



Tactran Regional Transport Strategy 2018 – 2036 Refresh
Strategic Environmental Assessment
Scoping Report

January 2015



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1 INTRODUCTION

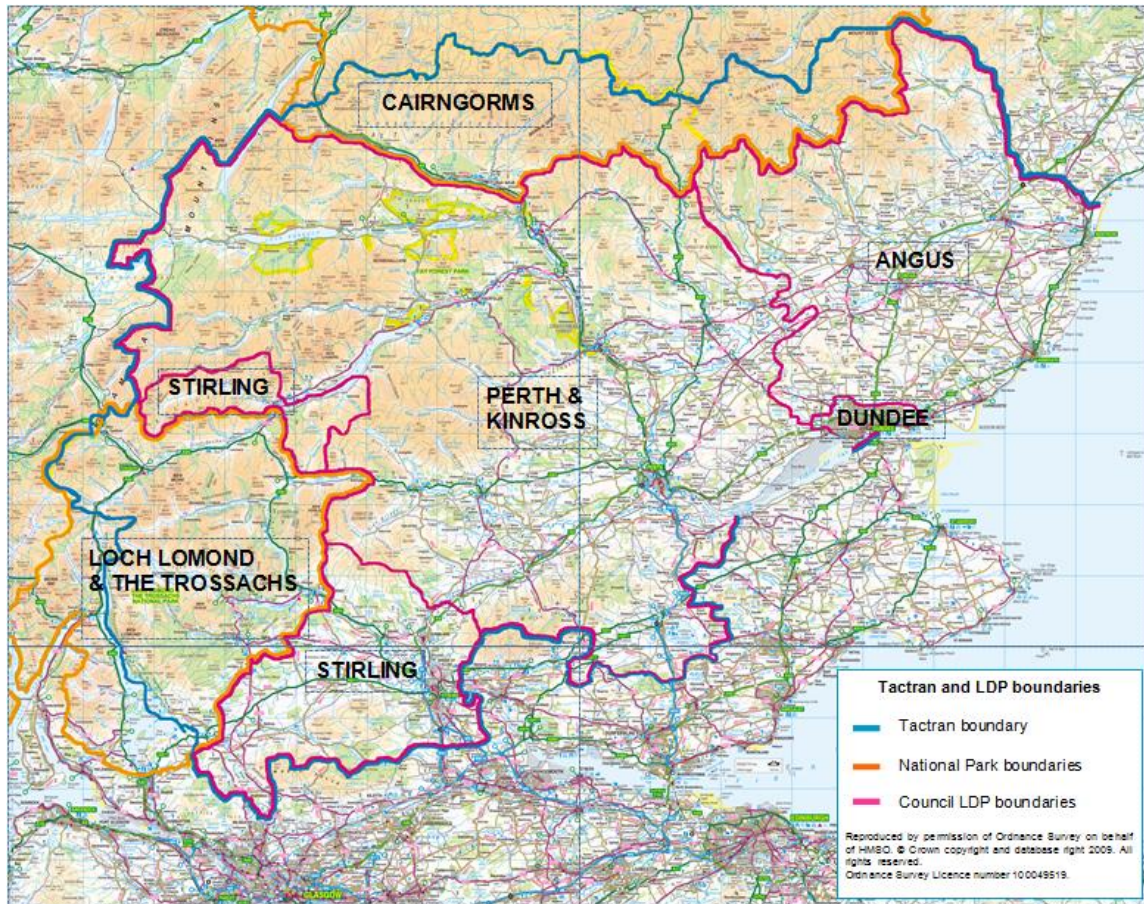
The purpose of this Strategic Environmental Assessment Scoping Report is to set out sufficient information on the Tactran Regional Transport Strategy (RTS) Refresh to enable the Consultation Authorities to form a view on the consultation period and scope/level of detail that will be appropriate for the Environmental Report. This report has been prepared in accordance with the Environmental Assessment (Scotland) Act 2005.

2 KEY FACTS

Table 1 Key Facts relating to the Regional Transport Strategy Refresh

Name of Responsible Authority	Tayside and Central Scotland Regional Transport Partnership (Tactran)
Title of the Strategy	Regional Transport Strategy refresh
What Prompted the Strategy	The Regional Transport Strategy was adopted in 2008 under the Transport (Scotland) Act 2005. This is the first update, seven years since adoption
Subject	The RTS addresses all aspects of transportation, traffic and accessibility
Period Covered by the Strategy	The current RTS covers the period from 2008 to 2023 but is currently being refreshed to bring it in line with the time scale for the TAYplan Strategic Development Plan (SDP) to 2036
Frequency of Updates	This is the first update, seven years since adoption
Area covered by the Strategy	The local authority areas of the Tactran Partnership covering Angus, Dundee, Perth & Kinross and Stirling
Purpose and/or objectives of the Strategy	<p>The purpose of the RTS is to outline a strategy that is designed to address the diverse transport and accessibility needs of the Tactran region. The RTS Refresh aims to align with policy and other changes since adoption of the RTS in 2008.</p> <p>The TACTRAN vision is: <i>“a transport system, shaped by engagement with its citizens, which helps deliver prosperity and connects communities across the region and beyond, which is socially inclusive and environmentally sustainable and which promotes the health and well-being of all.”</i></p>
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Figure 1 Plan of the Tactran area



3 DESCRIPTION OF PLAN CONTENT

The Transport (Act) 2005 places a duty on Regional Transport Partnerships (RTP) to draw up a strategy for transport in their region. The Act calls for the strategy to make provision for the following matters:

