Appendix I: Recommendation Appraisal Summary Tables

December 2022

1. Detailed Appraisal Summary

**An ‘Appendix I: Recommendation Appraisal Summary Tables (ASTs) Explanatory Note’ accompanies this AST.**

* 1. Recommendation 40 – Access to Stranraer and the ports at Cairnryan

**Recommendation Description**

Stranraer and the ports at Cairnryan act as an important gateway to Scotland for ferry passengers and freight. Improving the transport assets in this location would support regeneration of the South West of Scotland to benefit the economy and local communities.

This recommendation proposes safety, resilience and reliability improvements are made on the A75 and A77 strategic road corridors, connecting Stranraer and Cairnryan to the rest of Scotland and the UK. This would include, but is not limited to improving junctions, enhancing overtaking opportunities with WS2+1 or climbing lanes at appropriate locations where slow-moving traffic leads to risky overtaking manoeuvres, and widening or realigning carriageways to alleviate ‘pinch points’ such as narrow structures or at stretches of older standard single carriageway.

These would provide more resilient connections to the Revised Draft Fourth National Planning Framework (Revised Draft NPF4) national developments at Stranraer Gateway and Chapelcross Power Station Redevelopment and the ports at Cairnryan. Examples of locations of improvement schemes include: A75 Realignment around Springholm and Crocketford; A75 Cuckoo Bridge Roundabout; A77 Turnberry to Girvan; A77 Ballantrae to Smyrton; A77 Bellfield Interchange Improvements; A77 Dutch House Roundabout Improvements; A77 Whitletts Roundabout Improvements; and A77 Holmston Roundabout Improvements.

To encourage greater use of public transport and support wider town regeneration proposals, this recommendation also includes a review of the upgrade or relocation of Stranraer rail station as well as a review of placemaking opportunities for other towns and villages along the A75 and A77 that benefit from improvements.

* 1. Relevance

**Relevant to people, businesses, and freight in South West Scotland**

Port connectivity is an important element of economic growth through maritime links to key markets, with Stranraer and the ports at Cairnryan playing a fundamental role in supporting economic activity at the local, regional and national level. This is reflected in Stranraer Gateway being identified as a national development in the Revised Draft NPF4 as a gateway to Scotland and an important trade route, [with 2.59 million tonnes of freight entering the ports in 2019, equating to approximately 400,000 freight movements](https://www.gov.scot/publications/cairnryan-border-control-post-factsheet/)

Route improvements to the A75 and A77 would also benefit residents in the South West of Scotland given the importance of these strategic routes for connecting communities with access to employment, healthcare, education and social and retail opportunities, both to major centres such as Carlisle, Edinburgh and Glasgow, and regional centres such as Ayr, Kilmarnock and Dumfries. [Previous consultation revealed poor connectivity impacted on the local demographic profile and levels of prosperity in the region](https://www.transport.gov.scot/publication/south-west-scotland-transport-study-initial-appraisal-case-for-change/); improved connections would widen the opportunities available to current or prospective residents, leading to, for example, a more sustainable demographic mix, greater prosperity, a less socially isolated population and potentially improved health outcomes.

From a national perspective, the erosion of the competitive position of the ports at Cairnryan could lead to a cycle where investment is not forthcoming, service levels are reduced and market share is lost. For example, [consultation previously revealed that long travel times between the motorway network and the ports at Cairnryan](https://www.transport.gov.scot/publication/south-west-scotland-transport-study-initial-appraisal-case-for-change/) (relative to those of other ports in the UK serving the Irish Sea) were seen by many stakeholders as posing a threat to the future of the ports. Options which reduce journey times and improve the resilience of these journeys would support the future development and attractiveness of the ports at Cairnryan for both passenger and freight movements, in turn supporting local employment in the South West of Scotland and the Central Belt.

* 1. Estimated Cost

**£501 million - £1,000 million Capital**

Estimated capital expenditure for this recommendation could be in the region of £501 million - £1,000 million noting the potential types of intervention, which may include significant route realignment schemes and/or major junction upgrades on the trunk road network.

