STRATEGIC TRANSPORT PROJECTS REVIEW

PROTECTING OUR CLIMATE AND IMPROVING LIVES

Appendix I: Recommendation Appraisal Summary Tables

December 2022

Jacobs AECOM

1. Detailed Appraisal Summary

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

1.1. Recommendation 43 - Major station masterplans

Recommendation Description

Following on from the successful upgrade to Glasgow Queen Street Station as well as recent station improvements at Aberdeen and Stirling, this recommendation involves the redevelopment of four major railway stations in Scotland's cities: Edinburgh Waverley, Glasgow Central, Inverness and Perth railway stations. Station redevelopment would include a range of measures from development of station buildings and passenger facilities to enhancements to track and platform remodelling to improve capacity and service operations.

The Edinburgh Waverley Masterplan proposes to improve city centre spaces for more efficient and effective public use, embracing active travel solutions, and refocusing the performance and operation of the centre of the city. Station enhancements would be designed to improve the station's functionality, capacity and ambience as well as enhancing connectivity with other transport modes and its integration within the city centre.

At Glasgow Central Station, redevelopment would involve a review of existing infrastructure to identify improvements over both the short and longer term to increase capacity, the latter with consideration of supporting the future development of Clyde Metro proposals and future HS2 services to/from London and Birmingham.

The works at Inverness Station would be related to improving the station's operational functionality as well as integrating the station better with the city centre (including the nearby bus station) so as to ensure the station can operate as part of an effective integrated transport interchange, delivering benefits for passengers and freight services.

At Perth Station, track and signalling infrastructure enhancements on the approaches to the station would support faster journey times and better service performance, improving reliability, connectivity and enhancing freight provision. Consideration would also be given to opportunities to enhance the station buildings and environs to provide an improved passenger experience (such as wayfinding, accessibility and integration) and better integrate with the wider city centre.

Through STPR2, it is recommended that station plans and masterplans are progressed to align with, and support, the investment priorities of Transport Scotland and Network Rail. The masterplan proposals should set the framework for future phases of work at the respective stations to accommodate passenger demand in line with sustainable travel, supporting net zero targets, and coordinate with regional activity undertaken by other strategic partners.

1.2. Relevance

Relevant to Edinburgh, Glasgow, Inverness and Perth
This recommendation would benefit each of the city centre locations where there are significant numbers of visitor and tourist journeys, with the respective stations acting as gateways that proudly announce arrival into each city. Pre-Covid-19 passenger forecasts predicted growth on the Inter-Cities network to be amongst the highest in Scotland[i]. While the pandemic is likely to result in less commuting and in-work travel, at least in the short term, there is evidence that this may increase willingness to travel further[ii]. Enhancing the railway stations to provide an enhanced experience for passengers, both through providing better facilities at the stations and facilitating the provision of enhanced capacity and reliability for rail services, offers economic, social and environmental benefits within the four cities as well as across the rail network. In addition to delivering passenger benefits, enhancing infrastructure should increase freight capacity to support modal shift to rail freight.

1.3. Estimated Cost

£101m - £500m Capital
Detailed cost estimates for the implementation of this recommendation are unknown at this stage with it to be noted that costs could vary significantly depending on the scale and scope of station enhancement proposals. By way of example, the recent renovation of Glasgow Queen Street station has been estimated at £120 million[iii] whereas the restoration of Aberdeen station has been estimated at £8 million[iv]. Detailed cost estimates would emerge following completion of masterplans and the subsequent option development and design process for station enhancements.

1.4. Position in Sustainable Investment Hierarchy

Targeted infrastructure improvements
This recommendation would contribute eight of the 12 NTS2 outcomes, as follows: ▪ Be easy to use for all; ▪ Help deliver our net zero target; ▪ Promote greener, cleaner choices; ▪ Get people and goods to where they need to get to; ▪ Be reliable, efficient and high quality; ▪ Use beneficial innovation; ▪ Be safe and secure for all; and ▪ Help make our communities great places to live.