- the respects in which transport in the region needs to be provided, developed or improved having regard to, among other things:
 - future needs including those occasioned by demographic and land use changes
 - what can be done, taking account of cost, funding and practicability
- meeting the needs of all inhabited places, in particular, those which the Partnership considers different from the remainder of the region by reason of their remoteness or the sparsity of their populations
- meeting the need for efficient transport links between heavily populated places
- how transport in the region will be provided, developed, improved and operated so as:
 - to enhance social and economic well-being
 - to promote public safety, including road safety and the safety of users of public transport
 - to be consistent with the principle of sustainable development and to conserve and enhance the environment
 - to promote social inclusion
 - to encourage equal opportunities and, in particular, the observance of the equal opportunities requirements
 - to facilitate access to hospitals, clinics, surgeries and other places where a health service is provided
 - to integrate with transport elsewhere
- the order of priority in which different elements of the provision, development and improvement of transport should be undertaken
- how the Transport Partnership's functions will be exercised so as to fulfil its transport strategy and, if the Partnership considers that the conferring of further functions is necessary for that purpose, what those functions are
- how the Transport Partnership, so as to enable it to fulfil its transport strategy, will seek to influence its constituent councils or council in the performance of their functions relating to transport
- the measuring and monitoring of the achievement of the strategy.

The RTS was approved by Scottish Ministers in June 2008 and published in October 2008. Although the RTS had been prepared to cover the period 2008-2023, the original guidance from the Scottish Government was that a review be conducted every four years. However, subsequent guidance from the Scottish Government has indicated that they will not be updating the National Transport Strategy and that they (and RTPs) should focus on delivery of the Strategic Transport Projects Review and RTS Delivery Plans respectively. They have, however, indicated that they are happy for RTPs and partner authorities to update or refresh their strategies if they so wish.

The RTS Refresh notes that the core aims and objectives of the RTS remain consistent and relevant, in terms of the Partnership's statutory role, functions and duties, and aligning with and supporting the achievement of national and local outcomes, as defined in the National Performance Framework and Community Planning Single Outcome Agreements (SOAs). The direction of the RTS is not being changed though it is being extended from 2008 - 2023 to 2036, which aligns it with the TAYplan Strategic Development Plan.

A full SEA was undertaken of the RTS when it was first developed in 2006-8. The scale of re-fresh that is being considered means that much of the appraisal work that was carried out for the SEA still remains valid. This scoping report therefore outlines a method which focuses on an appraisal of the proposed changes affecting the RTS since its publication in 2008.

4 PLAN, PROGRAMME OR STRATEGY CONTEXT

Relationship with other PPS and environmental protection objectives

The Environmental Assessment (Scotland) Act 2005 requires that the Environmental Report includes an outline of the relationships with other relevant Plans, Programmes or Strategies (PPS) and how environmental protection objectives have been taken into account in the PPS preparation. This section covers these issues and describes the policy context within which the PPS operates, and the constraints and targets that this context imposes on the PPS. The PPS introduced since the original RTS in 2008 and thought to have an influence on or be influenced by the RTS refresh are identified in Table 2. Those PPS introduced before 2008 were considered in the original RTS SEA to which reference can be made at: http://www.tactran.gov.uk/strategy_downloads.html.

Table 2 Relationships with other Plans, Programmes, Strategies and Environmental Objectives

Name of PPS / environmental protection objective	Main requirements of the PPS	Relationship with PPS
International		
<ul style="list-style-type: none"> ▪ The Birds Directive 2009/147/EC ▪ European Biodiversity Framework 	<p>Protection of wild birds and their habitats. Promotes the conservation and sustainable use of biological diversity.</p>	<p>Strategies and policies should not hinder protection, management and control of species and should support the conservation and sustainable use of biological diversity.</p>
National		
Climate Change		
<ul style="list-style-type: none"> ▪ Scottish Government Climate Change Delivery Plan (2009) 	<p>Sets out high level measures required to meet Scotland's statutory climate change targets, to 2020 and in the long term.</p>	<p>The RTS Refresh should include an objective to contribute to the reduction of greenhouse gases. This may include policies that:</p> <ul style="list-style-type: none"> • promote sustainable alternatives to car; and • promote the use of alternative fuels
Economy & Sustainable development		
<ul style="list-style-type: none"> ▪ Scottish Government Economic Strategy (2011) ▪ Scotland's Cities: Delivering for Scotland (2011) ▪ National Renewables Infrastructure Plan (2010) 	<p>Identifies strategic priorities critical to achieving sustainable economic growth. Recognises that good connectivity between cities and their regions is the key to widening the reach of cities as well as the importance of international connections. The importance of low carbon transport is also highlighted. Outlines the nature of infrastructure required for the offshore wind, wave and tidal sectors.</p>	<p>The RTS Refresh should seek to integrate with the aims of the strategies and contain actions to reduce the need to use private transport and assist in the reduction of emissions as well as increasing connectivity both to/from and within the region. It should support sustainable economic growth whilst meeting the differing needs of a diverse population. The RTS Refresh should take into account the need to reduce impact on, and adapt to, climate change, as well as supporting the renewables sector.</p>
Planning		
<ul style="list-style-type: none"> ▪ Scottish Planning Policy (SPP) (2014) ▪ National Planning Framework for Scotland 3 (NPF3) (2014) 	<p>Sets out the main purpose and tasks for land use planning, development planning and control for Scotland.</p> <p>Sets out strategic development priorities to support the Scottish Government's central purpose of sustainable</p>	<p>The RTS refresh should support the alignment of development more closely with transport and spatial priorities for change including cities better connected and providing a gateway to the rest of the world and more accessible rural areas.</p>

