

Strategic Transport Projects Review (STPR2) Consultancy Support Services Contract



STRATEGIC TRANSPORT PROJECTS REVIEW

PROTECTING OUR CLIMATE
AND IMPROVING LIVES



SEA Environmental Report: Assessment Matrices

January 2022

Jacobs **AECOM**

Jacobs UK Ltd.
95 Bothwell Street
Glasgow, Scotland G2 7HX
United Kingdom
T +44.(0)141 243 8000
F +44 (0)141 226 3109

www.jacobs.com

© Copyright 2021 Jacobs UK Ltd and AECOM Limited. The concepts and information contained in this document are the property of Jacobs and AECOM. Use or copying of this document in whole or in part without the written permission of Jacobs and AECOM constitutes an infringement of copyright.

Limitation: This document has been prepared on behalf of, and for the exclusive use of Jacobs' and AECOM client, and is subject to, and issued in accordance with, the provisions of the contract between Jacobs, AECOM and the client. Jacobs and AECOM accepts no liability or responsibility whatsoever for, or in respect of, any use of, or reliance upon, this document by any third party.

Summary of Approach

Appendix F presents the full assessment matrices used in the SEA. Please note, many of the transport interventions assessed in this appendix have now been dropped from STPR2 or the wording has been updated in the final 45 STPR2 recommendations. The interventions that were dropped, and the reasons for doing so, are provided in Appendix G of the STPR2 Draft Technical Report (Jacobs Aecom 2022b – full references are provided in the main Environmental Report).

The assessments in this appendix were undertaken of alternative mode-based groupings (defined in the glossary of the main Environmental Report) of transport interventions against alternative appraisal scenarios. The mode-based groupings were assessed throughout 2021, before the development of the 45 draft STPR2 recommendations in the STPR2 Draft Technical Report (Jacobs Aecom, 2022b). Summary descriptions of each mode-based grouping are provided throughout this appendix, before each assessment of that grouping. Further detail on the groupings, including details on how the content of them has changed during the STPR2 development process, is provided in Appendix G of the STPR2 Draft Technical Report (Jacobs Aecom 2022b).

The mode-based grouping assessments were based on two Transport Behaviour Variants. For the purposes of the assessments below the High Transport Behaviour is referred to as Scenario 1 and the Low Transport Behaviour is referred to as Scenario 2 as follows:

- High Transport Behaviour - capturing 'without policy ambitions' leading to High levels of motorised traffic demand/emissions (Scenario 1); and,
- Low Transport Behaviour – capturing 'with policy ambitions' leading to Low levels of motorised traffic demand/emissions (Scenario 2).

The Transport Behaviour Variants contain elements of travel behaviour change that have been accelerated by the COVID-19 crisis, for example increased working from home. One variant (low transport behaviour, scenario 2) also includes what could be described as 'with outcome', in that it describes how the 20% reduction in car vehicle kilometres by 2030 and net zero by 2045 can be achieved. The variants can be broadly categorised as 'high motorised travel' and 'low motorised travel' futures. Further detail on these Transport Behaviour Variants is provided in the STPR2 Draft Technical Report (Jacobs Aecom, 2022b).

At the end of the appendix is an assessment of the 45 recommendations that are included in the STPR2 Draft Technical Report (Jacobs Aecom 2022b).

The assessment results from this appendix are summarised in Chapter 8 (Assessment Results) of the main Environmental Report.

SEA Objectives and Assessment Guide Questions

The SEA matrix-based assessments have been carried out using a set of SEA objectives and assessment guide questions, that cover each of the SEA topics. These form the assessment framework which has been used to determine the likely significant effects of STPR2. The assessment has used a 7-point scoring system to align with STAG criteria and SEA requirements. Further detail on the SEA methodology is provided in Chapter 7 of the main Environmental Report.

The table below provides an overview of the SEA objectives and guide questions used to determine the likely significant effects of the STPR2 interventions (groupings) assessed in this appendix.

SEA TOPIC	SEA OBJECTIVE AND NUMBER	SEA ASSESSMENT GUIDE QUESTIONS DOES THE STPR2 OPTION...?
Climatic Factors	(1) Reduce emissions from Scotland's transport sector by reducing the need to travel and encouraging modal shift and help meet Scotland's wider targets to reduce greenhouse gas emissions.	<p>Contribute to achievement of Scotland CO₂ emissions reduction target of net zero by 2045?</p> <p>Commit to a monitoring programme for reviewing international low carbon best practice and emerging technologies?</p> <p>Promote and support the best use of clean fuels/technologies (e.g. strategic planning of EV charging points or hydrogen refuelling considerations)?</p> <p>Promote and facilitate reduction of car kilometres and modal shift to more sustainable transport options?</p> <p>Promote behavioural change within workplaces, including car sharing, flexible work patterns and supporting opportunities for home working?</p> <p>Facilitate ongoing co-ordination with spatial development planners to ensure communities are close to key services and places of employment, to the maximum extent possible?</p>
	(2) Adapt the transport network to the predicted effects of climate change.	<p>Help adapt the transport network to direct and indirect risks associated with climate change projections for Scotland?</p> <p>Prioritise adaptation of transport infrastructure in locations that are more vulnerable to the projected impacts of climate change, including coastal and isolated locations?</p> <p>Prioritise adaptation of transport connections to critical infrastructure, including transport interchanges, hospitals, power, fuel supply and ICT Infrastructure?</p> <p>Maintain or improve access to and within disadvantaged areas or isolated communities at risk from climate change impacts e.g. flooding, slope instability?</p>

SEA TOPIC	SEA OBJECTIVE AND NUMBER	SEA ASSESSMENT GUIDE QUESTIONS DOES THE STPR2 OPTION...?
Air Quality	(3) Reduce all forms of transport-related air pollution and improve air quality throughout Scotland.	<p>Encourage and facilitate the use of active travel, particularly for short journeys?</p> <p>Help to reduce traffic congestion?</p> <p>Limit the more polluting vehicles in sensitive areas e.g. AQMAs?</p> <p>Improve or at least maintain air quality in disadvantaged areas?</p> <p>Help to limit polluting traffic growth?</p> <p>Reduce emissions of key air pollutants (NO_x, particulates, SO₂) from all forms of transport, but focusing on the most polluting vehicles and areas of known poor air quality e.g. diesel emissions in urban areas?</p> <p>Promote green infrastructure at all spatial scales, to help remove pollutants from the air?</p>

SEA TOPIC	SEA OBJECTIVE AND NUMBER	SEA ASSESSMENT GUIDE QUESTIONS DOES THE STPR2 OPTION...?
Population and Human Health	(4) Improve quality of life and human health and increase sustainable access to essential services, employment and the natural environment.	<p>Encourage sustainable access to the natural and historic environment?</p> <p>Reduce and avoid community severance or other detriment to existing active travel routes, including maintaining or improving pedestrian crossings?</p> <p>Ensure safe and sustainable access for all users to essential services and employment?</p> <p>Increase and enhance provision of non-motorised transport, especially walking and cycling links and facilities?</p> <p>Promote linking up existing or planned new communities through the active travel network?</p> <p>Plan for future capacity of active travel network, taking into account demographic or other changes?</p> <p>Provide increasing transport choice that meet the needs of the population?</p> <p>Allow for greater journey time reliability?</p> <p>Support changing demographics by providing appropriate transport facilities to meet their needs?</p> <p>Improve accessibility to open spaces and the path network for physical recreational purposes?</p> <p>Improve access to healthcare facilities?</p>
	(5) Reduce noise and vibration associated with the transport network.	Reduce noise and vibration on the transport network particularly at sensitive locations?

SEA TOPIC	SEA OBJECTIVE AND NUMBER	SEA ASSESSMENT GUIDE QUESTIONS DOES THE STPR2 OPTION...?
	(6) Promote, invest in, build and maintain infrastructure to support the development of high-quality places.	<p>Support the development of places that feel safe to all users?</p> <p>Prioritise pedestrians in the public realm?</p> <p>Support the creation and maintenance of an attractive public realm, with a focus on the contribution of transport infrastructure?</p>
	(7) Improve safety on the transport network.	<p>Reduce the likelihood of transport-related road accidents and casualties?</p>
Material Assets	(8) Promote and improve the sustainable use of the transport network.	<p>Support improvements to transport technology, interchanges and timetabling?</p> <p>Plan for future travel arrangements where journeys are made by a number of different modes (e.g. electric vehicle for most of the journey, which is then parked and left to charge at a hub, cycle and walking assets, such as connected off-road paths, bike/e-bike share infrastructure)?</p> <p>Plan for future capacity of public transport, taking demographic and other societal changes into account?</p> <p>Promote sustainable use and management of existing infrastructure e.g. water, heat, energy or flood protection infrastructure?</p>
	(9) Reduce use of natural resources.	<p>Ensure transport infrastructure and innovation delivers/contributes to the circular economy?</p>

SEA TOPIC	SEA OBJECTIVE AND NUMBER	SEA ASSESSMENT GUIDE QUESTIONS DOES THE STPR2 OPTION...?
Water Environment	(10) Protect, maintain and improve the quality of water bodies and wetlands that could be directly or indirectly affected by transport infrastructure (with respect to Water Framework Directive targets) and protect against the risk of flooding.	<p>Support and enhance the network of blue and green infrastructure?</p> <p>Ensure transport network resilience to climate change and flood risk?</p> <p>Constrain any water bodies from achievement of Good Ecological Status/Good Ecological Potential under the Water Framework Directive (WFD)?</p> <p>Increase the risk of diffuse pollution from current or increasing traffic volumes?</p> <p>Improve the quality of surface water draining from the transport network (e.g. reducing salt spreading in winter, expanded or improved Sustainable Drainage System network)?</p> <p>Increase development that physically impacts on a waterbody, watercourse or the coastline?</p> <p>Promote removal of artificial transport-related structures in water bodies (e.g. bridge piers, concrete slipways)?</p> <p>Promote natural flood management techniques?</p>

SEA TOPIC	SEA OBJECTIVE AND NUMBER	SEA ASSESSMENT GUIDE QUESTIONS DOES THE STPR2 OPTION...?
Biodiversity	(11) Protect, maintain and enhance biodiversity and ecosystem services, avoiding damage to or loss of designated and undesignated wildlife or geological sites.	<p>Protect and/ or enhance the integrity of any site of biodiversity or geological value that has been designated at international, national or local levels (e.g. land take, fragmentation or indirect degradation)?</p> <p>Protect and or enhance the integrity of existing habitat and green/blue networks and other wildlife corridors (including the ecological connections between separate Natura 2000 sites and 'landscape-scale' corridors)?</p> <p>Maintain or upgrade transport network to remove barriers to wildlife movement?</p> <p>Reduce the risk of spreading invasive non-native species?</p> <p>Provide opportunities to provide positive effects for biodiversity e.g. habitat creation or enhancement?</p> <p>Align with the strategic goals of the Aichi Biodiversity Targets and 2020 outcomes for Scotland?</p>
Soil	(12) Safeguard and improve soil quality in Scotland, particularly high value agricultural land and carbon-rich soil.	<p>Avoid and minimise disturbance of rare soils, high-carbon (including peat) and wetland soils and productive agricultural land?</p> <p>Avoid indirect impacts on off-site peat and wetland soils to maintain natural processes of hydrological and ecological regimes?</p> <p>Avoid or minimise land take of greenfield sites?</p> <p>Reduce risk of soil sealing, contamination or erosion on a significant scale?</p>

SEA TOPIC	SEA OBJECTIVE AND NUMBER	SEA ASSESSMENT GUIDE QUESTIONS DOES THE STPR2 OPTION...?
Cultural Heritage	(13) Protect and enhance (where appropriate) historic and archaeological sites and other culturally and historically important features, landscapes and their settings.	<p>Avoid significant effects (direct or indirect) on designated or undesignated archaeological sites, as well as other culturally and historically important features, including Conservation Areas, inventory sites for Battlefields and Gardens and Designed Landscapes?</p> <p>Protect key views to and from heritage assets?</p> <p>Improve access to the historic environment?</p>
Landscape and Visual Amenity	(14) Safeguard and enhance the character and diversity of the Scottish landscape and areas of valuable landscape.	<p>Align with the four key aims of Transport Scotland’s ‘Fitting Landscapes’ policy (1. Ensure high quality of design and place; 2. Enhance and protect natural heritage; 3. Use resources wisely; 4. Build in adaptability to change)?</p> <p>Avoid significant effects (direct or indirect) on National, Regional and Local Landscape designations and mitigate where appropriate?</p> <p>Protect wild land areas?</p>

Assessment of Modes

Active Travel (AA) Mode

GROUPING REFERENCE	GROUPING DESCRIPTION
AA1	Options to improve access to bikes (conventional and e-bikes) and equipment such as charging facilities, lights, locks and helmets through bike libraries and other initiatives
AA9	Connected Neighbourhoods: Options to make urban and suburban neighbourhoods in Scotland's cities and towns more conducive for active travel by improving conditions for walking, wheeling and cycling and reducing traffic dominance
AA10	Reducing Trunk Road Severance: Provision of active travel and related interventions to reduce barriers within and between communities severed by trunk roads.
AA13	Increasing Active Travel to School: Specific interventions would vary across schools but expected to include: Reallocation of road space; Improved surfacing and lighting of foot and cycle ways; Improved road crossing points; Measures to reduce traffic volumes and/or speeds; 'School Streets' (where appropriate); Campaigns to promote better driver behaviour.
AA16	Active Freeways: Options to provide high quality, segregated active travel routes on major distributor routes in Scotland's towns and cities, with connections to major trip attractors
AA19	Village – Town Active Travel Connections: Options to provide active travel routes from villages to a nearby town or regional centre.
AA23	Long-distance active travel network: High-quality segregated long distance routes for people walking, wheeling and cycling across Scotland; including improvements to the existing NCN and creating new links where necessary.
AA24	Connecting Scotland's Towns: Options to provide better (including safer) active travel connections for those vulnerable to social exclusion and transport poverty, such as those without access to a car.
AA25	Cycle Parking Hubs: Provision of large-scale, high-quality, secure cycle storage facilities in city and town centres and at other major trip attractors.

GROUPING REFERENCE	SCENARIO (1 OR 2)	SEA OBJECTIVES ASSESSMENT SCORES														CUMULATIVE SCORE
		1. CLIMATE MITIGATION	2. CLIMATE ADAPTATION	3. AIR QUALITY	4. PHH QUALITY OF LIFE	5. PHH NOISE AND VIBRATION	6. PHH HIGH QUALITY PLACES	7. PHH SAFETY	8. MATERIAL ASSETS SUSTAINABILITY	9. MATERIAL ASSETS NATURAL RESOURCES	10. WATER ENVIRONMENT	11. BIODIVERSITY	12. SOIL	13. CULTURAL HERITAGE	14. LANDSCAPE AND VISUAL AMENITY	
AA1	1	+	~	+	+	+	+	+	+	+	0	0	0	0	0	+
AA1	2	+	~	+	+	+	+	+	+	+	0	0	0	0	0	+
AA9	1	+	0	+	+	+	+	+	+	?	?	?	?	?	?	+
AA9	2	+	0	+	+	+	+	+	+	?	?	?	?	?	?	+

GROUPING REFERENCE	SCENARIO (1 OR 2)	SEA OBJECTIVES ASSESSMENT SCORES														CUMULATIVE SCORE
		1. CLIMATE MITIGATION	2. CLIMATE ADAPTATION	3. AIR QUALITY	4. PHH QUALITY OF LIFE	5. PHH NOISE AND VIBRATION	6. PHH HIGH QUALITY PLACES	7. PHH SAFETY	8. MATERIAL ASSETS SUSTAINABILITY	9. MATERIAL ASSETS NATURAL RESOURCES	10. WATER ENVIRONMENT	11. BIODIVERSITY	12. SOIL	13. CULTURAL HERITAGE	14. LANDSCAPE AND VISUAL AMENITY	
AA10	1	+	~	+	+	+	+	+	+	0	0	0	0	?	?	+
AA10	2	+	~	+	+	+	+	+	+	0	0	0	0	?	?	+
AA13	1	+	0	+	+	+	+	+	+	0	0	0	0	0	0	+
AA13	2	+	0	+	+	+	+	+	+	0	0	0	0	0	0	+

GROUPING REFERENCE	SCENARIO (1 OR 2)	SEA OBJECTIVES ASSESSMENT SCORES														CUMULATIVE SCORE
		1. CLIMATE MITIGATION	2. CLIMATE ADAPTATION	3. AIR QUALITY	4. PHH QUALITY OF LIFE	5. PHH NOISE AND VIBRATION	6. PHH HIGH QUALITY PLACES	7. PHH SAFETY	8. MATERIAL ASSETS SUSTAINABILITY	9. MATERIAL ASSETS NATURAL RESOURCES	10. WATER ENVIRONMENT	11. BIODIVERSITY	12. SOIL	13. CULTURAL HERITAGE	14. LANDSCAPE AND VISUAL AMENITY	
AA16	1	+	~	+	+	+	+	+	+	0	0	0	0	0	0	+
AA16	2	+	~	+	+	+	+	+	+	0	0	0	0	0	0	+
AA19	1	+	~	+	+	+	+	+	+	?	?	?	?	?	?	+
AA19	2	+	~	+	+	+	+	+	+	?	?	?	?	?	?	+

GROUPING REFERENCE	SCENARIO (1 OR 2)	SEA OBJECTIVES ASSESSMENT SCORES														
		1. CLIMATE MITIGATION	2. CLIMATE ADAPTATION	3. AIR QUALITY	4. PHH QUALITY OF LIFE	5. PHH NOISE AND VIBRATION	6. PHH HIGH QUALITY PLACES	7. PHH SAFETY	8. MATERIAL ASSETS SUSTAINABILITY	9. MATERIAL ASSETS NATURAL RESOURCES	10. WATER ENVIRONMENT	11. BIODIVERSITY	12. SOIL	13. CULTURAL HERITAGE	14. LANDSCAPE AND VISUAL AMENITY	CUMULATIVE SCORE
AA23	1	+	~	+	+	+	+	+	+	?	?	?	?	?	?	+
AA23	2	+	~	+	+	+	+	+	+	?	?	?	?	?	?	+
AA24	1	+	~	+	+	+	+	+	+	?	?	?	?	?	?	+
AA24	2	+	0	+	+	+	+	+	+	?	?	?	?	?	?	+

GROUPING REFERENCE	SCENARIO (1 OR 2)	SEA OBJECTIVES ASSESSMENT SCORES														
		1. CLIMATE MITIGATION	2. CLIMATE ADAPTATION	3. AIR QUALITY	4. PHH QUALITY OF LIFE	5. PHH NOISE AND VIBRATION	6. PHH HIGH QUALITY PLACES	7. PHH SAFETY	8. MATERIAL ASSETS SUSTAINABILITY	9. MATERIAL ASSETS NATURAL RESOURCES	10. WATER ENVIRONMENT	11. BIODIVERSITY	12. SOIL	13. CULTURAL HERITAGE	14. LANDSCAPE AND VISUAL AMENITY	CUMULATIVE SCORE
AA25	1	+	~	+	+	+	+	+	+	?	0	0	0	?	?	+
AA25	2	+	~	+	+	+	+	+	+	?	0	0	0	?	?	+
Cumulative Travel Mode Summary	1	+	~	+	+	+	+	+	+	?	0	0	0	?	?	+
Cumulative Travel Mode Summary	2	+	~	+	+	+	+	+	+	?	0	0	0	?	?	+

GROUPING REFERENCE	SCENARIO (1 OR 2)	NATIONAL ASSESSMENT SUMMARY FOR AA GROUPING
AA1	1	<p>This grouping would likely result in positive effects on the Climatic Factors and Air Quality SEA objectives due to promoting a modal shift to more sustainable active travel options for functional and recreational journeys and as a result a reduction in emissions and improvement in air quality. Positive effects anticipated on the Population and Human Health and Material Assets (objective 8) due to an expected increase in users choosing more sustainable travel to essential services. Due to the modal shift to cycling, there will also be a slight reduction in wear and tear and need for maintenance of the road network, which will in turn reduce raw material requirements and help to progress the SEA objectives for Material Assets (Objective 9). Cycle skills and confidence training combined with lower traffic levels are also likely to result in improved safety of people that were already cycling (or walking). However, any new people transferring from car may be exposed to increased risk. Studies have suggested that walking or cycling could realistically substitute for 41% of short car trips, saving nearly 5% of carbon emissions from car travel. But only 35% of Scottish households has access to one or more bikes, significantly limiting the potential for change.</p> <p>Neutral effects are anticipated for the remaining SEA objectives, including biodiversity, landscape, cultural heritage and soil and water as minimal hard infrastructure is required.</p>
AA1	2	For Scenario 2, the magnitude of effects will be less than for Scenario 1.

GROUPING REFERENCE	SCENARIO (1 OR 2)	NATIONAL ASSESSMENT SUMMARY FOR AA GROUPING
AA9	1	<p>This grouping is likely to result in positive effects on SEA objectives for Climatic Factors (Objective 1) and Air Quality, as it seeks to encourage a modal shift to more sustainable modes of travel, and, as a result, reduce levels of transport related air pollution and carbon emissions, reducing transport related noise and improving the quality of places. To increase improvements in Air Quality interventions could be focused in areas in or adjacent to AQMAs.</p> <p>The grouping would also have a positive effect on Material Assets (Objective 8) and Population and Human Health as it seeks to expand the existing active travel network, providing more active travel options, safer routes and helping to reduce noise and vibration in urban and rural areas for a significant proportion of the population. 1.3M-1.9M people would live within the improved areas.</p> <p>Based on the evidence presented above up to 1.9 million There is an uncertain relationship between the proposed grouping and Water Environment, Biodiversity, Soil, Cultural Heritage and Landscape and Visual Amenity SEA objectives, due to the impact of new routes. Further assessment should be undertaken to identify any impacts once the location of interventions is decided.</p>
AA9	2	For Scenario 2, the magnitude of effects will be less than for Scenario 1.

GROUPING REFERENCE	SCENARIO (1 OR 2)	NATIONAL ASSESSMENT SUMMARY FOR AA GROUPING
AA10	1	<p>This grouping would likely result in positive effects on the Climatic Factors (Objective 1) and Air Quality SEA objectives due to promoting a modal shift to more sustainable active travel options and as a result a reduction in emissions and improvement in air quality. Positive effects anticipated on Population and Human Health and Material Assets (Objective 8) due to an expected increase in users choosing more sustainable and safe routes to local amenities and a prioritisation of pedestrians in the public realm. Safer crossings also likely to result in a small net decrease in accidents.</p> <p>Further environmental assessment will be required as individual links are developed to determine local effects on the landscape/townscape, and cultural heritage objectives.</p> <p>Neutral effects are anticipated for the remaining SEA objectives, including biodiversity, soil and water, due to the focus of hubs within urban locations.</p>
AA10	2	<p>For Scenario 2, the magnitude of effects will be less than for Scenario 1.</p>
AA13	1	<p>This grouping is likely to result in positive effects on the SEA objectives for Climatic Factors (Objective 1) and Air Quality, as it seeks to encourage a modal shift to more sustainable and active travel methods and reduce traffic and congestion through reallocation of road space and encouragement to travel actively. As a result, decreasing levels of transport related air pollution outside of schools and carbon emissions would result. The grouping would also have a positive effect on Material Assets (Objective 8) and Population and Human Health as it promotes a more sustainable use of the existing transport network, encouraging sustainable access and increased travel choice with a focus on improved safety and creating accessible spaces for all users. There would also be a likely reduction in noise and vibration around schools.</p> <p>It is considered that the grouping would have neutral effects on the remaining SEA objectives.</p>
AA13	2	<p>For Scenario 2, the magnitude of effects will be less than for Scenario 1.</p>

GROUPING REFERENCE	SCENARIO (1 OR 2)	NATIONAL ASSESSMENT SUMMARY FOR AA GROUPING
AA16	1	<p>This grouping would likely result in positive effects on the SEA objectives for Climatic Factors (Objective 1) and Air Quality, as it seeks to encourage a modal shift by providing higher quality routes for people walking, cycling and wheeling. This will reduce levels of transport related air pollution and carbon emissions, reduce transport related noise and improve the quality of these spaces. The grouping would also have a positive effect on Material Assets (Objective 8) and Population and Human Health as it promotes a more sustainable use of the existing transport network, encouraging sustainable access and increased travel choice with a focus on improved safety and creating accessible spaces for all users. The grouping is specifically aimed at young people and their carers, therefore may also have positive effect on reductions in childhood obesity and promotes life-long behaviours.</p> <p>It is considered that the grouping would have neutral effects on the remaining SEA objectives due to the limited physical works required.</p>
AA16	2	<p>For Scenario 2, the magnitude of effects will be less than for Scenario 1.</p>
AA19	1	<p>This grouping is likely to result in positive effects on SEA objectives for Climatic Factors (Objective 1) and Air Quality, as it seeks to encourage a modal shift to more sustainable modes of travel, and, as a result, reduce levels of transport related air pollution and carbon emissions, reducing transport related noise and improving the quality of places. The grouping would also have a positive effect on Material Assets and Population and Human Health as it seeks to expand the existing active travel network, providing more active travel options, safer routes and helping to reduce noise and vibration in both more urban and rural locations.</p> <p>There is an uncertain relationship between the proposed grouping and Water Environment, Biodiversity, Soil, Cultural Heritage and Landscape and Visual Amenity SEA objectives, due to the impact of new routes. Further assessment should be undertaken to identify any impacts once the location of interventions is decided.</p>
AA19	2	<p>For Scenario 2, the magnitude of effects will be less than for Scenario 1.</p>

GROUPING REFERENCE	SCENARIO (1 OR 2)	NATIONAL ASSESSMENT SUMMARY FOR AA GROUPING
AA23	1	<p>This grouping is likely to result in positive effects on SEA objectives for Climatic Factors (Objective 1) and Air Quality, as it seeks to encourage a modal shift to more sustainable modes of travel, and, as a result, reduce levels of transport related air pollution and carbon emissions. The grouping would also have a positive effect on Material Assets and Population and Human Health as it seeks to expand the existing and popular NCN active travel network, providing more active travel options, safer routes and helping to reduce noise and vibration in both urban and rural locations.</p> <p>There is an uncertain relationship between the proposed grouping and Water Environment, Biodiversity, Soil, Cultural Heritage and Landscape and Visual Amenity SEA objectives, due to the impact of new routes. Further assessment should be undertaken to identify any impacts once the location of interventions is decided.</p>
AA23	2	For Scenario 2, the magnitude of effects will be less than for Scenario 1.
AA24	1	<p>This grouping is likely to result in positive effects on SEA objectives for Climatic Factors (Objective 1) and Air Quality, as it seeks to encourage a modal shift to more sustainable modes of travel, and, as a result, reducing levels of transport related air pollution and carbon emissions. The grouping would also have a positive effect on Material Assets (Objective 8) and Population and Human Health as it is seeking to expand the existing active travel network, providing more active travel options, safer routes and help to reduce noise and vibration in both more urban and rural locations.</p> <p>There is an uncertain relationship between the proposed grouping and Water Environment, Biodiversity, Soil, Cultural Heritage, Landscape and Visual Amenity and Material Assets (objective 9) SEA objectives, due to the impact of new routes. Further assessment should be undertaken to identify any impacts once the location of interventions is known.</p>
AA24	2	For Scenario 2, the magnitude of effects will be less than for Scenario 1.

