

## Appendix B: Baseline Environmental Data, Targets and Trends Affecting Tayside and Central Scotland

### Biodiversity, Flora, Fauna

SEA Theme	Quantified Information	Comparators and Targets	Trends	Issues and Constraints	Data Source(s)
Ramsar	<ul style="list-style-type: none"> <li>Angus: 3 Ramsar sites (1,387 ha)</li> <li>Dundee: n/a</li> <li>Perth and Kinross: 4 Ramsar sites (10,381 ha)</li> <li>Stirling: n/a</li> </ul>	To maintain or restore the ecological character of Ramsar sites, through effective planning and integrated management.	No trend. Planning policies have generally prohibited development within international and national designations that may harm these sites, though indirect impacts are affecting some of the sites, especially in relation to water quality and water levels and, air quality.	<p>New development has the potential to put pressure on sites.</p> <p>Transport development should seek to avoid placing pressure on protected sites.</p>	<p>Ramsar Strategic Plan 2016 to 2024</p> <p><a href="http://www.ramsar.org/theramsar-strategic-plan-2016-24">http://www.ramsar.org/theramsar-strategic-plan-2016-24</a></p>
Special Areas of Conservation (SAC)	<ul style="list-style-type: none"> <li>Angus: 3 SACs (6,443 ha)</li> <li>Dundee: n/a</li> <li>Perth and Kinross: 18 SACs (39,136 ha)</li> <li>Stirling: 8 SACs (8,417 ha)</li> </ul>	To maintain or improve the condition of qualifying features of the designated sites.	As above.	As above.	SNH Gateway
Special Protection Areas (SPA)	<ul style="list-style-type: none"> <li>Angus: 4 SPAs (7,225 ha)</li> <li>Dundee: n/a</li> <li>Perth and Kinross: 5 SAPs (37,671 ha)</li> <li>Stirling: n/a</li> </ul>				
Sites of Special Scientific Interest (SSSI)	<ul style="list-style-type: none"> <li>Angus: 36 SSIs (9,232 ha)</li> <li>Dundee: n/a</li> </ul>	Conservation and enhancement of designated sites, and	As above.	As above.	As above.

	<ul style="list-style-type: none"> <li>Perth and Kinross: 111 SSSIs (32,551 ha)</li> <li>Stirling: 66 SSSIs (14,950 ha)</li> </ul>	<p>permitting only those developments that will not adversely affect these designations directly and indirectly, unless the proposal will be of national benefit.</p>		<p>However, with regard to impacts from leisure and recreation uses improving access could be damaging to some sites.</p>	
National Nature Reserves (NNR)	<ul style="list-style-type: none"> <li>Angus: 1 NNR (164 ha)</li> <li>Dundee: n/a</li> <li>Perth and Kinross: 2 NNRs (6,261 ha)</li> <li>Stirling: 2 NNRs (17,364 ha)</li> </ul>	<p>To ensure that the nature conservation interests of NNRs are kept in or restored to the best possible condition.</p>	As above.	As above.	As above.
Local Nature Reserves (LNR)	<ul style="list-style-type: none"> <li>Angus: 1 LNR (1,024 ha)</li> <li>Dundee: 2 LNRs (6.9 ha)</li> <li>Perth and Kinross: 1 LNR (1,177 ha)</li> <li>Stirling: 1 LNR (6.0 ha)</li> </ul>	<p>To protect and enhance.</p>	As above.	As above.	As above.

## Landscape

SEA Theme	Quantified Information	Comparators and Targets	Trends	Issues and Constraints	Data Source(s)
Characteristic Landscape Areas	<ul style="list-style-type: none"> <li>• Angus – 31 sites</li> <li>• Dundee City – 1 site</li> <li>• Perth and Kinross – 30 sites</li> <li>• Stirling – 35 sites</li> </ul>	Need to promote Sustainable development and, suitable development Capacity	No trend	<p>The inappropriate scale and insensitive siting of future new development may adversely affect landscape characteristics (e.g. changing its landscape character type, not respecting local topography and contours).</p> <p>New development not fitting in with the landscape's capacity to absorb further developments (e.g. design, layout and sense of place) – need to promote suitable development capacity.</p>	<p>NatureScot – Landscape Character Assessment Tayside Landscape  <a href="https://www.nature.scot/sites/default/files/2021-08/NatureScot%20LCA%20Review%20-%20TAYSIDE%20-%20Landscape%20Evolution%20and%20Influences%20-%20pdf%20-%20August%202021%20%28A3518699%29.pdf">https://www.nature.scot/sites/default/files/2021-08/NatureScot%20LCA%20Review%20-%20TAYSIDE%20-%20Landscape%20Evolution%20and%20Influences%20-%20pdf%20-%20August%202021%20%28A3518699%29.pdf</a></p> <p>Perth and Kinross – Landscape Supplementary Guidance  <a href="https://www.pkc.gov.uk/media/45777/Adopted-SG-2020/pdf/LandscapeSG_mar2020.pdf?m=637195240380970000">https://www.pkc.gov.uk/media/45777/Adopted-SG-2020/pdf/LandscapeSG_mar2020.pdf?m=637195240380970000</a></p> <p>Stirling – Landscape Character Assessment  <a href="https://stirling.gov.uk/media/3422/sg28-landscape-character-assessments_feb2015-red-1.pdf">https://stirling.gov.uk/media/3422/sg28-landscape-character-assessments_feb2015-red-1.pdf</a></p>
National Scenic Areas (NCAs)	<ul style="list-style-type: none"> <li>• Angus – n/a</li> <li>• Dundee City – n/a</li> <li>• Perth and Kinross – 4 sites (Loch Rannoch</li> </ul>	As above	No trend	As above	Scottish Natural Heritage Commissioned Report No. 374 - The special qualities of the National Scenic Areas