* 1. Position in Sustainable Investment Hierarchy

**Maintaining and safely operating existing assets**

This recommendation would also contribute to five of the 12 NTS2 outcomes, as follows:

* Help make our communities great places to live
* Get people and goods where they need to get to
* Be reliable, efficient and high quality;
* Use beneficial innovation; and
* Be safe and secure for all.
  1. Summary Rationale

**Summary of Appraisal**



This recommendation would contribute positively to STPR2 TPOs relating to Sustainable Inclusive Growth and Safety, Reliability and Resilience, as well as the Health, Safety and Wellbeing; Economy; and Equality and Accessibility STAG criteria. The recommendation has a minor negative impact against the Environment criterion due to anticipated adverse environmental impacts associated with land take for route upgrades. There is a neutral impact against the other TPOs and STAG criteria.

The types of interventions proposed as part of this recommendation are generally considered to be feasible, with Transport Scotland holding recent experience of delivering road improvements on both the A75 and A77, although further investigation would be required of specific interventions in terms environment and land use impact depending on location specific conditions. It is anticipated that this recommendation would be strongly supported by the public and stakeholders in the region given their potential to reduce journey times, improve resilience and safety on the trunk road network to Stranraer and the ports at Cairnryan.

There is anticipated to be minor positive impact against the EqIA and FSDA assessments, and a minor negative impact for the SEA assessment. The other statutory impact assessments are neutral. Details behind this summary are discussed in Section 3below.

1. Context
   1. Problems and Opportunities

This recommendation could help to tackle the following problems and opportunities:

Relevant Problem & Opportunity Themes Identified in National Case for Change

* **Trade and Connectivity:** transport is crucial for trade and competitiveness, within Scotland, across the UK and internationally.
* **Resilience:** a key challenge is providing a transport system that is resilient and speedily recovers from disruption, thus minimising impacts of delayed journeys on networks and users.
* **Safety and Security:** Scotland’s transport system needs to be safe. Whilst the [number of road accident casualties reduced by 11% between 2017 and 2018](https://www.transport.gov.scot/our-approach/statistics/#42762), the number of fatalities has increased. Women and disabled people in particular feel vulnerable when using public transport – particularly at bus stops, train stations or other transport interchanges.
* **Scotland’s Regional Differences:** transport challenges differ across Scotland. Rural households tend to drive more frequently than urban households. The lack of public transport in rural areas acts as a barrier for young people accessing education, training and employment and is linked to long-term out-migration. Similar to remote and rural areas, transport can have an adverse impact on the long-term sustainability of island communities.
* **Reliability:** without intervention, forecast increases in traffic volumes on the road network will impact negatively on reliability through increased congestion and more roadworks as greater pressure is placed on the operational efficiency of the network. [Reliability can also be an issue on the rail network](https://dataportal.orr.gov.uk/media/1808/passenger-performance-2020-21-q1.pdf).
  1. Interdependencies

This recommendation has potential overlap with other STPR2 recommendations and would also complement other areas of Scottish Government activity.

Other STPR2 Recommendations

* Trunk road and motorway safety improvements to progress towards ‘Vision Zero’ (30);
* Trunk road and motorway climate change adaptation and resilience (31);
* Trunk road and motorway renewal for reliability, resilience and safety (32);
* Strategy for improving rest and welfare facilities for hauliers (36); and
* Speed Management Plan (38).

Other areas of Scottish Government activity

* [Revised Draft Fourth National Planning Framework](https://www.transformingplanning.scot/national-planning-framework/) (Revised Draft NPF4) includes National Developments 11 Stranraer Gateway and 17 ‘Chapelcross Power Station Redevelopment’. These sit within the Revised Draft NPF4 South regional spatial priorities and propose that priorities for the area include creating liveable and connected places which benefit from investment and innovation. This recommendation contributes to these priorities and supporting actions, specifically that related to promoting sustainable development and strengthening resilience;
* [The Borderlands Inclusive Growth Deal](https://www.gov.uk/government/publications/borderlands-growth-deal-full-deal-document) and [Ayrshire Growth Deal](https://www.ayrshiregrowthdeal.co.uk/).