GROUPING REFERENCE	SCENARIO (1 OR 2)	NATIONAL ASSESSMENT SUMMARY FOR AA GROUPING
AA25	1	<p>This grouping would likely result in positive effects on the Climatic Factors (Objective 1) and Air Quality SEA objectives due to promoting a modal shift to more sustainable active travel options and as a result a reduction in emissions and improvement in air quality. Positive effects anticipated on the Population and Human Health objectives and Material Assets (objective 8) due to an expected increase in users choosing more sustainable travel with a focus on improved safety, user enjoyment and creating accessible spaces for all users.</p> <p>There is potential for negative environmental impacts during construction and operation of the cycle points with possible negative effects on material assets, landscape/townscape and cultural heritage depending on the design and location of the interventions. It is therefore recommended that further environmental assessment is undertaken as the option develops to identify potentially significant location-specific environmental impacts and mitigation where appropriate.</p> <p>Neutral effects are anticipated for the remaining SEA objectives (biodiversity, soil and water), due to the focus of hubs within urban locations.</p>
AA25	2	For Scenario 2, the magnitude of effects will be less than for Scenario 1.

GROUPING REFERENCE	SCENARIO (1 OR 2)	NATIONAL ASSESSMENT SUMMARY FOR AA GROUPING
Cumulative Active Travel Mode Summary	1	<p>Overall, the Active Travel recommendations are anticipated to result in minor positive effects on SEA Objective 1 (Climatic Factors) as the various interventions are likely to contribute to reducing emissions from Scotland's transport sector by reducing the need to travel and encouraging a modal shift to more sustainable modes of travel, thereby helping meet Scotland's wider targets to reduce greenhouse gas emissions.</p> <p>The Active Travel recommendations are generally anticipated to result in negligible effects on SEA Objective 2 (Climatic Factors) as most of the interventions proposed will not help directly help to adapt the transport network to the predicted effects of climate change.</p> <p>The Active Travel recommendations are generally anticipated to result in minor positive effects on SEA Objective 3 (Air Quality) as the various interventions proposed will help to reduce all forms of transport-related air pollution and improve air quality throughout quality by encouraging and facilitating the use of active travel. The various active travel interventions proposed will also potentially help to reduce traffic congestion, limit polluting vehicles, and reduce emissions of key air pollutants.</p> <p>The Active Travel recommendations are anticipated to result in minor positive effects on SEA Objective 4 (Population and Human Health) as the interventions proposed will improve quality of life and human health and increase sustainable access to essential services, employment and the natural environment through improved access to more sustainable forms of transport, provision of active travel connections and related interventions between villages, nearby towns and regional centres, and improvements to existing roads for the purpose of active travel (e.g. improved crossing points, surfacing, lighting etc.).</p> <p>The Active Travel recommendations are generally anticipated to result in minor positive effects on SEA Objective 5 (Population and Human Health) as most of the interventions proposed will help reduce noise and vibration on the transport network by encouraging a modal shift to more sustainable modes of travel, i.e. active travel options.</p>

GROUPING REFERENCE	SCENARIO (1 OR 2)	NATIONAL ASSESSMENT SUMMARY FOR AA GROUPING
Cumulative Active Travel Mode Summary	2	For Scenario 2, the magnitude of effects will be less than for Scenario 1.

REGION	REGIONAL DIFFERENCES IN ASSESSMENT FOR AA PACKAGE
Argyll and Bute	<p>The group references included in the Argyll & Bute region are:</p> <ul style="list-style-type: none"> • AA1 Options to Improve Access to Bikes • AA9 Connected Neighbourhoods • AA10 Reducing Trunk Road Severance • AA13 Increasing Active Travel to School • AA19 Village – Town Active Travel Connections • AA23 Long-distance Active Travel Network • AA24 Connecting Scotland’s Towns <p>No key environmental features within the SEA topics in the region have been identified as being negatively impacted by the package.</p>
Ayrshire and Arran	<p>The group references included in the Ayrshire & Arran region are:</p> <ul style="list-style-type: none"> • AA1 Options to Improve Access to Bikes • AA9 Connected Neighbourhoods • AA10 Reducing Trunk Road Severance • AA13 Increasing Active Travel to School • AA16 Active Freeways • AA19 Village – Town Active Travel Connections • AA23 Long-distance Active Travel Network • AA24 Connecting Scotland’s Towns • AA25 Cycle Parking Hubs <p>No key environmental features within the SEA topics in the region have been identified as being negatively impacted by the package.</p>
Edinburgh and SE Scotland	<p>The group references included in the Edinburgh & South East Scotland region are:</p> <ul style="list-style-type: none"> • AA1 Options to Improve Access to Bikes • AA9 Connected Neighbourhoods • AA10 Reducing Trunk Road Severance • AA13 Increasing Active Travel to School • AA16 Active Freeways • AA19 Village – Town Active Travel Connections • AA23 Long-distance Active Travel Network • AA24 Connecting Scotland’s Towns • AA25 Cycle Parking Hubs <p>No key environmental features within the SEA topics in the region have been identified as being negatively impacted by the package.</p>

REGION	REGIONAL DIFFERENCES IN ASSESSMENT FOR AA PACKAGE
Forth Valley	<p>The group references included in the Forth Valley region are:</p> <ul style="list-style-type: none"> • AA1 Options to Improve Access to Bikes • AA9 Connected Neighbourhoods • AA10 Reducing Trunk Road Severance • AA13 Increasing Active Travel to School • AA16 Active Freeways • AA19 Village – Town Active Travel Connections • AA23 Long-distance Active Travel Network • AA24 Connecting Scotland’s Towns • AA25 Cycle Parking Hubs <p>No key environmental features within the SEA topics in the region have been identified as being negatively impacted by the package.</p>
Glasgow City Region	<p>The group references included in the Glasgow City region are:</p> <ul style="list-style-type: none"> • AA1 Options to Improve Access to Bikes • AA9 Connected Neighbourhoods • AA13 Increasing Active Travel to School • AA16 Active Freeways • AA19 Village – Town Active Travel Connections • AA23 Long-distance Active Travel Network • AA24 Connecting Scotland’s Towns • AA25 Cycle Parking Hubs <p>No key environmental features within the SEA topics in the region have been identified as being negatively impacted by the package.</p>
Highlands and Islands	<p>The group references included in the Highlands and Islands region are:</p> <ul style="list-style-type: none"> • AA1 Options to Improve Access to Bikes • AA9 Connected Neighbourhoods • AA10 Reducing Trunk Road Severance • AA13 Increasing Active Travel to School • AA16 Active Freeways • AA19 Village – Town Active Travel Connections • AA23 Long-distance Active Travel Network • AA24 Connecting Scotland’s Towns • AA25 Cycle Parking Hubs <p>No key environmental features within the SEA topics in the region have been identified as being negatively impacted by the package.</p>

REGION	REGIONAL DIFFERENCES IN ASSESSMENT FOR AA PACKAGE
North East	<p>The group references included in the North East region are:</p> <ul style="list-style-type: none"> • AA1 Options to Improve Access to Bikes • AA9 Connected Neighbourhoods • AA10 Reducing Trunk Road Severance • AA13 Increasing Active Travel to School • AA16 Active Freeways • AA19 Village – Town Active Travel Connections • AA23 Long-distance Active Travel Network • AA24 Connecting Scotland’s Towns • AA25 Cycle Parking Hubs <p>No key environmental features within the SEA topics in the region have been identified as being negatively impacted by the package.</p>
Borders	<p>The group references included in the Borders region are:</p> <ul style="list-style-type: none"> • AA1 Options to Improve Access to Bikes • AA9 Connected Neighbourhoods • AA10 Reducing Trunk Road Severance • AA13 Increasing Active Travel to School • AA19 Village – Town Active Travel Connections • AA23 Long-distance Active Travel Network • AA24 Connecting Scotland’s Towns <p>No key environmental features within the SEA topics in the region have been identified as being negatively impacted by the package.</p>
Shetland Isles	<p>The group references included in the Shetland Isles region are:</p> <ul style="list-style-type: none"> • AA1 Options to Improve Access to Bikes • AA9 Connected Neighbourhoods • AA13 Increasing Active Travel to School • AA19 Village – Town Active Travel Connections <p>No key environmental features within the SEA topics in the region have been identified as being negatively impacted by the package.</p>
South West	<p>The group references included in the South West region are:</p> <ul style="list-style-type: none"> • AA1 Options to Improve Access to Bikes • AA9 Connected Neighbourhoods • AA10 Reducing Trunk Road Severance • AA13 Increasing Active Travel to School • AA16 Active Freeways • AA19 Village – Town Active Travel Connections • AA23 Long-distance Active Travel Network • AA24 Connecting Scotland’s Towns • AA25 Cycle Parking Hubs <p>No key environmental features within the SEA topics in the region have been identified as being negatively impacted by the package.</p>

REGION	REGIONAL DIFFERENCES IN ASSESSMENT FOR AA PACKAGE
Tay Cities	<p>The group references included in the Tay Cities region are:</p> <ul style="list-style-type: none"> • AA1 Options to Improve Access to Bikes • AA9 Connected Neighbourhoods • AA10 Reducing Trunk Road Severance • AA13 Increasing Active Travel to School • AA16 Active Freeways • AA19 Village – Town Active Travel Connections • AA23 Long-distance Active Travel Network • AA24 Connecting Scotland’s Towns • AA25 Cycle Parking Hubs <p>No key environmental features within the SEA topics in the region have been identified as being negatively impacted by the package.</p>

Behaviour Change (BC) Mode

GROUPING REFERENCE	GROUPING DESCRIPTION
BC2	Behaviour Change Initiatives: Delivery of (or provide support for delivery of) activities which provide encouragement, enablement and incentivisation for more people to make use of active and sustainable transport choices more often through national, regional and/or local initiatives.
BC10	Expansion of 20mph zones and limits: Provision of new or expanded 20mph schemes across Scotland, on appropriate roads in cities, towns and villages. This would reduce traffic speeds and create safer environments which promote and encourage active travel choices.

GROUPING REFERENCE	SCENARIO (1 OR 2)	SEA OBJECTIVES ASSESSMENT SCORES														
		1. CLIMATE MITIGATION	2. CLIMATE ADAPTATION	3. AIR QUALITY	4. PPH QUALITY OF LIFE	5. PPH NOISE AND VIBRATION	6. PPH HIGH QUALITY PLACES	7. PPH SAFETY	8. MATERIAL ASSETS SUSTAINABILITY	9. MATERIAL ASSETS NATURAL RESOURCES	10. WATER ENVIRONMENT	11. BIODIVERSITY	12. SOIL	13. CULTURAL HERITAGE	14. LANDSCAPE AND VISUAL AMENITY	CUMULATIVE SCORE
BC2	1	+	~	+	+	+	~	+	+	+	~	~	~	~	~	+
BC2	2	+	~	+	+	+	~	+	+	+	~	~	~	~	~	+
BC10	1	+	~	+	+	+	+	+	0	0	0	0	0	0	0	+

GROUPING REFERENCE	SCENARIO (1 OR 2)	SEA OBJECTIVES ASSESSMENT SCORES														
		1. CLIMATE MITIGATION	2. CLIMATE ADAPTATION	3. AIR QUALITY	4. PHH QUALITY OF LIFE	5. PHH NOISE AND VIBRATION	6. PHH HIGH QUALITY PLACES	7. PHH SAFETY	8. MATERIAL ASSETS SUSTAINABILITY	9. MATERIAL ASSETS NATURAL RESOURCES	10. WATER ENVIRONMENT	11. BIODIVERSITY	12. SOIL	13. CULTURAL HERITAGE	14. LANDSCAPE AND VISUAL AMENITY	CUMULATIVE SCORE
BC10	2	+	~	+	+	+	+	+	0	0	0	0	0	0	0	+
Cumulative Behavioural Change Mode Summary	1	+	~	+	+	+	?	+	?	?	?	?	?	?	?	?
Cumulative Behavioural Change Mode Summary	2	+	~	+	+	+	?	+	?	?	?	?	?	?	?	?

GROUPING REFERENCE	SCENARIO (1 OR 2)	NATIONAL ASSESSMENT SUMMARY FOR BC GROUPING
BC2	1	<p>This grouping is likely to result in positive effects on SEA objectives related to Climatic Factors and Air Quality (SEA Objectives 1 and 3), as it seeks to encourage a modal shift to more sustainable and active travel methods, and, as a result, improving levels of transport-related air pollution and carbon emissions. The grouping would also have a positive effect on Material Assets and Population and Human Health as it would promote more sustainable use of the existing transport network, encourage sustainable access, increase travel choice and facilitate change for those otherwise unable to access travel options (SEA Objectives 4, 5, 7, 8 and 9). The grouping has no clear relationship to the achievement of the remaining SEA Objectives given the nature (social marketing and campaigning) of the grouping.</p>
BC2	2	<p>For the Low Scenario, the magnitude of effects will be less than for the High Scenario due to the reduction in travel.</p>

GROUPING REFERENCE	SCENARIO (1 OR 2)	NATIONAL ASSESSMENT SUMMARY FOR BC GROUPING
BC10	1	<p>This grouping is likely to result in positive effects for SEA Objectives related to Climatic Factors (SEA Objective 1) and Population and Human Health (SEA Objectives 4, 5, 6 and 7) as it seeks to improve safety of the road network and street environments, which in turn will encourage greater use of sustainable active travel methods and prioritises pedestrians in the public realm. In addition, road traffic travelling at slower speeds may also result in positive effects in relation to a reduction in noise and vibration; as well as Air Quality (SEA Objective 3), due to a reduction in fuel consumption.</p> <p>There is an uncertain relationship between the grouping and Water Environment, Biodiversity, Soil, Cultural Heritage and Landscape and Visual Amenity SEA Objectives at this time. It is therefore recommended that further environmental assessment is undertaken as the grouping develops, in order to identify potentially significant location-specific environmental impacts and mitigation where appropriate.</p> <p>Given the nature of the grouping, it has no (or negligible) clear relationship to the achievement of SEA Objective 2 at this time. The grouping is related to, but unlikely to have any effect on the achievement of many of the SEA Objectives.</p>
BC10	2	<p>For the Low Scenario, the magnitude of effects will be less than for the High Scenario due to the reduction in travel.</p>
Cumulative Behaviour Change Mode Summary	1	<p>Overall, the Behaviour Change recommendations are anticipated to result in minor positive effects on SEA Objective 1 (Climatic Factors) as both interventions proposed will help reduce emissions from Scotland's transport sector by encouraging a modal shift to more sustainable modes of travel.</p> <p>The Behaviour Change recommendations are generally anticipated to result in negligible effects on SEA Objective 2 (Climatic Factors) as both the interventions proposed will not help to adapt the transport network to the predicted effects of climate change.</p> <p>The Behaviour Change recommendations are generally anticipated to result in minor positive</p>

GROUPING REFERENCE	SCENARIO (1 OR 2)	NATIONAL ASSESSMENT SUMMARY FOR BC GROUPING
		<p>effects on SEA Objective 3 (Air Quality) as the interventions proposed will help to reduce all forms of transport-related air pollution and improve air quality throughout quality by encouraging active and sustainable travel choices.</p> <p>The Behaviour Change recommendations are anticipated to result in minor positive effects on SEA Objective 4 (Population and Human Health) as the interventions proposed will improve quality of life and human health by encouraging more people to make use of active and sustainable transport choices more often through national, regional and/or local initiatives, and expanding 20mph zones and limits across Scotland.</p> <p>The Behaviour Change recommendations are generally anticipated to result in minor positive effects on SEA Objective 5 (Population and Human Health) as the interventions proposed will help reduce noise and vibration on the transport network by encouraging a modal shift to more sustainable modes of travel, and expanding 20mph zones and limits across Scotland.</p> <p>The Behaviour Change recommendations are anticipated to result in uncertain effects on SEA Objective 6 (Population and Human Health) as while the expansion of 20mph zones and limits across Scotland will support the development of places that feel safe to all users, the encouragement of more people to make use of active and sustainable transport choices more often through national, regional and/or local initiatives will not directly help promote / invest in / build / maintain infrastructure to support the development of high-quality places.</p> <p>The Behaviour Change recommendations are anticipated to result in minor positive effects on SEA Objective 7 (Population and Human Health) as the interventions proposed will help improve safety on the transport network by potentially reducing the likelihood of transport-related road accidents and casualties by encouraging a modal shift to more sustainable modes of travel and through the expansion of 20mph zones and limits across Scotland.</p> <p>The Behaviour Change recommendations are anticipated to result in uncertain effects on SEA Objective 8 (Material Assets) as the encouragement / enablement / incentivisation for more people to make use of active and sustainable transport choices more often through national, regional and/or local initiatives will promote and improve the sustainable use of the transport</p>

GROUPING REFERENCE	SCENARIO (1 OR 2)	NATIONAL ASSESSMENT SUMMARY FOR BC GROUPING
		<p>network. However, there is not a clear link between the expansion of 20mph zones and limits across Scotland and the promotion and improvement of the sustainable use of the transport network.</p> <p>The Behaviour Change recommendations are generally anticipated to result in uncertain effects on SEA Objective 9 (Material Assets) as the encouragement / enablement / incentivisation for more people to make use of active and sustainable transport choices more often through national, regional and/or local initiatives will potentially reduce the use of natural resources. However, there is not a clear link between the expansion of 20mph zones and limits across Scotland and the reduction in the use of natural resources.</p> <p>The Behaviour Change recommendations are generally anticipated to result in uncertain effects on SEA Objectives 10 (Water Environment), 11 (Biodiversity), 12 (Soil), 13 (Cultural Heritage) and 14 (Landscape and Visual Amenity) as, given the nature of the interventions (i.e. social marketing and campaigning / expansion of 20mph zones and limits), there is no clear link between the mode and the water environment, biodiversity, soil, cultural heritage and landscape and visual amenity.</p>
Cumulative Behaviour Change Mode Summary	2	For the Scenario 2, the magnitude of effects will be less than for the Scenario 1 due to the reduction in travel.

REGION	REGIONAL DIFFERENCES IN ASSESSMENT FOR BC PACKAGE
Argyll and Bute	<p>The group references included in the Argyll & Bute region are:</p> <ul style="list-style-type: none"> • BC2 Behavioural Change Initiatives • BC10 Expansion of 20mph Zones and Limits <p>No key environmental features within the SEA topics in the region have been identified as being negatively impacted by the package.</p>
Ayrshire and Arran	<p>The group references included in the Ayrshire & Arran region are:</p> <ul style="list-style-type: none"> • BC2 Behavioural Change Initiatives • BC10 Expansion of 20mph Zones and Limits <p>No key environmental features within the SEA topics in the region have been identified as being negatively impacted by the package.</p>
Edinburgh and SE Scotland	<p>The group references included in the Edinburgh & South East Scotland region are:</p> <ul style="list-style-type: none"> • BC2 Behavioural Change Initiatives • BC10 Expansion of 20mph Zones and Limits <p>No key environmental features within the SEA topics in the region have been identified as being negatively impacted by the package.</p>
Forth Valley	<p>The group references included in the Forth Valley region are:</p> <ul style="list-style-type: none"> • BC2 Behavioural Change Initiatives • BC10 Expansion of 20mph Zones and Limits <p>No key environmental features within the SEA topics in the region have been identified as being negatively impacted by the package.</p>
Glasgow City Region	<p>The group references included in the Glasgow City region are:</p> <ul style="list-style-type: none"> • BC2 Behavioural Change Initiatives • BC10 Expansion of 20mph Zones and Limits <p>No key environmental features within the SEA topics in the region have been identified as being negatively impacted by the package.</p>
Highlands and Islands	<p>The group references included in the Highlands and Islands region are:</p> <ul style="list-style-type: none"> • BC2 Behavioural Change Initiatives • BC10 Expansion of 20mph Zones and Limits <p>No key environmental features within the SEA topics in the region have been identified as being negatively impacted by the package.</p>
North East	<p>The group references included in the North East region are:</p> <ul style="list-style-type: none"> • BC2 Behavioural Change Initiatives • BC10 Expansion of 20mph Zones and Limits <p>No key environmental features within the SEA topics in the region have been identified as being negatively impacted by the package.</p>

REGION	REGIONAL DIFFERENCES IN ASSESSMENT FOR BC PACKAGE
Borders	<p>The group references included in the Borders region are:</p> <ul style="list-style-type: none"> • BC2 Behavioural Change Initiatives • BC10 Expansion of 20mph Zones and Limits <p>No key environmental features within the SEA topics in the region have been identified as being negatively impacted by the package.</p>
Shetland Isles	<p>The group references included in the Shetland Isles region are:</p> <ul style="list-style-type: none"> • BC2 Behavioural Change Initiatives • BC10 Expansion of 20mph Zones and Limits <p>No key environmental features within the SEA topics in the region have been identified as being negatively impacted by the package.</p>
South West	<p>The group references included in the South West region are:</p> <ul style="list-style-type: none"> • BC2 Behavioural Change Initiatives • BC10 Expansion of 20mph Zones and Limits <p>No key environmental features within the SEA topics in the region have been identified as being negatively impacted by the package.</p>
Tay Cities	<p>The group references included in the Tay Cities region are:</p> <ul style="list-style-type: none"> • BC2 Behavioural Change Initiatives • BC10 Expansion of 20mph Zones and Limits <p>No key environmental features within the SEA topics in the region have been identified as being negatively impacted by the package.</p>

National Bus (BS) Mode

GROUPING REFERENCE	GROUPING DESCRIPTION
BS1	Options to increase the roll out of bus priority measures, and where already available, improve existing measures
BS2	Decarbonisation of the Bus Network: Support the decarbonisation of the bus network through continuation of support funding schemes to introduce low emission vehicles.

GROUPING REFERENCE	SCENARIO (1 OR 2)	SEA OBJECTIVES ASSESSMENT SCORES														
		1. CLIMATE MITIGATION	2. CLIMATE ADAPTATION	3. AIR QUALITY	4. PHH QUALITY OF LIFE	5. PHH NOISE AND VIBRATION	6. PHH HIGH QUALITY PLACES	7. PHH SAFETY	8. MATERIAL ASSETS SUSTAINABILITY	9. MATERIAL ASSETS NATURAL RESOURCES	10. WATER ENVIRONMENT	11. BIODIVERSITY	12. SOIL	13. CULTURAL HERITAGE	14. LANDSCAPE AND VISUAL AMENITY	CUMULATIVE SCORE
BS1	1	+	~	+	+	?	0	+	+	?	?	?	?	?	?	?
BS1	2	+	~	+	+	?	0	+	+	?	?	?	?	?	?	?
BS2	1	++	~	++	+	+	~	0	+	0	+	+	+	~	~	+
BS2	2	++	~	++	+	+	~	0	+	0	+	+	+	~	~	+

GROUPING REFERENCE	SCENARIO (1 OR 2)	SEA OBJECTIVES ASSESSMENT SCORES														
		1. CLIMATE MITIGATION	2. CLIMATE ADAPTATION	3. AIR QUALITY	4. PHH QUALITY OF LIFE	5. PHH NOISE AND VIBRATION	6. PHH HIGH QUALITY PLACES	7. PHH SAFETY	8. MATERIAL ASSETS SUSTAINABILITY	9. MATERIAL ASSETS NATURAL RESOURCES	10. WATER ENVIRONMENT	11. BIODIVERSITY	12. SOIL	13. CULTURAL HERITAGE	14. LANDSCAPE AND VISUAL AMENITY	CUMULATIVE SCORE
Cumulative Bus Mode Summary	1	+	~	+	+	?	?	?	+	?	?	?	?	?	?	?
Cumulative Bus Mode Summary	2	+	~	+	+	?	?	?	+	?	?	?	?	?	?	?

GROUPING REFERENCE	SCENARIO (1 OR 2)	NATIONAL ASSESSMENT SUMMARY FOR BS GROUPING REFERENCE
BS1	1	<p>This grouping is likely to result in positive effects for SEA Objectives related to Climatic Factors (Objective 1) and Air Quality (Objective 3), particularly in relation to the achievement of a reduction in transport related emissions as it seeks to encourage a modal shift to more sustainable public transport forms. There is evidence that implementation of extensive bus lanes can reduce car use by up to 6%. Positive environmental effects are anticipated, particularly if the interventions support reinvestment in a low carbon fleet. It would also have a positive effect on Population and Human Health (SEA Objectives 4 and 7) by providing a sustainable alternative for users to travel to employment, education, healthcare and leisure activities; which has potential for improved safety on the transport network. It could also result in a beneficial impact on noise and vibration, however this would depend on the location of the measures / upgrades and is therefore uncertain at this stage.</p> <p>The grouping would also have a positive effect on Material Assets (SEA Objective 8) as it is promoting a more sustainable use and management of the existing transport network.</p> <p>There is potential for possible positive effects on Biodiversity as a result of a reduction in diffuse pollution on key receptors; however the significance of effect is uncertain at this stage as the overall impact will depend on whether physical construction works are required.</p> <p>Depending on the location of the bus priority measure implementation or upgrades, there is potential for negative environmental impacts during construction and operation of the improvements, particularly on Material Assets (SEA Objective 9), Biodiversity, Water, Soil, Cultural Heritage, Landscape/townscape and noise (Population and Human Health SEA Objective 5). It is therefore recommended that further environmental assessment is undertaken as the grouping develops, in order to identify potentially significant location-specific environmental impacts and mitigation where appropriate.</p> <p>The grouping is related to, but unlikely to have any effect on the achievement of SEA objective 6; and given the nature of the grouping, it has no (or negligible) clear relationship to the achievement of SEA Objective 2 at this time.</p>

GROUPING REFERENCE	SCENARIO (1 OR 2)	NATIONAL ASSESSMENT SUMMARY FOR BS GROUPING REFERENCE
BS1	2	For the Low Scenario, the magnitude of effects will be less than for the High Scenario due to the reduction in travel.
BS2	1	<p>This grouping is likely to result in positive effects on SEA objectives related to Climatic Factors and Air Quality (SEA Objectives 1 and 3), particularly in relation to the achievement of a reduction in transport related emissions; as it seeks to reduce emissions from buses through decarbonisation / use of alternative fuels (electric, hydrogen). The grouping would also have a positive effect on Material Assets (SEA Objective 8) as it is promoting a more sustainable use and management of the existing transport network. It would also have a positive effect on Population and Human Health as a result of encouraging sustainable access and a move away from diesel engines to alternatives such as electric which could result in a beneficial impact on noise and vibration (SEA Objectives 4 and 5).</p> <p>There are possible positive effects on Water, Biodiversity and Soil as a result of a reduction in diffuse pollution on key receptors; however the significance of effect is uncertain at this stage.</p> <p>The grouping is related to, but unlikely to have any effect on the achievement of SEA Objectives 7 and 9; and given the nature of the grouping, it has no (or negligible) clear relationship to the achievement of SEA Objectives 2, 6, 13 and 14 at this time.</p>
BS2	2	For the Low Scenario, the magnitude of effects will be less than for the High Scenario due to the reduction in travel.
Cumulative Bus Mode Summary	1	Overall, the Bus recommendations are anticipated to result in minor positive effects on SEA Objective 1 (Climatic Factors) as the delivery of faster and more reliable journey times for bus passengers will help reduce emissions from Scotland's transport sector by reducing the need to travel and encouraging a modal shift towards more sustainable transport options i.e. public transport. The decarbonisation of the bus network will also directly contribute to the achievement of Scotland's CO2 emissions reduction target of net zero by 2045, and promote and support the best use of clean fuels / technologies.