	<p>and Glen Lyon, Loch Rannoch and Glen Lyon, Loch Tummel, River Earn (Comrie to St. Fillans), River Tay (Dunkeld)</p> <ul style="list-style-type: none"><li>• Stirling – n/a</li></ul>				<p><a href="https://www.nature.scot/sites/default/files/2017-07/Publication%202010%20-%20SNH%20Commissioned%20Report%20374%20-%20The%20Special%20Qualities%20of%20the%20National%20Scenic%20Areas.pdf">https://www.nature.scot/sites/default/files/2017-07/Publication%202010%20-%20SNH%20Commissioned%20Report%20374%20-%20The%20Special%20Qualities%20of%20the%20National%20Scenic%20Areas.pdf</a></p>
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## Cultural Heritage

SEA Theme	Quantified Information	Comparators and Targets	Trends	Issues and Constraints	Data Source(s)
Conservation Areas (CA)	<ul style="list-style-type: none"> <li>• Angus: 19 CAs</li> <li>• Dundee: 17 CAs</li> <li>• Perth and Kinross: 22 CAs</li> <li>• Stirling: 26 CAs</li> </ul>	To maintain and enhance the special distinctiveness of such areas.	No trend.	<p>Development can put pressure on, or be constrained by conservation areas.</p> <p>Traffic and parking pressures can detract from the special character of such areas.</p>	<p>Angus Council  <a href="https://www.angus.gov.uk/planning_and_building/conservation/conservation_areas">https://www.angus.gov.uk/planning_and_building/conservation/conservation_areas</a></p> <p>Dundee City Council  <a href="https://www.dundee.gov.uk/service-area/city-development/planning-and-economic-development/development-management/conservation-areas-in-dundee">https://www.dundee.gov.uk/service-area/city-development/planning-and-economic-development/development-management/conservation-areas-in-dundee</a></p> <p>Perth and Kinross Council  <a href="https://www.pkc.gov.uk/conservationareas">https://www.pkc.gov.uk/conservationareas</a></p> <p>Stirling Council  <a href="https://my.stirling.gov.uk/planning-building-the-environment/planning/development-planning/conservation/conservation-areas/">https://my.stirling.gov.uk/planning-building-the-environment/planning/development-planning/conservation/conservation-areas/</a></p>
Scheduled Ancient Monuments (SAM)	<ul style="list-style-type: none"> <li>• Angus: 370 SAMs</li> <li>• Dundee: 14 SAMs</li> <li>• Perth and Kinross: 752 SAMs</li> <li>• Stirling: 189 SAMs</li> </ul>	To protect and, where possible enhance.	No trend.	Development can put pressure on, or be constrained by, the presence of SAMs.	Historic Environment Scotland <a href="https://portal.historicenvironment.scot/search">https://portal.historicenvironment.scot/search</a>
Battlefields	<ul style="list-style-type: none"> <li>• Angus: n/a</li> </ul>	As above.	No trend.	Development can put	

	<ul style="list-style-type: none"> <li>• Dundee: n/a</li> <li>• Perth and Kinross: 4 Battlefield sites</li> <li>• Stirling: 4 Battlefield sites</li> </ul>			pressure on, or be constrained by, sites of historical significance.	
Gardens and Designated Landscapes (GDL)	<ul style="list-style-type: none"> <li>• Angus: 13 GDLs</li> <li>• Dundee: 3 GDLs</li> <li>• Perth and Kinross: 41 GDLs</li> <li>• Stirling: 16 GDLs</li> </ul>	As above.	No trend.	Development can put pressure on, or be constrained by, GDLs.	
Listed Buildings (LB)	<ul style="list-style-type: none"> <li>• Angus: 2,127 LBs</li> <li>• Dundee: 894 LBs</li> <li>• Perth and Kinross: 3,118 LBs</li> <li>• Stirling: 1,471 LBs</li> </ul>	As above.	No trend.	Development can put pressure on Listed Buildings.	
Listed Buildings at Risk	<ul style="list-style-type: none"> <li>• Angus: 80 LBs at Risk</li> <li>• Dundee: 44 LBs at Risk</li> <li>• Perth and Kinross: 111 LBs at Risk</li> <li>• Stirling: 47 LBs at Risk</li> </ul>	As above.	No trend.	As above.	Buildings at Risk Register for Scotland  <a href="https://www.buildingsatrisk.org.uk/">https://www.buildingsatrisk.org.uk/</a>

