basis necessary to underpin the development and assessment of sound policies and option for potential inclusion within the emerging RTS. Building on the SEStran RTS Main Issues Report (2020), the SEStran RTS Case for Change Report was consulted on in July 2021.
- **Preliminary Options Appraisal:** STAG Appraisal (Summer 2021): detailed appraisal of identified options (policies and proposals) then took place using integrated SEA and STAG criteria (Environment, Safety, Economy, Integration and Accessibility) to establish and evaluate reasonable alternative options for potential inclusion within the Draft RTS to achieve the proposed RTS objectives. This is documented within the SEStran RTS Preliminary Options Appraisal Report (July 2021) which has been published as a supporting document to the Draft RTS.
- **SEStran RTS Preparation:** The outcome of the STAG Appraisal was the identification of a recommended strategic framework (vision and objectives) and corresponding implementation options (policies, actions and options) for inclusion in the Draft RTS.

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

- **Submission of Finalised RTS (March 2022):** Following modifications as necessary to respond to representations submitted regarding the Draft RTS, SEStran will submit the Finalised RTS to the Scottish Ministers for their approval in accordance with the Transport (Scotland) Act 2005; and,
- **Approval of Finalised RTS (Spring 2022):** Subject to ministerial consideration and approval (with potential modifications), SEStran will proceed to adopt the finalised RTS. At this point, the new RTS will supersede the existing SEStran RTS Refresh 2015 – 2025.

## 3 Environmental and Policy Context

### 3.1 Introduction

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

### 3.2 Overview of Baseline Characteristics

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

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

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



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

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

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

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

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

### 3.4 Summary

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

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

## **4 The SEA Process**

### **4.1 Introduction**

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

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

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

### **4.3 Addressing Statutory Requirements**

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

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

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

## 4.4 Approach to SEA

### SEA Project Team

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

### Previous SEA Reporting

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

### SEA Scoping

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

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

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

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

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

#### **Process**

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

#### **Reporting**

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



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

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

Table 4.3: SEA Scoring System to Establish Likely Significant Effects

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

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

## 4.6 Consideration of Reasonable Alternatives

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

### Policies and Actions

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

### Options

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

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

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

### 5.1 Introduction

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

### 5.2 SEA Review of Emerging Draft RTS

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

Table 5.1: Pre-Assessment Phase Recommendations

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

## 5.3 Summary

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

## 6 Key Findings – SEA of Draft RTS

### 6.1 Overview

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

### 6.2 SEA of Strategic Framework

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

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



## 6.3 SEA of Policies and Actions

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

### SEA Objective 1 – Health

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

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

## SEA Objective 2 – Accessibility

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

6.3.6 Actions and policies of note are:

- *Shaping Development and Place*

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

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

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

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

### SEA Objective 3 – Material Assets

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



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

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

■ *Delivering Safe Active Travel*

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

■ *Enhancing Access to Public Transport*

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

■ *Enhancing and Extending the Bus Service*

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

■ *Enhancing and Extending the Train Service*

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

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

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

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

#### SEA Objective 4 – Productivity, Competitiveness and Innovation

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

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

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



■ *Decarbonising Transport*

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

■ *Facilitating Efficient Freight Movement and Passenger Travel*

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

■ *Working Towards Zero Road Deaths and Serious Injuries*

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

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

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

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

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

6.3.17 Actions and policies of note are:

■ *Shaping Development and Place*

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

■ *Delivering Safe Active Travel*

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

■ *Enhancing Access to Public Transport*

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

■ *Enhancing and Extending the Bus Service*

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

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

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

## SEA Objective 6 – Climate Change Mitigation

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

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

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

■ *Delivering Safe Active Travel*

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

■ *Enhancing Access to Public Transport*

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

■ *Enhancing and Extending the Bus Service*

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

■ *Enhancing and Extending the Train Service*



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

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

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

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

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

■ *Reallocating Roadspace on the Regional and Local Network*

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

■ *Improving Integration Between Modes*

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

■ *Decarbonising Transport*

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

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

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

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

## SEA Objective 9 – Cultural Heritage

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



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

6.3.33 Policies and actions of note are:

■ *Delivering Safe Active Travel*

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

■ *Enhancing Access to Public Transport*

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

■ *Enhancing and Extending the Bus Service*

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

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

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

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

## SEA Objective 10 – Landscape

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

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

6.3.36 Policies and actions of note are:

### ■ *Shaping Development and Place*

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

### ■ *Delivering Safe Active Travel*

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

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

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



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

## 6.4 SEA of RTS Transport Corridors

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

## 7 Conclusion

### 7.1 Summary of Environmental Report

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

7.1.2 This ER has:

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

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

### 7.2 How to Comment on this Environmental Report

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

### 7.3 Next Stages of RTS Preparation and SEA

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

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

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

## 7.4 Monitoring

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

## Appendix A Environmental Baseline Review

### A.1 Introduction

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

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

A.1.2 This evidence is then used to:

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

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

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

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

### A.2 Overview of Designated Sites

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

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

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

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



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

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

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

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

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

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



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

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

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

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

## Air and Climate

### Air and Noise

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

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

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

### **Climatic Factors**

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

### **Climate Change Impacts**

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

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

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

## Physical Environment

### Biodiversity, Flora & Fauna

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

### Soil

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

### Water

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

### Landscape

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

### Cultural Heritage

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

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

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

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

## Socio-economics

### Population

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

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

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

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

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

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

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

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

### **Human Health**

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

### **Material Assets**

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

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

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

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

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

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

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



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

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

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

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

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

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

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

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

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

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



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

## Appendix B Review of Plans and Programmes

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

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

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

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

Table B.1: Policy Documents of Relevance

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

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

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

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

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

## B.3 Key Policy Considerations

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

### International

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

### National

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



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

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

## Regional

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

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

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

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

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

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

### Local

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

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

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

## Appendix C SEA Framework

### C.1 Response to SEA Scoping Comments

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

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

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

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



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

C.1.3 XX

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

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

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

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

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

Table C.3: SEStran RTS SEA Framework

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

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

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



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

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

### D.1 Overview

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

### D.2 SEA of Transport Planning Objectives

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

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

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

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

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

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

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

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

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

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

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



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

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

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

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

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

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

## Appendix E SEA of RTS Policies and Actions

### E.1 Overview

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

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

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

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



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

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

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

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

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

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

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

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

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



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

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

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

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

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

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

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

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

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



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

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

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

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

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

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

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

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



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

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

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

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

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

Appendix F     RTS Transport Corridors – Environmental Commentaries

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

Table F.1: Queensferry Corridor Environmental Sensitivities

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

Fife Central

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

Table F.2: Fife Central Corridor Environmental Sensitivities

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

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

#### East Fife

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



Table F.3: East Fife Corridor Environmental Sensitivities

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

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

## A92 Tay Bridge

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

Table F.4: A92 Tay Bridge Corridor Environmental Sensitivities

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

## A91

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

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

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

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

Table F.5: A91 Corridor Environmental Sensitivities

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

## West Fife and Clackmannanshire

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

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

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

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

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

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

	Valleyfield Garden and Designed Landscape	
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**Kincardine**

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

Table F.7: Kincardine Corridor Environmental Sensitivities

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

**M80**

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

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

Table F.8: M80 Corridor Environmental Sensitivities

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

M9

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

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

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

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

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

Table F.9: M9 Corridor Environmental Sensitivities

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



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

## A801

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

Table F.10: A801 Corridor Environmental Sensitivities

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

## M8

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

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

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

Table F.11: M8 Corridor Environmental Sensitivities

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

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

Edinburgh Orbital

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

Table F.12: Edinburgh Orbital Corridor Environmental Sensitivities

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

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

## A1

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

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

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

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

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

Table F.13: A1 Corridor Environmental Sensitivities

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

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

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

#### A701

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

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

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



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

Table F.14: A701 Corridor Environmental Sensitivities

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

#### A703

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

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

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

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

Table F.15: A703 Corridor Environmental Sensitivities

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

## A72

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

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

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

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

Table F.16: A72 Corridor Environmental Sensitivities

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

A7

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

Table F.17: A7 Corridor Environmental Sensitivities

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

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

#### A7-68

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

Table F.18: A7 – A68 Corridor Environmental Sensitivities

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

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

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



South East of Scotland  
Transport Partnership



# REGIONAL TRANSPORT STRATEGY

## Equalities Duties Summary Report

October 2021

In partnership with:  **Stantec**



## Document Control Sheet

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# 1 Introduction

## 1.1 Background

- 1.1.1 Stantec UK Ltd has been commissioned by the South East of Scotland ('SEStran') Regional Transport Partnership to support the preparation of a new RTS for the South East of Scotland. Once finalised and approved, the RTS will set out a new long-term vision for transport across the region together with a clear framework for how transport and mobility will be provided, developed, and improved in the region to meet the aspirations for a sustainable and economically active growth area over the next 10 years and beyond.
- 1.1.2 This Equalities Duties Summary Report has been prepared to accompany the Draft SEStran Regional Transport Strategy ('the Draft RTS') for consultation. The Draft RTS is the product of an iterative process, building on a Case for Change Report (June 2021) and a Main Issues Report (June 2020). At each stage, SEStran sought input and views from stakeholders on the type and level of change needed on the transport system in south east Scotland.
- 1.1.3 This report provides a summary of how relevant 'equalities duties' (defined below) have been considered in the preparation of the Draft SEStran RTS ('the Draft RTS'). The report is accompanied by individual 'template' reports which detail how each applicable duty has been applied.

## 1.2 The EqIA Process

### Overview

- 1.2.1 Equalities issues are becoming increasingly prevalent in transport planning. Policy needs to recognise the different ways people interface with and experience the transport network. This trend towards a greater focus on inclusion is best articulated by the Scottish Government's National Transport Strategy 2 (2020), which targets reducing inequalities as one of the four central priorities which now underpin national transport policy.
- 1.2.2 An Equalities Impact Assessment (EqIA) process has therefore been undertaken to apply relevant equalities duties throughout and identify likely equalities impacts arising from the draft RTS. This EqIA was undertaken in tandem with the development of the draft RTS to allow assessment findings to influence the content of the RTS on an iterative basis.
- 1.2.3 Relevant equalities duties were used as tools to inform and embed key equalities issues within the draft RTS from the outset. Acting together with the SEA being carried out for the draft RTS, this integrated approach allows the environmental, social, and economic implications of all strategy components to be tested at the earliest opportunity and for any uncertainties or issues identified during impact assessment processes to be addressed during RTS preparation.

### Relevant Equalities Duties

- 1.2.4 The only equalities duty applicable to SEStran on a statutory basis is the public sector equality duty. This EqIA will however also address the Fairer Scotland and Child Rights and Wellbeing duties insofar as relevant to the RTS as good practice, as these relate to issues affecting the transport system and apply on a statutory basis to SEStran's constituent local authorities and NHS health boards.
- 1.2.5 In March 2021 an Equalities Duties Assessment Framing Note was prepared to identify an evidence-based suite of key equalities issues which should be considered in the draft RTS and taken account of in the EqIA process. A framework was also set out explain how each of the applicable equalities duties would be applied and reported against throughout the development of the RTS in a way which helps to address the identified key equalities issues.



- 1.2.6 In June 2021 an Equalities Impact Assessment of the RTS Case for Change was prepared to provide a proportionate assessment of the coverage of key equalities issues within the emerging substantive components and thus their likely equalities impacts.