GROUPING REFERENCE	SCENARIO (1 OR 2)	NATIONAL ASSESSMENT SUMMARY FOR BS GROUPING REFERENCE
		<p>The Bus recommendations are generally anticipated to result in negligible effects on SEA Objective 2 (Climatic Factors) as the interventions proposed will not help adapt the transport network to the predicted effects of climate change.</p> <p>The Bus recommendations are generally anticipated to result in minor positive effects on SEA Objective 3 (Air Quality) as the interventions proposed will directly help to reduce all forms of transport-related air pollution and improve air quality throughout Scotland by helping to reduce traffic congestion, limiting more polluting vehicles, helping to limit polluting traffic growth, and reducing emissions of key air pollutants, particularly through the decarbonisation of the bus network.</p> <p>The Bus recommendations are anticipated to result in minor positive effects on SEA Objective 4 (Population and Human Health) as the delivery of faster and more reliable journey times for bus passengers will ensure safe and sustainable access for all users to essential services and employment, provide increasing transport choice that meet the needs of the population, allow for greater journey time reliability, and potentially encourage sustainable access to the natural and historic environment, improve accessibility to open spaces and the path network for physical recreational purposes, and improve access to healthcare facilities. The decarbonisation of the bus network will also potentially encourage sustainable access to the natural and historic environment and ensure safe and sustainable access for all users to essential services and employment.</p> <p>The Bus recommendations are generally anticipated to result in uncertain effects on SEA Objective 5 (Population and Human Health) as while the decarbonisation of the bus network is anticipated to reduce noise and vibration on the transport network, there is potential for negative effects on noise and vibration associated with the delivery of faster and more reliable journey times for bus passengers, depending on the location of the bus priority measure implementation or upgrades.</p> <p>The Bus recommendations are anticipated to result in uncertain effects on SEA Objective 6 (Population and Human Health) as the proposed interventions are unlikely to help promote /</p>

GROUPING REFERENCE	SCENARIO (1 OR 2)	NATIONAL ASSESSMENT SUMMARY FOR BS GROUPING REFERENCE
		<p>invest in / build / maintain infrastructure to support the development of high-quality places.</p> <p>The Bus recommendations are anticipated to result in uncertain effects on SEA Objective 7 (Population and Human Health) as while the delivery of faster and more reliable journey times for bus passengers will support the development of places that feel safe to all users, it is unlikely that the decarbonisation of the network would contribute to the achievement of the promotion / investment in / building / maintenance of infrastructure to support the development of high-quality places.</p> <p>The Bus recommendations are anticipated to result in minor positive effects on SEA Objective 8 (Material Assets) as the interventions proposed will promote and improve the sustainable use of the transport network by supporting improvements to transport technology, interchanges and timetabling, plan for future travel arrangements where journeys are made by a number of different modes, and plan for future capacity of public transport (taking demographic and other societal changes into account).</p> <p>The Bus recommendations are anticipated to result in uncertain effects on SEA Objective 9 (Material Assets) as any reduction in the use of natural resources will be dependent on the location of the bus priority measure implementation or upgrades, and there is also potential for negative environmental impacts during construction and operation of the improvements. The decarbonisation of the bus network is also unlikely to result in any significant contributions to the circular economy.</p> <p>The Bus recommendations are anticipated to result in uncertain effects on SEA Objectives 10 (Water Environment), 11 (Biodiversity), 12 (Soil), 13 (Cultural Heritage) and 14 (Landscape and Visual Amenity) as depending on the location of the bus priority measure implementation or upgrades, there is potential for negative environmental impacts during construction and operation of the improvements. It is therefore recommended that further environmental assessment is undertaken as the grouping develops, in order to identify potentially significant location-specific environmental impacts and mitigation where appropriate. Furthermore, there are possible positive effects on the water environment, biodiversity and soil as a result of a</p>

GROUPING REFERENCE	SCENARIO (1 OR 2)	NATIONAL ASSESSMENT SUMMARY FOR BS GROUPING REFERENCE
		reduction in diffuse pollution on key receptors associated with the decarbonisation of the bus network; however, the significance of effect is uncertain at this stage. There is also no clear relationship between the decarbonisation of the bus network and the achievements of SEA Objectives 13 and 14.
Cumulative Bus Mode Summary	2	For Scenario 2, the magnitude of effects will be less than for Scenario 1 due to the reduction in travel.

REGION	REGIONAL DIFFERENCES IN ASSESSMENT FOR BS PACKAGE
Argyll and Bute	<p>The group references included in the Argyll & Bute region are:</p> <ul style="list-style-type: none"> • BS2 Decarbonisation of the Bus Network <p>No key environmental features within the SEA topics in the region have been identified as being negatively impacted by the package.</p>
Ayrshire and Arran	<p>The group references included in the Ayrshire & Arran region are:</p> <ul style="list-style-type: none"> • BS1 Bus Priority Infrastructure • BS2 Decarbonisation of the Bus Network <p>No key environmental features within the SEA topics in the region have been identified as being negatively impacted by the package</p>
Edinburgh and SE Scotland	<p>The group references included in the Edinburgh & South East Scotland region are:</p> <ul style="list-style-type: none"> • BS1 Bus Priority Infrastructure • BS2 Decarbonisation of the Bus Network <p>No key environmental features within the SEA topics in the region have been identified as being negatively impacted by the package</p>
Forth Valley	<p>The group references included in the Forth Valley region are:</p> <ul style="list-style-type: none"> • BS1 Bus Priority Infrastructure • BS2 Decarbonisation of the Bus Network <p>No key environmental features within the SEA topics in the region have been identified as being negatively impacted by the package</p>
Glasgow City Region	<p>The group references included in the Glasgow City region are:</p> <ul style="list-style-type: none"> • BS1 Bus Priority Infrastructure • BS2 Decarbonisation of the Bus Network <p>No key environmental features within the SEA topics in the region have been identified as being negatively impacted by the package</p>
Highlands and Islands	<p>The group references included in the Highlands and Islands region are:</p> <ul style="list-style-type: none"> • BS1 Bus Priority Infrastructure • BS2 Decarbonisation of the Bus Network <p>No key environmental features within the SEA topics in the region have been identified as being negatively impacted by the package</p>
North East	<p>The group references included in the North East region are:</p> <ul style="list-style-type: none"> • BS1 Bus Priority Infrastructure • BS2 Decarbonisation of the Bus Network <p>No key environmental features within the SEA topics in the region have been identified as being negatively impacted by the package</p>

REGION	REGIONAL DIFFERENCES IN ASSESSMENT FOR BS PACKAGE
Borders	<p>The group references included in the Borders region are:</p> <ul style="list-style-type: none"> • BS2 Decarbonisation of the Bus Network <p>No key environmental features within the SEA topics in the region have been identified as being negatively impacted by the package</p>
Shetland Isles	<p>The group references included in the Shetland Isles region are:</p> <ul style="list-style-type: none"> • BS2 Decarbonisation of the Bus Network <p>No key environmental features within the SEA topics in the region have been identified as being negatively impacted by the package</p>
South West	<p>The group references included in the South West region are:</p> <ul style="list-style-type: none"> • BS2 Decarbonisation of the Bus Network <p>No key environmental features within the SEA topics in the region have been identified as being negatively impacted by the package</p>
Tay Cities	<p>The group references included in the Tay Cities region are:</p> <ul style="list-style-type: none"> • BS1 Bus Priority Infrastructure • BS2 Decarbonisation of the Bus Network <p>No key environmental features within the SEA topics in the region have been identified as being negatively impacted by the package</p>

Island Connectivity (IC) Mode

GROUPING REFERENCE	GROUPING DESCRIPTION
IC1c	<p>Mull Connectivity: Connectivity enhancements for the Isle of Mull. Grouping includes options to enhance Clyde and Hebrides Ferry Services (CHFS) including for freight and an option for a potential fixed link between Mull and the Scottish mainland.</p> <p>Enhancements to ferry services linking Mull and Ardnamurchan to the Scottish mainland and associated harbour infrastructure, taking into account the impact of ferry links on the wider local transport network</p>
IC1d	<p>Northern Isles Connectivity: Connectivity enhancements to the existing Northern Isles Ferry Services (NIFS) ferry routes serving the Orkney Islands and Shetland Islands from the Scottish mainland and an option for a potential fixed link between Orkney and the Scottish mainland</p>
IC1e	<p>Outer Hebrides Connectivity: Connectivity enhancements for the Outer Hebrides. Grouping includes options to enhance Clyde and Hebrides Ferry Services (CHFS) and development of ferry routes. Grouping also includes options for potential fixed links across the Sounds of Harris and Barra.</p>
IC1g	<p>Arran and Campbeltown Connectivity: Connectivity enhancements to Clyde and Hebrides Ferry Services (CHFS) serving Arran and Campbeltown.</p>
IC1h	<p>Islay Connectivity: Connectivity enhancements to Clyde and Hebrides Ferry Services (CHFS) serving Islay.</p>
IC2	<p>New Ferry Routes (Internal to Scotland)</p>
IC4	<p>Decarbonisation of CHFS and NIFS Ferry Network: Decarbonisation of the CHFS and NIFS ferry networks.</p>

GROUPING REFERENCE	SCENARIO (1 OR 2)	SEA OBJECTIVES ASSESSMENT SCORES														
		1. CLIMATE MITIGATION	2. CLIMATE ADAPTATION	3. AIR QUALITY	4. PHH QUALITY OF LIFE	5. PHH NOISE AND VIBRATION	6. PHH HIGH QUALITY PLACES	7. PHH SAFETY	8. MATERIAL ASSETS SUSTAINABILITY	9. MATERIAL ASSETS NATURAL RESOURCES	10. WATER ENVIRONMENT	11. BIODIVERSITY	12. SOIL	13. CULTURAL HERITAGE	14. LANDSCAPE AND VISUAL AMENITY	CUMULATIVE SCORE
IC1c	1	?	+	?	+	-	~	~	+	-	-	-	?	-	-	-
IC1c	2	?	+	?	+	-	~	~	+	-	-	-	?	-	-	-
IC1d	1	?	+	?	+	-	~	~	+	-	-	-	?	?	?	?

GROUPING REFERENCE	SCENARIO (1 OR 2)	SEA OBJECTIVES ASSESSMENT SCORES														
		1. CLIMATE MITIGATION	2. CLIMATE ADAPTATION	3. AIR QUALITY	4. PHH QUALITY OF LIFE	5. PHH NOISE AND VIBRATION	6. PHH HIGH QUALITY PLACES	7. PHH SAFETY	8. MATERIAL ASSETS SUSTAINABILITY	9. MATERIAL ASSETS NATURAL RESOURCES	10. WATER ENVIRONMENT	11. BIODIVERSITY	12. SOIL	13. CULTURAL HERITAGE	14. LANDSCAPE AND VISUAL AMENITY	CUMULATIVE SCORE
IC1d	2	?	+	?	+	-	~	~	+	-	-	-	?	?	?	?
IC1e	1	?	+	?	+	-	~	~	+	-	-	-	?	?	?	?
IC1e	2	?	+	?	+	-	~	~	+	-	-	-	?	?	?	?

GROUPING REFERENCE	SCENARIO (1 OR 2)	SEA OBJECTIVES ASSESSMENT SCORES														
		1. CLIMATE MITIGATION	2. CLIMATE ADAPTATION	3. AIR QUALITY	4. PHH QUALITY OF LIFE	5. PHH NOISE AND VIBRATION	6. PHH HIGH QUALITY PLACES	7. PHH SAFETY	8. MATERIAL ASSETS SUSTAINABILITY	9. MATERIAL ASSETS NATURAL RESOURCES	10. WATER ENVIRONMENT	11. BIODIVERSITY	12. SOIL	13. CULTURAL HERITAGE	14. LANDSCAPE AND VISUAL AMENITY	CUMULATIVE SCORE
IC1g	1	?	+	?	+	-	~	~	+	-	-	-	?	?	?	?
IC1g	2	?	+	?	+	-	~	~	+	-	-	-	?	?	?	?
IC1h	1	?	+	?	+	-	~	~	+	-	-	-	?	?	?	?

GROUPING REFERENCE	SCENARIO (1 OR 2)	SEA OBJECTIVES ASSESSMENT SCORES														
		1. CLIMATE MITIGATION	2. CLIMATE ADAPTATION	3. AIR QUALITY	4. PHH QUALITY OF LIFE	5. PHH NOISE AND VIBRATION	6. PHH HIGH QUALITY PLACES	7. PHH SAFETY	8. MATERIAL ASSETS SUSTAINABILITY	9. MATERIAL ASSETS NATURAL RESOURCES	10. WATER ENVIRONMENT	11. BIODIVERSITY	12. SOIL	13. CULTURAL HERITAGE	14. LANDSCAPE AND VISUAL AMENITY	CUMULATIVE SCORE
IC1h	2	?	+	?	+	-	~	~	+	-	-	-	?	?	?	?
IC2	1	?	?	?	+	-	~	~	+	-	-	-	?	?	?	?
IC2	2	+	0	+	+	-	~	~	+	-	-	-	?	?	?	?

GROUPING REFERENCE	SCENARIO (1 OR 2)	SEA OBJECTIVES ASSESSMENT SCORES														
		1. CLIMATE MITIGATION	2. CLIMATE ADAPTATION	3. AIR QUALITY	4. PHH QUALITY OF LIFE	5. PHH NOISE AND VIBRATION	6. PHH HIGH QUALITY PLACES	7. PHH SAFETY	8. MATERIAL ASSETS SUSTAINABILITY	9. MATERIAL ASSETS NATURAL RESOURCES	10. WATER ENVIRONMENT	11. BIODIVERSITY	12. SOIL	13. CULTURAL HERITAGE	14. LANDSCAPE AND VISUAL AMENITY	CUMULATIVE SCORE
IC4	1	++	~	++	+	+	~	~	+	?	+	+	~	~	~	+
IC4	2	++	~	++	+	+	~	~	+	?	+	+	~	~	~	+
Cumulative Island Connectivity Mode Summary	1	?	+	?	+	-	~	~	+	-	-	-	?	?	?	?

GROUPING REFERENCE	SCENARIO (1 OR 2)	SEA OBJECTIVES ASSESSMENT SCORES														
		1. CLIMATE MITIGATION	2. CLIMATE ADAPTATION	3. AIR QUALITY	4. PHH QUALITY OF LIFE	5. PHH NOISE AND VIBRATION	6. PHH HIGH QUALITY PLACES	7. PHH SAFETY	8. MATERIAL ASSETS SUSTAINABILITY	9. MATERIAL ASSETS NATURAL RESOURCES	10. WATER ENVIRONMENT	11. BIODIVERSITY	12. SOIL	13. CULTURAL HERITAGE	14. LANDSCAPE AND VISUAL AMENITY	CUMULATIVE SCORE
Cumulative Island Connectivity Mode Summary	2	?	+	?	+	-	~	~	+	-	-	-	?	?	?	?

GROUPING REFERENCE	SCENARIO (1 OR 2)	NATIONAL ASSESSMENT SUMMARY FOR IC GROUPING
IC1c	1	<p>This grouping is likely to result in positive effects related to Population and Human Health (Objective 4) as the enhancements seek to improve accessibility, reduce severance and increase transport choice and positive effects on material assets (Objective 8) as the grouping supports plans for future capacity of public transport, taking demographic and other societal changes.</p> <p>With the increase in services there is potential for negative effects on Population And Human Health Objective 5 with an increase in noise and vibration.</p> <p>A fixed link between Mull and the Scottish mainland is likely to result in negative effects on SEA objectives related to Climatic Factors (Objective 1) and Air Quality (Objective 3) due to the potential for an increase in motorised traffic to and from the mainland.</p> <p>Negative effects are also anticipated on biodiversity, water, soil, cultural heritage, landscape and material assets (Objective 9) SEA objectives during construction and operation of both the fixed link and harbour upgrade infrastructure required. As is standard with marine infrastructure developments further environmental assessment would be required to identify location-specific environmental effects and mitigation where appropriate.</p> <p>There is no clear link between this grouping and Population and Human Health (Objectives 6 and 7).</p>
IC1c	2	<p>Findings the same as high scenario due to the fact the same infrastructure will be required under both scenarios</p>

GROUPING REFERENCE	SCENARIO (1 OR 2)	NATIONAL ASSESSMENT SUMMARY FOR IC GROUPING
IC1d	1	<p>This grouping is likely to result in positive effects related to Population and Human Health (Objective 4) as the enhancements seek to improve accessibility, reduce severance and increase transport choice and positive effects on material assets (Objective 8) as the grouping supports plans for future capacity of public transport, taking demographic and other societal changes.</p> <p>With the increase in services there is potential for negative impacts on Population and Human Health Objective 5 with an increase in noise and vibration.</p> <p>With an increase in services and a possible requirement for improvements to harbour infrastructure to facilitate this there is potential for negative environmental effects, particularly on biodiversity and water quality, landscape, cultural heritage and also material assets (Objective 9) during construction and operation. As is standard with marine infrastructure developments further environmental assessment would be required to identify location-specific environmental impacts and mitigation where appropriate.</p> <p>Potential negative effects on Climatic Factors (Objective 1) and Air Quality (Objective 3) are dependent on whether the ferries would reduce road and air miles and/or increase road traffic on the islands, therefore scoring is currently considered uncertain.</p> <p>There is no clear link between this grouping and Population and Human Health (Objectives 6 and 7)</p>
IC1d	2	<p>Findings the same as high scenario due to the fact the same infrastructure will be required under both scenarios</p>

GROUPING REFERENCE	SCENARIO (1 OR 2)	NATIONAL ASSESSMENT SUMMARY FOR IC GROUPING
IC1c	1	<p>This grouping is likely to result in positive effects related to Population and Human Health (Objective 4) as the enhancements seek to improve accessibility, reduce severance and increase transport choice and positive effects on material assets (Objective 8) as the grouping supports plans for future capacity of public transport, taking demographic and other societal changes.</p> <p>With the increase in services there is potential for negative impacts on Population and Human Health Objective 5 with an increase in noise and vibration.</p> <p>With an increase in services and a possible requirement for improvements to harbour infrastructure to facilitate this there is potential for negative environmental effects, particularly on biodiversity and water quality, landscape, cultural heritage and also material assets (Objective 9) during construction and operation. As is standard with marine infrastructure developments further environmental assessment would be required to identify location-specific environmental impacts and mitigation where appropriate.</p> <p>Potential negative effects on climatic factors (Objective 1) and air quality (Objective 3) are dependent on whether the ferries would reduce road and air miles and/or increase road traffic on the islands, therefore scoring is currently considered uncertain.</p> <p>There is no clear link between this grouping and Population and Human Health (Objectives 6 and 7)</p>
IC1c	2	<p>Findings the same as high scenario due to the fact the same infrastructure will be required under both scenarios</p>

GROUPING REFERENCE	SCENARIO (1 OR 2)	NATIONAL ASSESSMENT SUMMARY FOR IC GROUPING
IC1g	1	<p>This grouping is likely to result in positive effects related to Population and Human Health (SEA Objective 4) as the enhancements seek to improve accessibility, reduce severance and increase transport choice and positive effects on Material Assets (SEA Objective 8) as the grouping supports plans for future capacity of public transport, taking demographic and other societal changes.</p> <p>With the increase in services there is potential for negative effects on Population and Human Health (SEA Objective 5) with an increase in noise and vibration.</p> <p>With an increase in services and a possible requirement for improvements to harbour infrastructure to facilitate this there is potential for negative environmental effects, particularly on biodiversity and water quality, landscape, cultural heritage and also material assets (SEA Objective 9) during construction and operation. As is standard with marine infrastructure developments further environmental assessment would be required to identify location-specific environmental impacts and mitigation where appropriate.</p> <p>Potential negative effects on Climatic Factors (SEA Objective 1) and Air Quality (SEA Objective 3) are dependent on whether the ferries would reduce road and air miles and/or increase road traffic on the islands, therefore scoring is currently considered uncertain.</p> <p>There is no clear link between this grouping and the Population and Human Health SEA Objectives 6 and 7.</p>
IC1g	2	<p>Overall, it is assumed that there would be an uncertain impact in terms of the SEA in both Low and High scenarios.</p>

GROUPING REFERENCE	SCENARIO (1 OR 2)	NATIONAL ASSESSMENT SUMMARY FOR IC GROUPING
IC1h	1	<p>This grouping is likely to result in positive effects related to Population and Human Health (SEA Objective 4) as the enhancements seek to improve accessibility, reduce severance and increase transport choice and positive effects on Material Assets (SEA Objective 8) as the grouping supports plans for future capacity of public transport, taking demographic and other societal changes.</p> <p>With the increase in services there is potential for negative effects on Population and Human Health (SEA Objective 5) with an increase in noise and vibration.</p> <p>With an increase in services and a possible requirement for improvements to harbour infrastructure to facilitate this there is potential for negative environmental effects, particularly on biodiversity and water quality, landscape, cultural heritage and also material assets (SEA Objective 9) during construction and operation. As is standard with marine infrastructure developments further environmental assessment would be required to identify location-specific environmental impacts and mitigation where appropriate.</p> <p>Potential negative effects on Climatic Factors (SEA Objective 1) and Air Quality (SEA Objective 3) are dependent on whether the ferries would reduce road and air miles and/or increase road traffic on the islands, therefore scoring is currently considered uncertain.</p> <p>There is no clear link between this grouping and the Population and Human Health SEA Objectives 6 and 7.</p>
IC1h	2	<p>Overall, it is assumed that there would be an uncertain impact in terms of the SEA in both Low and High scenarios.</p>

GROUPING REFERENCE	SCENARIO (1 OR 2)	NATIONAL ASSESSMENT SUMMARY FOR IC GROUPING
IC2	1	<p>This grouping is likely to result in positive effects related to Population and Human Health (SEA Objective 4) as the enhancements seek to improve accessibility, reduce severance and increase transport choice and positive effects on Material Assets (SEA Objective 8) as the grouping supports plans for future capacity of public transport, taking demographic and other societal changes.</p> <p>With the increase in services there is potential for negative effects on Population and Human Health (SEA Objective 5) with an increase in noise and vibration.</p> <p>With an increase in services and a possible requirement for improvements to harbour infrastructure to facilitate this there is potential for negative environmental effects, particularly on biodiversity and water quality, landscape, cultural heritage and also material assets (SEA Objective 9) during construction and operation. As is standard with marine infrastructure developments further environmental assessment would be required to identify location-specific environmental impacts and mitigation where appropriate.</p> <p>Potential negative effects on Climatic Factors (SEA Objective 1) and Air Quality (SEA Objective 3) are dependent on whether the ferries would reduce road and air miles and/or increase road traffic on the islands, therefore scoring is currently considered uncertain.</p> <p>There is no clear link between this grouping and the Population and Human Health SEA Objectives 6 and 7.</p>
IC2	2	<p>Overall, it is assumed that there would be an uncertain impact in terms of the SEA in both Low and High scenarios.</p>

GROUPING REFERENCE	SCENARIO (1 OR 2)	NATIONAL ASSESSMENT SUMMARY FOR IC GROUPING
IC4	1	<p>This grouping is likely to result in positive effects on SEA objectives related to Climatic Factors, Air Quality and Water (Objectives 1, 3 and 10), particularly in relation to the achievement of a reduction in transport related emissions; as it seeks to reduce emissions from ferries through decarbonisation / use of alternative fuels (electric, hydrogen). The grouping would also have a positive effect on Material Assets (Objective 8) as it is promoting a more sustainable use and management of the existing transport network. It would also have a positive effect on Population and Human Health (Objectives 4 and 5) as a result of encouraging sustainable access and a move away from diesel engines to alternatives such as electric which could result in a beneficial impact on noise and vibration for those living or working near ferry terminals.</p> <p>There are possible positive effects on Biodiversity (Objective 11) as a result of a reduction in diffuse pollution on key receptors; however the significance of effect is uncertain at this stage. The effects on Material Assets (Objective 9) are uncertain at this stage.</p> <p>Given the nature of the grouping, it has no (or negligible) clear relationship to the achievement of many of the SEA Objectives at this time, including Climatic Factors (Objective 2), Population and Human Health (Objectives 6 and 7), Soil (Objective 12), Cultural Heritage (Objective 13) and Landscape and Visual Amenity (Objective 14).</p>
IC4	2	<p>For the Low Scenario, the magnitude of effects will be less than for the High Scenario due to the reduction in travel.</p>
Cumulative Island Connectivity Mode Summary	1	<p>Overall, the Island Connectivity recommendations are anticipated to result in uncertain effects on SEA Objective 1 (Climatic Factors) as the various interventions are not likely to contribute to reducing emissions from Scotland's transport sector by reducing the need to travel and encouraging modal shift and help meet Scotland's wider targets to reduce greenhouse gas emissions. In addition, some of the new fixed links proposed have the potential to result in an increase in motorised traffic to and from the mainland, potentially resulting in increases in emissions in turn. However, Intervention IC4 is likely to result in major positive effects on SEA</p>

GROUPING REFERENCE	SCENARIO (1 OR 2)	NATIONAL ASSESSMENT SUMMARY FOR IC GROUPING
		<p>Objective 1 as the decarbonisation of the CHFS and NIFS ferry networks will directly contribute to the achievement of Scotland's CO2 emissions reduction target of net zero by 2045, promote and support the best use of clean fuels / technologies, and promote and facilitate modal shift to more sustainable transport options.</p> <p>The Island Connectivity recommendations are generally anticipated to result in minor positive effects on SEA Objective 2 as several of the interventions proposed (i.e. IC1c, IC1d, IC1e, IC1g and IC1h) comprise enhancements which will help adapt the ferry network to the direct / indirect risks associated with climate change, prioritise adaptation of the ferry network in locations that are more vulnerable to the projected impacts of climate change (i.e. island and coastal communities), prioritise adaptation of ferry connections to critical infrastructure, and maintain / improve access to and within isolated island communities at risk from climate change impacts. Interventions IC2 and IC4 are anticipated to result in uncertain and negligible effects on SEA Objective 2 respectively as these interventions will not necessarily adapt the ferry network to the predicted effects of climate change. However, the new ferry routes proposed as part of IC2 could potentially improve access to / within isolated island communities at risk from climate change.</p> <p>The Island Connectivity recommendations are generally anticipated to result in uncertain effects on SEA Objective 3 (Air Quality) as the enhancements to existing ferry routes proposed as part of interventions IC1c, IC1d, IC1e, IC1g and IC1h and the new ferry routes proposed as part of IC12 will not reduce forms of transport-related air pollution or improve air quality. Furthermore, these proposals have the potential to result in increases in motorised traffic to and from the mainland, thereby potentially resulting in increases in emissions and reductions in air quality. However, interventions IC1c, IC1d, IC1e, IC1g and IC1h also involve upgrades to / replacement of vessels which could potentially result in reductions in air pollution and contribute to improvements in air quality. Intervention IC4 is anticipated to result in major positive effects on SEA Objective 3 as the decarbonisation of the CHFS and NIFS ferry networks will help reduce emissions of key air pollutants (NO_x, particulates, SO₂) from ferry transport, help to limit polluting traffic growth, and potentially limit more polluting vehicles in</p>