	economic growth.	
Transport <ul style="list-style-type: none"> ▪ Scottish Government Road Safety Framework (2009) ▪ Cycling Action Plan for Scotland (2009) ▪ National Walking Strategy (2014) 	<p>Sets out ambitions for a safer Scotland on the roads.</p> <p>Sets out a vision for cycling that by 2020 10% of all journeys will be by bike.</p> <p>Aims to promote walking as part of everyday journeys.</p>	The RTS Refresh has a strong relationship to these national strategies and should seek to contribute to the delivery of their objectives and targets.
Noise <ul style="list-style-type: none"> ▪ Scottish Government Transportation Noise Action Plan 	Ensure that noise management is incorporated into all transport-related activities.	The RTS Refresh should support plans to address transportation generated noise.
Cultural Heritage & Built Environment <ul style="list-style-type: none"> ▪ The Scottish Historic Environment Policy (2009) 	Provides a framework for more detailed strategic policies and operational policies in managing the historic environment.	The RTS Refresh should seek to reduce and avoid adverse impacts on cultural heritage and the built environment as a result of transport proposals.
Landscape & Soil <ul style="list-style-type: none"> ▪ The Scottish Soil Framework (2009) 	<p>The main aim of the Framework is to promote the sustainable management and protection of soils consistent with the economic, social and environmental needs of Scotland.</p> <p>A key aspect is the protection of soil as an asset – for the future of the Scottish economy, as well as a contribution to challenges set by climate change.</p>	The RTS Refresh should seek to avoid adverse impact on soil and landscape as a result of transport proposals.
Population & Human Health <ul style="list-style-type: none"> ▪ Equality Act 2010 ▪ ‘Making the Links greenspace for a more successful and sustainable Scotland’ (2009) 	<p>Sets a framework which protects individuals from unfair treatment and promotes a fair and more equal society.</p> <p>Sets out the key actions that are needed to ensure that greenspace delivers for people, communities and places across the whole of urban Scotland.</p>	The RTS should consider the needs of society as a whole in the region and take account of its potential role in the delivery of and access to greenspace networks, particularly those that can also act as cycling and walking facilities.
Water <ul style="list-style-type: none"> ▪ The Flood Risk Management (Scotland) Act 2009 ▪ River Basin Management Plan for Scotland (2009) 	<p>Creates a framework in which organisations involved in flood risk managed can coordinate actions to delivery sustainable and modern approaches to flood risk management.</p> <p>Details the strategy for River Basin Management Planning in Scotland.</p>	The RTS Refresh should not promote projects that will create flood risks (from the sea or rivers). The RTS should have regard for wider objectives for the marine environment when it comes to actions relating to shipping and harbours.

<ul style="list-style-type: none"> ▪ Our Seas – a shared resource. High Level Marine Objectives (2009) ▪ Marine (Scotland) Act 2010 	<p>Expresses outcomes for the UK marine area and underpins the development of the joint Marine Policy Statement (MPS) and will guide development of national and regional marine plans.</p> <p>Provides a framework which will help balance competing demands on Scotland's seas and introduces duties for sustainable development, protection and enhancement of marine areas, mitigation of and adaptation to climate change, marine planning and conservation and measures to encourage economic investment.</p>	
<p>Waste</p> <ul style="list-style-type: none"> • Scotland's Zero Waste Plan (2010) 	<p>The plan outlines Scotland's key objectives in relation to waste prevention, recycling and reducing the amount of waste sent to landfill on the journey to a Zero Waste Scotland. The plan proposes targets for Scotland's waste and delivering these targets will be supported by the land-use planning system.</p> <p>Provides a vision for Scotland where all waste is seen as a resource; waste is minimised; valuable resources are not disposed of in landfill, and most waste is sorted, leaving only limited amounts to be treated.</p>	<p>The RTS Refresh should be aware of the implications of transporting waste.</p>
<p>Regional and Local</p>		
<p>Planning</p> <ul style="list-style-type: none"> ▪ TAYplan SDP (2012) ▪ Cairngorms National Park Proposed LDP (2013) ▪ Dundee City Council LDP (2014) ▪ Perth & Kinross Council LDP (2014) ▪ Stirling Council LDP Modified Plan (2014) 	<p>The SDP Guides the development of the TAYplan region for the next 17 years. Sets the strategic context for Angus, Dundee and Perth & Kinross Councils LDPs which in turn set the framework for land use development. The Stirling and Cairngorms National Park LDPs guides the development of their respective areas over the next two decades.</p>	<p>The RTS Refresh Objectives and Strategy reflect the common theme in the region's SDP and LDPs of improving accessibility by a range of modes of transport, promoting a shift towards more sustainable modes and reducing carbon emissions.</p>
<p>Community Planning</p> <ul style="list-style-type: none"> ▪ Community Planning Partnerships and Single Outcome Agreements for Angus, Dundee, Perth & Kinross and Stirling 	<p>The Single Outcome Agreements set out the outcomes that partners hope to deliver for local communities. They aim to ensure that people are genuinely engaged in the decisions on public services made that affect them and involve a commitment from organisations to work together, not apart,</p>	<p>Tactran is a statutory community planning partner in Angus, Dundee, Perth & Kinross and Stirling and is signed up to the delivery of the Single Outcome Agreements. The RTS refresh should work towards the outcomes set in these documents, a number of</p>