### 1.3 Purpose and Objectives

- 1.3.1 This report has been prepared by Stantec to assess the extent to which the draft RTS addresses relevant equalities considerations. This informs the formal reporting which discharges relevant statutory equalities duties in the draft RTS.
- 1.3.2 The objectives of this report are to:
- i. Assess the coverage of key equalities issues, as identified through the undertaking of relevant equalities duties, in the 'key issues' identified within the draft RTS. The key equalities issues include those previously consulted upon through the **RTS EqIA Assessment Framing Note** (Stantec, 2021);
  - ii. Assess the extent to which the proposed RTS strategy objectives, regional mobility themes, policies and spatial strategy themes address identified key equalities issues. This includes testing the compatibility of each of these with the requirements of applicable equalities duty through applying an assessment framework of associated guide questions;
  - iii. Recommend any changes which should be incorporated into the draft RTS to improve the coverage of equalities issues and to enhance the ability of the document to tackle such issues; and, in doing so contribute to the on-going implementation of applicable equalities duties.

### 1.4 Report Structure

- 1.4.1 This report is structured as follows:
- **Section 2 – Approach to Equalities Duties:** provides an overview of how applicable statutory equalities duties have been addressed in the development of the draft RTS, including how the EqIA process has informed this;
  - **Section 3 – Assessment:** assesses the coverage of key equalities issues and defined 'Equalities Objectives' within the Transport Planning Objectives, RTS Objectives, Regional Mobility Themes, and the options generation matrix set out within the draft strategy; and,
  - **Section 4 – Next Steps:** outlines the next steps leading to the finalisation of the new RTS.
- 1.4.2 This report should be read in conjunction with the individual 'template' reports which detail how each applicable duty has been applied.

## 2 Approach to Equalities Duties

- 2.1.1 This section outlines the requirements of the three relevant equalities duties and details the revised set of criteria which will be used to iteratively assess all substantive components of the draft RTS. Taken together, these criteria comprise an Equalities Assessment Framework which will be used to test, refine, and assess all substantive components of the Draft RTS in relation to likely equalities impacts.

### 2.2 Equalities Assessment Framework

#### Public Sector Equality Duty

- 2.2.1 Section 149 of the Equality Act 2010 sets out a 'public sector equality duty'. This requires public authorities to have due regard to the need to eliminate discrimination, harassment, victimisation, advance equality of opportunity, and foster good relations between those with a protected characteristic and those without.
- 2.2.2 The following guide questions have been designed to allow for testing the implementation of the PSED. They provide a transparent framework to assess the extent to which draft RTS components promote equality of opportunity, including the removal of physical and cultural barriers to accessing and benefiting from the transport system.

#### Assessment Framework: Public Sector Equality Duty

*Will the draft RTS and its associated delivery mechanisms...*

- *Result in any likely different or disproportionate effects on persons with protected characteristics as specified in the Equality Act 2010?*
- *Promote social cohesion and integration between people with different protected characteristics?*
- *Advance the SEStran equalities outcomes?*
- *Provide equal access to employment opportunities, social and cultural activities, and public services and amenities for all?*
- *Promote public realm and design choices that provide a safe, secure, and accessible environment for all?*
- *Support the removal of barriers to travel and the improvement of equal access to travel?*

#### Fairer Scotland Duty

- 2.2.3 The Fairer Scotland Duty (FSD) places a legal responsibility on public bodies in Scotland to actively consider how they can reduce inequalities of outcome caused by socioeconomic disadvantage. This differs from the Public Sector Equality Duty which considers only reducing inequalities of opportunity.
- 2.2.4 However, the FSD identifies a need to consider both 'communities of place' and 'communities of interest' in terms of people who share an experience and are particularly impacted by socio-economic disadvantage (Scottish Government, 2018). Demographic groups who share one or more of the protected characteristics listed in Section 4 of the Equality Act 2010 can be considered 'communities of interest', meaning there is a direct link between the Fairer Scotland Duty and the Public Sector Equality Duty.
- 2.2.5 The following criteria have been applied to testing the performance of the Draft RTS in relation to implementing the FSD. This provides a transparent framework to assess the extent to which draft RTS components reduce inequalities of outcome resulting from low income, low wealth, and multiple deprivation.



#### **Assessment Framework: Fairer Scotland Duty**

*Will the draft RTS and its associated delivery mechanisms...*

- *Help to reduce levels of absolute and relative income poverty, inequality in the distribution of household wealth, and levels of multiple deprivation affecting communities?*
- *Reduce cost related barriers to accessing and use of all transport modes?*
- *Provide equal access to employment opportunities, social and cultural activities, and public services and amenities for all?*
- *Improve accessibility to open spaces, and sports facilities for physical recreation, in particular for those facing socio-economic disadvantage?*
- *Promote good local access to existing facilities, services, and employment, in particular for those facing socio-economic disadvantage?*

### **Child Rights and Wellbeing Duties**

- 2.2.6 The Children and Young People (Scotland) Act 2014 requires public bodies to consider whether existing and emerging legislation, policy, and guidance have an impact on children and young people and to assess what further action is required to ensure compliance with the United Nations Convention on the Rights of the Child (UNCRC).
- 2.2.7 The following criteria have been applied to test and confirm the implementation of relevant Scottish Ministers' duties under the Children and Young People (Scotland) Act 2014 and the UNCRC in the Draft RTS. They have been formulated with reference to the approach recommended within the Scottish Government's Child Rights and Wellbeing Impact Assessment Guidance (Scottish Government, 2019).

#### **Assessment Framework: Child Rights and Wellbeing Duties**

- *How does the intervention relate to, promote, or inhibit the provisions of the UNCRC, other relevant international treaties and standards, or domestic law?*
- *Have children and young people been consulted on the intervention?*
- *Will the rights of one group of children in particular be affected, and to what extent?*
- *Are there competing interests between the groups of children, or between children and other groups, who would be affected by the intervention?*
- *Will the intervention protect and enhance access to high quality community facilities, public services and key amenities for children and young people?*
- *Will the intervention improve access using active travel and public transport to educational, social, and economic opportunities for children and young people?*
- *Which UNCRC Articles are relevant to the RTS?*
- *How will the RTS support or otherwise affect the implementation of relevant UNCRC Articles?*

## **2.3 How has this EqlA informed the RTS?**

- 2.3.1 In June 2021, a proportionate EqlA was carried out to assess the Case for Change. This focused on assessing the coverage of identified key equalities issues within all substantive elements of the Case for Change and the extent to which proposed RTS Objectives address these issues and are compatible with applicable equalities duties. The findings of the assessment are documented in the *Case for Change Equalities Duties Report* (Stantec, 2021).
- 2.3.2 Preparing equalities duties reporting and the Case for Change concurrently allowed emerging EqlA findings to inform the final Case for Change Report as published for consultation. In





summary, the following main recommendations were identified through the assessment and subsequently incorporated within the Case for Change:

- **Additional baseline reporting:** the Case for Change now includes additional and more explicit equalities baseline information and cross-references to the literature review in the *RTS EqIA Assessment Framing Note* (Stantec, 2021);
- **More explicit references to existing inequalities in transport problems:** whilst initial drafts of the Case for Change identified problems disproportionately experienced by demographic groups, these inequalities were not explicitly stated. The RTS now clearly emphasises the particular demographic groups and protected characteristics which experience relevant inequalities. This aids the identification of likely differential impacts from options designed to address the problems identified;
- **Inequalities identified in principle reporting frameworks:** following EqIA recommendations, key equalities issues are now explicitly described in the frameworks themselves. This makes likely differential impacts clear to readers and policy makers who may only be referring to these summary outputs; and,
- **Differential impacts identified in strategic objectives:** following EqIA recommendations, the four RTS Strategic objectives defined within the RTS now include specific reference to social groups, protected characteristics and young people.

2.3.3 Owing to the iterative nature of the RTS development process these changes the Case for Change have been carried forward and have informed the preparation of the Draft RTS. As a result, strategic framework elements of the Draft RTS (vision, RTS objectives and TPOs) provides a strong platform to address identified key equalities issues.

## 3 Assessment

### 3.1 Key Equalities Issues

#### Equalities Evidence Base

- 3.1.1 This section provides a high-level overview of key equalities issues experienced on the SEStran transport network, drawing largely on secondary research and policy. Little of the secondary research focuses exclusively on the SEStran area, instead highlighting trends at a Scotland and UK level.
- 3.1.2 The evidence base is grouped by theme and reports discrimination experienced by people relating to individual protected characteristics. Yet it is important to remember that many people who use the transport network experience an intersection of multiple inequalities. Social identities and characteristics overlap, which can create a compounding experience of discrimination. Age-based discrimination, for example, will be experienced differently by an individual who has high material wealth and by an individual in poverty.
- 3.1.3 Related to this, wider inequalities in society mean that discrimination or other equalities impacts based on one characteristic or social identity may be more likely experienced by a particular social group. For example, the equalities impact of a reduction in fares will have a disproportionate impact on people with low incomes. As many ethnic minority groups in Scotland have lower than average incomes, a change in fares could indirectly result in a disproportionate impact on such ethnic minority groups.

#### Travel Behaviour and Differential Requirements

- 3.1.4 Different people use the transport network at different times, more or less frequently, and for different purposes. Some groups of people, such as people from ethnic minority groups, disabled people, young carers, young mothers, and care leavers, are less mobile and more reliant on public transport (Scottish Government 2017).
- 3.1.5 This may result in differential impacts of changes to service provision for a particular time of day or route. Recent literature has suggested several trends relating to the protected characteristics which should be considered in the EqIA process:
- **Sex:** in general, women engage in travel linked to domestic commitments and are more likely to travel with young people and the elderly (Duchene 2011; Sánchez de Madariaga 2013). This influences travel behaviour and women tend to travel shorter distances within a more restricted geographical area, make more multi-stop trips, and rely more on public transport.
  - **Age:** elderly people also tend to travel relatively less often and for shorter distances than other adults (Fatima, et al. 2020). Without needing to commute, elderly people are more likely to travel between the hours of 9:00 and 15:00, with most trips for shopping (mostly undertaken by elderly women) (Su and Bell 2012).

According to Davis (2014), young people may have a more local focus than the population as a whole. This suggests that young people from deprived areas may look for jobs and training opportunities only in their local area and those easily accessible via public transport.

- **Disability:** an individual will generally use public transport less frequently if they experience a greater number of difficulties completing daily tasks (Yarde, et al. 2020). However, travel behaviour among this group varies widely as the behaviour of people with specific types of disabilities is often markedly different to each other (Clery, et al. 2017).



- **Race:** data at a Scotland-level is limited on different ethnic minority groups (Scottish Government 2015, 26) and any analysis of race-based discrimination must consider the differences in people's experiences and preferences both between and within different ethnic groups (Gentin 2011). Yet recent research suggests that black and ethnic minority individuals take relatively few active leisure trips such as walking or cycling (Colley and Irvine 2018). Potential explanations can include socio-economic disadvantage, fear of discrimination, and language barriers.

3.1.6 Policies around service provision and scheduling in the draft RTS are therefore likely to impact groups related to protected characteristics in different ways. This should be considered further in the emerging strategy and EqlA to ensure any likely differential impacts are identified.

#### **Income, Wealth, and Affordability**

3.1.7 The affordability and availability of transport to people facing socio-economic disadvantage through low incomes and wealth is a key equalities issue. This characteristic influences how people use and experience the transport network. Further, the transport network itself influences inequalities of opportunity and outcome related to income and wealth.