1. Appraisal

This section provides an assessment of the recommendation against:

* STPR2 Transport Planning Objectives (TPOs);
* STAG criteria;
* Deliverability criteria; and
* Statutory Impact Assessment criteria.

The seven-point assessment scale has been used to indicate the impact of the recommendation when considered under the ‘Low’ and ‘High’ Transport Behaviour Scenarios (which are described in Appendix F of the Technical Report).

* 1. Transport Planning Objectives

1. A sustainable strategic transport system that contributes significantly to the Scottish Government’s net-zero emissions target



[While a significant number of vehicles access the ports at Cairnryan each day](https://www.transport.gov.scot/publication/south-west-scotland-transport-study-initial-appraisal-case-for-change/), including a [high proportion of HGVs](https://www.gov.scot/publications/foi-202000040081/), overall the improvements proposed as part of this recommendation, such as route widening and realignment, junction improvements and targeted overtaking opportunities are not anticipated to impact traffic levels. These options entail an upgrade of the existing road asset without a material impact on capacity and as a result are anticipated to have a limited in terms of supporting the net zero target.

Therefore, this recommendation is expected to have a neutral impact on this objective in both the Low and High scenarios.

1. An inclusive strategic transport system that improves the affordability and accessibility of public transport.



[The frequency and integration of public transport services is a problem in the South West of Scotland](https://www.transport.gov.scot/publication/south-west-scotland-transport-study-initial-appraisal-case-for-change/), which is highlighted by the [reliance on private vehicle use and by higher than average car ownership levels across the region](https://www.scotlandscensus.gov.uk/) (30.5% of people in Scotland did not have access to a car or van, compared to only 21.9% in Dumfries and Galloway). This is due to the largely rural nature of the region, where providing public transport can be a challenge due to dispersed population and settlement patterns. While the roads focused options within this recommendation would benefit local and longer-distance bus services that use the A75 and A77, they are unlikely to have a direct impact on service coverage or affordability. As such these options are not anticipated to have a notable impact on issues relating to the affordability and accessibility of public transport services.

The potential relocation of Stranraer rail station closer to the town centre would increase the accessibility of Stranraer by rail and may have therefore have a positive impact against this TPO. However, given that proposed sites for the station relocation are in close proximity to the existing site, accessibility benefits are considered to be small.

Overall, this recommendation is anticipated to have a neutral impact on this objective in both the Low and High scenarios.

1. A cohesive strategic transport system that enhances communities as places, supporting health and wellbeing.



A reduction in the number and severity of accidents as a result of the types of options considered in this recommendation would deliver health benefits to individuals by providing a higher quality, safer standard of route. [The proportion of killed or seriously injured (KSI) accidents on the A75 and A77 is higher than the equivalent national values](https://www.transport.gov.scot/publication/south-west-scotland-transport-study-initial-appraisal-case-for-change/). The option to realign the A75 at Springholm and Crocketford would have a particularly positive impact by reducing traffic through these villages, in turn providing opportunities to enhance their sense of place

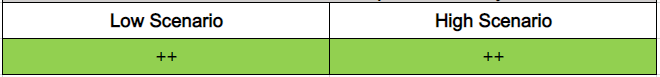
Junction improvements, depending on their location, have the potential to positively impact on communities and support health and wellbeing should the upgrade involve crossing facilities for those walking, wheeling or cycling.

The majority of benefits from the road upgrade options in this recommendation are likely to have the greatest positive impact on people who have access to a vehicle and are unlikely to address key barriers to sustainable travel across the region.

Relocation of the rail station in Stranraer to be nearer to the town centre is likely to have a minor positive impact on enhancing the local community as a place given the station would be in a location closer to other facilities and offering enhanced town centre access. Station relocation also has the potential to support the high-quality place based regeneration around Stranraer, as proposed through the national development proposal for Stranraer Gateway in the [Revised Draft NPF4](https://www.transformingplanning.scot/national-planning-framework/).

Overall, this recommendation is expected to have a neutral impact on this objective in both Low and High scenarios.