## Climate Change

SEA Theme	Quantified Information	Comparators and Targets	Trends	Issues and Constraints	Data Source(s)
Carbon Dioxide (CO <sub>2</sub> ) emissions (kt)	<p>Angus</p> <p>2014 – 762 2015 – 725 2016 – 683 2017 – 661 2018 – 646</p> <p>Dundee</p> <p>2014 – 769 2015 – 742 2016 – 697 2017 – 659 2018 – 650</p> <p>Perth and Kinross</p> <p>2014 – 1,068 2015 – 977 2016 – 938 2017 – 935 2018 – 900</p> <p>Stirling</p> <p>2014 – 578 2015 – 563 2016 – 564 2017 – 523 2018 – 517</p>	<p>Scotland</p> <p>2014 – 32,518 2015 – 30,999 2016 – 29,855 2017 – 29,069 2018 – 28,589</p> <p>Climate Change (Emissions Reduction Targets) (Scotland) Act (2019) requires a reduction of Scotland's emissions of all greenhouse gases to net-zero by 2045, with interim targets for reductions of at least 56% by 2020, 75% by 2030, and 90% by 2040.</p> <p>The Update to Scotland's 2018-2032 Climate Change Plan (2020) sets out the measures required to meet the above targets, a number of which affect the transport sector including:</p> <ul style="list-style-type: none"> <li>Phasing out the need for new</li> </ul>	<p>Although experiencing a degree of fluctuation, emissions have generally been reducing both locally and nationally since 2012.</p> <p>However, in 2017 transport overtook energy to become Scotland's primary source of climate change-causing carbon emissions, with little sign of a downward trend.</p>	<p>Transport is a significant contributor to CO<sub>2</sub> emissions and, contrary to emissions overall, have been increasing in the region in recent years.</p> <p>Angus</p> <p>Dundee</p> <p>Perth and Kinross</p> <p>Stirling</p> <p>With Scotland's commitments to cutting CO<sub>2</sub> emissions, both through national policy and international agreements, it seems the emissions contribution of transport is going to increasingly come under the spotlight.</p> <p>Future transport projects should therefore seek to reduce emissions from transport.</p>	<p>UK local authority and regional carbon dioxide emissions national statistics: 2005 to 2018</p> <p><a href="https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/894787/2005-18-uk-local-regional-co2-emissions.xlsx">https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/894787/2005-18-uk-local-regional-co2-emissions.xlsx</a></p>

		<p>petrol and diesel cars by 2030; and</p> <ul style="list-style-type: none"> <li>Reducing the use of cars generally, with the number of kilometres driven to be reduced by 20% by 2030.</li> </ul> <p>Other policies include establishing Low Emission Zones (LEZs), decarbonising passenger rail services by 2032 and scheduled flights within Scotland by 2040.</p>			
Per Capita CO <sub>2</sub> Emissions (kt)	<p>Angus</p> <p>2014 – 6.5 2015 – 6.2 2016 – 5.9 2017 – 5.7 2018 – 5.6</p> <p>Dundee</p> <p>2014 – 5.2 2015 – 5.0 2016 – 4.7 2017 – 4.4 2018 – 4.4</p> <p>Perth and Kinross</p> <p>2014 – 7.2</p>	<p>Scotland</p> <p>2014 – 6.1 2015 – 5.8 2016 – 5.5 2017 – 5.4 2018 – 5.3</p> <p>Targets as above.</p>	Subject to annual fluctuations but overall trend is a decline, both locally and nationally.	Transport is a significant contributor to per capita emissions. While figures for Dundee are below the Scottish average, emissions in Angus, Perth and Kinross and, Stirling are above average.	As above.

	2015 – 6.5 2016 – 6.2 2017 – 6.2 2018 – 6.0  Stirling  2014 – 6.3 2015 – 6.1 2016 – 6.0 2017 – 5.6 2018 – 5.5				
Road Transport CO <sub>2</sub> emissions (kt)	Angus  2014 – 246.7 2015 – 248.1 2016 – 252.8 2017 – 260.4 2018 – 253.7  Dundee  2014 – 202.8 2015 – 202.0 2016 – 205.8 2017 – 207.6 2018 – 209.0  Perth and Kinross  2014 – 567.2 2015 – 583.1 2016 – 593.5 2017 – 631.5 2018 – 614.1  Stirling	Scotland  2014 – 10,428.7 2015 – 10,590.4 2016 – 10,849.4 2017 – 11,200.2 2018 – 11,042.8  Targets as above.	Transport emissions, and transport emissions as a proportion of total emissions, are rising both locally and nationally.	Transport remains a significant contributor to CO <sub>2</sub> emissions.	As above.

	2014 – 268.1 2015 – 275.4 2016 – 284.7 2017 – 291.0 2018 – 286.4				
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## Air Quality

SEA Theme	Quantified Information	Comparators and Targets	Trends	Issues and Constraints	Data Source(s)
Air quality (NO <sub>2</sub> ) (µg/m <sup>3</sup> )	<p>Perth<sup>1</sup></p> <ul style="list-style-type: none"> <li>High Street 2014 – 22 2015 – 22 2016 – 23 2017 – 17 2018 – 21</li> <li>Atholl Street 2014 – 45 2015 – 49 2016 – 45 2017 – 40 2018 – 37</li> </ul> <p>Crieff</p> <ul style="list-style-type: none"> <li>James Square 2014 – 23 2015 – 23 2016 – 26 2017 – 25 2018 – 17</li> </ul> <p>Dundee<sup>2</sup></p> <ul style="list-style-type: none"> <li>Broughty Ferry Road 2014 – n/a 2015 – n/a 2016 – 13 2017 – 20</li> </ul>	Target - EU annual mean limit value (40 µg/m <sup>3</sup> ).	Fluctuations in recent years	<p>Regular exceedances of the annual mean limit value are being observed at one out of the three automatic monitoring sites in Perth and Kinross and, at four out of seven sites in Dundee.</p> <p>There is a need to reduce the reliance on private transport and the indiscriminate use of private cars to improve air quality, greenhouse gas emissions and health.</p> <p>Traffic growth arising from new development may be a constraining factor in the future.</p>	<p>Dundee City Council Air Quality Progress Report 2019 <a href="https://www.dundee.gov.uk/sites/default/files/publications/aqannualprogress_report_2019_final_large.pdf">https://www.dundee.gov.uk/sites/default/files/publications/aqannualprogress_report_2019_final_large.pdf</a></p> <p>Perth and Kinross Air Quality Progress Report 2019 <a href="https://www.pkc.gov.uk/media/45358/2019-Air-quality-Annual-Progress-Report/pdf/APR_2019_Final_Draft.pdf?m=637142445928730000">https://www.pkc.gov.uk/media/45358/2019-Air-quality-Annual-Progress-Report/pdf/APR_2019_Final_Draft.pdf?m=637142445928730000</a></p>

<sup>1</sup> In addition to the listed automatic monitoring sites, there are further 109 monitoring sites within Perth and Crieff, operating with diffusion tubes.