3.1.8 How a person interacts with the transport network is influenced by their income. Statistics published by Transport Scotland (2020, 185; 2019, 66) have repeatedly shown that people in lower income households are more likely to travel by bus, while people in higher income households are more likely to drive or take the train.

3.1.9 This is reinforced by research undertaken by the Glasgow Connectivity Commission (2019) found that, across Scotland, people in the lowest SIMD quintile make 58% fewer trips by car; 75% fewer trips by rail; 50% more trips by foot; and 206% more trips by bus and coach than those in the highest SIMD quintile.

3.1.10 There is also a spatial relationship between transport connectivity and material wealth. Areas of multiple deprivation tend to have poorer public transport links than areas with high material wealth, in terms of both service quality and the range of options available (Lucas, et al. 2011; Titheridge, et al. 2014)

3.1.11 'Transport poverty' where a lack of affordable travel options prohibits access to employment and essential services has been estimated to impact more than one million people across Scotland (Sustrans Scotland 2016).

3.1.12 This can lead to higher transport costs for people living in areas of high multiple deprivation, compounding inequalities of income. Low public transport accessibility can make car ownership a necessity for people to commute to work or access basic services – evidenced by a recent study of suburban areas around Glasgow (Curl, Clark and Kearns 2017).

3.1.13 'Forced car ownership' occurs in urban and suburban areas, but it is particularly a concern for low-income households in rural areas (Crisp, Gore and McCarthy 2017). This is compounded, and likely influenced by, higher fares for bus travel in rural areas across Scotland (Citizens Advice Bureau 2016).

3.1.14 Car-centric design itself has discriminatory impacts, with a relationship between less safe infrastructure and travel patterns and material wealth. Children in the 20% most deprived areas in Scotland are three times as likely to be in a collision with a car as children in the least deprived 20% of areas (Quayle 2019).

3.1.15 The transport network itself can have a potential impact in determining incomes. Affordable transport with a good service can promote equality of opportunity, enabling people to access jobs, education, and training (The Poverty and Inequality Commission 2019).



- 3.1.16 Owing to these relationships, policies in the draft RTS should seek to identify any differential impacts on different socio-economic groups (e.g., disaggregated by income, wealth, or social class). As mentioned above, differential impacts between such groups are likely to also be manifest within and between groups with other characteristics and social identities with disproportionate rates of poverty and low income and wealth.

### **Other Barriers to Transport**

#### Accessibility

- 3.1.17 Barriers to accessible travel can leave disabled people unable or unwilling to travel. While most disabled travellers in Scotland rely on public transport, many experience difficulties when travelling. Problems include poor service frequency, inadequate infrastructure between home and stop or station, and the most reported, difficulties physically accessing the transport (Disability Equality Scotland 2017).
- 3.1.18 The Scottish Government launched Going Further in 2016, an accessible travel framework aimed at eliminating barriers which prevent disabled people travelling. The Framework included commitments to disability training for transport staff, mechanisms for enabling onward travel should journeys be disrupted, and advice on ticketing and pricing (Scottish Government 2016).

#### Hate Crime

- 3.1.19 As well as being accessible, transport should be safe for individuals to use. Individuals should be free from hate crime, bullying and harassment when travelling. A hate crime is any criminal offence motivated by malice and ill-will towards a social group. Hate crime can be motivated by disability, sexual orientation, gender reassignment, race, religion, or faith.

### **Coverage in the Strategy**

- 3.1.20 Section 3 of the draft RTS is centred around 29 key 'problems' which the strategy seeks to respond to, grouped by mode. These specific transport issues were identified through extensive engagement, desk-based research, and statutory assessment activities during the development of the RTS.
- 3.1.21 Identified transport problems form the basis of 29 transport planning objectives (TPOs), which in turn informs four RTS Strategic Objectives and an options generation matrix which sets out high-level option types to implement the RTS Strategic Objectives.
- 3.1.22 Adequate recognition and coverage of identified key equalities issues in the suite of problems which are defined in Section 3 is therefore essential to ensure that all equalities impacts are appropriately considered. **Table 1** overleaf highlights the primary equalities issues relevant to each of the 29 problems.

Table 1: Key Equalities Issues identified in Section 3 of the draft RTS

Issue		Relevant Equalities Issues
All Modes		
1	Those living in new developments or travelling to new developments can have long journeys and / or implied car use to undertake day to day activities	<ul style="list-style-type: none"><li>▪ Forced car ownership, particularly among those with low incomes.</li><li>▪ Health and wellbeing.</li><li>▪ Air quality as a deterrent to active travel.</li><li>▪ Unequal access to services across urban and rural areas.</li></ul>
2	Use of the transport system brings the risk of collisions and personal injury	<ul style="list-style-type: none"><li>▪ Increased risk of collision by socio-economic status.</li></ul>
Active Travel		
3	Many do not find cycling a realistic option	<ul style="list-style-type: none"><li>▪ Affordability and its relationship to socio-economic status</li><li>▪ Gendered experiences of safety along pedestrian and walking routes.</li></ul>
4	Walking is not an attractive option for some short journeys	
Public Transport		
5	Peak period bus-based journey times can be much longer than off-peak	<ul style="list-style-type: none"><li>▪ Disproportionate levels of bus travel by socio-economic status, age, and gender.</li><li>▪ Affordability and its relationship to socio-economic status.</li><li>▪ Disproportionate levels of low income and wealth among protected characteristics.</li><li>▪ Barriers to public transport use relating to disability including physical access barriers.</li><li>▪ Barriers to public transport use to persons relating to the protected characteristics of race, gender, sexual orientation, gender identity, and religion such as hate crimes.</li><li>▪ An overlap between low accessibility and multiple deprivation means poor network coverage restricts education, employment, and leisure opportunities for those living in deprived areas.</li></ul>
6	Peak period bus-based journey times can be much more variable than off-peak	
7	Some direct public transport journey speeds are slow so journey times are long and not competitive with car	
8	Some travel by public transport requires interchange(s) – adding to journey times, access issues, inconvenience, and cost	
9	People can't get a seat on some public transport services	
10	Travel by bus or rail is unaffordable for some	
11	Some journeys cannot be made by public transport	
12	Physical access to, and use of the public transport network is a problem or not possible for some users	
13	Vulnerable groups not feeling safe on public transport	
14	People do not have full awareness of their public transport options	
Mixed Mode		
15	Combining cycling and public transport use is not possible	<ul style="list-style-type: none"><li>▪ Contributes to overreliance on the private car, with associated income, air quality, health, and access inequality impacts.</li></ul>
16	Preferred P&R station cannot be used due to lack of parking during commuter (i) peak and (ii) inter peak	

Issue		Relevant Equalities Issues
Freight		
17	In places, peak period commercial vehicle-based journey times can routinely be much longer than off-peak	▪ Contributes to overreliance on the road freight, with associated climate, air quality, and health inequality impacts.
18	Peak period commercial vehicle-based journey times can be much more variable than off-peak	
19	Cost and practicality of rail freight prevents widespread use	
20	Commercial vehicle drivers have limited options for secure parking and rest	
21	Commercial vehicles are currently reliant on fossil fuels in the absence of viable / cost effective alternatives	
22	Direct sea-based international connectivity is poor	
Car		
23	In places, peak period car-based journey times can routinely be much longer than off-peak	▪ Affordability impacts and relationship to socio-economic status.
24	Peak period car-based journey times can be much more variable than off-peak	
25	High cost of town / city centre parking	
26	Lack of availability of parking is inconvenient	
27	Road-based travel on the regional road network, including some external links (including ports and airports) can be slow even when traffic volumes are relatively low	
28	Electric car operation and ownership not practical for all	
29	Cost of electric cars is higher than equivalent ICE cars and too expensive for many at present	

## **3.2 Strategic Objectives**

- 3.2.1 Section 4 of the draft RTS brings together the 29 transport problems and their associated TPOs to derive four proposed strategy objectives for the RTS:
- i. Transitioning to a sustainable, post-carbon transport system;
  - ii. Facilitating healthier travel options;
  - iii. Widening public transport connectivity and access across the region; and,
  - iv. Supporting safe, sustainable, and efficient movement of people and freight across the region.
- 3.2.2 Following an assessment against the TPOs, the RTS concludes that these strategy objectives should be taken forward and act as the foundation to underpin the development of all other, lower-level components (e.g., transport options) of the draft RTS.

### **Compatibility Assessment**

- 3.2.3 A visual summary of the compatibility of the proposed RTS strategy objectives with the equalities assessment framework is presented in Table 2 overleaf. Generally, the objectives perform well against the equalities assessment frameworks as they describe socio-economic issues which are likely to have an equalities impact, including air quality, health, and economic growth.
- 3.2.4 Each objective includes a specific reference to social groups, protected characteristics, and young people. This will help to ensure that the different needs of these groups would be considered through a future options appraisal process. Similarly, monitoring and evaluation frameworks should be designed so that differential impacts can be measured. Data which can be controlled for these characteristics should be collected to allow an evaluation of the equalities impacts of the strategy and its associated delivery mechanisms.



Table 2: Compatibility of proposed RTS strategy objectives

Outcomes	Public Sector Equality Duty	Fairer Scotland Duty	Child Rights & Wellbeing Duties	Commentary
<b>Strategy Objective 1: Transitioning to a sustainable, post-carbon transport system</b>				
<ul style="list-style-type: none"> <li>Reduce emissions and energy use</li> <li>Improve air quality</li> </ul>	✓	✓	~	This objective has implicit compatibility with the PSED and the FSD assessment frameworks as it has the potential to alleviate inequalities in air quality. Poor air quality resulting from transport emissions can play an important role in physical health outcomes and inequalities – however recent research has shown there is no evident correlation with income deprivation in the Edinburgh TTWA (Bailey et al., 2018).
<b>Strategy Objective 2: Facilitating healthier travel options</b>				
<ul style="list-style-type: none"> <li>Improve health and well-being</li> <li>Reduce emissions</li> </ul>	✓	✓	✓	This objective has implicit compatibility with the PSED, FSD, and CRW assessment frameworks as there is a clear focus on health – a key area of inequality. This objective could be strengthened by using inclusive language to explicitly reference health inequalities, so the issues faced by disadvantage groups are prioritised through the RTS.
<b>Strategy Objective 3: Widening public transport connectivity and access across the region</b>				
<ul style="list-style-type: none"> <li>Reduce inequality of opportunity and encourage more inclusive growth</li> <li>Reduce car dependency and forced car ownership and encourage modal shift</li> </ul>	✓✓	✓✓	✓	This objective performs strongly against the PSED and the FSD assessment frameworks as there are explicit references to removing barriers to access and reducing inequalities of opportunity. It is implicitly compatible with the CRW framework as it references many inequalities experienced by young people, including in income and access to education and employment, but does not make an explicit reference to the group.
<b>Strategy Objective 4: Supporting safe, sustainable, and efficient movement of people and freight across the region</b>				
<ul style="list-style-type: none"> <li>Deliver economic growth and increased productivity through the efficient movement of people and goods</li> <li>Reduce personal injuries</li> </ul>	~	✓	~	This objective has implicit compatibility with the FSD assessment framework, given its focus on economic growth. The object could be strengthened through a discussion of inclusive growth, highlighting how interventions should ensure the benefits of growth are distributed fairly, and how economic development should work to reduce inequalities experienced by residents of the SEStran area.