GROUPING REFERENCE	SCENARIO (1 OR 2)	NATIONAL ASSESSMENT SUMMARY FOR IC GROUPING
		<p>sensitive areas.</p> <p>The Island Connectivity recommendations are anticipated to result in minor positive effects on SEA Objective 4 (Population and Human Health) as each of the interventions will improve quality of life and human health and increase sustainable access to essential services, employment and the natural environment through the various enhancements to existing ferry routes / infrastructure, new ferry routes and decarbonisation of the ferry network proposed. In particular, this mode will ensure safe and sustainable access for all users to essential services and employment, provide increasing transport choice that meet the needs of the population, support changing demographics by providing appropriate transport facilities to meet their needs, and improve access to healthcare facilities.</p> <p>The Island Connectivity recommendations are generally anticipated to result in minor negative effects on SEA Objective 5 (Population and Human Health) as the majority of the interventions proposed will not reduce noise and vibration on the transport network as many of the proposals (i.e. IC1c, IC1d, IC1e, IC1g, IC1h and IC2) comprise expansions to the existing ferry network including more frequent ferry services and new ferry routes, resulting in potential increases in noise and vibration during both the construction and operation phases of these interventions. However, intervention IC4 is anticipated to result in minor positive effects on SEA Objective 5 as the decarbonisation of the ferry network involves several proposals which could reduce noise and vibration on the ferry network e.g. the use of new fuel technologies, the introduction of hydrogen ferries, and reducing / removing air travel in inter and intra island travel.</p> <p>The Island Connectivity recommendations are anticipated to result in negligible effects on SEA Objectives 6 and 7 (both Population and Human Health) as these interventions will not significantly promote / invest in / build / maintain infrastructure to support the development of high-quality places (including the development of places that feel safe to all users, prioritisation of pedestrians in the public realm or the creation and maintenance of an attractive public realm), or improve safety on the transport network.</p>

GROUPING REFERENCE	SCENARIO (1 OR 2)	NATIONAL ASSESSMENT SUMMARY FOR IC GROUPING
		<p>The Island Connectivity recommendations are anticipated to result in minor positive effects on SEA Objective 8 (Material Assets) as the interventions proposed each aim to promote / improve the sustainable use of the transport network, including improvements to ferry interchanges and timetabling, and helping plan for the future capacity of public transport, taking demographic and other societal changes, particularly within island / coastal communities, into account. Some of the interventions will also help plan for future travel arrangements where journeys are made by a number of different modes by providing new ferry / fixed links which will connect to new road connections (e.g. IC1d). Interventions IC1c, IC1d, IC1e, IC1g, IC1h and IC4 also support improvements to transport technology and promotes the sustainable use and management of existing infrastructure through the various proposals for upgrades to / replacement of vessels, and the decarbonisation of the ferry network.</p> <p>The Island Connectivity recommendations are generally anticipated to result in minor negative effects on SEA Objective 9 (Material Assets) as the majority of the interventions proposed involve expansions to the existing ferry network including more frequent ferry services and new ferry routes and therefore will not reduce in the use of natural resources. Intervention IC4 is anticipated to result in uncertain effects on SEA Objective 9 as this intervention may result in reductions in the use of natural resources and contributions to the circular economy; however, this is dependent on the methods / technologies adopted in relation the decarbonisation of the ferry network.</p> <p>The Island Connectivity recommendations are generally anticipated to result in minor negative effects on SEA Objective 10 (Water Environment) as the majority of the interventions proposed involve expansions to the existing ferry network including more frequent ferry services and new ferry routes and therefore have the potential to result in direct impacts on the water environment, e.g. physical impacts on waterbodies / watercourses / coastlines associated with development, constraining water bodies from the achievement of Good Ecological Status / Good Ecological Potential under the Water Framework Directive, or increasing the risk of diffuse pollution from current or increasing traffic volumes. Intervention IC4 is anticipated to result in minor positive effects on SEA Objective 10 as the decarbonisation of the ferry network</p>

GROUPING REFERENCE	SCENARIO (1 OR 2)	NATIONAL ASSESSMENT SUMMARY FOR IC GROUPING
		<p>has the potential to protect / maintain / improve the quality of the water environment.</p> <p>The Island Connectivity recommendations are generally anticipated to result in minor negative effects on SEA Objective 11 (Biodiversity) as the majority of the interventions proposed involve expansions to the existing ferry network including more frequent ferry services and new ferry routes and therefore have the potential to result in direct impacts on biodiversity, including potential damage to / loss of designated and undesignated wildlife or geological sites. Intervention IC4 is anticipated to result in minor positive effects on SEA Objective 11 as the decarbonisation of the ferry network (e.g. the use of alternative fuel sources, the transition to zero carbon emissions) could potentially protect and / or enhance the integrity of existing habitat, and protect and/ or enhance the integrity of any site of biodiversity or geological value that has been designated at international, national or local levels.</p> <p>The Island Connectivity recommendations are generally anticipated to result in uncertain effects on SEA Objective 12 (Soil) as the majority of the interventions proposed involve expansions to the existing ferry network, including the development of new ferry routes, and therefore have the potential to result in the disturbance of soils, contamination, and indirect impacts on the natural processes of hydrological and ecological regimes. Intervention IC4 is anticipated to result in negligible effects on SEA Objective 12 as there is no clear relationship between this intervention and soils.</p> <p>The Island Connectivity recommendations are generally anticipated to result in uncertain effects on SEA Objective 13 (Cultural Heritage) as the majority of interventions proposed involve expansions to the existing ferry network, including the development of new ferry routes, and therefore have the potential for negative effects on designated and undesignated archaeological sites and other culturally and historically important features; however, further environmental assessment would be required to identify location-specific environmental impacts and mitigation where appropriate. Intervention IC1c is anticipated to result in minor negative effects on SEA Objective 13 due to the new fixed link and harbour infrastructure proposed which could result in negative effects on designated and undesignated</p>

GROUPING REFERENCE	SCENARIO (1 OR 2)	NATIONAL ASSESSMENT SUMMARY FOR IC GROUPING
		<p>archaeological sites and other culturally and historically important features / affect key views to and from heritage assets. Intervention IC4 is anticipated to result in negligible effects on SEA Objective 13 as there is no clear relationship between this intervention and cultural heritage.</p> <p>The Island Connectivity recommendations are generally anticipated to result in uncertain effects on SEA Objective 14 (Landscape and Visual Amenity) as the majority of interventions proposed involve expansions to the existing ferry network, including the development of new ferry routes, and therefore have the potential for negative effects on national / regional / local landscape designations; however, further environmental assessment would be required to identify location-specific environmental impacts and mitigation where appropriate. Intervention IC1c is anticipated to result in minor negative effects on SEA Objective 13 due to the new fixed link and harbour infrastructure proposed which could result in negative effects on national / regional / local landscape designations. Intervention IC4 is anticipated to result in negligible effects on SEA Objective 13 as there is no clear relationship between this intervention and landscape and visual amenity.</p>
Cumulative Island Connectivity Mode Summary	2	Overall, it is assumed that there would be an uncertain impact in terms of the SEA in both Low and High scenarios.

REGION	REGIONAL DIFFERENCES IN ASSESSMENT FOR IC PACKAGE
Argyll and Bute	<p>The group references included in the Argyll and Bute region are:</p> <ul style="list-style-type: none"> • IC1c Mull Connectivity • IC1g Arran and Campbeltown Connectivity • IC2h Islay Connectivity

REGION	REGIONAL DIFFERENCES IN ASSESSMENT FOR IC PACKAGE
	<ul style="list-style-type: none"> • IC2 New Ferry Routes (Internal to Scotland) • IC4 Decarbonisation of CHFS and NIFS Ferry Network <p>Key environmental features impacted by the package of interventions:</p> <ul style="list-style-type: none"> • Population and Human Health The Island Connectivity recommendations are anticipated to have a minor negative effect on Population and Human Health as many of the proposals comprise expansions to the existing ferry network including more frequent ferry services and new ferry routes, resulting in potential increases in noise and vibration during both the construction and operation phases of these interventions. • Material Assets The Island Connectivity recommendations are anticipated to have minor negative effects on Material Assets as the majority of the interventions proposed involve expansions to the existing ferry network including more frequent ferry services and new ferry routes and therefore will not reduce the use of natural resources. • Water Environment The Island Connectivity recommendations are anticipated to result in minor negative effects on the Water Environment as the majority of the interventions proposed involve expansions to the existing ferry network including more frequent ferry services and new ferry routes and therefore have the potential to result in direct impacts on the water environment. In particular, the region is faced with: <ul style="list-style-type: none"> • Large area of coast identified as being at medium and high likelihood of flooding by SEPA • Biodiversity The Island Connectivity recommendations are anticipated to result in minor negative effects Biodiversity as the

REGION	REGIONAL DIFFERENCES IN ASSESSMENT FOR IC PACKAGE
	<p>majority of the interventions proposed involve expansions to the existing ferry network including more frequent ferry services and new ferry routes and therefore have the potential to result in direct impacts on biodiversity, including potential damage to / loss of designated and undesignated wildlife or geological sites.</p> <p>Key designations in the coastal and water region likely to be threatened by the recommendations:</p> <ul style="list-style-type: none"> • A number of SACs • A number of Special Protected Areas (SPA) • A number of Nature Conservation Marine Protected Areas (MPA) • Cultural Heritage <p>The Island Connectivity recommendations are anticipated to result in minor negative effects on Cultural Heritage due to the new fixed link and harbour infrastructure proposed which could result in negative effects on designated and undesignated archaeological sites and other culturally and historically important features / affect key views to and from heritage assets.</p> <p>Key designations in the coastal region are likely to be threatened by the recommendations:</p> <ul style="list-style-type: none"> • A number of A-C Listed Buildings • A Historic Marine Protected Area • Landscape and Visual <p>The island Connectivity recommendations are anticipated to result in minor negative effects on Landscape and Visual due to the new fixed link and harbour infrastructure, effecting national / regional / local landscape designations.</p> <p>Key designations in the coastal and water region are likely to be threatened by the recommendations:</p> <ul style="list-style-type: none"> • A number of National Scenic Areas
Ayrshire and Arran	<p>The group references included in the Ayrshire & Arran region are:</p> <ul style="list-style-type: none"> • IC1g Arran and Campbeltown Connectivity • IC2 New Ferry Routes (Internal to Scotland)

REGION	REGIONAL DIFFERENCES IN ASSESSMENT FOR IC PACKAGE
	<ul style="list-style-type: none"> IC4 Decarbonisation of CHFS and NIFS Ferry Network <p>Key environmental features impacted by the package of interventions:</p> <p>Population and Human Health</p> <p>The Island Connectivity is anticipated to have a minor negative effect on the Population and Human Health as many of the proposals comprise expansions to the existing ferry network including more frequent ferry services and new ferry routes, resulting in potential increases in noise and vibration during both the construction and operation phases of these interventions.</p> <p>Material Assets</p> <p>The Island Connectivity recommendations are anticipated to have minor negative effects to the Material Assets as the majority of the interventions proposed involve expansions to the existing ferry network including more frequent ferry services and new ferry routes and therefore will not reduce the use of natural resources.</p> <p>Water Environment</p> <p>The Island Connectivity recommendations are anticipated to result in minor negative effects the Water Environment as the majority of the interventions proposed involve expansions to the existing ferry network including more frequent ferry services and new ferry routes and therefore have the potential to result in direct impacts on the water environment.</p> <p>In particular, the region is faced with:</p> <ul style="list-style-type: none"> Large area of coast identified as being at medium and high likelihood of flooding by SEPA <p>Biodiversity</p> <p>The Island Connectivity recommendations are anticipated to result in minor negative effects on Biodiversity as the majority of the interventions proposed involve expansions to the existing ferry network including more</p>

REGION	REGIONAL DIFFERENCES IN ASSESSMENT FOR IC PACKAGE
	<p>frequent ferry services and new ferry routes and therefore have the potential to result in direct impacts on biodiversity, including potential damage to / loss of designated and undesignated wildlife or geological sites.</p> <p>Key designations in the coastal and water region are likely to be threatened by the recommendations:</p> <ul style="list-style-type: none"> • SPA • Nature Conservation Marine Protected Area
<p>Edinburgh and SE Scotland</p>	<p>The group reference included in the Edinburgh & SE Section region is:</p> <ul style="list-style-type: none"> • IC2 New Ferry Routes (Internal to Scotland) <p>No other key environmental features within the SEA topics in the region have been identified as being impacted by the package.</p> <p>Note: New Ferry Routes (Internal to Scotland) has not been assessed yet as still tbc.</p>
<p>Forth Valley</p>	<p>No groupings apply to the Forth Valley region.</p>
<p>Glasgow City Region</p>	<p>No groupings apply to the Glasgow City region.</p>
<p>Highlands and Islands</p>	<p>The group references included in the Highlands & Islands region are:</p> <ul style="list-style-type: none"> • IC1c Mull Connectivity • IC1d Northern Isles Connectivity • IC1e Outer Hebrides Connectivity • IC4 Decarbonisation of CHFS and NIFS Ferry Network <p>Key environmental features impacted by the package of interventions:</p> <p>Population and Human Health</p> <p>The Island Connectivity is anticipated to have a minor negative effect on the Population and Human Health as many of the proposals comprise expansions to the existing ferry network including more frequent ferry services</p>

REGION	REGIONAL DIFFERENCES IN ASSESSMENT FOR IC PACKAGE
	<p>and new ferry routes, resulting in potential increases in noise and vibration during both the construction and operation phases of these interventions.</p> <p>Material Assets</p> <p>The Island Connectivity recommendations are anticipated to have minor negative effects to the Material Assets as the majority of the interventions proposed involve expansions to the existing ferry network including more frequent ferry services and new ferry routes and therefore will not reduce the use of natural resources.</p> <p>Water Environment</p> <p>The Island Connectivity recommendations are anticipated to result in minor negative effects the Water Environment as the majority of the interventions proposed involve expansions to the existing ferry network including more frequent ferry services and new ferry routes and therefore have the potential to result in direct impacts on the water environment.</p> <p>In particular, the region is faced with:</p> <ul style="list-style-type: none"> • Large area of coast identified as being at medium and high likelihood of flooding by SEPA <p>Biodiversity</p> <p>The Island Connectivity recommendations are anticipated to result in minor negative effects on Biodiversity as the majority of the interventions proposed involve expansions to the existing ferry network including more frequent ferry services and new ferry routes and therefore have the potential to result in direct impacts on biodiversity, including potential damage to / loss of designated and undesignated wildlife or geological sites.</p> <p>Key designations in the coastal and water region are likely to be threatened by the recommendations:</p> <ul style="list-style-type: none"> • A number of SACs • A number of SPAs <p>Cultural Heritage</p>

REGION	REGIONAL DIFFERENCES IN ASSESSMENT FOR IC PACKAGE
	<p>The Island Connectivity recommendations are anticipated to result in minor negative effects on Cultural Heritage due to the new fixed link and harbour infrastructure proposed which could result in negative effects on designated and undesignated archaeological sites and other culturally and historically important features / affect key views to and from heritage assets.</p> <p>Key designations in the coastal region are likely to be threatened by the recommendations:</p> <ul style="list-style-type: none"> • Heart of Neolithic Orkney Heritage Site • A-C Listed Buildings • Historic Marine Protected Areas <p>Landscape and Visual Amenity</p> <p>The island Connectivity recommendations are anticipated to result in minor negative effects on Landscape and Visual due to the new fixed link and harbour infrastructure, effecting national / regional / local landscape designations.</p> <p>Key designations in the coastal and water region are likely to be threatened by the recommendations:</p> <ul style="list-style-type: none"> • A number of National Scenic Areas
North East	<p>The group references included in the North East region are:</p> <ul style="list-style-type: none"> • IC1d Northern Isles Connectivity • IC4 Decarbonisation of CHFS and NIFS Ferry Network <p>Key environmental features impacted by the package of interventions:</p> <p>Population and Human Health</p> <p>The Island Connectivity is anticipated to have a minor negative effect on the Population and Human Health as many of the proposals comprise expansions to the existing ferry network including more frequent ferry services and new ferry routes, resulting in potential increases in noise and vibration during both the construction and</p>

REGION	REGIONAL DIFFERENCES IN ASSESSMENT FOR IC PACKAGE
	<p>operation phases of these interventions.</p> <p>Material Assets</p> <p>The Island Connectivity recommendations are anticipated to have minor negative effects to the Material Assets as the majority of the interventions proposed involve expansions to the existing ferry network including more frequent ferry services and new ferry routes and therefore will not reduce the use of natural resources.</p> <p>Water Environment</p> <p>The Island Connectivity recommendations are anticipated to result in minor negative effects the Water Environment as the majority of the interventions proposed involve expansions to the existing ferry network including more frequent ferry services and new ferry routes and therefore have the potential to result in direct impacts on the water environment.</p> <p>In particular, the region is faced with:</p> <ul style="list-style-type: none"> • Large area of coast identified as being at medium and high likelihood of flooding by SEPA <p>Biodiversity</p> <p>The Island Connectivity recommendations are anticipated to result in minor negative effects on Biodiversity as the majority of the interventions proposed involve expansions to the existing ferry network including more frequent ferry services and new ferry routes and therefore have the potential to result in direct impacts on biodiversity, including potential damage to / loss of designated and undesignated wildlife or geological sites.</p> <p>Key designations in the coastal and water region are likely to be threatened by the recommendations:</p> <ul style="list-style-type: none"> • A SAC
Borders	No groupings apply to the Borders region.
Shetland Isles	<p>The group references included in the Shetland Isles region are:</p> <ul style="list-style-type: none"> • IC1d Northern Isles Connectivity

REGION	REGIONAL DIFFERENCES IN ASSESSMENT FOR IC PACKAGE
	<ul style="list-style-type: none"> IC4 Decarbonisation of CHFS and NIFS Ferry Network <p>Key environmental features impacted by the package of interventions:</p> <p>Population and Human Health</p> <p>The Island Connectivity is anticipated to have a minor negative effect on the Population and Human Health as many of the proposals comprise expansions to the existing ferry network including more frequent ferry services and new ferry routes, resulting in potential increases in noise and vibration during both the construction and operation phases of these interventions.</p> <p>Material Assets</p> <p>The Island Connectivity recommendations are anticipated to have minor negative effects to the Material Assets as the majority of the interventions proposed involve expansions to the existing ferry network including more frequent ferry services and new ferry routes and therefore will not reduce the use of natural resources.</p> <p>Water Environment</p> <p>The Island Connectivity recommendations are anticipated to result in minor negative effects the Water Environment as the majority of the interventions proposed involve expansions to the existing ferry network including more frequent ferry services and new ferry routes and therefore have the potential to result in direct impacts on the water environment.</p> <p>In particular, the region is faced with:</p> <ul style="list-style-type: none"> Large area of coast identified as being at medium and high likelihood of flooding by SEPA <p>Biodiversity</p> <p>The Island Connectivity recommendations are anticipated to result in minor negative effects on Biodiversity as the majority of the interventions proposed involve expansions to the existing ferry network including more</p>

REGION	REGIONAL DIFFERENCES IN ASSESSMENT FOR IC PACKAGE
	<p>frequent ferry services and new ferry routes and therefore have the potential to result in direct impacts on biodiversity, including potential damage to / loss of designated and undesignated wildlife or geological sites.</p> <p>Key designations in the coastal and water region are likely to be threatened by the recommendations:</p> <ul style="list-style-type: none"> • A SAC
South West	No groupings apply to the South West region.
Tay Cities	No groupings apply to the Tay Cities region.

National Freight (FT) Mode

GROUPING REFERENCE	GROUPING DESCRIPTION
FT1	Decarbonisation of Freight Deliveries: Interventions to support the decarbonisation of freight deliveries, including awareness and education activities, alternative fuel infrastructure and alternative fuel HGV trials.
FT2	Railway Freight Terminals and Facilities: Improving the modal shift of freight from road to rail primarily for trunk haul movements (but not exclusively) through a network of rail freight terminals and facilities to include direct connections to manufacturing facilities and warehousing.
FT3	Freight Rest Stops: An audit of the availability of lorry parks and rest areas within 5kms of the trunk road network to help identify which routes have gaps in provision.
FT4	Freight Reliability and Efficiency Improvements: Interventions designed to provide improved resilience on the road network in Scotland for the freight industry, such as: strengthening bridges, 50mph speed limits, implementing freight route signage
FT5	Freight Consolidation and Last-Mile Logistics: Introduction of measures to improve freight connectivity within urban and rural areas, such as improved access to cargo bikes, consolidation centres to aid 'last-mile' logistics and use of innovative technologies.
FT6	Freight Incentives and Freight Best Practice: Expansion of Freight Facilities Grant and Mode Shift Revenue Support to encourage more efficient, environmentally friendly practices within the freight industry, including promoting sustainable transport options
FT7	Rail Freight Enhancements: Rail freight enhancements required as outlined as part of the Scottish Strategic Freight Network (SSFN) by the Scotland Freight Joint Board in 2017.

GROUPING REFERENCE	SCENARIO (1 OR 2)	SEA OBJECTIVES ASSESSMENT SCORES														
		1. CLIMATE MITIGATION	2. CLIMATE ADAPTATION	3. AIR QUALITY	4. PHH QUALITY OF LIFE	5. PHH NOISE AND VIBRATION	6. PHH HIGH QUALITY PLACES	7. PHH SAFETY	8. MATERIAL ASSETS SUSTAINABILITY	9. MATERIAL ASSETS NATURAL RESOURCES	10. WATER ENVIRONMENT	11. BIODIVERSITY	12. SOIL	13. CULTURAL HERITAGE	14. LANDSCAPE AND VISUAL AMENITY	CUMULATIVE SCORE
FT1	1	++	0	++	0	+	0	0	+	?	?	?	?	?	?	?
FT1	2	+	0	+	0	+	0	0	+	?	?	?	?	?	?	?
FT2	1	++	0	++	0	?	0	+	0	-	?	?	?	?	?	?

GROUPING REFERENCE	SCENARIO (1 OR 2)	SEA OBJECTIVES ASSESSMENT SCORES														
		1. CLIMATE MITIGATION	2. CLIMATE ADAPTATION	3. AIR QUALITY	4. PHH QUALITY OF LIFE	5. PHH NOISE AND VIBRATION	6. PHH HIGH QUALITY PLACES	7. PHH SAFETY	8. MATERIAL ASSETS SUSTAINABILITY	9. MATERIAL ASSETS NATURAL RESOURCES	10. WATER ENVIRONMENT	11. BIODIVERSITY	12. SOIL	13. CULTURAL HERITAGE	14. LANDSCAPE AND VISUAL AMENITY	CUMULATIVE SCORE
FT2	2	++	0	++	0	?	0	+	0	-	?	?	?	?	?	?
FT3	1	0	~	~	+	~	0	+	0	~	~	~	~	~	~	0
FT3	2	0	~	~	+	~	0	+	0	~	~	~	~	~	~	0

GROUPING REFERENCE	SCENARIO (1 OR 2)	SEA OBJECTIVES ASSESSMENT SCORES														
		1. CLIMATE MITIGATION	2. CLIMATE ADAPTATION	3. AIR QUALITY	4. PHH QUALITY OF LIFE	5. PHH NOISE AND VIBRATION	6. PHH HIGH QUALITY PLACES	7. PHH SAFETY	8. MATERIAL ASSETS SUSTAINABILITY	9. MATERIAL ASSETS NATURAL RESOURCES	10. WATER ENVIRONMENT	11. BIODIVERSITY	12. SOIL	13. CULTURAL HERITAGE	14. LANDSCAPE AND VISUAL AMENITY	CUMULATIVE SCORE
FT4	1	?	+	?	+	?	~	+	0	?	?	?	?	?	?	?
FT4	2	?	+	?	+	?	~	+	0	?	?	?	?	?	?	?
FT5	1	+	?	+	?	+	~	+	+	+	?	?	?	?	?	?

GROUPING REFERENCE	SCENARIO (1 OR 2)	SEA OBJECTIVES ASSESSMENT SCORES														
		1. CLIMATE MITIGATION	2. CLIMATE ADAPTATION	3. AIR QUALITY	4. PHH QUALITY OF LIFE	5. PHH NOISE AND VIBRATION	6. PHH HIGH QUALITY PLACES	7. PHH SAFETY	8. MATERIAL ASSETS SUSTAINABILITY	9. MATERIAL ASSETS NATURAL RESOURCES	10. WATER ENVIRONMENT	11. BIODIVERSITY	12. SOIL	13. CULTURAL HERITAGE	14. LANDSCAPE AND VISUAL AMENITY	CUMULATIVE SCORE
FT5	2	+	?	+	?	+	~	+	+	+	?	?	?	?	?	?
FT6	1	+	~	+	+	+	0	+	+	~	?	?	?	~	~	+
FT6	2	+	~	+	+	+	+	+	+	~	?	?	?	~	~	+

GROUPING REFERENCE	SCENARIO (1 OR 2)	SEA OBJECTIVES ASSESSMENT SCORES														
		1. CLIMATE MITIGATION	2. CLIMATE ADAPTATION	3. AIR QUALITY	4. PHH QUALITY OF LIFE	5. PHH NOISE AND VIBRATION	6. PHH HIGH QUALITY PLACES	7. PHH SAFETY	8. MATERIAL ASSETS SUSTAINABILITY	9. MATERIAL ASSETS NATURAL RESOURCES	10. WATER ENVIRONMENT	11. BIODIVERSITY	12. SOIL	13. CULTURAL HERITAGE	14. LANDSCAPE AND VISUAL AMENITY	CUMULATIVE SCORE
FT7	1	++	0	++	0	?	~	+	+	-	?	?	?	?	?	?
FT7	2	++	0	++	0	?	~	+	+	-	?	?	?	?	?	?
Cumulative Freight Mode Summary	1	+	0	+	0	?	0	+	+	?	?	?	?	?	?	?