1.5. Summary Rationale

Summary of Appraisal

	TPO					STAG					SIA				
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Low Scenario	+	+	++	+	+	+	+	+	++	++	+	++	0	+	+
High Scenario	+	+	++	+	+	+	+	+	++	++	+	++	0	+	+

This recommendation makes an overall positive contribution to the STPR2 Transport Planning Objectives (TPOs) and STAG criteria. It particularly contributes to objectives for enhancing place, economy, and equality and accessibility. Specifically, station enhancements would be designed to ensure enhanced access for all, therefore supporting equality objectives, while measures that support enhanced public realm have been found to boost local development, jobs and business activity, therefore having positive economic impacts[v]. The benefits of station enhancements in terms of improving rail service capacity and reliability would also be anticipated to have benefits for increasing confidence in use of the rail network, in turn supporting modal shift and the resulting environment and health benefits from using this sustainable mode of travel.

There is strong evidence that major station masterplans are acceptable to the public, with the Online Survey undertaken for STPR2 (December 2019 to January 2020) highlighting 69% of respondents were either dissatisfied or very dissatisfied with transport integration, suggesting that public support for this option is likely to be high. Station enhancements are feasible in principle, however the feasibility of specific aspects of the proposals would need to be determined subject to additional design work.

Station masterplans perform positively with respect to the Statutory Impact Assessment criteria, with the exception of the Island Connectivity Impact Assessment for which the impact is expected to be negligible given the location of stations proposed for upgrade.

Details behind this summary are discussed in Section 3, below.

2. Context

2.1. Problems and Opportunities

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

Relevant Problem & Opportunity Themes Identified in National Case for Change
▪ **The Transport Needs of Disabled People:** the proportion of adults with a long-term limiting mental or physical health condition or disability is increasing as the population ages. Key challenges they face on the transport system include being able to access accurate travel information both before and during the journey; the accessibility of public transport interchanges and vehicles; interchange between modes; and concerns regarding safety and comfort on the public transport network. ▪ **Global Climate Emergency:** the Scottish Parliament committed to an ambitious target of net zero emissions by 2045 and transport needs to play its part. Transport is currently Scotland's largest sectoral emitter, responsible for 37% of Scotland's total greenhouse gas emissions (greenhouse gas emissions encompass CO_2 emissions) [vi] in 2018 (National Atmospheric Emissions Inventory 1990-2017) [vii]. Our transport system needs to minimise the future impacts of transport on our climate. ▪ **Changing Travel Behaviour:** changing people's travel behaviour to use more sustainable modes will have a positive impact on the environment, as well as health and wellbeing. ▪ **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[viii]. ▪ **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[ix], 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. ▪ **Tourism:** transport plays a vital part in supporting tourism. It enables people to get to, and travel within, Scotland and allows them to explore the many sights and experiences the country has to offer. Whilst tourism benefits are recognised, tourists should be encouraged to travel using sustainable modes.

2.2. Interdependencies

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

Other STPR2 Recommendations

- Clyde Metro (11);
- Edinburgh and South East Scotland Mass Transit (12);
- Highland Main Line rail corridor enhancements (15);
- Perth-Dundee-Aberdeen rail corridor enhancements (16);
- Edinburgh/Glasgow-Perth/Dundee rail corridor enhancements (17);
- Improved public transport passenger interchange facilities (21); and
- High speed and cross-border rail enhancements (45).

Other areas of Scottish Government activity

- Climate Change Plan 2018-2032 Update (including car kilometre reduction target, road freight target and net zero target)[x];
- Requirements set out by Scottish Minister in the Scottish Ministers' High-Level Output Specification (HLOS) for Control Period 6 aiming to grow rail freight traffic on the Scottish rail network by 7.5% by 31st March 2024[xi];
- Rail Services Decarbonisation Action Plan[xii];
- Scotland's National Strategy for Economic Transformation[xiii]; and
- Revised Draft Fourth National Planning Framework (NPF4)[xiv].