<sup>2</sup> In addition to the listed automatic monitoring sites, there are further 89 monitoring sites within Dundee, operating with diffusion tubes.

	<p>2018 – 23</p> <ul style="list-style-type: none"><li>• Lochee Road 2014 – 46 2015 – 48 2016 – 44 2017 – 43 2018 – 43</li><li>• Mains Loan 2014 – 12 2015 – 10 2016 – 11 2017 – 12 2018 – 12</li><li>• Seagate 2014 – 55 2015 – 50 2016 – 47 2017 – 44 2018 – 46</li><li>• Union Street 2014 – 28 2015 – 28 2016 – n/a 2017 – n/a 2018 – n/a</li><li>• Whitehall Street 2014 – 43 2015 – 36 2016 – 37 2017 – 35 2018 – 38</li><li>• Meadowside</li></ul>				
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	2014 – 40 2015 – 38 2016 – 36 2017 – 35 2018 – 34				
Air quality (PM <sub>10</sub> ) (µg/m <sup>3</sup> )	Perth <ul style="list-style-type: none"> <li>• Atholl Street 2014 – 20 2015 – 18 2016 – 18 2017 – 17 2018 – 14</li> <li>• Muirton 2014 – 10 2015 – 9 2016 – 10 2017 – 9 2018 – 10</li> </ul> Crieff <ul style="list-style-type: none"> <li>• James Square 2014 – 20 2015 – 14 2016 – 16 2017 – 11 2018 – 10</li> </ul> Dundee <ul style="list-style-type: none"> <li>• Broughty Ferry Road (average) 2014 – 15 2015 – 13 2016 – 12 2017 – 11 2018 – 11</li> </ul>	2010 annual mean Scottish Objective – 18 µg/m <sup>3</sup>	Although local fluctuations are evident, all sites have seen a steady decline in, or stabilisation of, PM <sub>10</sub> emissions since 2014.	Regular exceedances of the annual mean limit value have been observed at two of the three automatic monitoring sites in Perth and Kinross in recent years and, at five out of ten sites in Dundee.  However, 2018 was the first year in which no exceedances were observed at any of the monitoring stations.	As above

	<ul style="list-style-type: none"><li>• Lochee Road 2014 – 19 2015 – 20 2016 – 19 2017 – 18 2018 – 13</li> <li>• Mains Loan 2014 – 13 2015 – 12 2016 – 10 2017 – 10 2018 – 9</li> <li>• Seagate 2014 – 18 2015 – 15 2016 – 14 2017 – 16 2018 – 16</li> <li>• Union Street 2014 – 17 2015 – 17 2016 – n/a 2017 – n/a 2018 – n/a</li> <li>• Whitehall Street 2014 – n/a 2015 – n/a 2016 – 15 2017 – 15 2018 – 16</li> <li>• Meadowside 2014 – 17 2015 – 16</li></ul>				
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	<p>2016 – 16 2017 – 15 2018 – 15</p> <ul style="list-style-type: none"><li>• Albert Street 2014 – 21 2015 – 19 2016 – 15 2017 – 12 2018 – 14</li><li>• Myrekirk 2014 – 18 2015 – 18 2016 – 16 2017 – 12 2018 – 14</li><li>• Stannergate 2014 – 27 2015 – 27 2016 – 21 2017 – 14 2018 – 12</li><li>• Logie Street 2014 – 16 2015 – 15 2016 – 14 2017 – 15 2018 – 16</li></ul>				
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## Noise and Vibration

SEA Theme	Quantified Information	Comparators and Targets	Trends	Issues and Constraints	Data Source(s)
Noise Management Areas (NMA)	<p>There are 32 Candidate Noise Management Areas (CNMA) in the Tactran region where noise levels from transport (road and rail) are above acceptable levels.</p> <p>There are also five Candidate Quiet Areas (CQAs) identified where environmental noise quality is good and which require protection against an increase in noise.</p>	Targets are for a reduction of noise in CNMAs and not increase noise levels in the CQAs.	No trend.	Transportation schemes and initiatives have the potential to increase transport related noise.	<p>Transport Scotland Transportation Noise Action Plan (2014)  <a href="https://www.gov.scot/publications/transportation-noise-action-plan/documents/">https://www.gov.scot/publications/transportation-noise-action-plan/documents/</a></p> <p>Dundee Agglomeration Noise Action Plan (2019)  <a href="https://noise.environment.gov.scot/pdf/RoundTwo/Dundee/Dundee%20Agglomeration%20Noise%20Action%20Plan.pdf">https://noise.environment.gov.scot/pdf/RoundTwo/Dundee/Dundee%20Agglomeration%20Noise%20Action%20Plan.pdf</a></p>