GROUPING REFERENCE	SCENARIO (1 OR 2)	SEA OBJECTIVES ASSESSMENT SCORES														
		1. CLIMATE MITIGATION	2. CLIMATE ADAPTATION	3. AIR QUALITY	4. PHH QUALITY OF LIFE	5. PHH NOISE AND VIBRATION	6. PHH HIGH QUALITY PLACES	7. PHH SAFETY	8. MATERIAL ASSETS SUSTAINABILITY	9. MATERIAL ASSETS NATURAL RESOURCES	10. WATER ENVIRONMENT	11. BIODIVERSITY	12. SOIL	13. CULTURAL HERITAGE	14. LANDSCAPE AND VISUAL AMENITY	CUMULATIVE SCORE
Cumulative Freight Mode Summary	2	+	0	+	0	?	0	+	+	?	?	?	?	?	?	?

GROUPING REFERENCE	SCENARIO (1 OR 2)	NATIONAL ASSESSMENT SUMMARY FOR FT GROUPING
FT1	1	<p>This grouping is likely to result in positive effects on SEA objectives related to Climatic Factors, Air Quality and Water, particularly in relation to the achievement of a reduction in transport related emissions; as it seeks to reduce emissions from freight through decarbonisation / use of alternative fuels (electric, hydrogen). The grouping would also have a positive effect on Material Assets (Objective 8) as it is promoting a more sustainable use and management of the existing transport network. It would also have a positive effect on Population and Human Health as a result of a reduction in noise and vibration on key routes.</p> <p>There are possible positive effects on Biodiversity Water and Soil as a result of a reduction in diffuse pollution on key receptors; however the significance of effect is uncertain at this stage.</p> <p>Depending on the location and nature of alternatives fuels infrastructure there is potential for negative environmental impacts during construction and operation of the improvements, particularly on Biodiversity, Cultural Heritage and Landscape/townscape. It is therefore recommended that further environmental assessment is undertaken when the locations of new infrastructure are identified in order to identify potentially significant location-specific environmental impacts and mitigation where appropriate.</p>
FT1	2	<p>For Scenario 2, the magnitude of effects will be less than for Scenario 1 due to the reduction in travel.</p>

GROUPING REFERENCE	SCENARIO (1 OR 2)	NATIONAL ASSESSMENT SUMMARY FOR FT GROUPING
FT2	1	<p>This grouping is likely to result in positive effects on SEA objectives related to Climatic Factors, Air Quality and Population and Human Health, particularly in relation to the achievement of a reduction in transport related emissions as it seeks to improve the use of sustainable modes of transport through modal shift of freight from road to rail; reducing the number of freight vehicles (associated congestion) and emissions from freight deliveries, particularly where alternative fuels are used. It would also have a positive effect on Population and Human Health due to improved safety on the transport network.</p> <p>There are possible positive effects on Water, Biodiversity and Soil as a result of a reduction in diffuse pollution on key receptors; however the significance of effect is uncertain at this stage.</p> <p>Depending on the source and type of materials/natural resources used to construct new infrastructure, there is potential for negative impacts on Material Assets. As such, it is recommended that further environmental assessment be undertaken as the grouping develops to identify areas for re-use of construction materials, adhering with circular economy principles.</p> <p>Depending on the location and nature of the terminals and facilities, there is potential for negative environmental impacts during construction and operation of the improvements, particularly on Biodiversity, Cultural Heritage and Landscape/townscape. It is therefore recommended that further environmental assessment is undertaken when the locations of new infrastructure are identified in order to identify potentially significant location-specific environmental impacts and mitigation where appropriate.</p>
FT2	2	<p>For Scenario 2, the magnitude of effects would be less than for Scenario 1 due to the reduction in travel.</p>

GROUPING REFERENCE	SCENARIO (1 OR 2)	NATIONAL ASSESSMENT SUMMARY FOR FT GROUPING
FT3	1	<p>This grouping is likely to result in positive effects on SEA objectives related to Population and Human Health (SEA Objectives 4 and 7), particularly in relation to improving safety on the transport network and access to essential services. The grouping is related to, but unlikely to have any effect on the achievement of SEA Objectives 1, 6 and 8. Given the nature of the grouping, auditing to inform decision making for improvements to rest and welfare facilities for freight, the grouping has no (or negligible) clear relationship to the achievement of many of the SEA Objectives at this time.</p> <p>Following future decision making, it is recommended that rest stop proposals should be assessed at the detailed appraisal stage, in order to identify potentially significant location-specific environmental impacts and mitigation where appropriate.</p>
FT3	2	No groupings apply to the Forth Valley region.

GROUPING REFERENCE	SCENARIO (1 OR 2)	NATIONAL ASSESSMENT SUMMARY FOR FT GROUPING
FT4	1	<p>This grouping would be likely to support SEA objectives related to Population and Human Health (Objectives 4 and 7) due to improved journey time reliability and safety on the transport network. It is also likely to support SEA Objective 2 (Climatic Factors) due to increased resilience of the road network to climate change.</p> <p>The interventions may result in negative effects on Climatic Factors (Objective 1) and Air Quality as road infrastructure improvements could potentially encourage the use of road network by freight. However, this should be balanced with a likely improvement in the reliability and reduction in congestions. These objectives are currently considered to result in uncertain effects. An increase in vehicles would also cause increases in noise associated with the transport network although this is dependent on the proximity of noise sensitive receptors (Objective 5).</p> <p>Depending on the source and type of materials/natural resources used to construct new infrastructure, there is potential for negative impacts on Material Assets (SEA Objective 9). As such, it is recommended that further environmental assessment be undertaken as the grouping develops to identify areas for re-use of construction materials, adhering with circular economy principles.</p> <p>Depending on the location and nature of the enhancement, there is potential for negative environmental impacts during construction and operation of the improvements, particularly on Water, Biodiversity, Soil, Cultural Heritage, Landscape/townscape and noise (Population and Human Health SEA Objective 5). It is therefore recommended that further environmental assessment is undertaken when the locations of new infrastructure are identified in order to identify potentially significant location-specific environmental impacts and mitigation where appropriate.</p> <p>Given the nature of the grouping, it has no (or negligible) clear relationship to the achievement of SEA Objective 6 at this time and is unlikely to affect Objective 8.</p>

GROUPING REFERENCE	SCENARIO (1 OR 2)	NATIONAL ASSESSMENT SUMMARY FOR FT GROUPING
FT4	2	For the Low Scenario, the magnitude of effects will be less than for the High Scenario due to the reduction in travel.
FT5	1	<p>This grouping would be likely to support SEA objectives related to Climatic Factors (Objective 1), Air Quality (Objective 3) and Material Assets (Objectives 8 and 9) due to the uptake of sustainable modes of delivery, and consequent reductions in congestion, emissions and use of natural resources. It is also likely to support SEA Objective 5 (Population and Human Health) due to reductions in vehicle noise pollution, and SEA Objective 7 (Population and Human Health) due to reductions in vehicular traffic.</p> <p>The interventions have potential to result in potential effects on the SEA Objectives relating to Climatic Factors (Objective 2) through the use of innovative modes and technologies for the delivery of goods, and Population and Human Health (Objectives 4 and 7) by improving access to goods and services for rural communities.</p> <p>Depending on the location and nature of the implementation of consolidation centres, there is potential for negative environmental impacts during construction and operation of the improvements, particularly on Water, Biodiversity, Soil, Cultural Heritage, Landscape/townscape (SEA Objectives 10 to 14). It is therefore recommended that further environmental assessment is undertaken when the locations of new infrastructure are known in order to identify potentially significant location-specific environmental impacts and mitigation where appropriate.</p> <p>The grouping has no clear relationship to the achievement of SEA Objective 6 at this time.</p>
FT5	2	For Scenario 2, the magnitude of effects will be less than for Scenario 1.

GROUPING REFERENCE	SCENARIO (1 OR 2)	NATIONAL ASSESSMENT SUMMARY FOR FT GROUPING
FT6	1	<p>This grouping is likely to result in positive effects on SEA objectives related to Climatic Factors (Objective 1) and Air Quality (Objective 3). This is in relation to the achievement of a reduction in transport related emissions as it seeks to improve the use of sustainable modes of transport through modal shift of freight from road; reducing the number of freight vehicles (associated congestion) and emissions from freight deliveries, particularly where alternative fuels are used. There would also be a positive effect on Population and Human Health (Objectives 5 and 7) is due to improved safety on the transport network and reduced noise associated with a reduction in road traffic. A positive effect on Population and Human Health (Objective 4) due to improvements in sustainable access to freight services.</p> <p>As the grouping promotes sustainable use of the existing infrastructure it would have a positive effect on Material Assets (Objective 8).</p> <p>There are possible positive effects on Water, Biodiversity and Soil as a result of a reduction in diffuse pollution on key receptors; however the significance of effect is uncertain at this stage.</p> <p>Given the nature of the grouping to use softer measures to incentivise operators there are limited physical interventions anticipated and so it is unrelated to SEA Objectives relating to Climatic Factors (Objective 2), Material Assets (Objective 9), Cultural Heritage and Landscape and would have a neutral effect on Population and Human Health (Objective 6).</p>
FT6	2	<p>For the Low Scenario, the magnitude of effects will be less than for the High Scenario due to the reduction in travel.</p>

GROUPING REFERENCE	SCENARIO (1 OR 2)	NATIONAL ASSESSMENT SUMMARY FOR FT GROUPING
FT7	1	<p>This grouping is likely to result in positive effects on SEA objectives related to Climatic Factors and Air Quality (SEA Objectives 1 and 3), particularly in relation to the achievement of a reduction in transport related emissions as it seeks to improve the use of sustainable modes of transport through modal shift of freight from road to rail; reducing the number of freight vehicles (associated congestion) and emissions from freight deliveries, particularly where alternative fuels are used. The grouping would also have a positive effect on Material Assets (SEA Objective 8) and Population and Human Health (SEA Objective 7) as it would promote a more sustainable use and management of the existing transport network and has the potential to improve safety on the transport network.</p> <p>Depending on the source and type of materials/natural resources used to construct new infrastructure, there is potential for negative impacts on Material Assets (SEA Objective 9). As such, it is recommended that further environmental assessment be undertaken as the grouping develops to identify areas for re-use of construction materials, adhering with circular economy principles.</p> <p>Depending on the location and nature of the enhancement, there is potential for negative environmental impacts during construction and operation of the improvements, particularly on Water, Biodiversity, Soil, Cultural Heritage, Landscape/townscape and noise (Population and Human Health SEA Objective 5). It is therefore recommended that further environmental assessment is undertaken when the locations of new infrastructure are identified in order to identify potentially significant location-specific environmental impacts and mitigation where appropriate.</p> <p>Whilst the grouping is related to SEA Objectives 2 and 4, it is unlikely to have a notable effect on the achievement of these objectives and is therefore considered neutral. Given the nature of the grouping, it has no (or negligible) clear relationship to the achievement of SEA Objective 6 at this time.</p>

GROUPING REFERENCE	SCENARIO (1 OR 2)	NATIONAL ASSESSMENT SUMMARY FOR FT GROUPING
FT7	2	For the Low Scenario, the magnitude of effects will be less than for the High Scenario due to the reduction in travel.
Cumulative Multi Modal Summary	1	<p>Overall, the Freight recommendations are anticipated to result in minor positive effects on SEA Objective 1 (Climatic Factors) as several of the interventions proposed will directly contribute to the reduction of emissions from Scotland's transport sector e.g. the decarbonisation of freight deliveries, improving the modal shift of freight from road to rail, and the encouragement of more efficient / environmentally friendly practices within the freight industry including the promotion of sustainable transport options.</p> <p>The Freight recommendations are generally anticipated to result in neutral effects on SEA Objective 2 as it is unlikely that many of the interventions proposed will have a notable effect on the adaption of the transport network to the predicted effects of climate change. However, intervention FT4 is anticipated to have a minor positive effect on SEA Objective 2 as this intervention aims to provide improved resilience on the road network in Scotland for the freight industry e.g. strengthening bridges.</p> <p>The Freight recommendations are generally anticipated to result in minor positive effects on SEA Objective 3 (Air Quality) as the majority of the interventions proposed would lead to a reduction in transport-related air pollution and consequently improve air quality by helping to reduce traffic congestion. limiting more polluting vehicles, helping to limit polluting traffic growth and reducing emissions of key air pollutants through the decarbonisation of freight deliveries, improving the modal shift of freight from road to rail, and the encouragement of more efficient / environmentally friendly practices within the freight industry including the promotion of sustainable transport options.</p> <p>The Freight recommendations are anticipated to result in neutral effects on SEA Objective 4 (Population and Human Health) as the relationship between the majority of the interventions and the achievement of SEA Objective 4 (i.e. improvements in quality of life and human health and increases in sustainable access to essential services, employment and the natural</p>

GROUPING REFERENCE	SCENARIO (1 OR 2)	NATIONAL ASSESSMENT SUMMARY FOR FT GROUPING
		<p>environment) is uncertain / unclear. However, it should be noted that several of the interventions proposed (including FT3, FT4 and FT6) are anticipated to result in minor positive effects on SEA Objective 4 largely owing to these interventions ensuring safe and sustainable access to essential services and employment, and allowing for greater journey time reliability.</p> <p>The Freight recommendations are generally anticipated to result in uncertain effects on SEA Objective 5 (Population and Human Health) as while some of the interventions (e.g. FT1) would result in a reduction in noise and vibration on key routes, there is potential for negative environmental effects associated with the construction and operation of other interventions (e.g. FT7), although this will be dependent of the location and nature of the enhancements adopted.</p> <p>The Freight recommendations are anticipated to result in neutral effects on SEA Objective 6 (Population and Human Health) as, given the nature of the various interventions proposed, it is unlikely to have a notable effect on the promotion / investment in / building / maintenance of infrastructure to support the development of high quality places.</p> <p>The Freight recommendations are anticipated to result in minor positive effects on SEA Objective 7 (Population and Human Health) as the vast majority of the interventions proposed are likely to improve safety on the transport network by reducing the likelihood of transport-related road accidents and casualties, largely due to the various interventions which propose a modal shift of freight from road to rail, in addition to proposals for freight rest stops.</p> <p>The Freight recommendations are anticipated to result in minor positive effects on SEA Objective 8 (Material Assets) as several of the interventions proposed would help promote and improve the sustainable use of the transport network, primarily through supporting improvements to transport technology and promoting the sustainable use and management of existing infrastructure.</p> <p>The Freight recommendations are generally anticipated to result in uncertain effects on SEA Objective 9 (Material Assets) as depending on the source and type of materials / natural resources used to construct some of the new infrastructure associated with several of the</p>

GROUPING REFERENCE	SCENARIO (1 OR 2)	NATIONAL ASSESSMENT SUMMARY FOR FT GROUPING
		<p>proposed interventions, there is potential for negative impacts on material assets, particularly in relation to the use of natural resources.</p> <p>The Freight recommendations are generally anticipated to result in uncertain effects on SEA Objectives 10 (Water Environment), 11 (Biodiversity), 12 (Soil, 13 (Cultural Heritage and 14 (Landscape and Visual Amenity) as the potential for any negative environmental effects resulting from some of the interventions proposed (i.e. FT1, FT2, FT4, FT5 and FT7) is dependent on the location and nature of these proposals. It is therefore recommended that further environmental assessment is undertaken when the locations of new infrastructure are identified in order to identify potentially significant location-specific environmental impacts and mitigation where appropriate. Given the nature of the proposals associated with the remaining interventions (i.e. FT3 and FT6), the relationship between these and SEA Objectives 10 to 14 is unclear.</p>
Cumulative Multi Modal Summary	2	For Scenario 2, the magnitude of effects will be less than for Scenario 1 due to the reduction in travel.

REGION	REGIONAL DIFFERENCES IN ASSESSMENT FOR FT PACKAGE
Argyll and Bute	<p>The group references included in the Argyll and Bute region are:</p> <ul style="list-style-type: none"> • FT1 • FT2 • FT3 • FT4 • FT5 • FT6 • FT7a • FT7b <p>Key environmental features impacted by the package of interventions:</p> <ul style="list-style-type: none"> • Material Assets <p>The Freight recommendations are anticipated to result in minor negative effects on Material Assets as several group references proposed involve enhancements to rail freight, terminals and facilities and therefore will not reduce the use of natural resources.</p>
Ayrshire and Arran	<p>The group references included in the Ayrshire & Arran region are:</p> <ul style="list-style-type: none"> • FT1 • FT2 • FT3 • FT4 • FT5 • FT6 • FT7a <p>Key environmental features impacted by the package of interventions:</p> <p>Material Assets</p> <p>The Freight recommendations are anticipated to result in minor negative effects on Material Assets as several group references proposed involve enhancements to rail freight, terminals and facilities and therefore will not reduce the use of natural resources.</p>

REGION	REGIONAL DIFFERENCES IN ASSESSMENT FOR FT PACKAGE
Edinburgh and SE Scotland	<p>The group reference included in the Edinburgh & SE Scotland Section region is:</p> <ul style="list-style-type: none"> • FT1 • FT2 • FT3 • FT4 • FT5 • FT6 • FT7a <p>Key environmental features impacted by the package of interventions:</p> <p>Material Assets</p> <p>The Freight recommendations are anticipated to result in minor negative effects on Material Assets as several group references proposed involve enhancements to rail freight, terminals and facilities and therefore will not reduce the use of natural resources.</p>
Forth Valley	<p>The group reference included in the Forth Valley region is:</p> <ul style="list-style-type: none"> • FT1 • FT2 • FT3 • FT4 • FT5 • FT6 • FT7a • FT7b <p>Key environmental features impacted by the package of interventions:</p> <p>Material Assets</p> <p>The Freight recommendations are anticipated to result in minor negative effects on Material Assets as several group references proposed involve enhancements to rail freight, terminals and facilities and therefore will not reduce the use of natural resources.</p>

REGION	REGIONAL DIFFERENCES IN ASSESSMENT FOR FT PACKAGE
<p>Glasgow City Region</p>	<p>The group reference included in the Glasgow City region is:</p> <ul style="list-style-type: none"> • FT1 • FT2 • FT4 • FT5 • FT6 • FT7a <p>Key environmental features impacted by the package of interventions:</p> <p>Material Assets</p> <p>The Freight recommendations are anticipated to result in minor negative effects on Material Assets as several group references proposed involve enhancements to rail freight, terminals and facilities and therefore will not reduce the use of natural resources.</p>
<p>Highlands and Islands</p>	<p>The group references included in the Highlands & Islands region are:</p> <ul style="list-style-type: none"> • FT1 • FT2 • FT3 • FT4 • FT5 • FT6 • FT7a • FT7b <p>Key environmental features impacted by the package of interventions:</p> <p>Material Assets</p> <p>The Freight recommendations are anticipated to result in minor negative effects on Material Assets as several group references proposed involve enhancements to rail freight, terminals and facilities and therefore will not reduce the use of natural resources.</p>

REGION	REGIONAL DIFFERENCES IN ASSESSMENT FOR FT PACKAGE
North East	<p>The group references included in the North East region are:</p> <ul style="list-style-type: none"> • FT1 • FT2 • FT3 • FT4 • FT5 • FT6 <p>Key environmental features impacted by the package of interventions:</p> <p>Material Assets</p> <p>The Freight recommendations are anticipated to result in minor negative effects on Material Assets as several group references proposed involve enhancements to rail freight, terminals and facilities and therefore will not reduce the use of natural resources.</p>
Borders	<p>The group references included in the Borders region are:</p> <ul style="list-style-type: none"> • FT1 • FT3 • FT4 • FT5 • FT6 <p>Key environmental features impacted by the package of interventions:</p> <p>Material Assets</p> <p>The Freight recommendations are anticipated to result in minor negative effects on Material Assets as several the interventions proposed involve enhancements to rail freight, terminals and facilities and therefore will not reduce the use of natural resources.</p>

REGION	REGIONAL DIFFERENCES IN ASSESSMENT FOR FT PACKAGE
Shetland Isles	<p>The group references included in the Shetland Isles region are:</p> <ul style="list-style-type: none"> • FT1 • FT3 • FT4 • FT5 • FT6 <p>Key environmental features impacted by the package of interventions:</p> <p>Material Assets</p> <p>The Freight recommendations are anticipated to result in minor negative effects on Material Assets as several group references proposed involve enhancements to rail freight, terminals and facilities and therefore will not reduce the use of natural resources.</p>
South West	<p>The group references included in the South West region are:</p> <ul style="list-style-type: none"> • FT1 • FT2 • FT3 • FT4 • FT5 • FT6 • FT7a <p>Key environmental features impacted by the package of interventions:</p> <p>Material Assets</p> <p>The Freight recommendations are anticipated to result in minor negative effects on Material Assets as several group references proposed involve enhancements to rail freight, terminals and facilities and therefore will not reduce the use of natural resources.</p>

REGION	REGIONAL DIFFERENCES IN ASSESSMENT FOR FT PACKAGE
Tay Cities	<p>The group references included in the Tay Cities region are:</p> <ul style="list-style-type: none"> • FT1 • FT2 • FT3 • FT4 • FT5 • FT6 • FT7a <p>Key environmental features impacted by the package of interventions:</p> <p>Material Assets</p> <p>The Freight recommendations are anticipated to result in minor negative effects on Material Assets as several group references proposed involve enhancements to rail freight, terminals and facilities and therefore will not reduce the use of natural resources.</p>

National Metro (MT) Mode

GROUPING REFERENCE	GROUPING DESCRIPTION
MT1	Glasgow Metro: The development of a new level of public transport provision within the Glasgow City Region badged under the term 'Glasgow Metro'.
MT2	<p>Edinburgh Mass Transit Options: The development of the mass transit public transport network within the Edinburgh City Region with consideration of bus rapid transit, rail conversion, and tram network extension.</p> <p>Development of the public transport network within the Edinburgh City Region with consideration of bus rapid transit, rail conversion, and tram network extension.</p>

GROUPING REFERENCE	GROUPING DESCRIPTION
MT3	<p>Aberdeen Rapid Transit: The development of a rapid transit system within the Aberdeen City Region, considering the Bus Priority/Bus Rapid Transit (BRT).</p> <p>Development of the public transport network within the Aberdeen City Region, with consideration of bus rapid transit, and light rail</p>

GROUPING REFERENCE	SCENARIO (1 OR 2)	SEA OBJECTIVES ASSESSMENT SCORES														
		1. CLIMATE MITIGATION	2. CLIMATE ADAPTATION	3. AIR QUALITY	4. PHH QUALITY OF LIFE	5. PHH NOISE AND VIBRATION	6. PHH HIGH QUALITY PLACES	7. PHH SAFETY	8. MATERIAL ASSETS SUSTAINABILITY	9. MATERIAL ASSETS NATURAL RESOURCES	10. WATER ENVIRONMENT	11. BIODIVERSITY	12. SOIL	13. CULTURAL HERITAGE	14. LANDSCAPE AND VISUAL AMENITY	CUMULATIVE SCORE
MT1	1	+	+	+	+	?	?	?	?	?	?	?	?	?	?	?
MT1	2	+	+	+	+	?	?	?	?	?	?	?	?	?	?	?
MT2	1	++	+	+	+	?	?	+	++	?	?	-	?	-	-	?

GROUPING REFERENCE	SCENARIO (1 OR 2)	SEA OBJECTIVES ASSESSMENT SCORES														
		1. CLIMATE MITIGATION	2. CLIMATE ADAPTATION	3. AIR QUALITY	4. PHH QUALITY OF LIFE	5. PHH NOISE AND VIBRATION	6. PHH HIGH QUALITY PLACES	7. PHH SAFETY	8. MATERIAL ASSETS SUSTAINABILITY	9. MATERIAL ASSETS NATURAL RESOURCES	10. WATER ENVIRONMENT	11. BIODIVERSITY	12. SOIL	13. CULTURAL HERITAGE	14. LANDSCAPE AND VISUAL AMENITY	CUMULATIVE SCORE
MT2	2	+	+	+	+	?	?	?	?	?	?	-	?	-	-	?
MT3	1	+	+	+	+	?	?	?	?	?	?	-	?	-	?	?
MT3	2	+	+	+	+	?	?	?	?	?	?	-	?	-	?	?
Cumulative Metro Mode Summary	1	+	+	+	+	?	?	?	?	?	?	?	?	?	?	?

GROUPING REFERENCE	SCENARIO (1 OR 2)	SEA OBJECTIVES ASSESSMENT SCORES														
		1. CLIMATE MITIGATION	2. CLIMATE ADAPTATION	3. AIR QUALITY	4. PHH QUALITY OF LIFE	5. PHH NOISE AND VIBRATION	6. PHH HIGH QUALITY PLACES	7. PHH SAFETY	8. MATERIAL ASSETS SUSTAINABILITY	9. MATERIAL ASSETS NATURAL RESOURCES	10. WATER ENVIRONMENT	11. BIODIVERSITY	12. SOIL	13. CULTURAL HERITAGE	14. LANDSCAPE AND VISUAL AMENITY	CUMULATIVE SCORE
Cumulative Metro Mode Summary	2	+	+	+	+	?	?	?	?	?	?	?	?	?	?	?