4. An integrated strategic transport system that contributes towards sustainable inclusive growth in Scotland.



Analysis of the socio-economic [data presented in the South West Scotland Transport Study suggests the economy of South West Scotland is less robust and less productive than that of Scotland as a whole](https://www.transport.gov.scot/publication/south-west-scotland-transport-study-initial-appraisal-case-for-change/). This is manifested through higher unemployment levels, lower productivity, lower income and greater dependence on the public sector for employment. Access to employment opportunities is therefore important in ensuring equality of access for those living in the area and supporting the long-term sustainability of rural communities.

The trunk road network in South West Scotland plays a vital role in supporting the local economy, facilitating the movement of goods throughout the area including to the ports at Cairnryan, connecting people to employment and education opportunities as well as providing businesses with access to the labour market. Interventions which improve connectivity through reduced journey times and increased resilience associated with improved safety would therefore be anticipated to have a positive impact in terms of promoting inclusive growth.

[Engagement also identified concerns about the economic competitiveness of the ports at Cairnryan](https://www.transport.gov.scot/media/45443/south-west-scotland-transport-study-consultation-report.pdf) with the long journey times on the A75 and A77 considered to be a factor in influencing both existing and potential business and leisure users of the port to potentially utilise different, more easily accessible ports elsewhere in the UK, such as Heysham or Holyhead. Interventions proposed as part of this recommendation would be designed to reduce journey times to the ports at Cairnryan, which would have positive impact in terms of promoting the role of the ports, supporting local employment and associated economic activity linked to businesses and supply chains serving the ports.

The relocation of the station in Stranraer is likely to have only negligible impacts against this objective.

Overall, this recommendation is anticipated to have a moderate positive impact on this objective in both the Low and High scenarios.

5. A reliable and resilient strategic transport system that is safe and secure for users.



[Previous consultation and analysis has identified concerns related to road safety on the routes to the ports at Cairnryan](https://www.transport.gov.scot/media/49082/initial-appraisal-case-for-change-ayrshire-and-arran-region-report.pdf) with accident rates relatively high and particular concerns regarding a lack of safe overtaking opportunities on the A75 and A77.

Issues of reliability and resilience on the routes have also been identified, specifically due to the long diversionary routes. By way of example, in the [event of a closure on the A77 south of Ayr the diversion route can be significantly longer than the primary route, with diversions adding 26 miles (35 minutes) onto journeys](https://www.transport.gov.scot/publication/south-west-scotland-transport-study-initial-appraisal-case-for-change/).

Options proposed as part of this recommendation would be designed to increase the safety of the A75 and A77. This would in turn positively impact the reliability and resilience of routes by reducing the likelihood of accidents. The provision of enhanced overtaking opportunities specifically would help to improve safety by reducing platooning associated with slower moving vehicles which can lead to unsafe overtaking manoeuvres.

Evaluations of road schemes following the [Scottish Trunk Road Infrastructure Project Evaluation (STRIPE) framework](https://www.transport.gov.scot/transport-network/roads/project-evaluation/) provide an illustration of the potential benefits of route improvements, as illustrated by the 3 year after opening project evaluations for the following schemes:

* A9 Bankfoot junction improvement involving the removal of right-turn movement across the main A9(T) carriageway to/from the B867 and Bankfoot village through improvement to the existing A9/B867 and realignment of a minor road to provide a left in/left out junction on the A9 resulted in an 80% reduction in accidents.
* A9 Helmsdale widening scheme (including the provision of climbing lanes) resulted in a 60% reduction in accidents.
* A76 Glenairlie overtaking scheme resulted in a reduction in accidents of 75%.

Accordingly, it is considered that this recommendation would have a positive impact against this objective.

The relocation of the rail station in Stranraer may encourage more people to use the station and thus provide added resilience in the event of the A77 south of Ayr being closed. Relocating the station closer to the town centre is also anticipated to improve safety and perceptions of security by removing the need for people leaving the station by foot to travel through an exposed and industrial area.

Overall, this recommendation is expected to have a moderate positive impact on this objective in both the Low and High scenarios.