## Human Health

SEA Theme	Quantified Information	Comparators and Targets	Trends	Issues and Constraints	Data Source(s)
Quality and availability of public open greenspace	<ul style="list-style-type: none"> <li>Angus: 2,603 ha</li> <li>Dundee: 2,320 ha</li> <li>Perth and Kinross: 2,903 ha</li> <li>Stirling: 2,479 ha</li> </ul>	Protection and enhancement of existing open greenspace; creation of new open space as part of development proposals.	<p>The poorest quality parks and open spaces tend to be found within the regeneration priority areas.</p> <p>It is more difficult to provide open greenspace within densely populated areas.</p>	<p>The quality of open greenspace varies across the region.</p> <p>Development pressure to build on open greenspace.</p> <p>Transport development should seek to avoid and/or mitigate negative impacts on open greenspace and look to enhance and improve access to open spaces where appropriate.</p>	Greenspace Scotland – 2018 State of Scotland's Greenspace Report <a href="https://www.greenspacescotland.org.uk/statistics">https://www.greenspacescotland.org.uk/statistics</a>
Life expectancy at birth (years)	<p>Angus</p> <p>Male</p> <p>2014-2016: 78.5 2015-2017: 78.2 2016-2018: 78.4 2017-2019: 78.3</p> <p>Female</p> <p>2014-2016: 81.8 2015-2017: 81.6 2016-2018: 81.8 2017-2019: 82.3</p> <p>Dundee</p> <p>Male</p> <p>2014-2016: 74.5 2015-2017: 73.9 2016-2018: 73.3 2017-2019: 73.9</p>	<p>Scotland</p> <p>Male</p> <p>2014-2016: 77.1 2015-2017: 77.0 2016-2018: 77.0 2017-2019: 77.2</p> <p>Female</p> <p>2014-2016: 81.2 2015-2017: 81.1 2016-2018: 81.1 2017-2019: 81.1</p>	<p>Life expectancy is generally increasing throughout Scotland, although recent figures suggest this trend may be flattening out.</p> <p>Female life expectancy is higher than male.</p> <p>Life expectancy in Aberdeenshire is higher than it is in Aberdeen City and in Scotland as a whole.</p>	<p>An increase in life expectancy has implications for ensuring adequate service provision (including transport) for an increasingly ageing population.</p> <p>Opportunities for more people to adopt healthier lifestyles through active travel could further prolong life expectancy.</p>	National Records of Scotland - Life Expectancy for Administrative Areas within Scotland 2017-2019 <a href="https://www.nrscotland.gov.uk/statistics-and-data/statistics/statistics-by-theme/life-expectancy/life-expectancy-in-scotland/2017-2019/data-tables">https://www.nrscotland.gov.uk/statistics-and-data/statistics/statistics-by-theme/life-expectancy/life-expectancy-in-scotland/2017-2019/data-tables</a>

<p>Female 2014-2016: 79.6 2015-2017: 79.4 2016-2018: 79.2 2017-2019: 79.5</p> <p>Perth and Kinross</p> <p>Male 2014-2016: 79.9 2015-2017: 79.3 2016-2018: 79.1 2017-2019: 79.1</p> <p>Female 2014-2016: 82.6 2015-2017: 82.5 2016-2018: 82.8 2017-2019: 83.3</p> <p>Stirling</p> <p>Male 2014-2016: 78.7 2015-2017: 78.8 2016-2018: 78.7 2017-2019: 78.3</p> <p>Female 2014-2016: 82.3 2015-2017: 82.6 2016-2018: 82.8 2017-2019: 82.6</p>				
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## Population

SEA Theme	Quantified Information	Comparators and Targets	Trends	Issues and Constraints	Data Source(s)
Established Population (2018)	<ul style="list-style-type: none"> <li>Angus: 115,138 0-15: 17,760 16-24: 10,352 25-44: 25,219 45-64: 30,431 65-74: 15,512 75+ : 15,864</li> <li>Dundee: 148,350 0-15: 22,604 16-24: 20,473 25-44: 44,213 45-64: 32,319 65-74: 15,471 75+ : 13,280</li> <li>Perth and Kinross: 152,779 0-15: 22,447 16-24: 13,384 25-44: 33,483 45-64: 41,444 65-74: 20,743 75+ : 21,278</li> <li>Stirling: 98,836 0-15: 15,213 16-24: 12,399 25-44: 24,728 45-64: 25,181</li> </ul>	The TAYplan Strategic Development Plan proposes to significantly increase the region's population to 553,230 by 2036.	Generally, population in all four constituent Council areas has remained more or less stable over the past 20 years.	A growing population has implications for increasing transport provision in the region, especially the need for more people to travel by more sustainable transport more often.	<p>National Record of Scotland – Council Area Data Sheets:</p> <p><a href="https://www.nrscotland.gov.uk/files/statistics/council-area-data-sheets/angus-council-profile.html">https://www.nrscotland.gov.uk/files/statistics/council-area-data-sheets/angus-council-profile.html</a></p> <p><a href="https://www.nrscotland.gov.uk/files/statistics/council-area-data-sheets/dundee-city-council-profile.html">https://www.nrscotland.gov.uk/files/statistics/council-area-data-sheets/dundee-city-council-profile.html</a></p> <p><a href="https://www.nrscotland.gov.uk/files/statistics/council-area-data-sheets/perth-and-kinross-council-profile.html">https://www.nrscotland.gov.uk/files/statistics/council-area-data-sheets/perth-and-kinross-council-profile.html</a></p> <p><a href="https://www.nrscotland.gov.uk/files/statistics/council-area-data-sheets/stirling-council-profile.html">https://www.nrscotland.gov.uk/files/statistics/council-area-data-sheets/stirling-council-profile.html</a></p>