To support the delivery of the 2043 Indicated Train Service Specification (ITSS), the Scotland Route Study[xv] proposes remodelling of all four of the stations proposed within its choices for funders. Rationale for these proposals included:

- Without investment in Glasgow Central Station, trains will not be able to be lengthened (or frequency increased) to accommodate future demand with customers being crowded off trains and unable to travel by rail to key employment locations. Pedestrian flow and retail/passenger facilities within Glasgow Central were also highlighted as a key consideration.
- At Edinburgh Waverley, extending platforms or creating new ones to meet demand will reduce the current space available for passenger circulation and facilities in the station. The increase in passenger numbers and potential reduction in concourse space suggests that a major redevelopment of Edinburgh Waverley will be required in the medium to long term.
- Improvements in the platform arrangements and track layout at Inverness Station may be required to create the capacity for more frequent train services to and from the Dingwall direction.
- Perth Station re-modelling, redevelopment and re-signalling prior to electrification, including freight looping capacity and with improved transport interchange capabilities is identified as one of several strategic interventions which will be delivered more efficiently if they are undertaken in conjunction with route clearance works, prior to electrification of the routes to Aberdeen and Inverness.

3. 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).

3.1. Transport Planning Objectives

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

Low Scenario	High Scenario
+	+

This recommendation would make rail a more attractive travel option, with the potential to encourage modal shift from private car, reducing emissions.

This recommendation would also potentially allow clearance for future electrification, reducing the emissions of rail itself.

Platform re-organisation at Perth could increase operational capacity, potentially allowing for new freight paths, which could enable mode shift from road freight to rail freight.

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

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

Low Scenario	High Scenario
+	+

Redevelopment of stations could lead to improved physical accessibility for all, enabling people with mobility limitations (including disabled people, older people, pregnant people, and people travelling with young children) to travel by rail. Improved wayfinding associated with station redesign would have benefits for station navigability.

Improved integration with other modes would enable more seamless multi-modal journeys with rail as the main mode, improving the competitiveness of rail travel relative to car and reducing the risk of forced car ownership and transport poverty for people who live and/or work on the periphery of the cities.

This recommendation is therefore expected to have a minor positive impact on this objective in both Low and High scenarios.

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

Low Scenario	High Scenario
++	++

Station redevelopment would improve the city environment, improving links from stations into the city centres and potentially inducing regeneration both more broadly in the city, and within the stations themselves through placemaking and by encouraging new retail outlets. There would be improvements to the historic environment, with more focus afforded to the Grade A listed ticket hall at Edinburgh Waverley and historic buildings at Perth Station, some of which are currently obscured. This recommendation may also make multi-modal journeys involving rail more attractive than car-only trips, potentially increasing active travel and improving health and wellbeing outcomes.

Station redevelopment proposals would have benefits for integration, both between platforms for multi-stage rail journeys, and with other modes for multi-modal journeys, contributing to a seamless travel experience and making multi-stage and multi-modal journeys more attractive relative to private car trips.

This recommendation is therefore expected to have a moderate positive impact on this objective in both Low and High scenarios.

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

Low Scenario	High Scenario
+	+

By making rail more accessible to a wide range of people, this recommendation would increase productivity.

Station redevelopment in line with placemaking principles can promote seamless multi-modal journeys by improving the ease of integration with other modes, thereby extending the reach of the railway via other transport networks.

Improvements to speed, frequency and reliability of rail services would improve connectivity, access to labour markets, and accessibility to jobs, education and training, thereby contributing to sustainable economic growth. Facilitating opportunities for rail freight through creating more efficient service operations and infrastructure enhancements that release capacity, for example, platform remodelling and freight looping at Perth, also provides the opportunity to promote more sustainable movement of goods in the long term. In turn, enhancement would reduce delays to rail freight services, minimising disruption to supply lines and supporting economic growth.

Station redevelopment would create jobs in planning and construction in the short- to medium-term. In the longer-term, it could also encourage regeneration around the station areas. Research suggests that in a station context, enhanced station environment and associated urban realm improvements can promote local regeneration and development; stations by their nature are accessible and therefore a natural focus for higher density, more sustainable development. Where public realm improvements support an increase in land values, this can enhance the overall viability of development in the vicinity of stations[xvi].

This recommendation is expected to have a minor positive impact on this objective in both Low and High scenarios.