* 1. STAG Criteria

1. Environment

See Strategic Environmental Assessment (SEA) below.

This recommendation is expected to have a minor negative effect on this criterion in both the Low and High scenarios.

2. Climate Change



While the interventions proposed as part of this recommendation are not anticipated to notably impact on traffic volumes or mode share, should route improvements encourage increased traffic levels, this could lead to increased levels of Greenhouse Gas Emissions. Opportunities to employ methods for decarbonisation of route improvements through, for example, innovation in design, procurement and construction methods, would also be expected as part of the option design and development process.

The recommendation is not expected to have an impact on Vulnerability to the Effects of Climate Change or Potential to Adapt to the Effects of Climate Change.

The potential relocation of the rail station in Stranraer does little to reduce the distance between the station and the ports at Cairnryan (thus limiting potential for freight to travel by rail) and is it not considered to have any material impact on mode shift. As such this specific option is not considered to have any impact against the Climate Change criterion.

Overall, this recommendation is expected to have a neutral impact on this criterion in both the Low and High scenarios.

3. Health, Safety and Wellbeing



[Road safety has been identified to be an issue on strategic routes in South West Scotland](https://www.transport.gov.scot/publication/south-west-scotland-transport-study-initial-appraisal-case-for-change/), with traffic platoons and alignment issues reducing overtaking opportunities on the A75 and A77 leading to a slower overall road speed, driver frustration and a higher propensity for severe accidents.

The A75 and A77 run directly through a number of speed-limited settlements, resulting in severance, noise pollution, vibration and poorer air quality. The option to realign the A75 around Springholm and Crocketford would help to address these issues and therefore has been assessed to have a positive impact on the Health sub-criterion.

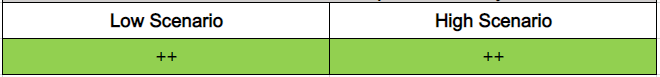
Access to health and wellbeing infrastructure would be improved by reduced travel times across the network when using the A75 and A77. This should also improve response times for emergency vehicles in the region.

This recommendation is unlikely to have an impact on the security and visual amenity sub-criteria.

The types of options within this recommendation would result in actual and/or perceived safer operation of the network. This is particularly relevant at locations where evidence suggests there is a safety problem or there is a potential safety risk, such as on the A77 between Turnberry and Girvan, between Ballantrae and Cairnryan, and between the A751 and Stranraer.

Overall, this recommendation is expected to have a minor positive impact on this criterion in both the Low and High scenarios.

4. Economy



This recommendation would have transport economic efficiency benefits as a result of improved route reliability and efficiency, greater opportunities for overtaking and generally improved safety thus reducing the likelihood of route closure and increasing route resilience.

A road network connecting to the ports at Cairnryan which improves safety would have wider economic benefits such as growth in the movement of goods; improved accessibility for employment; increased attraction to the ports for tourism; and provide opportunities to business to connect better with the national and international markets. This would enhance the region’s attractiveness as a place to work and live; generating a positive impact and supporting sustainable economic growth.

The relocation of the rail station in Stranraer is not anticipated to have any particular impacts on transport economic efficiency given that the relocation is not anticipated to reduce travel times or increase rail patronage. However, there could be wider economic impacts associated with regeneration of the Stranraer waterfront area, which a new, better integrated rail station could help to support.

Overall, this recommendation is expected to have a moderate positive impact on this criterion in both the Low and High scenarios.

5. Equality and Accessibility



Improving access to Stranraer and the ports at Cairnryan provides an opportunity to improve bus accessibility and connectivity within the region delivering more resilient connections to Stranraer and Cairnryan. This is particularly pertinent as the South West Scotland has high car ownership and availability compared with the rest of the country and as such there are opportunities to encourage modal shift from private vehicle to bus. However, the impact to Comparative Access by People Group and Comparative Access by Geographic Location sub-criteria is considered to be limited.