GROUPING REFERENCE	SCENARIO (1 OR 2)	NATIONAL ASSESSMENT SUMMARY FOR MT GROUPING
MT1	1	<p>This grouping is likely to result in positive effects on the Climatic Factors and Air Quality SEA objectives due to enhancing the rail network and promoting a modal shift to more sustainable transport options. As a result, there is an expected reduction in air pollution and carbon emissions. Positive effects are anticipated on Population and Human Health due to an expected increase in sustainable access to essential services. The significance of effects is dependent on the alternatives being safe, affordable and available for all users.</p> <p>There is potential for negative environmental impacts during construction and operation of the improvements, particularly on biodiversity, cultural heritage and landscape/townscape and it is therefore recommended that further environmental assessment is undertaken as the option develops to identify potentially significant location-specific environmental impacts and mitigation where appropriate.</p>
MT1	2	Findings the same as scenario 1
MT2	1	<p>Mass Transit would likely result in positive effects on SEA objectives related to Climatic Factors (Objectives 1 and 2) and Air Quality (Objective 3) due to enhancing the rail network and promoting a modal shift to more sustainable transport options. It is envisaged that mass transit modes would be electric/battery/hydrogen powered from the outset, helping to improve air quality and reduce Greenhouse Gas emissions. Positive effects are anticipated on Population and Human Health (Objectives 4 and 7) due to an expected increase in sustainable access by public transport to essential services. The significance of these effects is dependent on the alternatives system being safe, affordable and available for all users.</p> <p>There is the potential for negative environmental impacts during construction and operation of the transit options system with possible negative effects on the Water Environment (Objective 10), Biodiversity (Objective 11), Cultural Heritage (Objective 13) and Landscape and Visual Amenity (Objective 14), depending on the design of the intervention. In addition, significant quantities of materials and construction related trips would be required. Depending on the source and type of</p>

GROUPING REFEREN CE	SCENARI O (1 OR 2)	NATIONAL ASSESSMENT SUMMARY FOR MT GROUPING
		<p>materials/natural resources used, there is the potential for negative impacts on Material Assets (SEA Objective 9).</p> <p>In terms of construction, there is an opportunity to employ methods for decarbonisation of construction, through innovation in design, procurement and construction methods, should be identified as part of the design and development process. Similar work undertaken to date in exploring options for decarbonising construction on other road schemes could be used as a basis for developing these methods.</p> <p>It is therefore recommended that further environmental assessment is undertaken as the options within this grouping further develops to identify potentially significant location specific environmental impacts and mitigation where appropriate. Design and construction environmental management plans would also be recommended to consider how to protect and enhance landscape, drainage, amenity, biodiversity and cultural heritage. Further cumulative impact assessment and environmental mitigation and enhancement measures proposed can be embedded in any final options.</p> <p>Overall, mass transit would have an unknown uncertain effect on the environment. Modal shift to more sustainable modes of transport will have a positive impact on climatic factors and air quality as well as potentially improve human health. However, construction and operation of the system is likely to have a negative impact overall. The exact magnitude of these positive and negative effects is unclear and so the overall balance of the effects of mass transit (either being positive or negative) are uncertain.</p>
MT2	2	Findings the same as scenario 1

GROUPING REFERENCE	SCENARIO (1 OR 2)	NATIONAL ASSESSMENT SUMMARY FOR MT GROUPING
MT3	1	<p>Mass Transit will have positive effects on the SEA objectives related to climatic factors and air quality due to enhancing the rail network and promoting a modal shift to more sustainable transport options. Positive effects anticipated on population and human health due to an expected increase in sustainable access to essential services. Positive effects are dependent on the alternatives being safe, affordable and available for all users to ensure modal shift.</p> <p>There is potential for negative environmental impact during construction and operation of the improvements on cultural heritage and biodiversity, and it is therefore recommended that further environmental assessment is undertaken as the option develops to identify potentially significant location specific environmental impacts and mitigation where appropriate.</p>
MT3	2	Findings the same as scenario 1
Cumulative Metro Mode Summary	1	<p>Overall, the Metro recommendations are anticipated to result in minor positive effects on SEA Objectives 1 and 2 (both Climatic Factors) as each of the interventions proposed involve enhancements to the rail network and encourage a modal shift to more sustainable transport options, thereby helping reduce emissions from Scotland's transport sector and meet Scotland's wider targets to reduce greenhouse gas emissions, and helping adapt the transport network to the predicted effects of climate change.</p> <p>Similarly, the Metro recommendations are anticipated to result in minor positive effects on SEA Objective 3 (Air Quality) as it will also help reduce all forms transport-related air pollution and improve air quality through the proposed interventions aimed at enhancing the rail network and encouraging a modal shift to more sustainable transport options. The Metro recommendations will also help to reduce traffic congestion, limit more polluting vehicles, limit polluting traffic growth and reduce emissions of air pollutants, all of which will help contribute to air quality improvements.</p> <p>The Metro recommendations are anticipated to result in minor positive effects on SEA Objective 4 (Population and Human Health) as the interventions proposed will help improve quality of life and</p>

GROUPING REFEREN CE	SCENARI O (1 OR 2)	NATIONAL ASSESSMENT SUMMARY FOR MT GROUPING
		<p>human health and increase sustainable access to essential services and the natural environment by ensuring safe and sustainable access for all users to essential services and employment, increasing and enhancing provision of non-motorised transport, providing increasing transport choice that meet the needs of the population, supporting changing demographics by providing appropriate transport facilities to meet their needs and improving access to healthcare facilities via the proposed enhancements to the rail network and encouragement of a modal shift to more sustainable transport options.</p> <p>The Metro recommendations are anticipated to result in uncertain effects on SEA Objectives 5 and 6 (Population and Human Health) as it is unclear if the proposed interventions will reduce noise and vibration associated with the transport network or promote / invest in / build and maintain infrastructure to support the development of high-quality places.</p> <p>The Metro recommendations are generally anticipated to result in uncertain effects on SEA Objective 7 (Population and Human Health) as it unclear if the interventions proposed will improve safety on the transport network by reducing the likelihood of transport-related road accidents and casualties. However, MT2 is considered to have minor positive effects on SEA Objective 7 as this intervention involves proposals for bus rapid transit, rail conversion and tram network extension, thereby potentially leading to reduced road traffic and consequently, road accidents and casualties as well.</p> <p>The Metro recommendations are generally anticipated to result in uncertain effects on SEA Objective 8 (Material Assets) as it unclear if the proposed interventions will directly promote and improve the sustainable use of the transport network. However, MT2 is considered to result in major positive effects on SEA Objective 8 as this intervention involves proposals for bus rapid transit, rail conversion and tram network extension, thereby potentially helping plan for future travel arrangement where journeys are made by a number of different modes, and plan for the future capacity of public transport, taking demographic and other societal changes into account.</p> <p>The Metro recommendations are anticipated to result in uncertain effects on SEA Objectives 9</p>

GROUPING REFERENCE	SCENARIO (1 OR 2)	NATIONAL ASSESSMENT SUMMARY FOR MT GROUPING
		(Material Assets), 10 (Water Environment), 11 (Biodiversity), 12 (Soil), 13 (Cultural Heritage) and 14 (Landscape and Visual Amenity) as there is potential for negative environmental impacts during construction and operation of the transit options with possible negative effects on these SEA topics, depending on the design of the intervention. It is therefore recommended that further environmental assessment is undertaken as the option develops to identify potentially significant location specific environmental impacts and mitigation where appropriate.
Cumulative Metro Mode Summary	2	Findings for Scenario 2 are the same as those for Scenario 1.

REGION	REGIONAL DIFFERENCES IN ASSESSMENT FOR MT PACKAGE
Argyll and Bute	No groupings apply to the Argyll & Bute region.
Ayrshire and Arran	No groupings apply to the Ayrshire & Arran region.
Edinburgh and SE Scotland	<p>The group reference included in the Edinburgh & SE Section region is:</p> <ul style="list-style-type: none"> • MT2 Edinburgh Mass Transit Options <p>Key environmental features impacted by the package of interventions:</p> <p>Biodiversity</p> <p>The Mass Transit recommendations are anticipated to result in negative effects on Biodiversity due to the</p>

REGION	REGIONAL DIFFERENCES IN ASSESSMENT FOR MT PACKAGE
	<p>construction and operation of the transit options system including the rail conversion, tram network extension and bus rapid transit. Potential negative effects include potential damage to / loss of designated and undesignated wildlife or geological sites.</p> <p>Key designations in the region likely to be threatened by the recommendations:</p> <ul style="list-style-type: none"> • A Ramsar Site • An SPA • A number of SSSI's <p>Cultural Heritage</p> <p>The Mass Transit recommendations are anticipated to result in negative effects on Cultural Heritage due to the construction and operation of the transit options system including the rail conversion, tram network extension and bus rapid transit. Designated and undesignated archaeological sites and other culturally and historically important features / key views may be affected.</p> <p>Key designations likely to be threatened by the recommendations:</p> <ul style="list-style-type: none"> • A number of Scheduled monuments • The Old and New Towns of Edinburgh World Heritage Site • A number of Conservation Areas • A number of Listed Buildings • A Battlefield Inventory Boundary <p>Landscape and Visual</p> <p>The Mass Transit recommendations are anticipated to result in negative effects on Biodiversity due to the construction and operation of the transit options system including the rail conversion, tram network extension and bus rapid transit. Designated and undesignated areas and views may be affected.</p> <p>Key designations in the region likely to be threatened by the recommendations:</p> <ul style="list-style-type: none"> • A number of Garden and Designated Landscapes

REGION	REGIONAL DIFFERENCES IN ASSESSMENT FOR MT PACKAGE
Forth Valley	No groupings apply to the Forth Valley region.
Glasgow City Region	<p>The group reference included in the Glasgow City region is:</p> <ul style="list-style-type: none"> • MT1 Glasgow Metro <p>No key environmental features within the SEA topics in the region have been identified as being negatively impacted by the package.</p>
Highlands and Islands	No groupings apply to the Highlands & Islands region.
North East	<p>The group references included in the North East region is:</p> <ul style="list-style-type: none"> • MT3 Aberdeen Rapid Transit <p>Biodiversity</p> <p>The Mass Transit recommendations are anticipated to result in negative effects on Biodiversity due to the construction and operation of the transit options system including development of the transport hub, light rail/ tram and rapid bus transit. Potential negative effects include damage to / loss of designated and undesignated wildlife or geological sites.</p> <p>Key designations in the region likely to be threatened by the recommendations:</p> <ul style="list-style-type: none"> • SAC <p>Cultural heritage</p> <p>The Mass Transit recommendations are anticipated to result in minor negative effects on Cultural Heritage due to the construction and operation of the transit options system including the development of the transport hub, light rail/ tram and rapid bus transit. Designated and undesignated archaeological sites and other culturally and</p>

REGION	REGIONAL DIFFERENCES IN ASSESSMENT FOR MT PACKAGE
	historically important features / key views may be affected. Key designations in the region likely to be threatened by the recommendations: <ul style="list-style-type: none"> • Number of Conservation Areas • Number of Listed Buildings
Borders	No groupings apply to the Borders region.
Shetland Isles	No groupings apply to the Shetland Isles region.
South West	No groupings apply to the South West region.
Tay Cities	No groupings apply to the Tay Cities region.

Multi Modal (MM) Mode

GROUPING REFERENCE	GROUPING DESCRIPTION
MM1	Motorway and Trunk Road Network: Renewal for Reliability, Resilience and Safety: Renew and improve the resilience of the trunk road and motorway network. This would include preventative and programmed structural renewals of carriageways and network structures for consideration.
MM2a	Motorway and Trunk Road Network: Renewal for Reliability, Resilience and Safety: Renew and improve the resilience of the trunk road and motorway network. This would include preventative and programmed structural renewals of carriageways and network structures for consideration.
MM2b	Trunk Road and Motorway Climate Change Adaptation and Resilience: This focuses on the areas on the trunk road and motorway network most at risk of disruption due to weather events. This would involve identification of priorities and measures to strengthen the resilience of Scotland’s trunk road and motorway network to adapt to a changing climate and unplanned events.

GROUPING REFERENCE	SCENARIO (1 OR 2)	SEA OBJECTIVES ASSESSMENT SCORES														
		1. CLIMATE MITIGATION	2. CLIMATE ADAPTATION	3. AIR QUALITY	4. PHH QUALITY OF LIFE	5. PHH NOISE AND VIBRATION	6. PHH HIGH QUALITY PLACES	7. PHH SAFETY	8. MATERIAL ASSETS SUSTAINABILITY	9. MATERIAL ASSETS NATURAL RESOURCES	10. WATER ENVIRONMENT	11. BIODIVERSITY	12. SOIL	13. CULTURAL HERITAGE	14. LANDSCAPE AND VISUAL AMENITY	CUMULATIVE SCORE
MM2a	1	?	+	?	+	?	0	+	0	-	?	?	?	?	?	?
MM2a	2	-	+	-	+	?	0	+	0	-	?	?	?	?	?	?
MM2b	1	?	+	?	+	?	0	+	0	?	?	?	?	?	?	?

GROUPING REFERENCE	SCENARIO (1 OR 2)	SEA OBJECTIVES ASSESSMENT SCORES														
		1. CLIMATE MITIGATION	2. CLIMATE ADAPTATION	3. AIR QUALITY	4. PHH QUALITY OF LIFE	5. PHH NOISE AND VIBRATION	6. PHH HIGH QUALITY PLACES	7. PHH SAFETY	8. MATERIAL ASSETS SUSTAINABILITY	9. MATERIAL ASSETS NATURAL RESOURCES	10. WATER ENVIRONMENT	11. BIODIVERSITY	12. SOIL	13. CULTURAL HERITAGE	14. LANDSCAPE AND VISUAL AMENITY	CUMULATIVE SCORE
MM2b	2	?	+	?	+	?	0	+	0	?	?	?	?	?	?	?
Cumulative Multi Modal Summary	1	?	+	?	+	?	0	+	0	?	?	?	?	?	?	?
Cumulative Multi Modal Summary	2	?	+	?	+	?	0	+	0	?	?	?	?	?	?	?

GROUPING REFERENCE	SCENARIO (1 OR 2)	NATIONAL ASSESSMENT SUMMARY FOR MM GROUPING
MM2a	1	<p>This grouping would be likely to support SEA objectives related to Population and Human Health (Objectives 4 and 7) due to improved safety of the trunk road and motorway network and Climatic Factors due to increased resilience and reliability of the road network.</p> <p>While this grouping is not expected to have a notable impact on mode shift, a focus on maintaining the existing network as opposed to building new infrastructure is not anticipated to significantly increase traffic volumes or associated emissions which could arise from other types of road schemes. It is therefore not anticipated that this grouping would have a negative impact on Climatic Factors (Objective 1) or Air Quality (Objective 3).</p> <p>While there is the potential for a negative impact on the Materials associated with asset improvements (Objective 9), depending on the source and type of materials/natural resources used in construction, this should be balanced against the interventions potentially reducing the requirement for materials for recurring repairs, should they not be made. As such, it is recommended that further environmental assessment be undertaken as the options develop to identify areas for re-use of construction materials, adhering with circular economy principles. In addition, any opportunity for the options to employ methods for decarbonisation of construction, through innovation in design, procurement and construction methods, should be identified as part of the design and development process. Similar work undertaken to date in exploring options for decarbonising construction on other road schemes could be used as a basis for developing these methods.</p> <p>There is potential for negative environmental impact during construction and operation on water (Objective 10), biodiversity (Objective 11), soil (Objective 12), cultural heritage (Objective 13) and landscape and visual (Objective 14) objectives and it is therefore recommended that further environmental assessment is undertaken as options develop to identify potentially significant location-specific environmental impacts and mitigation where appropriate. The SEA will inform the development of the more detailed design and Environmental Impact Assessment (EIA) avoidance, mitigation and enhancement requirements at the project level. There may be opportunities for improving biodiversity in the</p>

GROUPING REFERENCE	SCENARIO (1 OR 2)	NATIONAL ASSESSMENT SUMMARY FOR MM GROUPING
		<p>long-term, with adoption of the principle of securing positive effects for biodiversity.</p> <p>Given the nature of the grouping it is not considered to significantly affect Population and Human Health (Objective 6) or Material Assets (Objective 8), therefore neutral scores were assessed in the SEA.</p> <p>Overall the cumulative environmental effects are scored uncertain for this grouping, as the effects will be determined by the location, complexity, scale and design of individual options (i.e. flood mitigation or geotechnical schemes).</p>
MM2a	2	<p>The magnitude of effects is expected to be less in the low traffic demand scenario due to the reduction in travel.</p>
MM2b	1	<p>Interventions identified to either adapt or improve the resilience of the trunk road and motorway network to climate change impacts, should lead to an improvement in the reliability of the network, particularly on routes that could be subject to flooding, landslides and erosion. This grouping would therefore be likely to support SEA objectives related to Population and Human Health (Objectives 4 and 7) due to improved reliability and safety on the transport network. It is also likely to support SEA Objective 2 (Climatic Factors) due to increased adaptation and resilience of the trunk road and motorway network to future and current climate change impacts.</p> <p>While this grouping is not expected to have a notable impact on mode shift, a focus on adapting the existing network as opposed to building new infrastructure is not anticipated to increase traffic volumes or associated emissions which could arise from other types of road schemes. It is therefore not anticipated that this grouping would have a negative impact on Climatic Factors (Objective 1) and Air Quality (Objective 3). Similarly, the unlikely increase in the number of vehicles is not expected to have associated noise impacts, although this may be dependent on the proximity of noise sensitive receptors (Objective 5).</p> <p>While there is the potential for a negative impact on the Materials associated with asset improvements (Objective 9), depending on the source and type of materials/natural resources</p>

GROUPING REFERENCE	SCENARIO (1 OR 2)	NATIONAL ASSESSMENT SUMMARY FOR MM GROUPING
		<p>used in construction, this should be balanced against the interventions potentially reducing the requirement for materials for recurring repairs, should they not be made. As such, it is recommended that further environmental assessment be undertaken as the options develop to identify areas for re-use of construction materials, adhering with circular economy principles. In addition, any opportunity for the options to employ methods for decarbonisation of construction, through innovation in design, procurement and construction methods, should be identified as part of the design and development process. Similar work undertaken to date in exploring options for decarbonising construction on other road schemes could be used as a basis for developing these methods.</p> <p>There is potential for negative environmental impact during construction and operation on water (Objective 10), biodiversity (Objective 11), soil (Objective 12), cultural heritage (Objective 13) and landscape and visual (Objective 14) objectives and it is therefore recommended that further environmental assessment is undertaken as options develop to identify potentially significant location-specific environmental impacts and mitigation where appropriate. The SEA will inform the development of the more detailed design and Environmental Impact Assessment (EIA) avoidance, mitigation and enhancement requirements at the project level. There may be opportunities for improving biodiversity in the long-term, with adoption of the principle of securing positive effects for biodiversity.</p> <p>Given the nature of the grouping it is not considered to significantly affect Population and Human Health (Objective 6) or Material Assets (Objective 8), therefore neutral scores were assessed in the SEA.</p> <p>Overall the cumulative environmental effects are scored positive and uncertain for this grouping, as the effects will be determined by the location, complexity, scale and design of individual options (i.e. flood mitigation or geotechnical schemes).</p>
MM2b	2	The magnitude of effects is expected to be less in the low traffic demand scenario due to the reduction in travel.

GROUPING REFERENCE	SCENARIO (1 OR 2)	NATIONAL ASSESSMENT SUMMARY FOR MM GROUPING
Cumulative Multi Modal Summary	1	<p>The Multi Modal recommendations are anticipated to result in uncertain effects on SEA Objective 1 (Climatic Factors) as the interventions proposed are not expected to have a notable impact on mode shift or the reduction of emissions from Scotland's transport sector.</p> <p>The Multi Modal recommendations are anticipated to result in minor positive effects on SEA Objective 2 (Climatic Factors) as the interventions involve proposals for service improvements and climate change adaptation and resilience. As a result, these interventions are anticipated to directly help adapt the transport network to the direct and indirect risks associated with climate change, potentially prioritise adaptation of transport infrastructure in locations that are more vulnerable to the projected impacts of climate change including coastal and isolated locations, prioritise adaptation transport connections to critical infrastructure (including transport interchanges, hospitals, power, fuel supply and ICT infrastructure), and maintain or improve access to and within disadvantaged areas or isolated communities at risk from climate change impacts e.g. flooding, slope instability etc.</p> <p>The Multi Modal recommendations are generally anticipated to result in uncertain effects on SEA Objective 3 (Air Quality) as the interventions proposed are not expected to have a notable impact on mode shift or, in turn, reduce emissions from Scotland's transport sector or improve air quality across Scotland.</p> <p>The Multi Modal recommendations are anticipated to result in minor positive effects on SEA Objective 4 (Population and Human Health) as the interventions proposed are likely to result in improvements to quality of life and human health and increase sustainable access to essential services, employment and the natural environment by providing service improvements and climate change adaptation and resilience to the existing motorway and trunk road network.</p> <p>The Multi Modal recommendations are anticipated to result in uncertain effects on SEA Objective 5 (Population and Human Health) as the interventions proposed are unlikely to result in an increase in the number of vehicles and thus are not expected to have associated noise impacts, although this may be dependent on the proximity of noise sensitive receptors</p>

GROUPING REFERENCE	SCENARIO (1 OR 2)	NATIONAL ASSESSMENT SUMMARY FOR MM GROUPING
		<p>The Multi Modal recommendations are anticipated to result in neutral effects on SEA Objective 6 (Population and Human Health) as there is no clear link between the majority of the interventions proposed and the promotion / investment in / building / maintenance of infrastructure to support the development of high-quality places.</p> <p>The Multi Modal recommendations are anticipated to result in minor positive effects on SEA Objective 7 (Population and Human Health) as the interventions proposed are expected to improve safety on the transport network due to the various resilience, reliability and safety improvements to the motorway and trunk road network proposed.</p> <p>The Multi Modal recommendations are anticipated to result in neutral effects on SEA Objective 8 (Material Assets) as the interventions proposed are not considered to significantly promote / improve the sustainable use of the transport network.</p> <p>The Multi Modal recommendations are generally anticipated to result in uncertain effects on SEA Objectives 9 (Material Assets), 10 (Water Environment), 11 (Biodiversity), 12 (Soil, 13 (Cultural Heritage and 14 (Landscape and Visual Amenity) as there is potential for negative environmental effects during both the construction and operation of the interventions proposed. It is therefore recommended that further environmental assessment is undertaken as options develop to identify potentially significant location-specific environmental impacts and mitigation where appropriate.</p>
Multi Modal Summary	2	The magnitude of effects is expected to be less in Scenario 2 due to the reduction in travel.

REGION	REGIONAL DIFFERENCES IN ASSESSMENT FOR MM PACKAGE
Argyll and Bute	<p>The group reference included in the Argyll & Bute Section region are:</p> <ul style="list-style-type: none"> • MM2a Motorway and Trunk Road Network • MM2b Trunk Road and Motorway Climate Change Adaptation and Resilience <p>Key environmental features impacted by the package of interventions:</p> <ul style="list-style-type: none"> • Material Assets <p>The Multi Modal recommendations are anticipated to result in minor negative effects on Material Assets as one of the group references proposed involve renewal and improvement of the resilience of the trunk and motorway network, including preventative and programmed structural renewals of carriageways and network structures for consideration and therefore will not reduce the use of natural resources.</p>
Ayrshire and Arran	<p>The group reference included in the Ayrshire & Arran Section region are:</p> <ul style="list-style-type: none"> • MM1 Improve Routes to Major Ports and Airports • MM2a Motorway and Trunk Road Network • MM2b Trunk Road and Motorway Climate Change Adaptation and Resilience <p>Key environmental features impacted by the package of interventions:</p> <p>Material Assets</p> <p>The Multi Modal recommendations are anticipated to result in minor negative effects on Material Assets as one of the group references proposed involve renewal and improvement of the resilience of the trunk and motorway network, including preventative and programmed structural renewals of carriageways and network structures for consideration and therefore will not reduce the use of natural resources.</p>

REGION	REGIONAL DIFFERENCES IN ASSESSMENT FOR MM PACKAGE
Edinburgh and SE Scotland	<p>The group reference included in the Edinburgh & SE Section region are:</p> <ul style="list-style-type: none"> • MM1 Improve Routes to Major Ports and Airports • MM2a Motorway and Trunk Road Network • MM2b Trunk Road and Motorway Climate Change Adaptation and Resilience <p>Key environmental features impacted by the package of interventions:</p> <p>Material Assets</p> <p>The Multi Modal recommendations are anticipated to result in minor negative effects on Material Assets as one of the group references proposed involve renewal and improvement of the resilience of the trunk and motorway network, including preventative and programmed structural renewals of carriageways and network structures for consideration and therefore will not reduce the use of natural resources.</p>
Forth Valley	<p>The group reference included in the Forth Valley region are:</p> <ul style="list-style-type: none"> • MM1 Improve Routes to Major Ports and Airports • MM2a Motorway and Trunk Road Network • MM2b Trunk Road and Motorway Climate Change Adaptation and Resilience <p>Key environmental features impacted by the package of interventions:</p> <p>Material Assets</p> <p>The Multi Modal recommendations are anticipated to result in minor negative effects on Material Assets as one of the group references proposed involve renewal and improvement of the resilience of the trunk and motorway network, including preventative and programmed structural renewals of carriageways and network structures for consideration and therefore will not reduce the use of natural resources.</p>

REGION	REGIONAL DIFFERENCES IN ASSESSMENT FOR MM PACKAGE
<p>Glasgow City Region</p>	<p>The group reference included in the Glasgow City region are</p> <ul style="list-style-type: none"> • MM1 Improve Routes to Major Ports and Airports • MM2a Motorway and Trunk Road Network • MM2b Trunk Road and Motorway Climate Change Adaptation and Resilience <p>Key environmental features impacted by the package of interventions:</p> <p>Material Assets</p> <p>The Multi Modal recommendations are anticipated to result in minor negative effects on Material Assets as one of the group references proposed involve renewal and improvement of the resilience of the trunk and motorway network, including preventative and programmed structural renewals of carriageways and network structures for consideration and therefore will not reduce the use of natural resources.</p>
<p>Highlands and Islands</p>	<p>The group reference included in the Highlands & Islands region are:</p> <ul style="list-style-type: none"> • MM1 Improve Routes to Major Ports and Airports • MM2a Motorway and Trunk Road Network • MM2b Trunk Road and Motorway Climate Change Adaptation and Resilience <p>Key environmental features impacted by the package of interventions:</p> <p>Material Assets</p> <p>The Multi Modal recommendations are anticipated to result in minor negative effects on Material Assets as one of the group references proposed involve renewal and improvement of the resilience of the trunk and motorway network, including preventative and programmed structural renewals of carriageways and network structures for consideration and therefore will not reduce the use of natural resources.</p>

REGION	REGIONAL DIFFERENCES IN ASSESSMENT FOR MM PACKAGE
North East	<ul style="list-style-type: none"> • The group reference included in the North East region are: • MM1 Improve Routes to Major Ports and Airports • MM2a Motorway and Trunk Road Network • MM2b Trunk Road and Motorway Climate Change Adaptation and Resilience <p>Key environmental features impacted by the package of interventions:</p> <p>Material Assets</p> <p>The Multi Modal recommendations are anticipated to result in minor negative effects on Material Assets as one of the group references proposed involve renewal and improvement of the resilience of the trunk and motorway network, including preventative and programmed structural renewals of carriageways and network structures for consideration and therefore will not reduce the use of natural resources.</p>
Borders	<p>The group reference included in the Borders region are:</p> <ul style="list-style-type: none"> • MM2a Motorway and Trunk Road Network • MM2b Trunk Road and Motorway Climate Change Adaptation and Resilience <p>Key environmental features impacted by the package of interventions:</p> <p>Material Assets</p> <p>The Multi Modal recommendations are anticipated to result in minor negative effects on Material Assets as one of the group references proposed involve renewal and improvement of the resilience of the trunk and motorway network, including preventative and programmed structural renewals of carriageways and network structures for consideration and therefore will not reduce the use of natural resources.</p>

REGION	REGIONAL DIFFERENCES IN ASSESSMENT FOR MM PACKAGE
Shetland Isles	<p>The group reference included in the Borders region is:</p> <ul style="list-style-type: none"> • MM1 Improve Routes to Major Ports and Airports <p>No key environmental features within the SEA topics in the region have been identified as being negatively impacted by the package.</p>
South West	<p>No groupings apply to the South West region.</p>
Tay Cities	<p>The group reference included in the Tay Cities region are:</p> <ul style="list-style-type: none"> • MM2a Motorway and Trunk Road Network • MM2b Trunk Road and Motorway Climate Change Adaptation and Resilience <p>Key environmental features impacted by the package of interventions:</p> <p>Material Assets</p> <p>The Multi Modal recommendations are anticipated to result in minor negative effects on Material Assets as one of the group references proposed involve renewal and improvement of the resilience of the trunk and motorway network, including preventative and programmed structural renewals of carriageways and network structures for consideration and therefore will not reduce the use of natural resources.</p>

National Passenger Transport (PT) Mode

GROUPING REFERENCE	GROUPING DESCRIPTION
PT2	Mobility Hubs and Multi-modal Interchanges: Construction of new or upgrades to existing mobility hubs, P&R sites and other multi-modal interchanges to improve interchanges between modes.
PT3	Regional Passenger Facilities/Station Enhancements: Building on the Phase 1 recommendation, improvements to public transport passenger facilities, focusing on bus stations seeking to improve passenger facilities both in terms of improved quality and in terms of improved accessibility for those with reduced mobility.