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

Low Scenario	High Scenario
+	+

Providing underground servicing at Edinburgh Waverley would remove vehicle deliveries from the concourse making the station safer from possible security threats and reduce interaction between passengers and vehicles. Improving circulation for passengers within the stations would enable safer exit strategies in case of emergency, accommodating foot passenger travel demands safely and efficiently, and reducing bottlenecks or hazards. Improvement in platform arrangements and track layout at Inverness and Perth could also provide resilience and reliability benefits by increasing the capacity of the station to accommodate additional services.

Station redevelopment in line with placemaking principles can also increase perceptions of user safety and security.

This recommendation is expected to have a minor positive impact on this objective in both Low and High scenarios.

3.2. STAG Criteria

1. Environment

Low Scenario	High Scenario
+	+

See Strategic Environmental Assessment (SEA) below.

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

2. Climate Change

Low Scenario	High Scenario
+	+

This recommendation would make rail a more attractive travel option, with the potential to encourage modal shift away from private car and from road freight to rail freight as a result of enhanced capacity which enables the creation of new freight paths, thereby reducing emissions.

This recommendation would also potentially allow clearance for future electrification (not part of this recommendation), which would reduce greenhouse gas emissions associated with rail itself.

There is not expected to be any impact on vulnerability to effects of climate change or potential to adapt to effects of climate change.

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

3. Health, Safety and Wellbeing

Low Scenario	High Scenario
+	+

Station redevelopment in line with placemaking principles would increase station attractiveness and improve perceptions of user safety and security.

Providing underground servicing at Edinburgh Waverley would remove vehicle deliveries from the concourse making the station safer from possible security threats and reduce interaction of passengers and vehicles. Improving circulation for passengers within the stations would enable safer exit strategies in case of emergency, accommodating foot passenger travel demands safely and efficiently, and reducing bottlenecks or hazards.

Overall rail is considered a safe mode of travel. In 2019/20, the Department for Transport reported 0.2 fatalities per billion passenger miles[xvii]. Encouraging modal shift to rail for passenger journeys would provide a positive impact on safety.

Reduced emissions and improved air quality resulting from modal shift would result in health benefits. Modal shift to rail, in combination with placemaking, can also incentivise walking and cycling as part of a multi-modal journey, with benefits for health and wellbeing resulting from increased activity.

Access to health and wellbeing infrastructure may improve slightly due to improved rail journey times and reliability for rail passengers associated with station enhancements

There is potential for negative effects on visual amenity during construction and operation of the infrastructure. However, as improvements would be made largely within the existing footprint of stations, it is expected that the overall impact on visual amenity would be negligible. Station enhancements themselves would be anticipated to have a positive impact in terms of improving the urban realm including visual amenity of station buildings. It is recommended that further environmental assessment is undertaken as proposals develop in order to identify potentially significant location-specific environmental effects and mitigation where appropriate.

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

4. Economy

Low Scenario	High Scenario
++	++

The reconfiguration and optimisation of platform layouts would enable services to operate more efficiently and increase network capacity at major interchange stations. Extended platforms could accommodate longer trains; effectively increasing the passenger-carrying capacity of the rail network. Signal enhancements on the approaches to stations could reduce headways, and effectively improve network capacity, allowing increased service frequency. The reductions in journey times and a more competitive transport environment would also enable people and goods to arrive at their destinations faster, contributing to sustainable economic growth and generating wider benefits across the four cities and the surrounding areas.

Station redevelopment would create jobs in planning and construction in the short- to medium-term and, in the longer-term, would encourage regeneration around the station areas. Research[xviii] has also suggested that station enhancements can affect the overall attractiveness of a location to locate or invest in, which can impact on the pattern of development and / or land values, supporting economic growth. Investment in rail freight enhancements would deliver travel time savings for Freight Operating Companies (FOCs) operating on the network. Furthermore, improved resilience and reliability of the railway for freight services would reduce delays to rail freight services, minimising disruption to supply lines.

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

5. Equality and Accessibility

Low Scenario	High Scenario
++	++

Redevelopment of stations could lead to improved accessibility, enabling people with mobility limitations (including disabled people, older people, pregnant people, and people travelling with young children) to travel by rail.