	in providing better public services.	which are directly related to the transport network
Air Quality <ul style="list-style-type: none"> ▪ Dundee Air Quality Action Plan ▪ Perth Air Quality Action Plan 	These set out measures that the Councils intend to introduce to minimise the effects of air pollution on human health.	Transport is a key cause of poor air quality and the RTS Refresh should recognise this impact and contain measures to reduce the impact and improve air quality.
Local Transport Strategies <ul style="list-style-type: none"> ▪ Stirling LTS ▪ Shaping Perth's Transport Future 	<p>Sets out programmes to address transport problems and opportunities in the Stirling Council area.</p> <p>Outlines a package of measure that aim to provide a transport system in and around Perth that will support sustainable economic growth, protect and improve the environment and improve social inclusion and accessibility.</p>	These detailed Plans put into effect the RTS Economy; Accessibility, Equity and Social Inclusion; Environment; Health and Well-being; and Safety & Security Objectives

The main issues for the RTS Refresh and the SEA, drawn from identifying common themes in the PPS above are:

- avoid adverse effects on biodiversity, including protected sites and species, but also in relation to wider ecological networks
- reduce emissions of greenhouse gases
- promote sustainable economic development
- encourage development to locate within transport corridors
- support renewable power generation and use of low carbon transport
- promote strategies that reduce road casualties
- promote alternative, sustainable modes of transport and reduce congestion, noise and air pollution through walking, cycling and public transport
- support policies that maintain and enhance landscape character, including character of the built environment
- consider the needs of society as a whole
- avoid adverse effects on the water environment or add to or create any significant flood risks
- reduce social exclusion and inequalities.

5 ENVIRONMENTAL BASELINE

Introduction

This section describes the proposed structure and level of detail which it is proposed to use in the Environmental Report for the environmental baseline for the SEA of the RTS Refresh. This approach is consistent with that adopted for the SEA for the original RTS.

The key environmental issues and problems that have been identified from the review of plans, programmes and strategies; consultations undertaken in consideration of the RES Refresh Main Issues Report; and review of original RTS SEA baseline information are summarised. An analysis of the baseline environmental conditions is also provided.

The scope and content of this report has been guided by the relevant criteria for Environmental Reports set out in Schedule 3 of the SEA Act. This report has been structured with ten environmental topics so that the key information relating to elements of the Tactran area environment is grouped into clear headings

SEA Topics

Environmental topics have been identified which provide a structure for the baseline. The topics were selected to provide a sufficiently wide scope for the SEA (and thus the necessary environmental baseline information to be collected) and to reflect the nature, scope and potential effects of the RTS Refresh. These are:

- Air Quality and Noise
- Soils and Geology
- Aquatic Environment
- Climate Change
- Landscape and Townscape
- Biodiversity
- Cultural Heritage
- Human Health and Safety
- Population
- Material Assets

The relationship between the environmental topics and the criteria required by the SEA Act is shown in Table 3, together with an indication of the key environmental features identified for each topic.

Table 3 Relationship between Proposed SEA Topics and Schedule 3 Criteria

Environmental Topics	SEA Act Criteria	Key Environmental Issues
Air Quality and Noise	Air, Climatic Factors, Human Health	Air Quality (concentrations of nitrogen dioxide (NO ₂) and particulate matter (PM10)) Noise climate
Soils and Geology	Soil, Material Assets	Designated Sites Soil Resources
Aquatic Environment	Water, Climatic Factors	Freshwater and coastal/estuarine quality Hydrological regime / channel characteristics Flooding and flood risk
Climate Change	Climatic Factors	Carbon dioxide (CO ₂) emissions

Landscape and Townscape	Landscape	Designated landscape areas Landscape character
Biodiversity	Biodiversity, fauna and flora	Ecological designations Priority habitats and species Habitat action plans
Cultural Heritage	Cultural Heritage	Designated sites and buildings / structures
Human Health and Safety	Human Health	Key health indicators Transport safety
Population	Population	Demographics Accessibility
Material Assets	Material Assets	Construction aggregates and waste Fuel and energy consumption and efficiency Transport infrastructure

Baseline Data Gathering and Analysis

This section provides a summary of the environmental baseline within the Tactran area. Whilst a broad cross section of environmental baseline issues have been considered (as set out in Table 3), information has been collated to broadly match the level of detail of policies and proposals anticipated in the draft RTS Refresh (see Section 7) and has been focused on aspects of the environment on which transport policies and proposals are likely to have significant effects.

A summary of the key issues and status of the environmental baseline is presented in Table 4. Further analysis of environmental problems in the area of the RTS Refresh is presented in Section 6 of this report.