Safety improvements and the associated reduction in disruption from accidents on the network would improve accessibility to the ports at Cairnryan for all road users. However, it is considered unlikely that the options within this recommendation would have a significant impact on public transport and active travel accessibility in the region. The proposed options would also provide fewer benefits to individuals who do not have access to a private car, as well as those unable to drive.

Accessibility to Stranraer town would be improved if the rail station were to be relocated closer to the town centre. This is expected to result in a minor positive impact on Public Transport Network Coverage.

This recommendation is not likely to have any impact on the Active Travel Network Coverage.

Affordability is unlikely to be affected by the options within this recommendation.

Also refer to EqIA/ICIA/FSDA/CRWIA Assessment in the next section.

Overall, this recommendation is expected to have a neutral effect on this criterion in both the Low and High scenarios.

* 1. Deliverability

1. Feasibility

There is significant experience of delivering the types of road improvement options proposed as part of this recommendation, including recent experience on both the A75 and A77, and therefore proposals such as junction improvements and route realignment to enhance safety and overtaking provision is considered feasible. However, the impacts of the recommendation in terms of the environment and land use may impact on the feasibility of individual options depending on location specific conditions and further investigation would be required. The location and type of improvements on specific routes would also be informed by the route risk mapping process Transport Scotland is developing in addition to the more traditional reactive analysis of high accident cluster sites to assess the safety quality of the road network and to target investment.

The relocation of the rail station in Stranraer is likely to be technically feasible, however, a detailed study would be required to accurately understand the possible constraints relating to this option including the potential planning, consents and approvals process that would require to be worked through.

2. Affordability

The overall affordability of this recommendation would be dependent on the specific interventions taken forward. Localised at-grade junction improvement for example, would constitute lower cost options compared to extensive stretches for route realignment and WS2+1 or climbing lanes interventions. More expensive still would likely be options related to addressing issues at major junctions on the A77. Costs would therefore be dependent on the scale and complexity of individual options and any specific local issues; accordingly, the impact against affordability is considered to be moderate negative.

The relocation of the rail station at Stranraer is also likely to constitute a high-cost option given the extensive civil engineering works required to construct a new station and any work required to regenerate or remove the existing station.

3. Public Acceptability

Strong public and stakeholder support would be anticipated for road-based options proposed as part of this recommendation, based on previous consultation undertaken as part of the [South West Scotland Transport Study](https://www.transport.gov.scot/media/45443/south-west-scotland-transport-study-consultation-report.pdf), which revealed:

* results from the Online Survey completed by over 3000 respondents indicated that road improvements to the A75 was the number one cumulative priority for respondents, followed by general road maintenance and improvements to the A77.
* the results from a Placecheck tool completed by the public indicated the most common transport problem themes in the region related to poor road geometry, road safety, poor road infrastructure and quality, and a lack of overtaking opportunities.
* stakeholder workshops across the region highlighted a number of common findings including: concerns relating to the quality of road infrastructure; heavy goods vehicles causing platoons which causes driver frustration and leads to dangerous overtaking maneouvres due to a lack of safe overtaking opportunites; concerns over road safety on trunk roads in the region; concerns over route resilience with long diversionary routes in the event of trunk road closures to the A75 and A77.

Furthermore, engagement highlighted that economic growth may in part be constrained in the region due to a lack of reliable transport infrastructure to Cairnryan in particular, as well as to Stranraer[. The South West Scotland Transport Study](https://www.transport.gov.scot/publication/south-west-scotland-transport-study-initial-appraisal-case-for-change/) noted that it was felt by ferry operators that long average journey times on the A75 and A77 to the ports at Cairnryan (due to road topography, alignment and routeing through small communities) was a factor in influencing both existing and potential business and leisure users of the port to potentially utilise a different, more easily accessible port.

Accordingly, it is considered that the options proposed as part of this recommendation would be strongly supported by the public and stakeholders in the region given their potential to reduce journey times, improve resilience and safety on the trunk road network to Stranraer and the ports at Cairnryan.

There are also a number of campaign groups in the region who have long petitioned for improvements to both the A75 and A77 serving Cairnryan, which reflects the support that improvements would be likely to receive, although there may also be a view among some groups that the recommendation does not go far enough, given calls for full route dualling options.