Improved wayfinding associated with redesign would have benefits for station navigability.

Improved integration with other modes would enable more seamless multi-modal journeys with rail as the main mode, improving the competitiveness of rail travel relative to car and reducing the risk of forced car ownership and transport poverty for people who live and/or work on the periphery of the cities.

Redevelopment presents the opportunity to implement current best practice in accessible station design, ensuring safe and convenient access for all to the station, within the station concourse and between platforms.

Whilst this recommendation would not change transport network coverage, it is expected to improve journey times and reliability for people who already rely on public transport, thereby improving comparative accessibility.

This recommendation is unlikely to have any major impact in terms of the affordability sub-criteria.

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

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

3.3. Deliverability

1. Feasibility
Redevelopment of stations is feasible in principle, however more detailed design work would be required for each station. Technologies and construction techniques are generally proven and present no significant risks to delivery, albeit a more thorough, detailed assessment would be required considering local issues and constraints, therefore identifying potential challenges that could lead to increased timescales and costs associated with station redevelopment works. In terms of the operational challenges, there may be short- to medium-term issues created by upgrades, with line closures and reduced services required in the interim. However, in the long-term, implementation of this recommendation would allow Train Operating Companies (TOCs) and FOCs more flexibility within the working timetable (due to more paths, improved line speeds, and upgraded signalling systems).

2. Affordability
There are likely to be significant costs associated with station redevelopment, however there may be efficiencies to be gained by aligning redevelopment with Network Rail's planned renewals. There may be income generated through rental of commercial space to cafés and retail outlets if these are included as part of the enhancements.

3. Public Acceptability
Responses to the online survey undertaken for STPR2 revealed that 69% of respondents were either dissatisfied or very dissatisfied with transport integration, suggesting that public support for this recommendation is likely to be high. A 2016 study by Transport Focus[xix] found that redevelopment of stations does lead to substantially higher passenger satisfaction with the station, although passenger disruption while works are ongoing may lead to dissatisfaction in the short-term. During consultation undertaken for the Edinburgh Waverley Masterplan[xx], over 500 responses were received through a public consultation questionnaire with three-quarters of respondents being dissatisfied with their current experience of the station. The main areas of concern raised were connectivity with other transport modes, improving access and providing adequate station facilities. Consultation as part of Network Rail's Scotland Route Study[xxi] found that the option to remodel the track layout around Perth Station was positively supported and seen as key to facilitating faster and more frequent services. Station capacity at Glasgow Central was highlighted as a key concern by respondents with options to potentially address this through changes within the station positively received. The redevelopment of Inverness Station, including integration with the bus station, was raised as an option during Highlands and Islands stakeholder engagement and has been a

stakeholder aspiration held for many years by Hitrans and ScotRail in particular.

3.4. Statutory Impact Assessment Criteria

1. Strategic Environmental Assessment (SEA)

Low Scenario	High Scenario
+	+

This recommendation is focused on four major stations in Scotland's cities. Edinburgh Waverley railway station is within the Old and New Towns of Edinburgh, which is designated as a World Heritage Site. There are also 50 Conservation Areas, designated for special architectural or historic interest, and a large number of listed buildings and scheduled monuments. Other designations adjacent to the area include multiple Gardens and Designed Landscapes, Special Areas of Conservation (SAC), Sites of Special Scientific Interest (SSSI), Special Protection Areas (SPA), Marine Protected Areas, and Ramsar Sites. Glasgow Central railway station is located within the Central Area Conservation Area, with several Listed Buildings and Scheduled Monuments situated nearby. In relation to Inverness railway stations, there are various designated sites, with the Inner Moray Firth SPA, SAC, SSSI and Ramsar Site being the largest adjacent to Inverness and playing an important role in the coastal and marine environment. The railway station is also located within the Inverness Conservation Area, surrounded by a number of Listed Buildings and Scheduled Monuments. Perth railway station is located within the Perth Central Conservation Area, with Listed Buildings and Scheduled Monuments situated nearby. There are records of designated sites, including an inland river SAC and large Ramsar Site, SSSI, SPA, and SAC designations in the coastal and marine environment. Sites or areas that have not been designated may also represent constraints or opportunities.