Table 4 Summary of Environmental Baseline

Environmental Topics	Key Indicators/Issues	Baseline Status	Trends	Proposed Indicative Appraisal Methodology
Air Quality and Noise	Concentrations of NO ₂ and PM10 - Designated Air Quality Management Areas (AQMAs) Noise levels	Some monitored exceedances of national air quality objectives (Dundee City and Perth City area) Two AQMAs – Dundee City and Perth City area Road vehicle emissions key source of NO ₂ and PM10 Other sources present across Tactran area	Air quality data indicates reduction in pollutants Predicted background air quality Improvements No monitored noise trends Increasing traffic flows on key roads across area, especially commuter routes	Consideration of influence of proposed policies and proposals on emissions Use of quantitative data when available; where not available qualitative comment based on experience Particular consideration of potential to improve or worsen areas of poor air quality
Soils and Geology	Designated sites Agricultural land quality	18 Geological SSSIs and 11 mixed SSSIs 71 Geological Conservation Review (GCR) sites Prime agricultural land in Angus and poorer quality soils in the Grampians	No trend data	Review of potential for measure to affect designated areas directly and indirectly by comparing likely impact of measure with baseline information Appraisal of potential for measure to affect areas of peat by comparing likely impact of measure with baseline information Appraisal of potential for measure to affect areas of prime agricultural land by comparing likely impact of measure with baseline information
Aquatic Environment	Quality of waterbodies (surface and groundwater) Flooding	Large network of running and standing water. Water quality varies widely but generally fair to good with better quality generally associated with upland, remoter locations and poorer quality in urban areas. Some areas at risk from flooding	Nationally water quality within Scotland is reported to be improving	Qualitative appraisal of potential for measure to affect water quality based on experience, potential for mitigation, best practice guidance etc. Appraisal of any positive effects from flooding as part of natural hydrological/ecological cycle

Climate Change	Emissions of greenhouse gases Climate data	Existing climate is generally in line with Scotland as a whole though experiences lower than average rainfall	Climate change predictions suggest potential increases in annual temperature and seasonal precipitation changes	Use of quantitative data where available, if not qualitative appraisal based on likely effects of measure on traffic flows
Landscape and Townscape	Designated areas Landscape character Green belt, corridors	Wide variety of landscapes Range of landscape designations (including 5 National Scenic Areas and 57 Historic Gardens and Designed Landscapes)	Pressure on landscape from development	Appraisal of potential impacts of policy or proposal on landscape of Tactran area and consideration of potential for mitigation
Biodiversity	Designated sites BAP and LBAP priority habitats and species	29 SACs, 9 SPAs and 7 RAMSAR sites 218 SSSIs (biological and mixed) 7 NNR, 5 LNR and 6 Country Parks 6 key LBAP priority habitat types and various priority species	Habitat loss and loss of biodiversity through development, such as urbanisation and changes in land management practices Increasing degradation of biodiversity associated with direct and indirect effects from development such as pollution	Review of potential for measure to affect designated areas directly and indirectly by comparing likely impact of measure with baseline information Appraisal of potential impacts of measure on biodiversity of Tactran area and consideration of potential for mitigation
Cultural Heritage	Designated sites	7,644 Listed Buildings Category A to C 1,351 Scheduled Ancient Monuments Approximately 100 Conservation Areas Potential for undiscovered archaeology	No trend data Increasing development may identify previously unknown archaeology resulting in increased known resources	Review of potential for measure to affect designated resources directly and indirectly by comparing likely impact of measure with baseline information Qualitative consideration of potential of measure to affect unknown remains
Human Health and Safety	Census Health Indicators Flooding	Better health than Scottish average (based on specific indicators) and higher life expectancy for men and women Reduction in road casualty rates and trends from 2004-8 average to 2020 average Some areas at risk from flooding	None identified	Iterative consideration of potential for measure to affect health by discussion with team responsible for health appraisal Consideration of potential for measure to cause or exacerbate flooding, drawing on available information, experience etc.
Population	Demographic profile Accessibility indicators Tourism Indicators	Tactran area accounts for 9.4% of the Scottish population Population distribution within three cities, within smaller towns and villages	Predicted increases in population lower than Scottish average in some parts of the Tactran area	Consideration of potential for measure to impact on accessibility drawing on available information, experience, best practice etc.

		<p>and throughout rural areas</p> <p>Lower accessibility to private vehicles than Scottish average</p> <p>2001 to 2005 saw a 50% increase in international visitors to Scotland and an 11% increase in visitor attraction numbers (of which there are many in the Tactran area)</p>		
Material Assets	<p>Aggregates and waste</p> <p>Transport infrastructure</p>	<p>Network of local and national roads, railways and aquatic infrastructure</p>	<p>None identified</p>	<p>Review of potential for policies and proposals to affect infrastructure resources directly and indirectly by comparing likely impact of policies and proposals with baseline information</p> <p>Review of potential for policies and proposals to affect aggregate resources directly and indirectly by comparing likely impact of policies and proposals with baseline information</p>

Areas likely to be affected by the RTS Refresh

Given the nature of the RTS Refresh, the areas that are most likely to be affected are those on or in close proximity to the transport network. The geographical extent of such effects is likely to be dependent on the proposed policies and proposals within the RTS Refresh.

6 ENVIRONMENTAL ISSUES AND PROBLEMS

A review has been undertaken of environmental problems, issues and opportunities in the Tactran area. This is based on the review carried out for the RTS, updated by a review of issues from relevant strategies, plans and programmes introduced since 2008; and a review of baseline environmental data.

A summary of the key findings of the review is presented below. Where appropriate, opportunities for the environment in relation to the RTS Refresh are included.