GROUPING REFERENCE	SCENARIO (1 OR 2)	SEA OBJECTIVES ASSESSMENT SCORES														
		1. CLIMATE MITIGATION	2. CLIMATE ADAPTATION	3. AIR QUALITY	4. PHH QUALITY OF LIFE	5. PHH NOISE AND VIBRATION	6. PHH HIGH QUALITY PLACES	7. PHH SAFETY	8. MATERIAL ASSETS SUSTAINABILITY	9. MATERIAL ASSETS NATURAL RESOURCES	10. WATER ENVIRONMENT	11. BIODIVERSITY	12. SOIL	13. CULTURAL HERITAGE	14. LANDSCAPE AND VISUAL AMENITY	CUMULATIVE SCORE
PT2	1	+	0	+	+	?	?	+	+	?	?	?	?	?	?	?
PT2	2	+	0	+	+	?	?	+	+	?	?	?	?	?	?	?
PT3	1	+	~	+	+	0	+	+	+	?	?	?	?	?	?	+

GROUPING REFERENCE	SCENARIO (1 OR 2)	SEA OBJECTIVES ASSESSMENT SCORES														
		1. CLIMATE MITIGATION	2. CLIMATE ADAPTATION	3. AIR QUALITY	4. PHH QUALITY OF LIFE	5. PHH NOISE AND VIBRATION	6. PHH HIGH QUALITY PLACES	7. PHH SAFETY	8. MATERIAL ASSETS SUSTAINABILITY	9. MATERIAL ASSETS NATURAL RESOURCES	10. WATER ENVIRONMENT	11. BIODIVERSITY	12. SOIL	13. CULTURAL HERITAGE	14. LANDSCAPE AND VISUAL AMENITY	CUMULATIVE SCORE
PT3	2	+	~	+	+	0	+	+	+	?	?	?	?	?	?	+
Cumulative Passenger Transport Mode Summary	1	+	?	+	+	?	?	+	+	?	?	?	?	?	?	?

GROUPING REFERENCE	SCENARIO (1 OR 2)	SEA OBJECTIVES ASSESSMENT SCORES														
		1. CLIMATE MITIGATION	2. CLIMATE ADAPTATION	3. AIR QUALITY	4. PHH QUALITY OF LIFE	5. PHH NOISE AND VIBRATION	6. PHH HIGH QUALITY PLACES	7. PHH SAFETY	8. MATERIAL ASSETS SUSTAINABILITY	9. MATERIAL ASSETS NATURAL RESOURCES	10. WATER ENVIRONMENT	11. BIODIVERSITY	12. SOIL	13. CULTURAL HERITAGE	14. LANDSCAPE AND VISUAL AMENITY	CUMULATIVE SCORE
Cumulative Passenger Transport Mode Summary	2	+	?	+	+	?	?	+	+	?	?	?	?	?	?	?

GROUPING REFEREN CE	SCENARI O (1 OR 2)	NATIONAL ASSESSMENT SUMMARY FOR PT GROUPING
PT2	1	<p>This grouping would likely result in positive effects on Climatic Factors and Air Quality SEA objectives due to promoting a modal shift to more sustainable transport options. Positive effects anticipated on Population and Human Health due to an expected increase in sustainable access to essential services and where interchange reduces car use, this is likely to result in a small net decrease in accidents. The significance of effects is dependent on the alternatives being safe, affordable and available for all users.</p> <p>There is potential for negative environmental impacts during construction and operation of the transit options with possible negative effects on material assets, water environment, biodiversity, landscape/townscape and cultural heritage depending on the design and location of the interventions. It is therefore recommended that further environmental assessment is undertaken as the option develops to identify potentially significant location specific environmental impacts and mitigation where appropriate.</p>
PT2	2	For Scenario 2, the magnitude of effects will be less than for Scenario 1.

GROUPING REFERENCE	SCENARIO (1 OR 2)	NATIONAL ASSESSMENT SUMMARY FOR PT GROUPING
PT3	1	<p>This grouping would likely result in positive effects on Climatic Factors (objective 1), Air Quality and Population and Human Health as the enhancements seek to encourage modal shift to more sustainable travel means. The grouping is seeking to improve the mobility of passengers and access for all to essential services with a focus on improved safety and reducing barriers for passengers with reduce mobility and creating an attractive public realm. It will have a positive effect on Material Assets (Objective 8) as it seeks to improve the existing transport network planning for future capacity of public transport and seeking to improve interchanges.</p> <p>Depending on the location and nature of facilities and station enhancements there is potential for negative environmental impacts during construction and operation of the improvements, particularly on Biodiversity, Cultural Heritage and Landscape/townscape. It is therefore recommended that further environmental assessment is undertaken when the locations of new infrastructure are identified in order to identify potentially significant location-specific environmental impacts and mitigation where appropriate.</p>
PT3	2	<p>For Scenario 2, the magnitude of effects will be less than for Scenario 1.</p>
Cumulative Passenger Transport Mode Summary	1	<p>The Passenger Transport recommendations are anticipated to result in minor positive effects on SEA Objective 1 (Climatic Factors) as the interventions proposed seek to promote a modal shift to more sustainable transport options and thus will help meet Scotland's wider targets to reduce greenhouse gas emissions.</p> <p>The Passenger Transport recommendations are anticipated to result in uncertain effects on SEA Objective 2 (Climatic Factors) as there is no clear relationship between the interventions proposed and the adaptation of the transport network to the predicted impacts of climate change.</p> <p>The Passenger Transport recommendations are anticipated to result in minor positive effects on SEA Objective 3 (Air Quality) as the interventions proposed seek to promote a modal shift to more sustainable transport options and consequently will help reduce all forms of transport-related air pollution and improve air quality throughout Scotland by, for example,</p>

GROUPING REFEREN CE	SCENARI O (1 OR 2)	NATIONAL ASSESSMENT SUMMARY FOR PT GROUPING
		<p>helping to reduce traffic congestion, limiting more polluting vehicles and limiting polluting traffic growth.</p> <p>The Passenger Transport recommendations are anticipated to result in minor positive effects on SEA Objective 4 (Population and Human Health) as the interventions proposed will help improve quality of life and human health and increase sustainable access to essential services, employment and the natural environment by helping to ensure safe and sustainable access for all users to essential services and employment, providing increasing transport choice that meet the needs of the population, allowing for greater journey time reliability, support changing demographics by providing appropriate transport facilities to meet their needs, improving accessibility to open spaces and the path network for physical recreational purposes, and improving access healthcare facilities.</p> <p>The Passenger Transport recommendations are generally anticipated to result in uncertain effects on SEA Objective 5 (Population and Human Health) as it is unclear if the interventions proposed will have a notable effect on noise and vibration associated with the transport network.</p> <p>The Passenger Transport recommendations are generally anticipated to result in neutral effects on SEA Objective 6 (Population and Human Health) as the relationship between the interventions proposed and the promotion / investment in / building and maintenance of infrastructure to support the development of high-quality places is not clear, although there is potential for positive effects on SEA Objective 6 associated with PT3 due to the proposed improvements to the quality of passenger facilities for all users, including those with reduced mobility.</p> <p>The Passenger Transport recommendations are anticipated to result in minor positive effects on SEA Objective 7 (Population and Human Health) as the interventions proposed comprise various improvements / upgrades to existing mobility hubs and public transport facilities, and thereby will potentially improve the safety on the transport network by reducing the likelihood of transport-related road accidents and casualties.</p> <p>The Passenger Transport recommendations are anticipated to result in minor positive effects on</p>

GROUPING REFERENCE	SCENARIO (1 OR 2)	NATIONAL ASSESSMENT SUMMARY FOR PT GROUPING
		<p>SEA Objective 8 (Material Assets) as the interventions proposed would help promote and improve the sustainable use of the transport network by encouraging a modal shift to more sustainable transport options.</p> <p>The Passenger Transport recommendations are generally anticipated to result in uncertain effects on SEA Objectives 9 (Material Assets), 10 (Water Environment), 11 (Biodiversity), 12 (Soil), 13 (Cultural Heritage) and 14 (Landscape and Visual Amenity) as there is potential for negative environmental effects during both the construction and operation of several of the interventions proposed, depending on where the interventions are located. It is therefore recommended that further environmental assessment is undertaken when the locations of new infrastructure are identified in order to identify potentially significant location-specific environmental impacts and mitigation where appropriate.</p>
Cumulative Passenger Transport Mode Summary	2	For Scenario 2, the magnitude of effects will be less than for Scenario 1.

REGION	REGIONAL DIFFERENCES IN ASSESSMENT FOR PT PACKAGE
Argyll and Bute	<p>The group references included in the Argyll & Bute Section region are:</p> <ul style="list-style-type: none"> • PT2 Mobility Hubs and Multi-modal Interchanges • PT3 Regional Passenger Facilities/Station Enhancements <p>No key environmental features within the SEA topics in the region have been identified as being negatively impacted by the package.</p>

REGION	REGIONAL DIFFERENCES IN ASSESSMENT FOR PT PACKAGE
Ayrshire and Arran	<p>The group references included in the Ayrshire & Arran Section region are:</p> <ul style="list-style-type: none"> ● PT2 Mobility Hubs and Multi-modal Interchanges ● PT3 Regional Passenger Facilities/Station Enhancements <p>No key environmental features within the SEA topics in the region have been identified as being negatively impacted by the package.</p>
Edinburgh and SE Scotland	<p>The group references included in the Edinburgh & SE Section region are:</p> <ul style="list-style-type: none"> ● PT2 Mobility Hubs and Multi-modal Interchanges ● PT3 Regional Passenger Facilities/Station Enhancements <p>No key environmental features within the SEA topics in the region have been identified as being negatively impacted by the package.</p>
Forth Valley	<p>The group references included in the Forth Valley region are:</p> <ul style="list-style-type: none"> ● PT2 Mobility Hubs and Multi-modal Interchanges ● PT3 Regional Passenger Facilities/Station Enhancements <p>No key environmental features within the SEA topics in the region have been identified as being negatively impacted by the package.</p>
Glasgow City Region	<p>The group reference included in the Glasgow City region is:</p> <ul style="list-style-type: none"> ● PT3 Regional Passenger Facilities/Station Enhancements <p>No key environmental features within the SEA topics in the region have been identified as being negatively impacted by the package.</p>

REGION	REGIONAL DIFFERENCES IN ASSESSMENT FOR PT PACKAGE
Highlands and Islands	<p>The group references included in the Highlands & Islands region are:</p> <ul style="list-style-type: none"> ● PT2 Mobility Hubs and Multi-modal Interchanges ● PT3 Regional Passenger Facilities/Station Enhancements <p>No key environmental features within the SEA topics in the region have been identified as being negatively impacted by the package.</p>
North East	<ul style="list-style-type: none"> ● The group references included in the North East region are: ● PT2 Mobility Hubs and Multi-modal Interchanges ● PT3 Regional Passenger Facilities/Station Enhancements <p>No key environmental features within the SEA topics in the region have been identified as being negatively impacted by the package.</p>
Borders	<p>The group references included in the Borders region are:</p> <ul style="list-style-type: none"> ● PT2 Mobility Hubs and Multi-modal Interchanges ● PT3 Regional Passenger Facilities/Station Enhancements <p>No key environmental features within the SEA topics in the region have been identified as being negatively impacted by the package.</p>
Shetland Isles	<p>The group references included in the Borders region are:</p> <ul style="list-style-type: none"> ● PT2 Mobility Hubs and Multi-modal Interchanges ● PT3 Regional Passenger Facilities/Station Enhancements <p>No key environmental features within the SEA topics in the region have been identified as being negatively impacted by the package.</p>

REGION	REGIONAL DIFFERENCES IN ASSESSMENT FOR PT PACKAGE
South West	<p>The group references included in the South West region are:</p> <ul style="list-style-type: none"> • PT2 Mobility Hubs and Multi-modal Interchanges • PT3 Regional Passenger Facilities/Station Enhancements <p>No key environmental features within the SEA topics in the region have been identified as being negatively impacted by the package.</p>
Tay Cities	<p>The group references included in the Tay Cities region are:</p> <ul style="list-style-type: none"> • PT2 Mobility Hubs and Multi-modal Interchanges • PT3 Regional Passenger Facilities/Station Enhancements <p>No key environmental features within the SEA topics in the region have been identified as being negatively impacted by the package</p>

National Rail (RL) Mode

GROUPING REFERENCE	GROUPING DESCRIPTION
RL1	Options to improve capacity, frequency and reliability of train services, such as, train lengthening and line speed improvements
RL2	Corridor Enhancements: Central Belt: Provision of a platform for rail network enhancements within the Central Belt and on cross-border routes. This covers the Central Belt of Scotland (Glasgow-Edinburgh), communities within a commutable distance of these city regions and the two main rail routes for cross-border travel to England (East and West Coast Mainlines).
RL3	Options to improve capacity, frequency and reliability of train services, such as, train lengthening and line speed improvements
RL4	Rural Rail Connectivity: This would comprise of a number of rail enhancement schemes focused on improving journey times, reliability and resilience on rural railways in Scotland.
RL5	Decarbonisation of the Rail Network: Delivery of a continued, rolling programme of rail decarbonisation, including consideration of batteries and alternative fuel sources, in line with Transport Scotland's Rail Services Decarbonisation Action Plan (DAP).
RL6	High Speed Rail Development: Investment in measures to complement the introduction of cross border High Speed Rail, including options which are required to facilitate Scotland to England rail journeys including high speed rail services and options which will facilitate new HSR services within Scotland.
RL7a	New Rail Lines: Extending Borders Railway: This grouping considers the case for an extension to the Borders Railway south of Tweedbank into England.
RL7b	New Rail Lines: Re-Opening Freight only for Pax: Upgrade existing freight-only rail infrastructure to passenger standards and re-open them for passenger services.
RL7c	New Rail Lines: Boosting Strategic Regional Connectivity: Provision of new rail lines to support heavy rail operations. Proposed new links have been developed from stakeholder engagement and during initial appraisal.
RL8	New Rail Stations: Development of new rail stations on existing railway corridors (served by current services). These would improve access and connectivity for communities not currently served by rail.

GROUPING REFERENCE	SCENARIO (1 OR 2)	SEA OBJECTIVES ASSESSMENT SCORES														
		1. CLIMATE MITIGATION	2. CLIMATE ADAPTATION	3. AIR QUALITY	4. PHH QUALITY OF LIFE	5. PHH NOISE AND VIBRATION	6. PHH HIGH QUALITY PLACES	7. PHH SAFETY	8. MATERIAL ASSETS SUSTAINABILITY	9. MATERIAL ASSETS NATURAL RESOURCES	10. WATER ENVIRONMENT	11. BIODIVERSITY	12. SOIL	13. CULTURAL HERITAGE	14. LANDSCAPE AND VISUAL AMENITY	CUMULATIVE SCORE
RL1	1	+	~	+	+	?	0	+	+	?	?	?	?	?	?	?
RL1	2	+	~	+	+	?	0	+	+	?	?	?	?	?	?	?
RL2	1	+	+	+	+	?	0	+	+	?	?	?	?	?	?	?
RL2	2	+	+	+	+	?	0	+	+	?	?	?	?	?	?	?

GROUPING REFERENCE	SCENARIO (1 OR 2)	SEA OBJECTIVES ASSESSMENT SCORES														
		1. CLIMATE MITIGATION	2. CLIMATE ADAPTATION	3. AIR QUALITY	4. PHH QUALITY OF LIFE	5. PHH NOISE AND VIBRATION	6. PHH HIGH QUALITY PLACES	7. PHH SAFETY	8. MATERIAL ASSETS SUSTAINABILITY	9. MATERIAL ASSETS NATURAL RESOURCES	10. WATER ENVIRONMENT	11. BIODIVERSITY	12. SOIL	13. CULTURAL HERITAGE	14. LANDSCAPE AND VISUAL AMENITY	CUMULATIVE SCORE
RL3	1	+	+	+	+	?	~	0	+	?	?	?	?	?	?	?
RL3	2	+	+	+	+	?	~	0	+	?	?	?	?	?	?	?
RL4	1	+	0	+	+	?	0	0	+	?	?	?	?	?	?	?
RL4	2	+	0	+	+	?	0	0	+	?	?	?	?	?	?	?

GROUPING REFERENCE	SCENARIO (1 OR 2)	SEA OBJECTIVES ASSESSMENT SCORES														CUMULATIVE SCORE
		1. CLIMATE MITIGATION	2. CLIMATE ADAPTATION	3. AIR QUALITY	4. PHH QUALITY OF LIFE	5. PHH NOISE AND VIBRATION	6. PHH HIGH QUALITY PLACES	7. PHH SAFETY	8. MATERIAL ASSETS SUSTAINABILITY	9. MATERIAL ASSETS NATURAL RESOURCES	10. WATER ENVIRONMENT	11. BIODIVERSITY	12. SOIL	13. CULTURAL HERITAGE	14. LANDSCAPE AND VISUAL AMENITY	
RL5	1	++	0	+	+	+	0	0	+	?	?	?	?	?	?	?
RL5	2	++	0	+	+	+	0	0	+	?	?	?	?	?	?	?
RL6	1	+	+	+	+	?	~	+	0	-	-	-	-	-	-	-
RL6	2	+	+	+	+	?	~	+	0	-	-	-	-	-	-	-

GROUPING REFERENCE	SCENARIO (1 OR 2)	SEA OBJECTIVES ASSESSMENT SCORES														
		1. CLIMATE MITIGATION	2. CLIMATE ADAPTATION	3. AIR QUALITY	4. PHH QUALITY OF LIFE	5. PHH NOISE AND VIBRATION	6. PHH HIGH QUALITY PLACES	7. PHH SAFETY	8. MATERIAL ASSETS SUSTAINABILITY	9. MATERIAL ASSETS NATURAL RESOURCES	10. WATER ENVIRONMENT	11. BIODIVERSITY	12. SOIL	13. CULTURAL HERITAGE	14. LANDSCAPE AND VISUAL AMENITY	CUMULATIVE SCORE
RL7a	1	+	+	+	+	?	?	+	+	?	?	?	?	?	?	?
RL7a	2	+	+	+	+	?	?	+	+	?	?	?	?	?	?	?
RL7b	1	+	+	+	+	?	~	+	+	?	?	?	?	?	?	?
RL7b	2	+	+	+	+	?	~	+	+	?	?	?	?	?	?	?

GROUPING REFERENCE	SCENARIO (1 OR 2)	SEA OBJECTIVES ASSESSMENT SCORES														
		1. CLIMATE MITIGATION	2. CLIMATE ADAPTATION	3. AIR QUALITY	4. PHH QUALITY OF LIFE	5. PHH NOISE AND VIBRATION	6. PHH HIGH QUALITY PLACES	7. PHH SAFETY	8. MATERIAL ASSETS SUSTAINABILITY	9. MATERIAL ASSETS NATURAL RESOURCES	10. WATER ENVIRONMENT	11. BIODIVERSITY	12. SOIL	13. CULTURAL HERITAGE	14. LANDSCAPE AND VISUAL AMENITY	CUMULATIVE SCORE
RL7c	1	+	+	+	+	?	~	+	0	-	-	-	-	-	-	-
RL7c	2	+	+	+	+	?	~	+	0	-	-	-	-	-	-	-
RL8	1	+	~	+	+	?	~	+	+	?	?	?	?	?	?	?
RL8	2	+	~	+	+	?	~	+	+	?	?	?	?	?	?	?

GROUPING REFERENCE	SCENARIO (1 OR 2)	SEA OBJECTIVES ASSESSMENT SCORES														
		1. CLIMATE MITIGATION	2. CLIMATE ADAPTATION	3. AIR QUALITY	4. PHH QUALITY OF LIFE	5. PHH NOISE AND VIBRATION	6. PHH HIGH QUALITY PLACES	7. PHH SAFETY	8. MATERIAL ASSETS SUSTAINABILITY	9. MATERIAL ASSETS NATURAL RESOURCES	10. WATER ENVIRONMENT	11. BIODIVERSITY	12. SOIL	13. CULTURAL HERITAGE	14. LANDSCAPE AND VISUAL AMENITY	CUMULATIVE SCORE
Cumulative Rail Mode Summary	1	+	+	+	+	?	0	+	+	?	?	?	?	?	?	?
Cumulative Rail Mode Summary	2	+	+	+	+	?	0	+	+	?	?	?	?	?	?	?

GROUPING REFERENCE	SCENARIO (1 OR 2)	NATIONAL ASSESSMENT SUMMARY FOR RL GROUPING REFERENCE
RL1	1	<p>This grouping is likely to result in positive effects on the SEA objectives for Climatic Factors, Air Quality and Population and Human Health, particularly in relation to the achievement of a reduction in transport related emissions; as it seeks to encourage a modal shift to more sustainable public transport (rail). The grouping would also have a positive effect on Material Assets (SEA Objective 8) as it is promoting a more sustainable use and management of the existing transport network. It would also have a positive effect on Population and Human Health as a result of encouraging sustainable access, increased travel choice, improved connectivity and potential for improved safety on the transport network.</p> <p>There are possible positive effects on Water, Biodiversity and Soil as a result of a reduction in diffuse pollution on key receptors; however, the significance of effect is uncertain at this stage.</p> <p>There is also potential for negative environmental impacts during construction and operation of the improvements, particularly on Material Assets (SEA Objective 9), Biodiversity, Water, Soil, Cultural Heritage, Landscape/townscape and noise (Population and Human Health SEA Objective 5). It is therefore recommended that further environmental assessment is undertaken as the grouping develops, in order to identify potentially significant location-specific environmental impacts and mitigation where appropriate.</p> <p>Whilst the grouping is related to SEA Objective 6, it is unlikely to have a notable effect on the achievement of this objective and is therefore consider neutral. The grouping has no clear relationship to the achievement of SEA Objective 2 at this time.</p>
RL1	2	<p>For the Low Scenario, the magnitude of effects will be less than for the High Scenario due to the reduction in travel.</p>

GROUPING REFERENCE	SCENARIO (1 OR 2)	NATIONAL ASSESSMENT SUMMARY FOR RL GROUPING REFERENCE
RL2	1	<p>This grouping is likely to result in positive effects on the SEA objectives for Climatic Factors, Air Quality and Population and Human Health (SEA Objectives 1, 3, 4 and 7), particularly in relation to the achievement of a reduction in transport related emissions; as it seeks to encourage a modal shift to more sustainable public transport forms (rail). The grouping contributes to the rail network's resilience to climate change (Objective 2). The grouping would also have a positive effect on Material Assets (SEA Objective 8) as it is promoting a more sustainable use and management of the existing transport network. It would also have a positive effect on Population and Human Health as a result of encouraging sustainable access, increased travel choice, improved connectivity and potential for improved safety on the transport network.</p> <p>There are possible positive effects on Water, Biodiversity and Soil as a result of a reduction in diffuse pollution on key receptors; however, the significance of effect is uncertain at this stage.</p> <p>There is also potential for negative environmental impacts during construction and operation of the improvements, particularly on Material Assets (SEA Objective 9), Biodiversity, Water, Soil, Cultural Heritage, Landscape/townscape and noise (Population and Human Health SEA Objective 5). It is therefore recommended that further environmental assessment is undertaken as the grouping develops, in order to identify potentially significant location-specific environmental impacts and mitigation where appropriate.</p> <p>Whilst the grouping is related to SEA Objective 6, it is unlikely to have a notable effect on the achievement of this objective and is therefore considered neutral.</p>
RL2	2	<p>For the Low Scenario, the magnitude of effects will be less than for the High Scenario due to the reduction in travel.</p>

GROUPING REFERENCE	SCENARIO (1 OR 2)	NATIONAL ASSESSMENT SUMMARY FOR RL GROUPING REFERENCE
RL3	1	<p>The grouping is likely to support SEA objectives related to Climatic Factors, Air Quality and Material Assets (SEA Objectives 1,2, 3 and 8) as the enhancements of rail corridor infrastructure may encourage a modal shift to more sustainable transport options due to potential improvements in journey times and network reliability and resilience.</p> <p>The grouping would have a positive effect on Population & Human Health SEA Objective 4 as a result of increasing sustainable access to services for isolated communities in the north of Scotland. However, there is potential for negative effects on Population & Human Health Objective 5 due to potential increases in noise associated with the transport network, although this is dependent on the proximity of noise sensitive receptors.</p> <p>In addition, there is potential for negative environmental impacts during construction and operation of the corridor enhancements with possible conflict with SEA objectives for Material Assets (SEA Objective 9), Water Environment, Biodiversity, Soil, Cultural Heritage and Landscape and Visual Amenity; for example, through construction of dual tracks or passing loops in a sensitive environment. It is therefore recommended that further environmental assessment is undertaken as the option develops to identify potentially significant location-specific environmental impacts and mitigation where appropriate.</p> <p>Whilst the grouping is related to SEA Objective 7, it is unlikely to have a notable effect on the achievement of this objective and is therefore considered neutral. The grouping has no clear relationship to the achievement of SEA Objective 6 at this time.</p>
RL3	2	<p>For the Low Scenario, the magnitude of effects will be less than for the High Scenario due to the reduction in travel.</p>

GROUPING REFERENCE	SCENARIO (1 OR 2)	NATIONAL ASSESSMENT SUMMARY FOR RL GROUPING REFERENCE
RL4	1	<p>The interventions are likely to support SEA objectives related to Climatic Factors, Air Quality and Material Assets (Objective 8) as the enhancements of rail corridor infrastructure may encourage a modal shift to more sustainable transport options due to potential improvements in journey times and network reliability and resilience.</p> <p>The grouping would also have a positive effect on Population & Human Health Objective 4 as a result of increasing sustainable access to services for those living in rural areas.</p> <p>However, there is potential for negative effects on Population & Human Health Objective 5 due to potential increases in noise associated with the transport network although this is dependent on the proximity of noise sensitive receptors.</p> <p>In addition, there is potential for negative environmental impacts during construction and operation of the corridor enhancements with possible conflict with SEA objectives Material assets (Objective 9), Water Environment, Biodiversity, Soil, Cultural heritage and Landscape and Visual Amenity. It is therefore recommended that further environmental assessment is undertaken as the option develops to identify potentially significant location specific environmental impacts and mitigation where appropriate.</p>
RL4	2	For Scenario 2, the magnitude of effects will be less than for Scenario 1.