This recommendation is likely to result in minor positive effects on SEA objectives related to reducing greenhouse gas emissions (Objective 1) and improving air quality (Objective 3), as it seeks to encourage modal shift to rail, and, as a result, reduce levels of transport related air pollution and carbon emissions. This recommendation would potentially allow clearance for future electrification, potentially reducing greenhouse gas emissions of rail generally. It would also help achieve Objective 4 as it would improve sustainable accessibility. The masterplan designs would need to consider how to benefit walking, wheeling and cycling at and around stations.

Station redevelopment works would also be designed to support improvements to visual amenity (Objective 14) and cultural heritage (including the designated sites mentioned above) (Objective 15), through enhancing the visibility of the Grade A listed ticket hall at Edinburgh Waverley and historic buildings at Perth Station, some of which are currently obscured. However, the station design would need to be sympathetic to cultural heritage resources, including their setting. Consultation with Historic Environment Scotland in relation to this would be required.

For most other SEA Objectives, the effects are considered uncertain as the effects would be determined by the design (and physical footprint) of the masterplans.

The recommendation has no (or negligible) clear relationship to the achievement of Objective 2 (climate change adaptation) and effects on noise and vibration (Objective 5)

are also expected to be negligible overall.

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

2. Equalities Impact Assessment (EqIA)

Low Scenario	High Scenario
++	++

Redevelopment of stations could lead to improved accessibility, enabling people with mobility limitations (including disabled people, older people, pregnant people, and people travelling with young children) to travel by rail. Improved wayfinding associated with redesign would have benefits for station navigability.

Improved integration with other modes would enable more seamless multi-modal journeys with rail as the main mode, improving the competitiveness of rail travel relative to car and reducing forced car ownership and transport poverty for people who live and/or work on the periphery of the cities.

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

3. Island Communities Impact Assessment (ICIA)

Low Scenario	High Scenario
0	0

This recommendation is not considered directly or indirectly relevant to island communities.

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

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

Low Scenario	High Scenario
+	+

While this recommendation is not targeted directly at children and young people, improved passenger facilities could have a beneficial impact for them, given that those under 17 are not able to drive and improved facilities would increase the attractiveness of public transport. In addition, the enhancements would improve actual and perceived personal security through the provision of, for example, improved CCTV within the stations.

By encouraging modal shift from road to rail for both passenger and freight movements, this recommendation could contribute to a reduction in harmful transport emissions and improved local air quality in some places. This would benefit children and young people who are more vulnerable to the adverse health impacts of traffic-related emissions. By reducing the volume of road traffic, safety could also be improved which would benefit children who are more vulnerable to fear of road danger[xxii].

This recommendation is therefore expected to have a minor positive impact on this criterion in both Low and High scenarios

5. Fairer Scotland Duty Assessment (FSDA)

Low Scenario	High Scenario
+	+

This recommendation could have a positive impact on tackling inequality. The 2019 Scottish Household Survey[xxiii] indicated that 48% of the most deprived households (Scottish Index of Multiple Deprivation quintile 1) do not have access to a car, so actions taken to improve passenger facilities would improve the travel experience for those with fewer alternative travel options.

By encouraging modal shift from road to rail for both passenger and freight movements, this recommendation could contribute to improving local air quality in some places. This could result in reduced health inequalities caused by poor air quality in areas ranking highest in terms of health deprivation. However, as the air quality improvements are likely to be dispersed over a wider area, the benefits on the most deprived areas and groups are likely to be negligible.