	65-74: 11,042 75+ : 10,273				
Population Projection 2028 (2018 based)	<ul style="list-style-type: none"> <li>Angus: 116,040 0-15: 19,253 16-24: 10,980 25-44: 25,055 45-64: 33,464 65-74: 15,115 75+ : 12,173</li> <li>Dundee: 148,750 0-15: 24,016 16-24: 20,635 25-44: 42,236 45-64: 35,759 65-74: 13,759 75+ : 12,228</li> <li>Perth and Kinross: 151,290 0-15: 24,425 16-24: 14,135 25-44: 33,631 45-64: 43,900 65-74: 18,937 75+ : 16,262</li> <li>Stirling: 94,330 0-15: 15,514 16-24: 12,728 25-44: 21,983 45-64: 26,103 65-74: 9,859 75+ : 8,141</li> </ul>	Projected percentage change in Scotland's population by age group from 2018-2028  0-15: plus 2% 16-24: minus 9% 25-44: plus 5% 45-64: minus 4% 65-74: plus 13% 75+ : plus 27%	The population projections show an increasing population in the Tactran region.  Scotland as a whole is experiencing an increasingly ageing population, and so are all four constituent Council areas.	An ageing population has considerable implications for transport in terms of the need to maintain and improve mobility for the elderly and, provide access to public services and healthcare.	As above.

<p>Established Households (2018)</p>	<p>Angus  2014: 52,692  2015: 53,142  2016: 53,333  2017: 53,627  2018: 53,888</p> <p>Dundee  2014: 69,610  2015: 69,534  2016: 69,635  2017: 70,047  2018: 70,337</p> <p>Perth and Kinross  2014: 66,035  2015: 66,545  2016: 67,101  2017: 67,618  2018: 69,003</p> <p>Stirling  2014: 38,310  2015: 38,665  2016: 38,951  2017: 39,285  2018: 39,440</p>	<p>Scotland  2014: 2.42m  2015: 2.43m  2016: 2.45m  2017: 2.46m  2018: 2.48m</p>	<p>Trend is for an increasing number of households across Scotland.</p> <p>Percentage growth in Perth and Kinross is significantly greater than growth in Scotland as a whole during this period (+4.49% in Perth and Kinross compared to +2.47% in Scotland).</p>	<p>As above.</p>	<p>As above.</p>
<p>Household Projections (2018 based)</p>	<p>Angus  2018: 53,888  2019: 54,221  2020: 54,302  2021: 54,378  2022: 54,621  2023: 54,813  2024: 54,959  2025: 55,050  2026: 55,122</p>	<p>Scotland  2018: 2.48m  2019: 2.50m  2020: 2.51m  2021: 2.52m  2022: 2.54m  2023: 2.55m  2024: 2.56m  2025: 2.57m  2026: 2.58m</p>	<p>Projections are for an increasing number of households across Scotland, including in Angus, Dundee City, Perth and Kinross and, Stirling.</p>	<p>As above.</p>	<p>As above.</p>

	<p>2027: 55,126 2028: 55,189</p> <p>Dundee</p> <p>2018: 70,337 2019: 70,685 2020: 70,863 2021: 71,077 2022: 71,267 2023: 71,358 2024: 71,388 2025: 71,427 2026: 71,434 2027: 71,484 2028: 71,581</p> <p>Perth and Kinross</p> <p>2018: 68,196 2019: 69,003 2020: 69,349 2021: 69,706 2022: 70,140 2023: 70,560 2024: 70,835 2025: 71,100 2026: 71,314 2027: 71,499 2028: 71,711</p> <p>Stirling</p> <p>2018: 39,440 2019: 39,654 2020: 40,020 2021: 40,383 2022: 40,765 2023: 41,070</p>	<p>2027: 2.59m 2028: 2.60m</p>			
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	2024: 41,377 2025: 41,633 2026: 41,892 2027: 42,129 2028: 42,384				
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## Geology and Soil

SEA Theme	Quantified Information	Comparators and Targets	Trends	Issues and Constraints	Data Source(s)
Statutorily Confirmed Contaminated Land under Part IIA of the Environmental Protection Act 1990	<ul style="list-style-type: none"> <li>Angus: n/a</li> <li>Dundee City: 1</li> <li>Perth and Kinross: n/a</li> <li>Stirling: n/a</li> </ul> <p>Several hundred potentially contaminated Sites across the region.</p>	<p>The total number of sites affected by contamination within Scotland is difficult to judge accurately as individual Councils use a variety of assessment methods.</p> <p>However, it is estimated that appr. 67,000 sites (82,034 ha) could be affected by land contamination</p>	No trend.	<p>Contaminants may escape from development sites and cause land pollution and, in some cases, may damage buildings and underground services, and contaminate the food chain.</p> <p>Places financial and Technological constraints on development.</p> <p>Transport development should not contribute to land pollution.</p> <p>Regimes are in place to deal with contaminated sites therefore this position should improve in the future.</p>	<p>Angus Council Dundee City Council Perth and Kinross Council Stirling Council</p>
Prime Agricultural Land	<ul style="list-style-type: none"> <li>Angus Around 9.6%, (ca. 60,200ha) of Scotland's prime agricultural land is located in Angus, primarily along the coastal strip between Arbroath and Monifieth</li> <li>Dundee</li> </ul>	<p>Net loss of Scottish agriculture land from roads, housing and industry has increased in recent years</p>	<p>Climate change could increase the level of prime agricultural land in Scotland, however this may cause conflicts with sites of high biodiversity value, sensitive or, designated sites.</p>	<p>Potential impacts of climate may constrain prime agricultural land available in the future.</p> <p>Prime agricultural land may require further protection from development as demand for development rises</p>	<p>The Scottish Soil Framework <a href="http://www.scotland.gov.uk/Publications/2009/05/20145602/6">http://www.scotland.gov.uk/Publications/2009/05/20145602/6</a></p>