**Key**

Explicit reference	✓✓	Incompatible	X
Implicit compatibility	✓	No clear relationship	~



- 3.2.5 The high-level assessment provided in **Table 2** demonstrates that in general the proposed RTS Objectives provide an appropriate high-level platform from which to develop specific schemes, policies and proposals to address identified key equalities issues. This indicates that the RTS Objectives are generally compliant with the requirements of applicable equalities duties.
- 3.2.6 However, the analysis also indicates as individual proposed RTS Strategic Objectives respond to specific TPOs they are likely to have differential relationships with applicable equalities duties and differential impacts on specific equalities issues, whilst the RTS Strategic Objectives are themselves not necessarily fully integrated. Each of the RTS Strategic Objectives will underpin the development of specific lower-level RTS components including individual options, so to avoid potential tensions, gaps or 'silo working' between the implementation of individual RTS Strategic Objectives (which could undermine the overall performance of the RTS in tackling a range of inequalities) it will be important for the RTS to include a holistic and visionary strategic framework.
- 3.2.7 The draft RTS would therefore benefit from the development of an over-arching holistic Vision and clearer linkages between Strategic Objectives to bring these together and from the outset clarify what the RTS seeks to achieve. This would ensure that any lower-level options developed mainly to address one RTS Strategy Objective either contribute to or at least avoid adverse effects on the other Strategic Objectives.
- 3.2.8 Going forward the equalities duties (and the SEA process) will be applied to test the relationship between the draft RTS Strategic Objectives and individual options in order to maximise likely significant beneficial effects and avoid or minimise adverse effects from the RTS when read and implemented as a whole.

### **3.3 RTS Regional Mobility Themes**

- 3.3.1 From the four strategy objectives, a set of 12 Regional Priorities have been defined which collate the options that have been demonstrated to contribute to the delivering of the objectives under a series of relevant headings.
- i. Shaping development and place
  - ii. Delivering safe active travel
  - iii. Enhancing access to public transport
  - iv. Enhancing and extending the bus service
  - v. Enhancing and extending the train service
  - vi. Reallocation of road-space on the regional network
  - vii. Improving integration between modes
  - viii. Decarbonising transport
  - ix. Facilitating efficient freight movement and passenger travel
  - x. Working toward zero road deaths and serious injuries
  - xi. Reducing car kilometres
  - xii. Responding to the post-Covid world

### Compatibility Assessment

- 3.3.2 A visual summary of the compatibility of the regional mobility themes with the equalities assessment framework is presented in **Table 3** overleaf. Like the strategy objectives, the themes perform well against the equalities assessment frameworks as they describe socio-economic issues which are likely to have an equalities impact, including air quality, health, and economic growth.

Table 3: Compatibility of RTS regional mobility themes

Outcomes	Public Sector Equality Duty	Fairer Scotland Duty	Child Rights & Wellbeing Duties	Commentary
<b>1: Shaping Development and Place</b>				
<ul style="list-style-type: none"> <li>Improve connectivity in neighbourhoods</li> <li>Introduction of shared mobility services</li> </ul>	✓✓	✓✓	✓	This priority performs strongly against the PSED and FSD assessment frameworks due to explicit commitments to increase connections disproportionately relied upon by women and low-income groups to access key services in urban areas. There is specific language to encourage connectivity to services certain communities are currently deprived of (i.e. new health centres in health deprived communities). The aim to increase sustainable transport also encourages the usage of active travel and reduction of carbon output. This may decrease health inequalities due to increased uptake of cycling and walking, and improved air quality which has been shown to impact materially disadvantaged groups disproportionately (Wheeler & Ben-Shlomo, 2005). It may also reduce reliance on car ownership – through the policy of 20-minute neighbourhoods which may decrease income inequality.
<b>2: Delivering Safe Active Travel</b>				
<ul style="list-style-type: none"> <li>Developing integrated and high-quality routes for walking, wheeling, and cycling</li> <li>Designing safe and segregated active travel routes</li> </ul>	✓	✓	✓	This priority has clear compatibility for the PSED, FSD and CRWD assessment frameworks due to the focus of encouraging active travel. As a key determinant of health, this may lead to differential positive health outcomes. For example, recent research suggests that black and ethnic minority individuals take relatively few active leisure trips such as walking or cycling (Colley and Irvine 2018). There is an aim to ensure any new development is fully accessible, especially for disabled users which are a focus of the PSED framework. Under this priority, the RTS also considers the cost of purchasing a bike and promotes the use of bike sharing schemes, which may lead to a disproportionate impact among low-income users.
<b>3: Enhancing Access to Public Transport</b>				
<ul style="list-style-type: none"> <li>Improved accessibility to public transport</li> <li>Integrated ticketing between different transport modes</li> <li>Increased availability of information for planning journeys</li> </ul>	✓✓	✓✓	✓	This priority performs strongly against the PSED and the FSD assessment frameworks as there are explicit references to removing barriers to access and reducing inequalities of opportunity. It is implicitly compatible with the CRW framework as it references many inequalities experienced by young people, including in income and transport-related access to education and employment (Public Health Scotland, 2021a; 2021b).

Outcomes	Public Sector Equality Duty	Fairer Scotland Duty	Child Rights & Wellbeing Duties	Commentary
<b>4: Enhancing and Extending the Bus Service</b>				
<ul style="list-style-type: none"> <li>More bus priority schemes to increase reliability</li> <li>Introduction of Bus Rapid Transport schemes</li> <li>Increased connectivity to essential services</li> </ul>	✓✓	✓✓	✓✓	This priority performs strongly against the PSED and the FSD assessment frameworks as there are explicit references to removing transport-related barriers to access and reducing inequalities of opportunity. It is implicitly compatible with the CRW framework as it references many inequalities experienced by young people, including in income and access to education and employment, but does not make an explicit reference to the group.
<b>5: Enhancing and Extending Train Service</b>				
<ul style="list-style-type: none"> <li>New stations and rail services</li> <li>Enhanced connectivity to essential services</li> <li>Improved capacity on key routes</li> <li>Affordable services for all</li> </ul>	✓✓	✓✓	✓	This priority performs strongly against the PSED and the FSD assessment frameworks as there is an explicit aim to rationalise fares on all modes of transport. This will increase access for income deprived users, increasing accessibility and reducing inequalities of opportunity, as rail fares currently consume a larger proportion of income in income deprived households (Haney, Corley, & Forman, 2019). By It is implicitly compatible with the CRW framework as it references many inequalities experienced by young people, including in income and access to education and employment, but does not make an explicit reference to the group.
<b>6: Relocation of Road-Space on the Regional Network</b>				
<ul style="list-style-type: none"> <li>Reduction on the reliance of cars</li> <li>Higher uptake of active travel</li> </ul>	✓	✓	~	This priority has implicit compatibility with the PSED and FSD assessment framework as it explicitly mentions encouraging active travel, which is a key determinant of health. Health inequalities are considered under the PSED framework. The promotion of efficient freight movement may lead to improved economic development. However, there priority could be strengthened as there are no explicit references to how equitable growth will be achieved. Furthermore, the priority could be more specific about how access to active travel modes (such as a bike) will be widened as this is an existing inequality (Transport for London, 2011).
<b>7: Improving Integration Between Modes</b>				
<ul style="list-style-type: none"> <li>Enhanced connectivity between different modes of transport</li> <li>Increased mobility as a service opportunity</li> <li>Demand Response Transit opportunities in rural settings</li> </ul>	✓✓	✓✓	✓	This priority explicitly meets the PSED and FSD assessment frameworks and has implicit compatibility with the CRWD assessment framework. The priority explicitly discusses increasing connectivity between modes of transport. Lower income users are more likely to use public transport (University College London, 2021), and by creating more connectivity, these users will have more access to goods and services. The discussion of Mobility as a Service (MaaS) satisfies the FSD framework as it could increase connectivity in rural areas, leading to increased economic activity and connectivity. This regional priority also satisfies the CRWD assessment as children are more likely to use public transport than adults (Chatterjee et. al, 2019), and by increasing connectivity, they will be able to access more opportunities.



Outcomes	Public Sector Equality Duty	Fairer Scotland Duty	Child Rights & Wellbeing Duties	Commentary
<b>8: Decarbonising Transport</b>				
<ul style="list-style-type: none"> <li>Reduction in CO2 emissions</li> <li>Increased charging stations to encourage uptake of Electric Vehicles</li> <li>Increased uptake of electric bikes</li> </ul>	✓	✓	~	This objective has implicit compatibility with the PSED and the FSD assessment frameworks as it has the potential to alleviate inequalities in air quality. Poor air quality resulting from transport emissions can play an important role in physical health outcomes and inequalities. The priority also explicitly discusses the inequality in purchasing power to buy an electric vehicle and sets out a method to alleviate income inequalities which would lead to differential impacts under the FSD.
<b>9: Facilitating Efficient Freight Movement and Passenger Travel</b>				
<ul style="list-style-type: none"> <li>Reduced CO2 emissions due to targeted investment at current pinch points in the network</li> <li>More resilient infrastructure to protect the network from climate change</li> <li>Increased external connections</li> </ul>	~	✓	~	This priority has compatibility with the FSD assessment framework as it explicitly discusses economic growth from increasing capacity for freight routes. However, this priority does not suggest how it will improve deprived communities and could be strengthened. Furthermore, it only briefly mentions the effects of decarbonising freight movement and does not discuss any likely equalities implications.
<b>10: Working Towards Zero Road Deaths and Serious Injuries</b>				
<ul style="list-style-type: none"> <li>Reduction in road deaths</li> <li>Increased traffic calming measures</li> </ul>	~	✓	~	This priority has implicit compatibility with the FSD assessment framework as it promotes analysis and resolution of road collision hotspots. Road collisions are more likely to occur in area with a higher level of income, health and educational deprivation (Clarke, Ward, Truman, & Bartle, 2008). The regional priority could be stronger if it discussed if there was a difference in the number of collisions in deprived areas.
<b>11: Reducing Car Kilometres</b>				
<ul style="list-style-type: none"> <li>Decreased CO2 emissions</li> <li>Improved health</li> </ul>	✓	✓	~	This priority has implicit compatibility with the PSED and FSD framework as it aims to reduce CO2 emissions through the reduction of car kilometres. This would increase health – a key inequality. There is also a discussion of ride sharing and car sharing which would increase access to a car and allow for more economic opportunities for those who are unable to afford a car.
<b>12: Responding to the Post-Covid World</b>				
<ul style="list-style-type: none"> <li>Developed understanding of future transport usage</li> <li>Potential for the promotion of active travel</li> </ul>	✓	✓	✓	This regional priority satisfies all the assessment frameworks. This is due to the fact the regional priority aims to encourage sustainable economic growth. However, the priority could be strengthened as it fails to set out how the change in travel patterns will be equitably assessed.

**Key**

Explicit reference	✓✓	Incompatible	X
Implicit compatibility	✓	No clear relationship	~



### **3.4 RTS Regional Spatial Strategy**

3.4.1 Further to the four strategic objectives and 12 mobility objectives, a spatial strategy has been developed to improve commuter and leisure movement throughout the SEStran area. Two key themes were identified:

- i. Reducing car-km and car mode share
- ii. Better connecting communities affected by deprivation to a wider range of opportunities

#### **Compatibility Assessment**

3.4.2 A visual summary of the compatibility of the spatial strategy with the equalities assessment framework is presented in the Table 4: Compatibility of the RTS overleaf. Like the strategy objectives and the regional priorities, the themes perform well against the equalities assessment frameworks as they describe socio-economic issues which are likely to have an equalities impact, including air quality, health, and economic growth.