Air Quality and Noise

Issues and Problems

- levels of NO₂ and PM10 (particularly in urban areas associated with traffic flows and/or congestion)
- noise (traffic associated)
- increasing traffic flows (including new sources such as residential developments)
- dust from construction activities (at a localised level)
- journey times crossing Dundee
- management of tourist traffic summer congestion, overtaking and parking on rural roads
- logging and mineral extraction traffic on rural roads
- number of cars commuting into Dundee is high, although car ownership is low
- Dundee university students have high car ownership
- Dundee city and Perth city are AQMAs. Pollution is caused by congestion, air quality hot spots in Dundee and Perth City Centres and also Crieff High Street
- cumulative impacts from traffic from various developments

Opportunities

- background levels of NO₂ and PM10 are predicted to decrease in non-urban areas
- promotion of sustainable transport (including walking and cycling) and reduction of private journeys by car
- provision or enhancement of sustainable transport infrastructure
- raising awareness of best site management practices in contracts
- promote access to developments on most suitable roads
- checking new infrastructure does not give rise to greater emissions
- provision of suitable infrastructure in tourism hotspots (laybys, overtaking sections, etc.)
- improvement to transport infrastructure and vehicles (e.g. 'quiet' road surfaces and cleaner fuels and vehicles)

Soils and Geology

Issues and Problems

- direct and indirect impact on statutory and non-statutory designated sites (these include geological Sites of Special Scientific Interest (SSSI), Geological Conservation Review (GCR) Sites and Regionally Important Geological Sites (RIGS))

- potential impact on important peat resources
- pressure on soil resources, particularly those supporting prime agricultural land
- areas of potentially contaminated soils and mineral instability (e.g. in former mining areas)
- potential for contamination from transport (e.g. fuel spillages during construction)
- erosion from run-off and peat stability/slippage

Opportunities

- creation of new geological sites through development (e.g. road cuttings etc.) providing educational opportunities
- good construction design and practice offers the opportunity to minimise impact on soils and geology
- changing agricultural policies (e.g. reduced perception of the importance of prime agricultural land)
- following advice on avoidance of soil and peat instability

Aquatic Environment

Issues and Problems (Freshwater Environment)

- direct and indirect impact on surface and groundwater (through water quality, flow and affecting physical form)
- flooding including fluvial and urban (associated with insufficient drainage/culvert maintenance and capacity)
- new development in flood plains is a key pressure on the hydrological regime and contributory factor to flooding in some locations and careful planning required to avoid impacts
- pressure on private abstractions
- water abstraction can affect important habitats

Issues and Problems (Marine Environment)

- direct and indirect impacts on coastal waters and estuaries
- flooding and sea level rise
- pollution from construction related activities or from spills once operational

Opportunities

- SEPA reports water quality across Scotland as a whole is improving. The implementation of the RTS Refresh has the opportunity to contribute to the improvement of water quality and physical form (as well as the habitat aspect discussed in Biodiversity) through good construction design and practices
- potential to develop watercourses as a resource for better health and economic development

Climate Change

Issues and Problems

- emissions of greenhouse gases from traffic and transport

- emissions from transport play an important role in greenhouse gas emissions and as identified in the Air Quality and Noise section road traffic levels are increasing on some routes
- predicted increases in storm event frequency and severity from climate change in future
- rising sea levels
- dependency on oil and air travel

Opportunities

- opportunities to reduce private vehicle journeys and promote use of sustainable modes of transport
- education about sustainable transport and promotion of the benefits to the environment and health
- checking new proposals do not give rise to significant new emissions
- opportunities to exploit the potential for biofuels

Landscape and Townscape

Issues and Problems

- direct and indirect impact on designated sites (such as National Scenic Areas (NSAs), National Parks, Areas of Great Landscape Value (AGLVs), Conservation Areas and Historic Gardens and Designed Landscapes)
- inappropriate or insensitive development, and capacity of the landscape to absorb new infrastructure
- gradual erosion of landscape character (cumulative development effects)
- construction of new infrastructure may affect the wider landscape setting of particular sites or sensitive historic landscapes
- possible severance of historic environment features
- townscapes affected by traffic calming measures
- maintenance of existing infrastructure affecting the historic environment features (e.g. historic bridges)

Opportunities

- opportunity for landscape/townscape/seascape enhancements with new and revised infrastructure, this is particularly in areas of lower current landscape and townscape value
- the potential to improve the accessibility of historic features such as townscapes

Biodiversity

Issues and Problems

- direct and indirect impact on designated sites (European, national and local), European Protected Species and nationally important species
- loss of habitat and species (particularly those identified within the Local Biodiversity Action Plans (LBAPs), associated in part with urbanisation and development within the countryside (projected increases in residential developments and associated infrastructure will continue to increase this pressure)

- changes in land use (such as afforestation) resulting in changes to habitat composition (as well as landscape change)
- habitat fragmentation and severance associated with new developments
- disturbance of species from construction works and traffic
- species loss and road kill
- presence of National Parks within region

Opportunities

- with transport there is the potential to promote and create wildlife habitats
- ensure new development does not affect designated sites or important species
- reducing vehicle traffic may help reduce road kills
- planning development to avoid severance and fragmentation
- new planting associated with transport developments can add to local biodiversity
- there is an opportunity to provide more interpretation facilities

Cultural Heritage

Issues and Problems

- direct and indirect impacts on statutory and non-statutory designated sites and the impact on their settings (Scheduled Ancient Monuments, Listed Buildings, Designed Landscapes and Conservation Areas)
- promotion of Dundee and Angus as tourist destinations, desire to move from day destinations to longer stay
- tourism is a major sector in Perth & Kinross
- risks of impact to unknown and as yet undiscovered resources
- variety of locally important sites which should be safeguarded including battlefields

Opportunities

- there is an opportunity to enhance the setting and potentially the physical form of cultural heritage sites where this is appropriate (and in discussion with Historic Scotland for features of national importance)
- there is an opportunity to improve accessibility to the cultural heritage resource
- potential to enhance interpretation of the cultural resource