	<p>Dundee contains very little prime agricultural land.</p> <ul style="list-style-type: none"> <li>Perth and Kinross Approximately 11% or 57 000 ha of prime agricultural land are located in the south and eastern areas of Perth and Kinross.</li> <li><b>Stirling</b></li> </ul>				
Soil Erosion	<p>From Berwick to Aberdeen, the eastern coastline is eroding but is stable where there are rocky coasts or, coastal defences.</p>	<p>While Central Scotland is mostly stable with little erosion inland, the coastline is predominantly eroding but stable where there are rocky coasts or coastal defences.</p> <p>Precipitation will be greater in the west due to the west-east precipitation gradient.</p>	<p>Coastal erosion mostly where there are no rocks or coastal defences.</p>	<p>Autumn/Winter rainfall is predicted to increase, giving rise to winter storms and affecting runoff and (wind and water) erosion.</p> <p>Upland schemes such as wind farm access roads and recreation tracks (e.g. mountain biking) on steep ground can increase surface water runoff and lead to significant soil loss</p>	

## Water

SEA Theme	Quantified Information	Comparators and Targets	Trends	Issues and Constraints	Data Source(s)
Quality of Water Bodies (Ground water)	<p>Angus High status – 0 Good status – 13 Moderate status – 0 Poor status – 9 Bad status – 0</p> <p>Dundee High status – 0 Good status – 3 Moderate status – 0 Poor status – 2 Bad status – 0</p> <p>Perth and Kinross High status – 0 Good status – 31 Moderate status – 0 Poor status – 9 Bad status – 0</p> <p>Stirling High status – 0 Good status – 20 Moderate status – 0 Poor status – 5 Bad status - 0</p>	The Water Framework Directive requires that all waterbodies are of good ecological status, or similar objective, by 2015	Little change in ground water quality in recent years; water quality is good on the whole.	<p>It is important that development, including transportation schemes and initiatives, does not prevent water bodies achieving good ecological status.</p> <p>Target likely to have been missed as a number of water bodies still showing moderate, poor or bad quality in 2015.</p>	SEPA Water Classification Hub <a href="https://www.sepa.org.uk/data-visualisation/water-classification-hub">https://www.sepa.org.uk/data-visualisation/water-classification-hub</a>
Quality of Water Bodies (Coastal)	<p>Angus High status – 0 Good status - 4 Moderate status - 0 Poor status – 0 Bad status – 0</p> <p>Dundee - n/a</p>	As above.	Coastal water quality is generally good	As above.	As above.

	Perth and Kinross - n/a Stirling – n/a				
Quality of Water Bodies (Rivers)	<p>Angus High status – 7 Good status - 29 Moderate status - 21 Poor status – 10 Bad status – 4</p> <p>Dundee High status – 0 Good status - 0 Moderate status - 4 Poor status – 1 Bad status – 0</p> <p>Perth and Kinross High status – 19 Good status - 76 Moderate status - 57 Poor status – 29 Bad status – 8</p> <p>Stirling High status – 4 Good status - 41 Moderate status - 33 Poor status – 7 Bad status - 5</p>	As above.	Water quality variable.	As above.	As above.
Quality of Water Bodies (Estuaries)	<p>Angus High status – 0 Good status – 2 Moderate status – 0 Poor status – 0 Bad status – 0</p> <p>Dundee High status – 0</p>	As above.	Estuary water quality generally good	As above.	As above.

	<p>Good status – 2 Moderate status – 0 Poor status – 0 Bad status – 0</p> <p>Perth and Kinross High status – 0 Good status – 1 Moderate status – 0 Poor status – 0 Bad status – 0</p> <p>Stirling High status – 0 Good status – 0 Moderate status – 1 Poor status – 0 Bad status – 0</p>				
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## Material Assets

SEA Theme	Quantified Information	Comparators and Targets	Trends	Issues and Constraints	Data Source(s)
Households with no access to a car for private use (%)	<p>Angus</p> <p>2017 – 24%</p> <p>2018 – 20%</p> <p>2019 – 20%</p> <p>2020 – 21%</p> <p>2021 – 18%</p> <p>Dundee</p> <p>2017 – 40%</p> <p>2018 – 45%</p> <p>2019 – 45%</p> <p>2020 – 46%</p> <p>2021 – 39%</p> <p>Perth and Kinross</p> <p>2017 – 21%</p> <p>2018 – 24%</p> <p>2019 – 21%</p> <p>2020 – 17%</p> <p>2021 – 18%</p> <p>Stirling</p> <p>2017 – 22%</p> <p>2018 – 22%</p> <p>2019 – 20%</p> <p>2020 – 20%</p> <p>2021 – 18%</p>	<p>Scotland</p> <p>2001 – 34%</p> <p>2011 – 31%</p> <p>2012 – 31%</p> <p>2013 – 30%</p> <p>2014 – 31%</p> <p>2015 – 30%</p> <p>2016 – 29%</p> <p>2017 – 28%</p> <p>2018 – 29%</p> <p>2019 – 28%</p>	<p>Car ownership has remained more static in the whole of Scotland over the past years, with an increasing tendency.</p> <p>General trends locally since 2017 are of a gradual a gradual rise in all four constituent Council areas.</p>	<p>Increasing car ownership and use puts pressure on the road transport network, both in terms of congestion, as well as contributing to air pollution, carbon emissions, noise emissions and, higher levels of physical inactivity</p>	<p>Cycling Scotland Annual Monitoring Reports  <a href="https://www.cycling.scot/what-we-do/making-cycling-better/monitoring-cycling-in-scotland">https://www.cycling.scot/what-we-do/making-cycling-better/monitoring-cycling-in-scotland</a></p> <p>Scotland Census Data 2001 and 2011  <a href="https://www.scotlandscensus.gov.uk/search-the-census#/search-by">https://www.scotlandscensus.gov.uk/search-the-census#/search-by</a></p> <p>Scottish Transport Statistics 2020  <a href="https://www.transport.gov.scot/media/49874/scottish-transport-statistics-2020-may-2021.pdf">https://www.transport.gov.scot/media/49874/scottish-transport-statistics-2020-may-2021.pdf</a></p>
Public road lengths (km)	<p>Angus</p> <p>2015/16 – 1,864 km</p> <p>2016/17 – 1,865 km</p> <p>2017/18 – 1,867 km</p> <p>2018/19 – 1,868 km</p> <p>2019/20 – 1,873 km</p>	No target	<p>Public road lengths fairly static in Angus, Dundee City, Perth and Kinross and Stirling Council areas, despite the rise in car ownership</p>	<p>Static road lengths combined with rising car ownership put pressure on the transport network leading to roads operating at or beyond capacity,</p>	<p>Scottish Transport Statistics 2016  <a href="https://www.transport.gov.scot/media/33814/sct01171871341.pdf">https://www.transport.gov.scot/media/33814/sct01171871341.pdf</a></p>