Table 4: Compatibility of the RTS spatial strategy themes

Outcomes	Public Sector Equality Duty	Fairer Scotland Duty	Child Rights & Wellbeing Duties	Commentary
<b>Spatial Strategy Theme 1: Reducing Car-KM and Car Mode Share</b>				
<ul style="list-style-type: none"> <li>Increased connectivity for cross-Edinburgh and round Edinburgh journeys</li> <li>Reduction in CO2 emissions through a reduction in Congestion</li> </ul>	✓	✓	~	This spatial strategy theme has implicit compatibility with the PSE and FSD frameworks as it promotes the reduction of CO2 emissions and easier connectivity through promotion of public transit use. However, this theme fails to set out how this will be delivered equitably.
<b>Spatial Strategy Theme 2: Better Connecting Communities Affected by Deprivation</b>				
<ul style="list-style-type: none"> <li>Increased connectivity for deprived areas</li> </ul>	✓✓	✓✓	✓	This spatial strategy theme has explicit compatibility with the PSED and FSD frameworks and implicit compatibility with the CRWD framework as it explicitly discusses prioritising connecting deprived communities with services they are deprived of. Research has shown that increasing connectivity to services communities are deprived of (i.e., connecting an economically deprived community with employment opportunities) has reduced the overall level of deprivation (Titheridge, Christie, & al., 2014).

**Key**

Explicit reference	✓✓	Incompatible	✗
Implicit compatibility	✓	No clear relationship	~



## **4 Next Steps**

- 4.1.1 This Equalities Duties Report is being published for consultation alongside the draft RTS which has been prepared by SEStran (with support from Stantec). This forms the final part of the multi-stage process to develop a new Draft RTS for consultation.
- 4.1.2 In accordance with best practice, relevant equalities duties have been applied from the outset and in tandem with the development of the RTS to allow key equalities issues to inform its content. All consultation received in respect of the Draft RTS and this Equalities Duties Report will be reviewed and used to inform the development of the final RTS which will then be submitted to the Scottish Ministers for approval.

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South East of Scotland  
Transport Partnership



# REGIONAL TRANSPORT STRATEGY

Equality Impact Assessment

October 2021

In partnership with:  **Stantec**

## EQUALITY IMPACT ASSESSMENT RECORD

### Screening

#### ***Policy Aim***

A new Draft Regional Transport Strategy (RTS) has been prepared by South-East of Scotland Regional Transport Partnership (SEStran) to establish a new transport vision for the region through the development of new transport policies and strategic objectives.

The RTS is currently at the draft stage and will be published for public consultation for 12 weeks to ensure the strategy is reflective of all transport users in the region.

The Draft RTS comprises:

- A transport problems framework to identify transport inequalities users currently face within the SEStran area. This has been developed through extensive public and stakeholder consultations. The framework identifies what needs to be considered to as drivers of change and sets out what should be achieved.
- From the problems framework, four strategy objectives have been developed to resolve the inequalities raised. These are: transitioning to a sustainable, post carbon transport system, facilitating healthier travel options, widening public transport connectivity and access across the region and supporting safe, sustainable and efficient movement of people and freight across the region.
- Under the four transport strategy objectives, a series of 12 regional mobility themes to act as drivers of change and help to address the challenges raised during the initial public consultation.

Once finalised, the new RTS will provide an integrated spatial and strategic framework to underpin transport planning and development decisions and to guide transport infrastructure investment across the SEStran area. The RTS recognises that transport is a crucial enabler of sustainable and inclusive economic growth and a key tool in the Scottish Government's target of net zero emissions by 2045.

The new RTS will also provide a platform and the strategic context necessary to address key economic, social, and environmental challenges through the transport system. The RTS vision for the transport system relates directly to creating a more inclusive and accessible transport system contributing to a more equitable society. Reducing Inequality is a key theme throughout the strategy and has influenced the development of both the transport planning objectives and the 12 regional mobility themes.

#### ***Who will it affect?***

Transport affects access to services, amenities, economic opportunities, and social activities for all people across all parts of the SEStran region. The new RTS will therefore affect any person in the region who:

- Travels for any purpose and by any mode; or,
- Interacts with, or faces barriers to accessing, the transport system, e.g., as a resident, worker, or visitor.

Reflecting the high level and strategic purpose of the document, all components of the RTS have been designed to apply universally rather than to target specific demographic groups. Improvements to the transport system and the resulting *reductions in inequality*, climate sustainability, inclusive growth, and health and well-being can be expected to impact all people in the region.

#### ***What might prevent the desired outcomes being achieved?***

The intended role of the RTS is one of setting a visionary strategic framework to underpin future decision making. Achieving the desired outcomes will therefore be dependent on the scope and future implementation of individual proposed RTS components, which are inherently high-level. It has therefore been necessary to adopt an iterative approach to this EqlA, focusing on relevant strategic issues raised within the Draft RTS as published for consultation. In this regard the Draft RTS provides a strong and positive framework for future action to tackle inequalities and deliver a more inclusive society, with equalities issuing being afforded high importance throughout the document. The findings of the EqlA will however require to be reviewed and updated throughout the implementation of the RTS to account for the design and delivery specific interventions and to ensure continued compliance with Section 149 of the Equality Act 2010.

## **Stage 1: Framing**

### ***Results of framing exercise***

Given the importance of assessing the impact on each of the protected characteristics, SEStran has considered the framework set out in the RTS against the needs of the general equality duty as set out in section 149 of the Equality Act 2010.

An internal framing exercise has been completed which has identified that the RTS may have some impact on all protected characteristic groups, with some groups being more impacted than others. Where any negative impacts have been identified, SEStran has sought to address these.

### ***Extent/Level of EQIA required***

#### **Requirements**

Following the findings of the framing exercise which indicate the presence of likely equalities impacts, the development of the RTS has been underpinned by an iterative impact assessment process covering the following suite of statutory 'equalities' duties regarding a broad range of equalities considerations.

Section 149 of the Equality Act 2010 sets out a 'public sector equality duty'. This requires public authorities in exercising their functions to "have due regard to the need to:

- a. eliminate discrimination, harassment, victimisation and any other conduct that is prohibited by or under this Act;*
- b. advance equality of opportunity between persons who share a relevant protected characteristic and persons who do not share it;*
- c. foster good relations between persons who share a relevant protected characteristic and persons who do not share it."*

The protected characteristics referenced within this duty are specified within Section 4 of the Act, namely:

- age;
- disability;
- gender reassignment;
- marriage and civil partnership;
- pregnancy and maternity;
- race;
- religion or belief;
- sex; and
- sexual orientation.

#### **Approach**

Owing to the presence of strong linkages between different types of inequalities (in terms of both inequalities of opportunity and of outcomes) experienced across the South East of Scotland, a co-ordinated approach has been adopted to discharge the following statutory duties throughout the preparation of the RTS in addition to the Public Sector Equalities Duty:

- Fairer Scotland Duty – Section 1 of the Equality Act 2010; and,
- Child Rights and Wellbeing Impact Assessment – Section 1 of the Children and Young People (Scotland) Act 2014.

This process has involved gathering further information of relevance to the statutory duties to build on the framing exercise described above through a desk-based review of literature.



Likely impacts from the RTS were then considered in the context of each applicable statutory duty. This has been undertaken throughout the development of the RTS to shape the document and in doing so to maximise the ability to tackle identified inequalities.

This integrated approach enabled the carrying out of each duty to influence the content of the RTS whilst avoiding unintended conflicts or gaps that could arise from considering each duty in isolation. An Equalities Assessment Framework was developed which groups specific Guide Questions under each applicable statutory duty.

### Reporting

This Record Sheet describes how the Public Sector Equality Duty has been discharged and discusses any identified likely impacts of the RTS on persons with one or more protected characteristic.

## Stage 2: Data and evidence gathering, involvement and consultation

### Sources of Literature and Evidence

With reference to each protected characteristics, the table below summarises the main literature and evidence sources which have informed this EqlA and RTS preparation, as well as identifying any key evidence gaps.

Protected characteristic	Evidence gathered and strength/quality of evidence	Sources of Evidence	Data gaps identified and action taken
<b>Age</b>	<p>Elderly people tend to travel relatively less often and for shorter distances than other adults (Fatima, et al. 2020). Without needing to commute, elderly people are more likely to travel between the hours of 9:00 and 15:00, with most trips for shopping (mostly undertaken by elderly women) (Su and Bell 2012).</p> <p>According to Davis (2014), young people may have a more local focus than the population as a whole. This suggests that young people from deprived areas may look for jobs and training opportunities only in their local area and those easily accessible via public transport.</p>	Academic literature and reports published by third-sector organisations drawing on national statistics.	Information relied upon relates to Scotland, England, or to the UK.
<b>Disability</b>	An individual will generally use public transport less frequently if they experience a greater number of difficulties completing daily tasks (Yarde, et al. 2020). However, travel behaviour among this group varies widely as the behaviour of people with specific types of disabilities is often markedly different to each other (Clery, et al. 2017).	Academic literature and reports published by third-sector organisations drawing on national statistics.	Information relied upon relates to Scotland, England, or to the UK.
<b>Sex</b>	In general, women engage in travel linked to domestic commitments and are more likely to travel with young people and the elderly (Duchene 2011; Sánchez de Madariaga 2013). This influences travel behaviour and women tend to travel shorter distances within a more restricted geographical area, make more multi-stop trips, and rely more on public transport.	Academic literature and reports published by third-sector organisations drawing on national statistics.	Information relied upon relates to Scotland, England, or to the UK.
<b>Pregnancy and maternity</b>	Evidence related to this protected characteristic is robust and draws from peer reviewed academic literature. Findings relating to complex travel patterns and how this relates to the transport system is evidenced by quantitative data published through national bodies.	Academic literature and reports published by third-sector organisations drawing on national statistics.	Information relied upon relates to Scotland, England, or to the UK.

Protected characteristic	Evidence gathered and strength/quality of evidence	Sources of Evidence	Data gaps identified and action taken
<b>Gender reassignment</b>	Evidence relating to this protected characteristic is relatively limited, particularly in how disadvantages relate to the transport system. National statistics are often limited by binary reporting categories.	Due to data limitations, the primary evidence base draws from reports published by third sector organisations.	Information relied upon relates to Scotland, England, or to the UK.
<b>Sexual orientation</b>	Discrimination and disadvantage faced by persons related to this protected characteristic is well documented in terms of safety and security, however there is a gap in what other barriers members of the LGBT+ community may face to the transport system, such as affordability. The evidence base therefore draws on literature related to inequalities experienced across society as a whole.	As sexual orientation data is seldom captured by national labour force and household statistics, this evidence base has largely been compiled using the work of third-sector organisations.	Information relied upon relates to Scotland, England, or to the UK.
<b>Race</b>	Data at a Scotland-level is limited on different ethnic minority groups (Scottish Government 2015, 26) and any analysis of race-based discrimination must consider the differences in people's experiences and preferences both between and within different ethnic groups (Gentin 2011). Yet recent research suggests that black and ethnic minority individuals take relatively few active leisure trips such as walking or cycling (Colley and Irvine 2018). Potential explanations can include socio-economic disadvantage, fear of discrimination, and language barriers.	Academic literature and reports published by third-sector organisations drawing on national statistics.	Information relied upon relates to Scotland, England, or to the UK.
<b>Religion or belief</b>	There is a limited evidence base detailing how this protected characteristic relates to inequalities on the transport system. Evidence that details the disproportionate presence of such groups within wider inequalities, such as income deprivation, utilises widely accepted sources.	Primarily national statistics and Scottish Government Reports.	Information relied upon relates to Scotland, England, or to the UK.