In terms of opposition, given the potential environmental impact of specific road improvement options and the requirement for land-take, it is important to acknowledge that there would also be groups who would be opposed to the recommendation; however, this should be offset on the basis that options are designed to improve safety and journey times rather than build new capacity to accommodate increased traffic levels.

Relocation of the rail station in Stranraer closer to the town centre is likely to be accepted by the public as it would be in a more attractive environment and more accessible. It also supports net zero targets by encouraging modal shift onto rail. However, there could be some lack of support from residents in the immediate vicinity of the relocated station and from local landowners.

* 1. Statutory Impact Assessment Criteria

1. Strategic Environmental Assessment (SEA)

 In relation to access to Stranraer and the ports at Cairnryan, there are designated environmental sites such as Sites of Special Scientific Interest and Special Protection Areas (SPAs), which are relevant to SEA Objective 11 (biodiversity). These include an inland river Special Area of Conservation (SAC) and large SPA and SAC designations in the coastal and marine environment in the vicinity of Cairnryan. There are various designated heritage sites in the vicinity of Cairnryan, including a large Garden and Designed Landscape, which are relevant to Objective 13 (cultural heritage). Sites or areas that have not been designated may also represent constraints or opportunities.

Options in this recommendation, including junction improvements, realignment/widening and overtaking opportunities, would result in potential positive effects on safety (Objective 7) due to the expected improvement in the safety of the trunk road network in South West Scotland.

This recommendation is not anticipated to have a notable impact on traffic volumes or mode share and subsequently transport related emissions during the operational phase of implemented options. There is anticipated to be a wider trend towards cleaner vehicles as internal combustion engines are replaced by electric vehicles. However, the construction of these options would have a negative effect on greenhouse gas emissions (Objective 1) and potential short-term negative effects on air quality (Objective 3). Work undertaken to date in decarbonising construction on other road schemes could be used as a basis for developing similar methods for these options.

Any increase in the number of vehicles using the trunk road network would cause increases in noise and vibration, although there is the potential to mitigate these impacts. As such, there are unlikely to be significant effects on noise and vibration (Objective 5) as no notable increase in traffic volumes would be anticipated. Construction-stage mitigation for noise and vibration would be required.

A minor negative effect is assessed in relation to quality of life and accessibility via sustainable transport (Objective 4), as although the options within this recommendation would support connectivity to employment, education and other services, this would primarily apply to road-based transport. This would also have a negative effect on Objective 8, which relates to sustainable transport methods and the sustainable use of existing infrastructure. The A75 and A77 are, however, important to the operation of local bus services as well as inter-urban services in South West Scotland, and provision for non-motorised users would be a consideration as part of the design of individual options to address any specific safety and/or severance challenges. The South West Scotland trunk road network is also crucial in providing connections to Northern Ireland via the ports at Cairnryan.

Depending on the complexity and scale of individual schemes, moderate to major quantities of materials and construction-related trips would be required for overtaking opportunities and realignment/widening. Depending on the source and type of materials/natural resources used, there is the potential for negative effects on natural resource requirements (Objective 9). There is, however, the potential opportunity for schemes to improve surface conditions and, alongside advancement in the types of materials used, reduce overall maintenance needs in the longer-term.

There is the potential for negative environmental effects during the construction and operation of the types of options within this recommendation on SEA objectives related to the water environment, biodiversity (including the designated sites mentioned above), soil, cultural heritage (including the designated sites mentioned above), and landscape and visual amenity (Objectives 10 to 14). However, the scale of the effects is uncertain at this stage and the location of the options would have a strong influence on this.

Further environmental assessment, including cumulative effects assessment, would be required as individual options are progressed through the design and development process in order to assess the location and scale of specific environmental effects as well as to identify appropriate mitigation where required. Design and construction environmental management plans would also be recommended to consider how to protect and enhance landscape, drainage, amenity, biodiversity and cultural heritage. The additional environmental assessment would inform the development of environmental mitigation and enhancement measures, which should in turn influence the alignment and design of any final options.