	<p>Dundee 2015/16 – 580 km 2016/17 – 582 km 2017/18 – 582 km 2018/19 – 590 km 2019/20 – 596 km</p> <p>Perth and Kinross 2015/16 – 2,748 km 2016/17 – 2,751 km 2017/18 – 2,757 km 2018/19 – 2,763 km 2019/20 – 2,764 km</p> <p>Stirling 2015/16 – 1,259 km 2016/17 – 1,160 km 2017/18 – 1,160 km 2018/19 – 1,161 km 2019/20 – 1,162 km</p>			contributing to congestion and pollution	<p>Scottish Transport Statistics 2017 <a href="https://www.transport.gov.scot/media/41863/scottish-transport-statistics-2017-with-correction-to-table-214.pdf">https://www.transport.gov.scot/media/41863/scottish-transport-statistics-2017-with-correction-to-table-214.pdf</a></p> <p>Scottish Transport Statistics 2018 <a href="https://www.transport.gov.scot/media/44025/scottish-transport-statistics-no-37-2018-edition.pdf">https://www.transport.gov.scot/media/44025/scottish-transport-statistics-no-37-2018-edition.pdf</a></p> <p>Scottish Transport Statistics 2019 <a href="https://www.transport.gov.scot/media/47300/scottish-transport-statistics-2019.pdf">https://www.transport.gov.scot/media/47300/scottish-transport-statistics-2019.pdf</a></p> <p>Scottish Transport Statistics 2020 <a href="https://www.transport.gov.scot/media/49874/scottish-transport-statistics-2020-may-2021.pdf">https://www.transport.gov.scot/media/49874/scottish-transport-statistics-2020-may-2021.pdf</a></p>
Road Condition in 2020 (% of roads classed as red/amber – requiring attention)	<p>Angus Red – 5% Amber – 28%</p> <p>Dundee Red – 3% Amber – 23%</p> <p>Perth and Kinross Red – 6% Amber – 31%</p>	<p>Scotland Red – 7% Amber – 29%</p>	No trend	Good road condition helps to better operate the transport network, reducing congestion, pollution and accidents	<p>Scottish Transport Statistics 2020 <a href="https://www.transport.gov.scot/media/49874/scottish-transport-statistics-2020-may-2021.pdf">https://www.transport.gov.scot/media/49874/scottish-transport-statistics-2020-may-2021.pdf</a></p>

	<p>Stirling Red – 10% Amber – 32%</p>				
Park and Ride sites	<p>Angus</p> <ul style="list-style-type: none"> <li>• n/a</li> </ul> <p>Dundee</p> <ul style="list-style-type: none"> <li>• n/a</li> </ul> <p>Perth and Kinross</p> <ul style="list-style-type: none"> <li>• Perth (Broxden)</li> <li>• Scone</li> <li>• Kinross</li> </ul> <p>Stirling</p> <ul style="list-style-type: none"> <li>• Castleview</li> </ul> <p>Many of the region's rail stations also provide Park and Ride opportunities to.</p> <p>Well used stations include Dunblane, Bridge of Allan, Montrose, Arbroath, Perth and Stirling.</p>	To further increase bus use throughout the region, with Park and Ride sites playing a significant role in achieving this	Feasibility studies progress for further sites, such as the Tay Cities Park and Choose Strategy .	Park and Ride sites can help reduce the number of vehicles in the towns and cities, reducing congestion, pollution and accidents	<p>Angus Council Dundee City Council Perth and Kinross Council Stirling Council</p> <p>Tactran</p>
Railway Stations	<p>Angus – 6 Arbroath Balmossie Carnoustie Golf Street Monifieth Montrose</p> <p>Dundee – 2 Broughty Ferry Dundee</p>	To further increase rail travel throughout the region	Length of cycle facilities has been increasing in recent years in Angus, Dundee City, Perth and Kinross and Stirling Council areas	More people travelling by rail can reduce vehicle use in urban areas, reducing congestion, pollution and accidents	<p>Scotrail</p> <p><a href="https://www.scotrail.co.uk/plan-your-journey/stations-and-facilities">https://www.scotrail.co.uk/plan-your-journey/stations-and-facilities</a></p>

	<p>Perth and Kinross – 7 Blair Atholl Dunkelnd &amp; Birnam Gleneagles Invergowrie Pitlochry Perth Rannoch</p> <p>Stirling – 7 Alloa Junction Bridge of Allen Crainlarich Dunblane Stirling Lower Tyndrum Upper Tyndrum</p>				
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