### Stage 3: Assessing the impacts and identifying opportunities to promote equality

Having considered the data and evidence gathered; this section considers the potential impacts – negative and positive – that the RTS might have on each of the protected characteristics defined. It is important to remember the PSED is also a positive one – it explores whether the RTS offers the opportunity to promote equality and/or foster good relations, rather than simply to reduce inequalities.

Taken as a whole, the final RTS provides a positive framework to, within the context of the transport system, eliminate discrimination, harassment, victimisation, advance equality of opportunity and foster good relations between people with or within individual protected characteristics. However, the strategic nature of the RTS and its universal focus precludes at this stage the identification of specific impacts on persons with individual protected characteristics.

The RTS vision for the region's transport system relates directly to creating an inclusive and accessible transport system contributing to a more equitable society. A commitment to advancing equality of opportunities across protected characteristics is embedded in the strategic framework of the RTS, referenced directly in its strategy objectives. The RTS also establishes a positive framework which will allow interventions to be designed around targeting existing inequalities experienced by persons related to each of the nine protected characteristics on the transport network and in society more widely.

#### Do you think that the policy impacts on people because of their age?

Age	Positive	Negative	None	Reasons for your decision
Eliminating unlawful discrimination, harassment and victimisation	✓			<p>The high-level nature of the strategy and all associated policies and policy measures precludes the identification of any specific impacts on unlawful discrimination, harassment, and victimisation on the basis of age.</p> <p>It is however noted that the RTS seeks to reduce inequality of opportunity by widening public transport connectivity across the region. This is likely to have positive differential impacts on people because of their age, as elderly and young people are more likely to rely on the public transport network.</p>
Advancing equality of opportunity	✓			<p>The high-level nature of the strategy and all associated policies and policy measures precludes the identification of any specific impacts on advancing equality of opportunity of people in relation to their age characteristics.</p> <p>Nevertheless, the strategy will establish a positive framework which will allow interventions to be designed around advancing the equality of opportunity for all, i.e., across different age groups.</p>
Promoting good relations among and between different age groups	✓			<p>The high-level nature of the strategy and all associated policies and policy measures precludes the identification of any specific impacts promoting good relations among and between different age groups.</p> <p>Nevertheless, the strategy will establish a positive framework which will allow interventions to be designed around promoting such positive relations.</p>

#### Do you think that the policy impacts disabled people?

Disability	Positive	Negative	None	Reasons for your decision
Eliminating unlawful discrimination, harassment and victimisation	✓			<p>The high-level nature of the strategy and all associated policies and policy measures precludes the identification of any specific impacts on unlawful discrimination, harassment, and victimisation towards disabled persons.</p>

				However, it is noted that the RTS has a stated aim to ensure any new development is fully accessible for disabled users. This is likely to have positive differential impacts on people related to this protected characteristic.
Advancing equality of opportunity	✓			<p>The high-level nature of the strategy and all associated policies and policy measures precludes the identification of any specific impacts on advancing equality of opportunity of disabled persons.</p> <p>Nevertheless, the strategy will establish a positive framework which will allow interventions to be designed around advancing the equality of opportunity of disabled persons.</p>
Promoting good relations among and between disabled and non-disabled people	✓			<p>The high-level nature of the strategy and all associated policies and policy measures precludes the identification of any specific impacts promoting good relations among and between disabled and non-disabled people.</p> <p>Nevertheless, the strategy will establish a positive framework which will allow interventions to be designed around promoting such positive relations.</p>

**Do you think that the policy impacts on men and women in different ways?**

Sex	Positive	Negative	None	Reasons for your decision
Eliminating unlawful discrimination	✓			<p>The high-level nature of the strategy and all associated policies and policy measures precludes the identification of any specific impacts on unlawful discrimination, harassment and victimisation towards women.</p> <p>However, it is noted that the RTS contains explicit commitments to increase connections disproportionately relied upon by women to access key services in urban areas. This is likely to have positive differential impacts on people related to this protected characteristic.</p>
Advancing equality of opportunity	✓			<p>The high-level nature of the strategy and all associated policies and policy measures precludes the identification of any specific impacts on advancing equality of opportunity of women.</p> <p>Nevertheless, the strategy will establish a positive framework which will allow interventions to be designed around advancing the equality of opportunity of women.</p>
Promoting good relations between men and women	✓			<p>The high-level nature of the strategy and all associated policies and policy measures precludes the identification of any specific impacts promoting good relations among and between men and women.</p> <p>Nevertheless, the strategy will establish a positive framework which will allow interventions to be designed around promoting such positive relations.</p>

**Do you think that the policy impacts on women because of pregnancy and maternity?**

Pregnancy and	Positive	Negative	None	Reasons for your decision
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<b>Maternity</b>				
Eliminating unlawful discrimination	✓			<p>The high-level nature of the strategy and all associated policies and policy measures precludes the identification of any specific impacts on unlawful discrimination, harassment and victimisation towards pregnant persons and mothers and no explicit commitments are made in this regard.</p> <p>Nevertheless, the strategy will establish a positive framework which will allow interventions to be designed around eliminating such unlawful discrimination, harassment and victimisation.</p>
Advancing equality of opportunity	✓			<p>The high-level nature of the strategy and all associated policies and policy measures precludes the identification of any specific impacts on advancing equality of opportunity of pregnant persons and mothers.</p> <p>However, it is noted that the RTS identifies the need to tackle inequalities faced by lone parents as a key challenge. This provides a positive framework which will allow interventions to be designed around eliminating such unlawful discrimination, harassment and victimisation.</p>
Promoting good relations	✓			<p>The high-level nature of the strategy and all associated policies and policy measures precludes the identification of any specific impacts promoting good relations among pregnant persons and mothers and the wider public.</p> <p>Nevertheless, the strategy will establish a positive framework which will allow interventions to be designed around promoting such positive relations.</p>

**Do you think your policy impacts on transsexual people?**

<b>Gender reassignment</b>	<b>Positive</b>	<b>Negative</b>	<b>None</b>	<b>Reasons for your decision</b>
Eliminating unlawful discrimination	✓			<p>The high-level nature of the strategy and all associated policies and policy measures precludes the identification of any specific impacts on unlawful discrimination, harassment, and victimisation towards transsexual persons and no explicit commitments are made in this regard.</p> <p>Nevertheless, the strategy will establish a positive framework which will allow interventions to be designed around eliminating such unlawful discrimination, harassment and victimisation.</p>
Advancing equality of opportunity	✓			<p>The high-level nature of the strategy and all associated policies and policy measures precludes the identification of any specific impacts on advancing equality of opportunity of transsexual persons.</p> <p>Nevertheless, the strategy will establish a positive framework which will allow interventions to be designed around advancing the equality of opportunity of transsexual persons.</p>
Promoting good relations	✓			<p>The high-level nature of the strategy and all associated policies and policy measures precludes the identification of any specific impacts promoting good relations among and between cisgender and transsexual people.</p>

				Nevertheless, the strategy will establish a positive framework which will allow interventions to be designed around promoting such positive relations.
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**Do you think that the policy impacts on people because of their sexual orientation?**

<b>Sexual orientation</b>	<b>Positive</b>	<b>Negative</b>	<b>None</b>	<b>Reasons for your decision</b>
Eliminating unlawful discrimination	✓			<p>The high-level nature of the strategy and all associated policies and policy measures precludes the identification of any specific impacts on unlawful discrimination, harassment and victimisation on the basis of sexual orientation and no explicit commitments are made in this regard.</p> <p>Nevertheless, the strategy will establish a positive framework which will allow interventions to be designed around eliminating such unlawful discrimination, harassment and victimisation.</p>
Advancing equality of opportunity	✓			<p>The high-level nature of the strategy and all associated policies and policy measures precludes the identification of any specific impacts on advancing equality of opportunity across different sexual orientations.</p> <p>Nevertheless, the strategy will establish a positive framework which will allow interventions to be designed around advancing the equality of opportunity across different sexual orientations.</p>
Promoting good relations	✓			<p>The high-level nature of the strategy and all associated policies and policy measures precludes the identification of any specific impacts promoting good relations among groups of people with different sexual orientations and towards the LGBT+ community.</p> <p>Nevertheless, the strategy will establish a positive framework which will allow interventions to be designed around promoting such positive relations.</p>

**Do you think the policy impacts on people on the grounds of their race?**

<b>Race</b>	<b>Positive</b>	<b>Negative</b>	<b>None</b>	<b>Reasons for your decision</b>
Eliminating unlawful discrimination	✓			<p>The high-level nature of the strategy and all associated policies and policy measures precludes the identification of any specific impacts on unlawful discrimination, harassment, and victimisation towards those from an ethnic minority background.</p> <p>However, it is noted that the RTS seeks to encourage active travel, which may lead to differential health outcomes among persons relating to this protected characteristic.</p>
Advancing equality of opportunity	✓			<p>The high-level nature of the strategy and all associated policies and policy measures precludes the identification of any specific impacts on advancing equality of opportunity of those from an ethnic minority background.</p> <p>Nevertheless, the strategy will establish a positive framework which will allow interventions to be designed around advancing the equality of opportunity of those from an ethnic minority background.</p>
Promoting good race relations	✓			<p>The high-level nature of the strategy and all associated policies and policy measures precludes the identification of any specific impacts promoting good relations among and between different ethnic backgrounds.</p>



				Nevertheless, the strategy will establish a positive framework which will allow interventions to be designed around promoting such positive relations.
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**Do you think the policy impacts on people because of their religion or belief?**

Religion or belief	Positive	Negative	None	Reasons for your decision
Eliminating unlawful discrimination	✓			<p>The high-level nature of the strategy and all associated policies and policy measures precludes the identification of any specific impacts on unlawful discrimination, harassment and victimisation on the basis of sexual orientation.</p> <p>However, it is noted that the RTS identifies the need to ensure fair access of persons related to the religion or belief protected characteristic to services we need as a key challenge. This provides a positive framework which will allow interventions to be designed around eliminating such unlawful discrimination, harassment and victimisation.</p>
Advancing equality of opportunity	✓			<p>The high-level nature of the strategy and all associated policies and policy measures precludes the identification of any specific impacts on advancing equality of opportunity of people belonging to all faith and belief groups and no explicit commitments are made in this regard.</p> <p>Nevertheless, the strategy will establish a positive framework which will allow interventions to be designed around eliminating such unlawful discrimination, harassment and victimisation.</p>
Promoting good relations	✓			<p>The high-level nature of the strategy and all associated policies and policy measures precludes the identification of any specific impacts promoting good relations among and between those of different faiths and beliefs.</p> <p>Nevertheless, the strategy will establish a positive framework which will allow interventions to be designed around promoting such positive relations.</p>

**Do you think the policy impacts on people because of their marriage or civil partnership?**

Marriage and Civil Partnership <sup>1</sup>	Positive	Negative	None	Reasons for your decision
Eliminating unlawful discrimination			✓	The focus on transport and high-level nature of the strategy means that no different impacts are likely to occur on people because of their marriage or civil partnership.