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

References

[i] Network Rail, Network Rail, July 2016, https://www.networkrail.co.uk/wp-content/uploads/2016/11/Scotland-Route-Study.pdf

[ii] Ravalet, E. and Rérat, P. Teleworking: Decreasing Mobility or Increasing Tolerance of Commuting Distances?, 2019, https://www.ingentaconnect.com/content/alex/benv/2019/00000045/00000004/art00010

[iii] https://www.networkrail.co.uk/running-the-railway/our-routes/scotland/glasgow-queen-street-station/

[iv] https://www.scotrail.co.uk/about-scotrail/news/scotrail-restores-historic-aberdeen-landmark#:~:text=The%20%C2%A38million%20redevelopment%20of,additional%20high%20value%20retail%20areas

[v] Local Economic Benefits of Station Investment, Rail Delivery Group Stations Steering Group, March 2018, https://www.raildeliverygroup.com/files/Publications/2018-03_local_economic_benefits_of_station_investment.pdf

[vi] Greenhouse gas emissions encompass CO_2 emissions

[vii] National Atmospheric Emissions Inventory 1990-2017

[viii] ORR, Public Performance Measure – Table 3113, 2020-21 Q1, https://dataportal.orr.gov.uk/statistics/performance/passenger-rail-performance/table-3113-public-performance-measure-by-operator-and-sector/

[ix] Transport Scotland, Key Reported Road Casualties Scotland, 2018, https://www.transport.gov.scot/media/45015/sct05191903161.pdf

[x] Scottish Government, Securing a green recovery on a path to net zero: climate change plan 2018–2032 – update, 2020, https://www.gov.scot/publications/securing-green-recovery-path-net-zero-update-climate-change-plan-20182032/

[xi] The Scottish Ministers' High Level Output Specification for Control Period 6, Transport Scotland, 2017, https://www.transport.gov.scot/media/39496/high-level-output-specification-hlos-for-control-period-6-final.pdf

[xii] Transport Scotland, Rail Services Decarbonisation Action Plan, 2020, https://www.transport.gov.scot/publication/rail-services-decarbonisation-action-plan/

[xiii] Scottish Government, Scotland's National Strategy for Economic Transformation, 2022, https://www.gov.scot/publications/scotlands-national-strategy-economic-transformation/pages/1/

[xiv] Scottish Government, Scotland 2045: Our Fourth National Planning Framework, 2022, https://www.transformingplanning.scot/national-planning-framework

[xv] Network Rail, Scotland Route Study, 2016, https://www.networkrail.co.uk/wp-content/uploads/2016/11/Scotland-Route-Study.pdf#:~:text=The%20Scotland%20Route%20Study%20is%20a%20key%20part,has%20grown%20significantly%20over%20the%20past%20two%20decades.

[xvi] Local Economic Benefits of Station Investment, Rail Delivery Group Stations Steering Group, March 2018, https://www.raildeliverygroup.com/files/Publications/2018-03_local_economic_benefits_of_station_investment.pdf

[xvii] Scottish Government, Securing a green recovery on a path to net zero: climate change plan 2018–2032 – update, 2020, https://www.gov.scot/publications/securing-green-recovery-path-net-zero-update-climate-change-plan-20182032/

[xviii] Local Economic Benefits of Station Investment, Rail Delivery Group Stations Steering Group, March 2018, https://www.raildeliverygroup.com/files/Publications/2018-03_local_economic_benefits_of_station_investment.pdf
[xix] Transport Focus, Improving stations: improving passenger satisfaction, October 2016, https://www.transportfocus.org.uk/research-publications/publications/improving-stations-improving-passenger-satisfaction/
[xx] Network Rail, Transport Scotland, City of Edinburgh Council, Edinburgh Waverley: Concept Masterplan Summary Report, https://scotlandsrailway.com/projects/waverley-masterplan
[xxi] Network Rail, Scotland Route Study, July 2016, https://www.networkrail.co.uk/wp-content/uploads/2016/11/Scotland-Route-Study.pdf
[xxii] Sustrans and Scottish Parent Teacher Council, School Travel Survey for Parents, July 2017, http://blackfordsaferoutes.co.uk/wp-content/uploads/2018/05/scottish_parent_teacher_council_school_travel_survey_report_final_edited.pdf
[xxiii] Transport Scotland, Transport and Travel in Scotland 2019, https://www.transport.gov.scot/publication/transport-and-travel-in-scotland-2019-results-from-the-scottish-household-survey/table-18b-car-bicycle-access-households-with-bicycles-cars-vans-available-for-private-use-2019/