The potential relocation of the rail station in Stranraer would do little to reduce the distance between the station and the ports at Cairnryan – thus limiting the potential for passenger and freight modal shift – and therefore would not be expected to contribute to reducing emissions. As such, this specific option is not considered to have a significant effect on climate adaptation (Objective 2). However, further environmental assessment may be required, depending on which site(s) might be considered for a relocated station.

The recommendation has no (or negligible) clear relationship to the achievement of SEA Objective 6 (high quality places).

Overall, the environmental effects are assessed to be minor negative for this recommendation in both the Low and High scenarios as there is the potential for some options to detract from SEA objectives, with the effects determined by the location, complexity, scale and design of individual schemes.

2. Equalities Impact Assessment (EqIA)



Options considered as part of this recommendation could potentially provide an improved sense of road safety, including for those walking, wheeling and cycling. This would provide some positive effects for protected characteristic groups who are more likely to walk, wheel or cycle and are more vulnerable to fear of road danger, including children, young people, women and older people. Connectivity benefits to employment, education, services and leisure at Stranraer and Cairnryan are likely to be experienced by the overall population with no particular additional benefit for those in protected characteristic groups.

This recommendation would not produce any direct positive health outcomes due to the negligible reduction in vehicle emissions and unlikely improvement of air quality. However, if trunk roads were realigned to avoid settlements, such as the option for improvements around the villages of Springholm and Crocketford on the A75, then local air quality in such settlements would be improved by a major reduction in through traffic. Therefore, the extent to which positive effects would be realised by people who are more vulnerable to the adverse health effects of traffic pollution (for example, children, older people, pregnant people, and disabled people) depends on the location of interventions and the level of reduction of through traffic within communities as well as the overall change in transport-based emissions resulting from a scheme. The reduction of traffic in such communities may also create environments more conducive to walking, wheeling and cycling.

The possible relocation of Stranraer rail station closer to the town centre would improve accessibility for the local community and make travel to/from the station by walking, wheeling or cycling safer and easier. This would potentially benefit a wide range of protected characteristic groups who are more reliant on public transport services such as older people, the elderly, children, young people, women and people from certain ethnic minority groups. Improved accessibility to the train station at Stranraer can help improve access to essential services including employment, education, healthcare and recreation for these groups.

A new/relocated station would be designed to comply with latest design standards and be fully accessible, therefore enabling people with restricted mobility (including disabled people, older people, pregnant people, and people travelling with young children) to travel by rail.

Overall, this recommendation is expected to have a minor positive impact on this criterion in both the Low and High scenarios.

3. Island Communities Impact Assessment (ICIA)



Ferries do not operate between the ports at Cairnryan and Scottish Islands, therefore, ICIA is not applicable for this recommendation.

This recommendation is therefore expected to have a neutral impact on this criterion in both the Low and High scenarios.

4. Children’s Rights and Wellbeing Impact Assessment (CRWIA)



While improving the safety of the A75 and A77 could potentially result in an improved sense of road safety and security for children and young people who are more vulnerable to fear of road danger, the impacts of this recommendation on young people is anticipated to be limited. A new/relocated station would be designed in line with design standards and be fully accessible, therefore assisting people with restricted mobility including people travelling with young children and pushchairs.

Overall, this recommendation is expected to have a neutral impact on this criterion in both the Low and High scenarios.

5. Fairer Scotland Duty Assessment (FSDA)



Improved safety of the A75 and A77 with associated reliability benefits for rural and remote communities may contribute towards addressing many of the structural challenges that rural communities face (such as attracting young families and retaining skilled workers).

The relocation of Stranraer rail station closer to the centre of town would increase accessibility to and from the station for those without access to a car. However, the extent to which this recommendation would reduce inequalities of outcome would depend on the affordability of rail fares.

The relocated station could also support regeneration and economic development in the immediate area, potentially reducing inequalities caused by socio-economic disadvantage in these areas through increased access to opportunities.

Overall, this recommendation is expected to have a minor positive impact on this criterion in both the Low and High travel behaviour variant scenarios.