<sup>1</sup> In respect of this protected characteristic, a body subject to the Public Sector Equality Duty (which includes Scottish Government) only needs to comply with the first need of the duty (to eliminate discrimination, harassment, victimisation and any other conduct that is prohibited by or under the Equality Act 2010) and only in relation to work. This is because the parts of the Act covering services and public functions, premises, education etc. do not apply to that protected characteristic. Equality impact assessment within the Scottish Government does not require assessment against the protected characteristic of Marriage and Civil Partnership unless the policy or practice relates to work, for example HR policies and practices.

#### Stage 4: Decision making and monitoring

##### *Identifying and establishing any required mitigating action*

Have positive or negative impacts been identified for any of the equality groups?	Yes
Is the policy directly or indirectly discriminatory under the Equality Act 2010 <sup>2</sup> ?	No
If the policy is indirectly discriminatory, how is it justified under the relevant legislation?	N/A
If not justified, what mitigating action will be undertaken?	N/A

##### *Describing how Equality Impact analysis has shaped the policy making process*

The implementation of the PSED was undertaken on an iterative basis throughout the development of the NTSRTS2 in order to embed the consideration of likely equalities impacts within the document. This was achieved in three ways:

- **More explicit references to existing inequalities in transport problems:** whilst initial drafts of the Case for Change identified problems disproportionately experienced by demographic groups, these inequalities were not explicitly stated. The RTS now clearly emphasises the particular demographic groups and protected characteristics which experience relevant inequalities. This aids the identification of likely differential impacts from options designed to address the problems identified;
- **Inequalities identified in principle reporting frameworks:** following EqIA recommendations, key equalities issues are now explicitly described in the frameworks themselves. This makes likely differential impacts clear to readers and policy makers who may only be referring to these summary outputs; and,
- **Differential impacts identified in strategic objectives:** following EqIA recommendations, the four RTS Strategic objectives defined within the RTS now include specific reference to social groups, protected characteristics and young people.

#### Summary and Next Steps

The evidence provided in this Record Sheet demonstrates that the implementation of the PSED to date has directly informed and improved the draft RTS.

A holistic Equalities Assessment Framework has also been prepared as a tool to support the continued implementation of the PSED and other applicable statutory equalities duties in the design and delivery of future transport interventions (funding streams, policy programmes, physical infrastructure development, etc.) to implement the RTS.

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<sup>2</sup> See EQIA – Setting the Scene for further information on the legislation.

## Stage 5 - Authorisation of EQIA

Please confirm that:

- ◆ This Equality Impact Assessment has informed the development of this policy:

Yes ☒ No ☐

- ◆ Opportunities to promote equality in respect of age, disability, gender reassignment, pregnancy and maternity, race, religion or belief, sex and sexual orientation have been considered, i.e.:

- Eliminating unlawful discrimination, harassment, victimisation;
- Removing or minimising any barriers and/or disadvantages;
- Taking steps which assist with promoting equality and meeting people's different needs;
- Encouraging participation (e.g. in public life)
- Fostering good relations, tackling prejudice and promoting understanding.

Yes ☒ No ☐

- ◆ If the Marriage and Civil Partnership protected characteristic applies to this policy, the Equality Impact Assessment has also assessed against the duty to eliminate unlawful discrimination, harassment and victimisation in respect of this protected characteristic:

Yes ☐ No ☐ Not applicable ☒



# REGIONAL TRANSPORT STRATEGY

**Fairer Scotland Duty Assessment**

October 2021

In partnership with:  **Stantec**

# Fairer Scotland Duty

## Draft Regional Transport Strategy for South East Scotland

Title of Strategy	Draft SEStran Regional Transport Strategy
<p><b>Summary of aims and expected outcomes of strategy, proposal, programme, or policy</b></p>	<p>A new Draft Regional Transport Strategy (RTS) has been prepared by South-East of Scotland Regional Transport Partnership (SEStran) to establish a new transport vision for the region through the development of new transport policies and objectives.</p> <p>The RTS is currently at the draft stage and will be published for public consultation to ensure the strategy is reflective of all transport users in the region. This template reflects how equalities assessment, <b>in relation to the Fairer Scotland Duty</b>, has influenced the preparation of the Draft RTS as published for consultation.</p> <p>The Draft RTS comprises:</p> <ul style="list-style-type: none"> <li>• A transport problems framework to identify transport inequalities users currently face within the SEStran area. This has been developed through extensive public and stakeholder consultations. The framework identifies what needs to be considered to as drivers of change and sets out what should be achieved.</li> <li>• From the problems framework, four strategy objectives have been developed to resolve the inequalities raised. These are: transitioning to a sustainable, post carbon transport system, facilitating healthier travel options, widening public transport connectivity and access across the region, and supporting safe, sustainable and efficient movement of people and freight across the region.</li> <li>• Under the four transport planning objectives, a series of 12 regional mobility themes to act as drivers of change and help to address the challenges raised during the initial public consultation.</li> <li>• Finally, two spatial strategy themes provide an integrated spatial and strategic framework to underpin transport planning and development decisions and to guide transport infrastructure investment across the SEStran area</li> </ul> <p>The Draft RTS recognises that transport is a crucial enabler of sustainable and inclusive economic growth and a key tool in the Scottish Government's target of net zero emissions by 2045. This RTS will also provide a platform and the strategic context necessary to address key economic, social, and environmental challenges through the transport system. The proposed vision for the transport system relates directly to creating a more inclusive and accessible transport system contributing to a more equitable society.</p>

## Summary of evidence

The Draft RTS aims to address the impacts of poor transport connectivity, including its impacts on the inequalities experienced by disadvantaged groups. This assessment therefore focuses on evidence of inequalities, experienced by socio-economically disadvantaged groups, that have been affected by poor connectivity.

Transport helps to maintain social connections and supports access to essential services and employment opportunities. However, those on low incomes are prevented from accessing these opportunities due to affordability and availability issues. This can contribute towards and intensify the experience of poverty.

Recent research undertaken by Sustrans stated that over one million Scots also live in areas that are at risk of transport poverty, defined as those who don't have access to essential services or work due to limited affordable transport options<sup>1</sup>.

Research published by the Joseph Rowntree Foundation has found that poor service coverage, reliability, and/or affordability of public transport discourage people in low incomes to commute to employment sites, reinforcing socio-economic disparities<sup>2</sup>. This is compounded by the fact that poor service coverage is more likely in deprived communities<sup>3</sup>.

Furthermore, the cost of public transport, or lack of accessible public transport options necessitating the use of the private car, will comprise a disproportionate proportion of people facing socio-economic disadvantages income.

Average weekly household expenditure in Scotland on transport and vehicles in 2016-2018 was £68.20, representing around a seventh of total household expenditure. The figure has fallen slightly from a peak of over 15% of household income in 2012-14 but it still represents a significant proportion of people's income<sup>4</sup>.

Despite poor service coverage, people in low-income households are more likely to travel by bus due to the affordability barriers to the private car. 41% of people living in a household with less income than £10,000 use a bus at least once per week, compared to 15% for those with an income greater than £50,000.<sup>5</sup> Cuts to subsidised bus services therefore have a disproportionate impact on people in low income facing other forms of socio-economic disadvantage.

Difficulty accessing public transport is only one issue with connectivity. There are links between poverty and ability to cycle. Household access to bikes increases with household income. 62% of households with an income of £50,000 or more have access to one or more bikes, compared to 20% of households with an income up to £10,000.<sup>6</sup> Bicycle access is higher in rural areas than urban areas.

<sup>1</sup> Transport Poverty in Scotland, Sustrans 2016

<sup>2</sup> JRF, Tackling transport-related barriers to work in Scotland. 2018. Available at: <https://www.jrf.org.uk/report/tackling-transport-related-barriers-employment-low-income-neighbourhoods>

<sup>3</sup> See: Transform Scotland, Rethinking Transport Services to Tackle Poverty, 2018. Available at: <http://transformscotland.org.uk/wp/wp-content/uploads/2018/11/Rethinking-Transport-Services-to-Tackle-Poverty-Poverty-Alliance-briefing-for-Transform-Scotland-2018-10-16.pdf>

<sup>4</sup> ONS weekly household spend on transport and vehicles relative to weekly household income

<sup>5</sup> Transport and Travel in Scotland, 2018, Table 28

<sup>6</sup> Transport and Travel in Scotland 2018, Table 18

	<p>There are also links between household income and people walking just for pleasure or to keep fit. For those living in households with annual income up to £10,000, 58% walk one or more days per week<sup>7</sup>. For those in households with more than £50,000 annual income the figure rises to 71%.</p> <p>Analysis by the Glasgow Centre for Population Health found that, while pedestrian casualties among adults and children have been reducing over time, significantly higher casualty rates are reported in more deprived areas<sup>8</sup>. Their 2015 report found that the pedestrian casualty rate for adults was 2.4 times higher in the most deprived quintile compared with the least deprived, and 3.2 times higher for children.</p> <p>It is important to note that people facing other forms of structural disadvantage, such as sexism, racism, homophobia, and ableism, constitute a disproportionate number of those facing socio-economic disadvantage. Affordability barriers to the transport system intersects with other forms of disadvantage.</p> <p>Women in Scotland are much more likely than men to be part-time workers (44% compared to 15%) with over 75% of Scotland's part-time workforce being female.<sup>9</sup> Women are also more likely to be in low-paid work, with 64% of people paid below the Living Wage being female.<sup>10</sup> In particular, lone parents, the vast majority of whom are women, are more likely to be living in poverty than other single working-age adults in Scotland.<sup>11</sup> Over the period 2014-16, 38.4% of lone households in Scotland were in relative poverty before housing costs. Further, a lone-parents' ability to work is structured by the availability of childcare. The UK has the second most expensive childcare in terms of proportion of income spent in the OECD.<sup>12</sup></p> <p>While there is a National Concessionary Travel Scheme for those eligible, disabled people are more likely to experience affordability barriers to transport relative to people without disabilities. Individuals who live in households with a disabled person are more likely to experience income poverty (24%) than those without (17%).<sup>13</sup> In 2011 households which contained at least one person with a long-term illness or a disability were identified as 50% more likely to be "not coping" with their finances than those that did not.<sup>14</sup> This finding is reinforced by UK-wide data from the Life Opportunities Survey which indicates that 42.4% of people who lived in households with a disabled member reported difficulty in "making ends meet" compared to 28.1% of households without.<sup>15</sup></p> <p>Ethnic minorities also face a disproportionately higher rate of relative poverty. All ethnic minority groups have higher rates of poverty than White British households. Those in the Mixed, Black, and Other ethnicity group face a rate of relative poverty after housing costs more than double that of White British households.<sup>16</sup></p>
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7 Transport and Travel in Scotland 2018, Table 25