Human Health and Safety

Issues and Problems

- inadequate and insufficient infrastructure for sustainable, healthy transport (e.g. walking routes and cycling commuting routes)
- air pollution is a problem with regard to health, particularly in urban locations and close to major transport corridors. Air pollution is also a factor in the promotion of sustainable, healthy transport (e.g. walking and cycling)
- community severance effects e.g. intimidation and safety of road crossings
- personal safety on the transport network can be a factor in the use of sustainable methods of transport, such as road safety for cycles and personal safety for bus networks, particularly at night and in remoter locations

- road traffic casualties
- changes to provision of health care – centralisation/relocation of clinical specialities at specific hospitals (PRI/Ninewells/Stracathro; Stirling Royal Infirmary/Forth Valley Royal Hospital)
- access from rural areas
- Scottish Ambulance Service review (where will future provision for non-emergency transport come from)
- parking levels at hospitals
- in Dundee, Kingsway is a strategic and local problem – severs city, especially for cycles/pedestrians
- access in Angus to healthcare is problematic

Opportunities

- there are opportunities for promoting sustainable methods of transport (e.g. walking and cycling) which can play an important role in improving health
- there are opportunities within the transport network and infrastructure to address these problems through design, maintenance and raising awareness. Opportunities may include improved lighting around bus stops, creation of on and off-line cycle lanes and traffic calming measures
- careful planning in RTS Refresh to address access issues
- promotion of safety measures in RTS Refresh

Population

Issues and Problems

- lack of access within/from towns and villages and to the local countryside
- issues of requirement for better accessibility to public transport facilities and services (adequate pedestrian routes of reasonable distance to services, etc.)
- lifestyle trends and family choices affecting location decisions for housing/work/education which are contributing in many cases to longer commuting distances by car
- lack of attractive long distance safe commuter cycle routes
- train capacity to Edinburgh/Glasgow (Dundee services often over-crowded)
- disparity of rail fares across region
- perception of poor interchange between Dundee bus and rail stations
- lack of integrated ticketing
- large high school catchment areas within rural areas
- access to colleges and universities within the region
- Dundee's population rising very slowly
- Dundee Western gateway – major growth area in housing in south
- need to travel is high in Angus as population is spread out in seven small centres
- severance of communities leading to perceived and/or real peripherality issues
- coordinated travel information for tourists
- ability to sustain bus provision to dispersed locations
- potential for Demand Responsive Transport
- need to retain services (retail/GPs/post offices/banks) within rural and market town locations (reducing need for travel)
- promotion of ports within region and competition between ports
- lack of rail freight facilities
- Forth Road Bridge acts as a barrier to access to Dundee

- air access – issue for Scotland’s economy as a whole

Opportunities

- design of new developments and their infrastructure associated with the projected increases in dwellings has the opportunity to promote accessibility to sustainable transport
- the RTS Refresh has the opportunity to support, promote and facilitate sustainable access to strategic development areas
- ensuring the RTS Refresh promotes accessibility

Material Assets

Issues and Problems

- transport infrastructure (access to, quality, frequency, maintenance etc.)
- transport related fuel and energy use
- reducing number of ‘quiet’ roads leading to less walking and cycling
- pressure for aggregates and associated effects of, for example, visual intrusion from quarries and borrow pits

Opportunities

- RTS can promote wise use of existing road and other transport infrastructure
- promote reduction of non-renewable resources
- promote re-use of aggregates and other road materials
- reduce construction of new infrastructure for transport unless essential
- re-use of materials on site
- recycling of construction and demolition wastes
- opportunities to exploit the potential for alternative fuels

7 ENVIRONMENTAL ASSESSMENT

Introduction

This section sets out the scope, approach and level of detail that is proposed for the detailed environmental assessment of the RTS Refresh. An overview of the alternatives for the RTS Refresh is set out, together with an initial analysis of the key environmental issues and the SEA objectives and framework which will be used for the appraisal of the RTS Refresh during the detailed stage of environmental assessment.

The results of this assessment will be presented in an Environmental Report (ER).

Plan Alternatives

Alternatives to the RTS were considered during the development of the original Strategy in 2008. As the purpose of the Refresh is not to change the direction of then RTS but rather to incorporate developments in the wider policy framework within which the RTS sits and to better align it with the TAYplan SDP, it is not proposed that the objectives of the RTS will change significantly nor will it change its general direction.

Scoping of Significant Environmental Effects

The intended scope of the SEA was undertaken alongside development of the RTS in 2008. Table 5 is an extract from the original SEA Scoping Report. It is considered that this remains applicable to the RTS Refresh.

Table 5 Scoping of Significant Environmental Effects

SEA Topic Areas	Scoped In	Scoped Out
Air Quality and Noise	Yes	No
Soils and Geology	Yes	No
Aquatic Environment	Yes	No
Climatic Change	Yes	No
Landscape and Townscape	Yes	No
Biodiversity	Yes	No
Cultural Heritage	Yes	No
Human health and Safety	Yes	No
Population	Yes	No
Material assets	Yes	No

Environmental Appraisal

SEA Vision and Objectives

The initial SEA of the RTS set out a Vision which stated “To ensure that the RTS contributes to safeguarding the environment, making improvements where possible and promoting sustainable travel choices”. The 11 SEA objectives against which the RTS was assessed are shown in Table 6.