8 Pedestrian and cyclist casualty trends in Scotland, Glasgow Centre for Population Health

9 House of Commons Library (2019) Briefing paper: Women and the Economy

10 SPICe (2016) The Living Wage: Facts and Figures

11 Poverty and Income Inequality in Scotland 2015-18

12 Institute for Public Policy Research, Making the case for universal childcare, 2011. p.5

13 Households Below Average Income 2014/15-2016/17, DWP.

14 Scottish Government, The Position of Scotland's Equality Groups. Revisiting Resilience in 2011, 2011.

15 Life Opportunities Survey. 2012-14

16 Family Resources Survey 2012-17, 2018.



	<p>People who are Muslim are more likely than all other religious groups and those with no religion to be living in relative poverty both before and after housing costs<sup>17</sup>. People who are Roman Catholic (23%) or Muslim (18%) are more likely to live in Scotland's 15% most deprived areas when compared to other religious groups and those with no religion.<sup>18</sup></p> <p>There is a lack of data which evidences a direct relationship between being transgender and income inequality. however, it is reasonable to suggest that such persons have lower income and wealth and are therefore at a higher risk of transport poverty.<sup>19</sup> Transgender people face widespread discrimination and targeted hostility; unequal access to services, and workplace discrimination.<sup>20</sup> Upwards of 39% of transgender employees have faced discrimination in the workplace. Further, a reported 20% of transgender employees do not feel able to wear work attire representing their gender identity; and 18% aren't open with anyone in their workplace regarding their gender identity. Almost one in fifteen (6%) of transgender employees have been physically attacked by customers or colleagues in the last year because of their sexual orientation and/or gender identity.<sup>21</sup> Difficulties accessing employment and services which increase disposable income (including healthcare free at the point of use and housing) suggest lower income and associated affordability barriers to transport.</p>
<b>Summary of assessment findings</b>	<p>The Fairer Scotland duty places a legal responsibility on particular public entities in Scotland to actively consider how they can reduce inequalities of outcome caused by socioeconomic disadvantage. While the duty does not statutorily apply to SEStran, this assessment has been completed on a voluntary basis, as the duty applies on a statutory basis to SEStran's constituent local authorities and NHS health boards.</p> <p>This differs from the public sector equality duty under the Section 149 of the Equality Act which considers only reducing inequalities of opportunity. However, the Fairer Scotland Duty - Interim Guidance for Public Bodies (Scottish Government, 2018) identifies a need to consider both 'communities of place' and 'communities of interest' in terms of people who share an experience and are particularly impacted by socio-economic disadvantage. Demographic groups who share one or more of the protected characteristics listed in Section 4 of the Equality Act 2010 can be considered 'communities of interest', meaning there is a direct link between the Fairer Scotland Duty and the public sector equality duty.</p> <p>As a whole, the Draft RTS demonstrates that the Fairer Scotland Duty has been appropriately assessed by providing a positive framework, within the context of the transport system, reduce inequalities caused by socioeconomic disadvantage. The transport challenges identify specific challenges for all socioeconomic groups from which objectives have been developed that revolve around addressing inequalities. All four of the strategic objectives inherently include references to reducing inequality and demonstrate a strategy that has considered the best method of creating a more equitable transport system in terms of both opportunities and outcomes.</p>

17 Scottish Government, Poverty and Income Inequality in Scotland 2014-17, 2018.

18 Scottish Government, Poverty and Income Inequality in Scotland 2014-17, 2018.

19 Limited data does exist, for example, a 2007 survey of 71 Transgender people in Scotland found that 30% of respondents had an income of over £20,000, and 48% of respondents had an income under £10,001. Scottish Transgender Alliance (2008). Transgender Experiences in Scotland Research Summary

20 EHRC, Significant inequalities in Scotland: Identifying significant inequalities and priorities for action, 2010, p.22

21 Stonewall Scotland, LGBT in Scotland – Work Report, 2018. p.5.

However, as with all other applicable statutory duties and requirements, the high-level nature of the all proposed RTS policies, combined with the absence of proposed implementation or delivery mechanisms at this stage, precludes the identification at this stage of specific likely impacts on inequalities of outcome caused by socio-economic disadvantage. In particular, at this stage, it is not possible to identify differential impacts from the proposed policies and policy enablers on different socio-economic groups. However, the RTS has reducing inequality (in relation to providing fair access to services, improving connectivity and affordable for all) at its heart and provides context within which future decisions will be made. Within the RTS:


- Poor transport connectivity is highlighted as a key issue in the transport problems within the draft RTS and the transport system alongside new active travel and ridesharing initiatives can act as a catalyst for increasing access to economic opportunities, employment, and access to public services. This is directly addressed within multiple regional mobility themes where new public services will be located where “connectivity by active travel and public transport to the public is high but particularly with regards to the location of deprived communities”.
- The proposed vision for the draft RTS also relates directly to creating an inclusive and accessible transport system that supports a more equitable society and reduction in deprivation. This is recognised within strategy objective one, which aims to create “equitable access to transport”. The draft RTS therefore establishes a positive framework which will allow for targeted interventions against current inequalities experienced by different socio-economic groups.

While the draft RTS does not propose any specific projects for development at this stage, the components listed within the RTS are likely to provide significant increases in economic opportunities, employment, access to public services and sustainable economic growth. All of these will contribute to reducing the current inequalities that exist within the RTS’s remit.

The development of the following strategies demonstrates that the specific needs of communities experiencing socio-economic disadvantage have been appropriately considered in the preparation of the RTS:

Relevant RTS Policies:

- Improving connectivity in areas which may be deprived of a certain good or service
- Encouraging the use of active travel through more infrastructure and the use of incentives to ensure income deprived users have access to bikes
- Provide a transport system that is affordable for all users, based on their ability to pay
- Enhancing public transport options to areas that suffer from high levels of transport deprivation
- Implementing mobility as a shared service schemes (MaaS) to provide increased transport offerings to rural and income deprived areas

	<ul style="list-style-type: none"> <li>Reducing CO2 emissions through increasing public transport usage and decarbonisation of the fleet</li> <li>Providing a transport system with enhanced connections to and from the study area, allowing business to be competitive</li> <li>Decreasing road deaths through targeted interventions</li> </ul> <p>These policies and policy enablers recognize that, transport is an enabler of socio-economic activity and can positively influence economic outcomes through increased access to education, public services, employment, and economic activities. In summary, it is considered that while it may not be possible to determine which of the proposed policies will benefit deprived areas, the proposed framework will positively influence socio-economic outcomes in a fair and balanced way. Any future intervention that takes place, which is guided by the draft RTS, should increase socio-economic outcomes.</p>
<b>Sign-off</b>	<p><b>Name: Jim Stewart</b></p> <p><b>Job title: Strategy Manager</b></p> 

**GO  
SEStran**

South East of Scotland  
Transport Partnership



# REGIONAL TRANSPORT STRATEGY

**Child Rights and Wellbeing  
Impact Assessment**

October 2021

In partnership with:  **Stantec**

## CRWIA – Stage 3 (Non-Legislative Policy/Measure)

<b>CRWIA title: SEStran Regional Transport Strategy</b> <b>Publication date: November 2021</b>	
<b>Which UNCRC Articles are relevant to the policy/measure?</b>	<p>The following UNCRC articles are relevant to the emerging new SEStran Regional Transport Strategy (RTS):</p> <ul style="list-style-type: none"> <li>Article 3: The best interests of the child must be a top priority in all decisions and actions that affect children</li> <li>Article 12: Every child has the right to express their views, feelings and wishes in all matters affecting them, and to have their views considered and taken seriously. This right applies at all times, for example during immigration proceedings, housing decisions or the child's day-to-day home life.</li> <li>Article 23: A child with a disability has the right to live a full and decent life with dignity and, as far as possible, independence and to play an active part in the community. Governments must do all they can to support disabled children and their families.</li> <li>Article 24: Every child has the right to the best possible health. Governments must provide good quality health care, clean water, nutritious food, and a clean environment and education on health and well-being so that children can stay healthy. Richer countries must help poorer countries achieve this.</li> <li>Article 28: Every child has the right to an education. Primary education must be free and different forms of secondary education must be available to every child. Discipline in schools must respect children's dignity and their rights. Richer countries must help poorer countries achieve this.</li> <li>Article 31: Every child has the right to relax, play and take part in a wide range of cultural and artistic activities.</li> </ul>
<b>What impact will the strategy will have on children's rights?</b>	<p>The policies and actions set out in the Draft RTS will affect all children and young people up to the age of 18 who use the regional transport system insofar as they will have a have a general impact on the transport system as a whole. However, the strategy objectives target elements of the transport system – namely affordability and public transport coverage – which disproportionately impact children and young people.</p>
<b>What likely impact – direct or indirect – will the policy/measure have on children and young people?</b>	<p>In overall terms, the focus on addressing challenges faced by children and young people within the Draft RTS establishes a positive framework which will allow transport interventions to be designed around meeting the needs of this group. As a key enabler of socio-economic activity, transport influences access to and young people's ability to benefit from education, amenities, public services, employment, and economic opportunities.</p> <p>Whilst specific impacts are dependent on the future implementation of the RTS once finalised, at this stage it is considered that the document (including policies focused on improving accessibility to education, economic opportunities and public services) are most likely to impact on the interests of children and young people. The Draft RTS therefore has the potential to contribute positively to the implementation of UNCRC articles 3, 12, 23, 24, 28 and 31. However, the high-level nature of the Draft RTS, combined with the absence of implementation or delivery mechanisms at this stage, precludes the identification at this stage of specific or differential impacts on children and young people.</p>
<b>Will there be different impacts on different groups of</b>	<p>Due to the strategic nature of the emerging RTS including the high-level nature of all policies, no differential impacts between groups of children and young people can be identified at this stage.</p>

<b>children and young people?</b>	
<b>If a negative impact is assessed for any area of rights or any group of children and young people, what options have you considered to modify the proposal, or mitigate the impact?</b>	The emerging RTS is not itself expected to have any negative impact on any area of rights or any group of children and young people.
<b>How will the policy/measure contribute to the wellbeing of children and young people in Scotland?</b>	As with all other applicable statutory duties and requirements, the high-level nature of proposed RTS objectives, policies and actions, combined with the absence of specific implementation or delivery mechanisms at this stage (e.g. individual transport schemes), largely precludes the identification of specific or differential impacts on enhancing the wellbeing of children and young people or on implementing the UNCRC.
<b>How will the policy/measure give better or further effect to the implementation of the UNCRC in Scotland?</b>	<p>Nevertheless, the RTS establishes a strategic framework through which future interventions will be designed which contribute to the wellbeing of children and young people and give better effect to child rights in accordance with the UNCRC. By including provisions which support improved access to education, economic opportunities, and public services, it is clear that the RTS would therefore, in overall terms, support the implementation of the following UNCRC articles in Scotland:</p> <ul style="list-style-type: none"> <li>• Article 3: The best interests of the child must be a top priority in all decisions and actions that affect children</li> <li>• Article 12: Every child has the right to express their views, feelings and wishes in all matters affecting them, and to have their views considered and taken seriously. This right applies at all times, for example during immigration proceedings, housing decisions or the child's day-to-day home life.</li> <li>• Article 23: A child with a disability has the right to live a full and decent life with dignity and, as far as possible, independence and to play an active part in the community. Governments must do all they can to support disabled children and their families.</li> <li>• Article 24: Every child has the right to the best possible health. Governments must provide good quality health care, clean water, nutritious food, and a clean environment and education on health and well-being so that children can stay healthy. Richer countries must help poorer countries achieve this.</li> <li>• Article 28: Every child has the right to an education. Primary education must be free and different forms of secondary education must be available to every child. Discipline in schools must respect children's dignity and their rights. Richer countries must help poorer countries achieve this.</li> <li>• Article 31: Every child has the right to relax, play and take part in a wide range of cultural and artistic activities.</li> </ul>
<b>Have you consulted with relevant stakeholders?</b>	An extensive programme of stakeholder engagement has informed the preparation of the Draft RTS, as detailed within the supporting RTS Case for Change Report.
<b>Have you involved children and young people in the development of the policy/measure?</b>	Children and young people have not yet been specifically involved in the development of the Draft RTS. SEStran has previously attempted to engage with a group representing young people in Scotland.

	This is recognised as a missing element of the strategy development which SEStran will address during the consultation process of the Draft RTS by seeking out the views of children and young people.
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