Table 6 SEA Topics, Objectives and Indicators

SEA Topic	SEA Objective	Indicator
Air quality and noise	To improve air quality in the region and contribute to meeting national air quality and health objectives	Number of AQMAs Trends in monitored roadside NO ₂ and PM10 by Council area Traffic flows on busy roads and in AQMAs Health data in AQMAs
	To reduce transport related noise and vibration pollution	Key sources (contours) of transport noise
Aquatic environment	To protect watercourses from the impacts of transport and maintain and enhance their water quality	No deterioration of the water environment or increase in flood risk Proportion of new transport infrastructure incorporating SUDS
Climate Change	To contribute to meeting the Scottish share in the reduction of carbon emissions	National CO ₂ emissions from transport sector Traffic counters on key road links Number of tonnes of CO ₂ caused by increased air travel that are offset by the successful implementation of a carbon offset scheme
Landscape and Townscape	To avoid negative impacts from visual intrusion from transport infrastructure	Number of significant visual effects predicted in European Sites for new interventions
	To protect and enhance the landscape of the region	Number of significant landscape effects predicted in European Sites for new interventions
	To maintain and enhance townscapes and their settings	Number of objections to interventions from Historic Scotland
Biodiversity	To protect and enhance biodiversity	Number of significant ecological effects predicted in European Sites for new interventions Number of schemes with positive species and habitat enhancement measures
	To minimise the effects of transport on designated areas and protected species	Number of significant ecological effects on protected species and designated sites predicted in European Sites for new interventions
Cultural Heritage	To protect all (known and unknown) archaeological and historic resources of the region and their settings	Number of significant effects predicted on archaeological remains and historic resources in European Sites for new interventions
Human Health and Safety	To improve health and safety by providing appropriate means and modes of transport which contribute to a healthier, safer lifestyle	Km of new cycleway Number of safe routes to school projects Change in number of car trips <1km

As part of the RTS Refresh the vision, objectives and indicators will be reviewed to ensure that they remain relevant and then will be used in the SEA.

The RTS Refresh will consider the policies and proposals currently contained within the RTS and whether they need to be updated or new ones added. The strategic, policy and possible site-specific options of any amended or new policies and proposals will be assessed. Policies and proposals contained within the existing RTS for which there is no change proposed, will not be assessed as the assessment carried out in the SEA of the RTS in 2008 remains valid.

In assessing amended or new policies and proposals the effects will be predicted as positive, negative, uncertain, or neutral effects. The effects will be further evaluated to determine their significance on the receptors in relation to reversibility or irreversibility of effects, risks, duration (temporary, permanent, short-term, medium-term or long-term) and cumulative (direct, indirect, secondary and synergistic).

Where policies and proposals are predicted to have significant adverse environmental effects, measures must be considered to avoid these, reduce them to acceptable levels (e.g. to meet regulatory standards), or offset them (e.g. by providing a substitute for lost or damaged environmental resources). Such mitigation might include, for example, changes to the alternatives, such as adding, deleting or refining policies and proposals; or requirements for project environmental impact assessments for certain projects if appropriate.

It is considered that this approach is in proportion to the scale of the Refresh being undertaken and is consistent with the methodology used in the SEA of the original RTS.

Table 7 shows the framework that will be used to assess effects of the amended or new changed policies and proposals within the strategy.

Table 7 Example Assessment Framework

	SEA Objectives		Potential impacts	Mitigation	Assessment of residual effect			Comments - to cover for example: <ul style="list-style-type: none"> - likelihood/certainty of effect occurring - geographical scale of effect - whether temporary or permanent - frequency of effects and potential for reversibility - assumptions made in assessment - future opportunities for mitigation - potential for indirect effects - potential for secondary effects - potential for synergistic effects - potential for cumulative effects - requirements for consultation - identification of any partners to deliver mitigation, - any recommendations for issues to be considered at different stages of the planning process - recommendations for data collation
	Objective 1	Objective 2, etc.			Short term	Medium term	Long term	
RTS Refresh amended or new policy/proposal								

A scoring system to be used to assess the RTS Refresh against the SEA framework is set out in Table 8.

Table 8 SEA Framework Scoring System

Major positive effect	✓✓
Minor positive effect	✓
Neutral effect	0
Minor negative effect	x
Major negative effect	x x
Uncertain effect	?

Although it is proposed to only assess the amended or new policies and proposals of the RTS Refresh, it will be important to consider the potential for indirect and cumulative effects of the package of RTS measures as a whole. The cumulative effects of the RTS will be evaluated in the light of the evolution of the environment without the plan, and the net effects identified and reported in the Environmental Report. A further framework for assessing the potential for cumulative effect of the plan is shown in Table 9.

Table 9 Example Framework for Assessing the Potential for Cumulative Effects of RTS Refresh Policies and Proposals

RTS Objective	SEA Objective 1	SEA Objective 2	SEA Objective 3, etc.
Topic			
1			
2, etc.			
Potential for significant cumulative effects and recommendation for mitigation or capturing the benefit			

8 NEXT STEPS

Proposed Consultation Methods, Input and Timescales

The following inputs from further consultation are proposed:

- responses from stakeholders to an initial draft RTS to be circulated in late January/February 2015, any issues relating to environmental problems or issues for the SEA will be taken into account in the environmental assessment process;
- further discussion with relevant consultees as required during the environmental appraisal;
- the Environmental Report, which will report the findings of the SEA of the RTS Refresh will be published for consultation at the same time as the full draft RTS Refresh. This is currently programmed for April/May 2015, and is scheduled to last for three weeks.

Finalisation of the RTS Refresh for submission to Scottish Government Ministers is proposed for June 2015.