GROUPING REFERENCE	SCENARIO (1 OR 2)	NATIONAL ASSESSMENT SUMMARY FOR RL GROUPING REFERENCE
RL5	1	<p>This grouping is likely to result in positive effects on SEA objectives related to Climatic Factors and Air Quality, particularly in relation to the achievement of a reduction in transport related emissions; as it seeks to reduce emissions from rail through decarbonisation / use of alternative fuels (electric, hydrogen). The grouping would also have a positive effect on Material Assets as it is promoting a more sustainable use and management of the existing transport network. It would also have a positive effect on Population and Human Health as a result of encouraging sustainable access and a move away from diesel engines to alternatives such as hydrogen or battery which could also result in a beneficial impact on noise and vibration.</p> <p>There are possible positive effects on Water, Biodiversity and Soil as a result of a reduction in diffuse pollution on key receptors; however the significance of effect is uncertain at this stage.</p> <p>There is also potential for negative environmental impacts during construction and operation of the improvements, particularly on Material Assets, Biodiversity, Cultural Heritage and Landscape/townscape where overhead line equipment is installed for rail electrification. It is therefore recommended that further environmental assessment is undertaken as the grouping develops, in order to identify potentially significant location-specific environmental impacts and mitigation where appropriate.</p> <p>It is considered that there would be neutral effects on the remaining SEA objectives.</p>
RL5	2	<p>For Scenario 2, the magnitude of effects would be less than for Scenario 1 due to the reduction in travel.</p>

GROUPING REFERENCE	SCENARIO (1 OR 2)	NATIONAL ASSESSMENT SUMMARY FOR RL GROUPING REFERENCE
RL6	1	<p>This grouping is likely to result in positive effects on SEA objectives related to Climatic Factors, Air Quality and Population and Human Health (SEA Objectives 1, 3, 4 and 7), particularly in relation to the achievement of a reduction in transport related emissions; as it seeks to encourage a modal shift to more sustainable transport forms (rail) encouraging sustainable access, increased travel choice, improved connectivity and potential for improved safety on the transport network. The grouping contributes to the rail network's resilience to climate change (Objective 2).</p> <p>Given the scale of works likely to be required to facilitate the grouping, it is likely to result in negative effects on SEA objectives for Material Assets (SEA Objective 9), Water, Biodiversity, Soil, Cultural Heritage and Landscape/townscape during construction and operation. Depending on the location and nature of such works to facilitate the grouping, there is also potential for negative impacts during construction and operation on noise (Population and Human Health SEA Objective 5). It is therefore recommended that further environmental assessment is undertaken, including Habitats Regulations Appraisal, as the grouping develops, in order to identify potentially significant location-specific environmental impacts and mitigation where appropriate.</p> <p>Whilst the grouping is related to SEA Objective 8, it is unlikely to have a notable effect on the achievement of this objective and is therefore considered neutral. The grouping has no clear relationship to the achievement of SEA Objective 6 at this time.</p>
RL6	2	<p>For Scenario 2, the magnitude of effects would be less than for Scenario 1 due to the reduction in travel.</p>

GROUPING REFERENCE	SCENARIO (1 OR 2)	NATIONAL ASSESSMENT SUMMARY FOR RL GROUPING REFERENCE
RL7b	1	<p>New railway stations will result in positive effects on SEA objectives related to climatic factors and air quality due to enhancing the rail network and promoting a modal shift to more sustainable transport options. Positive effects anticipated on population and human health where more options due to increase in sustainable access to essential services. Positive effects are dependent on the alternatives being safe affordable and available for all users to facilitate modal shift.</p> <p>There is potential for negative environmental impact during construction and operation of the improvements, and it is therefore recommended that further environmental assessment is undertaken as the option develops to identify potentially significant.</p>
RL7b	2	Findings the same as scenario 1
RL7a	1	<p>This grouping is likely to result in positive effects on SEA objectives related to Climatic Factors, Air Quality and Population and Human Health (SEA Objectives 1, 2, 3, 4 and 7) particularly in relation to the achievement of a reduction in transport related emissions; as it seeks to encourage a modal shift to more sustainable public transport forms (rail) and has the potential to improve access for isolated communities. The grouping would also have a positive effect on Material Assets (SEA Objective 8) as it is promoting a more sustainable use and management of the existing transport network. It would also have a positive effect on Population and Human Health as a result of encouraging sustainable access, increased travel choice, improved connectivity and potential for improved safety on the transport network.</p> <p>There is also potential for negative environmental impacts during construction and operation of the improvements, particularly on Material Assets (SEA Objective 9), Biodiversity, Water, Soil, Cultural Heritage, Landscape/townscape and noise (Population and Human Health SEA Objective 5). It is therefore recommended that further environmental assessment is undertaken as the grouping develops, in order to identify potentially significant location-specific environmental impacts and mitigation where appropriate.</p>

GROUPING REFERENCE	SCENARIO (1 OR 2)	NATIONAL ASSESSMENT SUMMARY FOR RL GROUPING REFERENCE
RL7a	2	For Scenario 2, the magnitude of effects would be less than for Scenario 1 due to the reduction in travel.
RL7b	1	<p>This grouping is likely to result in positive effects on the SEA objectives for Climatic Factors, Air Quality and Population and Human Health, particularly in relation to the achievement of a reduction in transport related emissions; as it seeks to encourage a modal shift to more sustainable public transport forms (rail). The grouping would also have a positive effect on Material Assets (SEA Objective 8) as it is promoting a more sustainable use and management of the existing transport network. It would also have a positive effect on Population and Human Health as a result of encouraging sustainable access, increased travel choice, improved connectivity and potential for improved safety on the transport network.</p> <p>There is also potential for negative environmental impacts during construction and operation of the improvements, particularly on Material Assets (SEA Objective 9), Biodiversity, Water, Soil, Cultural Heritage, Landscape/townscape and noise (Population and Human Health SEA Objective 5). It is therefore recommended that further environmental assessment is undertaken as the grouping develops, in order to identify potentially significant location-specific environmental impacts and mitigation where appropriate. Potential negative impacts are associated with the reduction in freight-only rail routes should also be assessed to identify the extent, if any, of displaced freight traffic increase on roads, and associated negative impacts on environmental receptors.</p>
RL7b	2	For Scenario 2, the magnitude of effects would be less than for Scenario 1 due to the reduction in travel.

GROUPING REFERENCE	SCENARIO (1 OR 2)	NATIONAL ASSESSMENT SUMMARY FOR RL GROUPING REFERENCE
RL7c	1	<p>This grouping is likely to result in positive effects on SEA objectives related to Climatic Factors, Air Quality and Population and Human Health (SEA Objectives 1, 3, 4 and 7), particularly in relation to the achievement of a reduction in transport related emissions; as it seeks to encourage a modal shift to more sustainable transport forms (rail) encouraging sustainable access, increased travel choice, improved connectivity and potential for improved safety on the transport network. The grouping contributes to the rail network's resilience to climate change (Objective 2).</p> <p>Given the scale of works likely to be required to facilitate the grouping, it is likely to result in negative effects on SEA objectives for Material Assets (SEA Objective 9), Water, Biodiversity, Soil, Cultural Heritage and Landscape/townscape during construction and operation. Depending on the location and nature of such works to facilitate the grouping, there is also potential for negative impacts during construction and operation on noise (Population and Human Health SEA Objective 5). It is therefore recommended that further environmental assessment is undertaken, including Habitats Regulations Appraisal, as the grouping develops, in order to identify potentially significant location-specific environmental impacts and mitigation where appropriate.</p> <p>Whilst the grouping is related to SEA Objective 8, it is unlikely to have a notable effect on the achievement of this objective and is therefore considered neutral. The grouping has no clear relationship to the achievement of SEA Objective 6 at this time.</p>
RL7c	2	<p>For Scenario 2, the magnitude of effects would be less than for Scenario 1 due to the reduction in travel.</p>

GROUPING REFERENCE	SCENARIO (1 OR 2)	NATIONAL ASSESSMENT SUMMARY FOR RL GROUPING REFERENCE
RL8	1	<p>This grouping is likely to result in positive effects on SEA objectives related to Climatic Factors, Air Quality and Population and Human Health (SEA Objectives 4 and 7), particularly in relation to the achievement of a reduction in transport related emissions; as it seeks to encourage a modal shift to more sustainable public transport forms (rail) encouraging sustainable access, increased travel choice, improved connectivity and potential for improved safety on the transport network. The grouping would also have a positive effect on Material Assets (SEA Objective 8) as it is promoting a more sustainable use and management of the existing transport network.</p> <p>Depending on the location and nature of the stations and associated facilities, there is potential for negative environmental impacts during construction and operation of the improvements, particularly on Material Assets (SEA Objective 9), Biodiversity, Water, Soil, Cultural Heritage, Landscape/townscape and noise (Population and Human Health SEA Objective 5). It is therefore recommended that further environmental assessment is undertaken as the grouping develops, in order to identify potentially significant location-specific environmental impacts and mitigation where appropriate.</p>
RL8	2	<p>For Scenario 2, the magnitude of effects would be less than for Scenario 1 due to the reduction in travel.</p>
Cumulative Rail Mode Summary	1	<p>Overall, the Rail recommendations are anticipated to result in minor positive effects on SEA Objective 1 (Climatic Factors) as several of the interventions proposed involve options to improve the capacity / frequency / reliability / accessibility / connectivity of train services, thereby promoting and facilitating the modal shift to more sustainable transport options i.e. rail. Intervention RL5 will also help reduce emissions from Scotland's transport sector through the decarbonisation of the rail network, thereby helping contribute to the achievement of Scotland's CO2 emissions reduction target of net zero by 2045, and promoting and supporting the best use of clean fuels/technologies.</p> <p>The Rail recommendations are generally anticipated to result in minor positive effects on SEA</p>

GROUPING REFERENCE	SCENARIO (1 OR 2)	NATIONAL ASSESSMENT SUMMARY FOR RL GROUPING REFERENCE
		<p>Objective 2 as several of the interventions proposed will improve access to and within disadvantaged areas or isolated communities at risk from climate change, prioritise adaptation of transport connections to critical infrastructure that are more vulnerable to the projected impacts of climate change through the proposed improvements to railway resilience, new rail lines and new trail rail stations.</p> <p>The Rail recommendations are generally anticipated to result in minor positive effects on SEA Objective 3 (Air Quality) as the several of the interventions proposed involve options to improve the capacity / frequency / reliability / accessibility / connectivity of train services, thereby helping to reduce forms of transport-related air pollution and improve air quality by encouraging rail travel. This will also likely help reduce traffic congestion, limit more polluting vehicles, help limit polluting traffic growth and reduce emissions of key air pollutants from transport.</p> <p>The Rail recommendations are anticipated to result in minor positive effects on SEA Objective 4 (Population and Human Health) as several of the interventions proposed will help improve quality of life and human health and increase sustainable access to essential services, employment and the natural environment. In particular the interventions which involve options to improve existing rail capacity / frequency / reliability / resilience as well as the proposals for new rail lines and rail stations will help ensure safe and sustainable access for all users to essential services and employment, provide increasing transport choice that meet the needs of the population, allow for greater journey time reliability, support changing demographics by providing appropriate transport facilities to meet their needs, improve accessibility to open spaces and the path network for physical recreational purposes, and improve access healthcare facilities.</p> <p>The Rail recommendations are generally anticipated to result in uncertain effects on SEA Objective 5 (Population and Human Health) as while some of the interventions could result in reductions in noise and vibration (e.g. RL5 which involves a move away from diesel engines to alternatives such as hydrogen or battery), several of the other interventions proposed could</p>

GROUPING REFERENCE	SCENARIO (1 OR 2)	NATIONAL ASSESSMENT SUMMARY FOR RL GROUPING REFERENCE
		<p>lead to potential increases in noise associated with the proposed expansions to the rail network, although this is dependent on the proximity of noise sensitive receptors.</p> <p>The Rail recommendations are anticipated to result in neutral effects on SEA Objective 6 (Population and Human Health) as there is no clear link between the majority of the interventions proposed and the promotion / investment in / building / maintenance of infrastructure to support the development of high-quality places.</p> <p>The Rail recommendations are anticipated to result in minor positive effects on SEA Objective 7 (Population and Human Health) as the interventions proposed promote the use of the rail network through various enhancements / expansions, and thereby will improve the safety on the transport network by reducing the likelihood of transport-related road accidents and casualties.</p> <p>The Rail recommendations are anticipated to result in minor positive effects on SEA Objective 8 (Material Assets) as the interventions proposed would help promote and improve the sustainable use of the transport network through the various enhancements / expansions to the rail network.</p> <p>The Rail recommendations are generally anticipated to result in uncertain effects on SEA Objectives 9 (Material Assets), 10 (Water Environment), 11 (Biodiversity), 12 (Soil, 13 (Cultural Heritage and 14 (Landscape and Visual Amenity) as there is potential for negative environmental effects during both the construction and operation of several of the interventions proposed. It is therefore recommended that further environmental assessment is undertaken as the grouping develops, in order to identify potentially significant location-specific environmental impacts and mitigation where appropriate.</p>
Cumulative Rail Mode Summary	2	For the Scenario 2, the magnitude of effects will be less than for Scenario 1, largely due to the reduction in travel associated with several of the interventions proposed.

REGION	REGIONAL DIFFERENCES IN ASSESSMENT FOR RL PACKAGE
Argyll and Bute	<p>The group references included in the Argyll and Bute region are:</p> <ul style="list-style-type: none"> • RL5 Decarbonisation of the Rail Network • RL8 New Rail Stations <p>No key environmental features within the SEA topics in the region have been identified as being negatively impacted by the package.</p>
Ayrshire and Arran	<p>The group references included in the Ayrshire & Arran region are:</p> <ul style="list-style-type: none"> • RL2 Corridor Enhancements • RL5 Decarbonisation of the Rail Network • RL8 New Rail Stations <p>No key environmental features within the SEA topics in the region have been identified as being negatively impacted by the package.</p>
Edinburgh and SE Scotland	<p>The group reference included in the Edinburgh & SE Section region is:</p> <ul style="list-style-type: none"> • RL1 Options to improve capacity, frequency and reliability of train services, such as, train lengthening and line speed improvements • RL2 Corridor Enhancements • RL5 Decarbonisation of the Rail Network • RL6 High Speed Rail Development • RL7b New Rail Lines • RL8 New Rail Stations <p>Key environmental features impacted by the package of interventions:</p> <p>Material Assets</p> <p>The Rail recommendations are anticipated to result in negative effects on Material Assets as one of the groups proposed involve the development of High Speed Rail and therefore will not reduce the use of natural resources.</p>

REGION	REGIONAL DIFFERENCES IN ASSESSMENT FOR RL PACKAGE
	<p>Water Environment</p> <p>The Rail recommendations are anticipated to result in negative effects on Water Environment as one of the groups proposed involve the development of High Speed Rail and may impact watercourses/ waterbodies during construction and operation.</p> <p>It is recommended that further environmental assessment is undertaken as the grouping develops in order to identify potentially significant location-specific environmental impacts.</p> <p>It is recommended that further environmental assessment is undertaken as the grouping develops in order to identify potentially significant location-specific environmental impacts where appropriate.</p> <p>Biodiversity</p> <p>The Rail recommendations are anticipated to result in negative effects on Biodiversity as one of the groups proposed involves the development of High Speed Rail and therefore has the potential to result in direct impacts on biodiversity, including potential damage to / loss of designated and undesignated wildlife or geological sites.</p> <p>It is recommended that further environmental assessment is undertaken as the grouping develops in order to identify potentially significant location-specific environmental impacts.</p> <p>Soil</p> <p>The Rail recommendations are anticipated to result in negative effects on Soil as one of the groups proposed involves the development of High Speed Rail and therefore has the potential to result in direct impacts to soil quality in the region.</p> <p>It is recommended that further environmental assessment is undertaken as the grouping develops in order to identify potentially significant location-specific environmental impacts.</p> <p>Cultural Heritage</p> <p>The Rail recommendations are anticipated to result in negative effects on Cultural Heritage as one of the groups proposed involves the development of High Speed Rail which could result in negative effects on designated and</p>

REGION	REGIONAL DIFFERENCES IN ASSESSMENT FOR RL PACKAGE
	<p>undesigned archaeological sites and other culturally and historically important features / affect key views to and from heritage assets.</p> <p>It is recommended that further environmental assessment is undertaken as the grouping develops in order to identify potentially significant location-specific environmental impacts.</p> <p>Landscape and Visual</p> <p>The Rail recommendations are anticipated to result in negative effects on Landscape and Visual as one of the groups proposed involves the development of High Speed Rail which could result in negative effects on designated and undesignated areas and views due to operation and construction.</p> <p>It is recommended that further environmental assessment is undertaken as the grouping develops in order to identify potentially significant location-specific environmental impacts.</p>
Forth Valley	<p>The group references included in the Glasgow City region are</p> <ul style="list-style-type: none"> • RL1 Options to improve capacity, frequency and reliability of train services, such as, train lengthening and line speed improvements • RL2 Corridor Enhancements • RL5 Decarbonisation of the Rail Network • RL7b New Rail Lines • RL8 New Rail Station <p>No key environmental features within the SEA topics in the region have been identified as being negatively impacted by the package.</p>
Glasgow City Region	<p>The group references included in the Glasgow City region are:</p> <ul style="list-style-type: none"> • RL2 Corridor Enhancements • RL5 Decarbonisation of the Rail Network • RL6 High Speed Rail Development • RL8 New Rail Stations

REGION	REGIONAL DIFFERENCES IN ASSESSMENT FOR RL PACKAGE
	<p>Key environmental features impacted by the package of interventions:</p> <p>Material Assets The Rail recommendations are anticipated to result in negative effects on Material Assets as one of the groups proposed involve the development of High Speed Rail and therefore will not reduce the use of natural resources.</p> <p>Water Environment The Rail recommendations are anticipated to result in negative effects on Water Environment as one of the groups proposed involve the development of High Speed Rail and may impact watercourses/ waterbodies during construction and operation. It is recommended that further environmental assessment is undertaken as the grouping develops in order to identify potentially significant location-specific environmental impacts.</p> <p>Biodiversity The Rail recommendations are anticipated to result in negative effects on Biodiversity as one of the groups proposed involves the development of High Speed Rail and therefore has the potential to result in direct impacts on biodiversity, including potential damage to / loss of designated and undesignated wildlife or geological sites. It is recommended that further environmental assessment is undertaken as the grouping develops in order to identify potentially significant location-specific environmental impacts.</p> <p>Soil The Rail recommendations are anticipated to result in negative effects on Soil as one of the groups proposed involves the development of High Speed Rail and therefore has the potential to result in direct impacts to soil quality in the region. It is recommended that further environmental assessment is undertaken as the grouping develops in order to</p>

REGION	REGIONAL DIFFERENCES IN ASSESSMENT FOR RL PACKAGE
	<p>identify potentially significant location-specific environmental impacts.</p> <p>Cultural Heritage The Rail recommendations are anticipated to result in negative effects on Cultural Heritage as one of the groups proposed involves the development of High Speed Rail which could result in negative effects on designated and undesignated archaeological sites and other culturally and historically important features / affect key views to and from heritage assets. It is recommended that further environmental assessment is undertaken as the grouping develops in order to identify potentially significant location-specific environmental impacts.</p> <p>Landscape and Visual The Rail recommendations are anticipated to result in negative effects on Landscape and Visual as one of the groups proposed involves the development of High Speed Rail which could result in negative effects on designated and undesignated areas and views due to operation and construction. It is recommended that further environmental assessment is undertaken as the grouping develops in order to identify potentially significant location-specific environmental impacts.</p>
Highlands and Islands	<p>The group references included in the Highlands & Islands region are:</p> <ul style="list-style-type: none"> • RL1 Options to improve capacity, frequency and reliability of train services, such as, train lengthening and line speed improvements • RL4 Rural Rail Connectivity • RL5 Decarbonisation of the Rail Network • RL8 New Rail Stations <p>No key environmental features within the SEA topics in the region have been identified as being negatively impacted by the package.</p>

REGION	REGIONAL DIFFERENCES IN ASSESSMENT FOR RL PACKAGE
North East	<p>The group references included in the North East region are:</p> <ul style="list-style-type: none"> • RL1 Options to improve capacity, frequency and reliability of train services, such as, train lengthening and line speed improvements • RL7c New Rail Lines • RL8 New Rail Stations <p>No key environmental features within the SEA topics in the region have been identified as being negatively impacted by the package.</p>
Borders	<p>The group references included in the Borders region are:</p> <ul style="list-style-type: none"> • RL5 Decarbonisation of the Rail Network • RL6 High Speed Rail Development • RL7a New Rail Lines • RL8 New Rail Stations <p>Key environmental features impacted by the package of interventions:</p> <p>Material Assets</p> <p>The Rail recommendations are anticipated to result in negative effects on Material Assets as one of the groups proposed involve the development of High Speed Rail and therefore will not reduce the use of natural resources.</p> <p>Water Environment</p> <p>The Rail recommendations are anticipated to result in negative effects on Water Environment as one of the groups proposed involve the development of High Speed Rail and may impact watercourses/ waterbodies during construction and operation.</p> <p>It is recommended that further environmental assessment is undertaken as the grouping develops in order to identify potentially significant location-specific environmental impacts.</p>

REGION	REGIONAL DIFFERENCES IN ASSESSMENT FOR RL PACKAGE
	<p>Biodiversity</p> <p>The Rail recommendations are anticipated to result in negative effects on Biodiversity as one of the groups proposed involves the development of High Speed Rail and therefore has the potential to result in direct impacts on biodiversity, including potential damage to / loss of designated and undesignated wildlife or geological sites. It is recommended that further environmental assessment is undertaken as the grouping develops in order to identify potentially significant location-specific environmental impacts.</p> <p>Soil</p> <p>The Rail recommendations are anticipated to result in negative effects on Soil as one of the groups proposed involves the development of High Speed Rail and therefore has the potential to result in direct impacts to soil quality in the region. It is recommended that further environmental assessment is undertaken as the grouping develops in order to identify potentially significant location-specific environmental impacts.</p> <p>Cultural Heritage</p> <p>The Rail recommendations are anticipated to result in negative effects on Cultural Heritage as one of the groups proposed involves the development of High Speed Rail which could result in negative effects on designated and undesignated archaeological sites and other culturally and historically important features / affect key views to and from heritage assets. It is recommended that further environmental assessment is undertaken as the grouping develops in order to identify potentially significant location-specific environmental impacts.</p> <p>Landscape and Visual</p> <p>The Rail recommendations are anticipated to result in negative effects on Landscape and Visual as one of the groups proposed involves the development of High Speed Rail which could result in negative effects on</p>

REGION	REGIONAL DIFFERENCES IN ASSESSMENT FOR RL PACKAGE
	<p>designated and undesignated areas and views due to operation and construction.</p> <p>It is recommended that further environmental assessment is undertaken as the grouping develops in order to identify potentially significant location-specific environmental impacts.</p>
Shetland Isles	<p>No groupings apply to the Shetland Isles region.</p>
South West	<p>The group references included in the South West region are:</p> <ul style="list-style-type: none"> • RL2 Corridor Enhancements • RL5 Decarbonisation of the Rail Network • RL6 High Speed Rail Development • RL7a New Rail Lines • RL8 New Rail Stations <p>Key environmental features impacted by the package of interventions:</p> <p>Material Assets</p> <p>The Rail recommendations are anticipated to result in negative effects on Material Assets as one of the groups proposed involve the development of High Speed Rail and therefore will not reduce the use of natural resources.</p> <p>Water Environment</p> <p>The Rail recommendations are anticipated to result in negative effects on Water Environment as one of the groups proposed involve the development of High Speed Rail and may impact watercourses/ waterbodies during construction and operation.</p> <p>It is recommended that further environmental assessment is undertaken as the grouping develops in order to identify potentially significant location-specific environmental impacts.</p>

REGION	REGIONAL DIFFERENCES IN ASSESSMENT FOR RL PACKAGE
	<p>Biodiversity</p> <p>The Rail recommendations are anticipated to result in negative effects on Biodiversity as one of the groups proposed involves the development of High Speed Rail and therefore has the potential to result in direct impacts on biodiversity, including potential damage to / loss of designated and undesignated wildlife or geological sites.</p> <p>It is recommended that further environmental assessment is undertaken as the grouping develops in order to identify potentially significant location-specific environmental impacts.</p> <p>Soil</p> <p>The Rail recommendations are anticipated to result in negative effects on Soil as one of the groups proposed involves the development of High Speed Rail and therefore has the potential to result in direct impacts to soil quality in the region.</p> <p>It is recommended that further environmental assessment is undertaken as the grouping develops in order to identify potentially significant location-specific environmental impacts.</p> <p>Cultural Heritage</p> <p>The Rail recommendations are anticipated to result in negative effects on Cultural Heritage as one of the groups proposed involves the development of High Speed Rail which could result in negative effects on designated and undesignated archaeological sites and other culturally and historically important features / affect key views to and from heritage assets.</p> <p>It is recommended that further environmental assessment is undertaken as the grouping develops in order to identify potentially significant location-specific environmental impacts.</p> <p>Landscape and Visual</p> <p>The Rail recommendations are anticipated to result in negative effects on Landscape and Visual as one of the groups proposed involves the development of High Speed Rail which could result in negative effects on designated and undesignated areas and views due to operation and construction.</p>

REGION	REGIONAL DIFFERENCES IN ASSESSMENT FOR RL PACKAGE
	<p>It is recommended that further environmental assessment is undertaken as the grouping develops in order to identify potentially significant location-specific environmental impacts.</p>
Tay Cities	<p>The group references included in the Tay Cities region are:</p> <ul style="list-style-type: none"> • RL1 Options to improve capacity, frequency and reliability of train services, such as, train lengthening and line speed improvements • RL5 Decarbonisation of the Rail Network • RL7c New Rail Lines • RL8 New Rail Stations <p>No key environmental features within the SEA topics in the region have been identified as being negatively impacted by the package.</p>

National Road (RD) Mode

GROUPING REFERENCE	GROUPING DESCRIPTION
RD1	<ul style="list-style-type: none"> South West Trunk Road and Motorway Network Improvements: This grouping focusses on improving the safety, operation, resilience and reliability of the trunk road network within the South West of Scotland.
RD3	North West Trunk Road and Motorway Network Improvements: This grouping focusses on improving the safety, operation, resilience and reliability of the trunk road network within the North West of Scotland.
RD2	South East Trunk Road and Motorway Network Improvements: This grouping focusses on improving the safety, operation, resilience and reliability of the trunk road network within the South East of Scotland.
RD4	North East Trunk Road and Motorway Network Improvements: This grouping focusses on improving the safety, operation, resilience and reliability of the trunk road network within the North East of Scotland. Grouping focuses on a bypass of Dundee.
RD5	A National Action Plan to support the shift to Low Emission/Ultra Low Emission/Electric Vehicles and help deliver Scottish Government's net zero targets
RD6	Changing Road User Behaviour: Implementation of speed enforcement technology and national road safety behaviour change campaigns, education and training initiatives to enable all road users to understand their road safety responsibilities, allowing them to improve their attitudes and behaviours for the safety of themselves and others.
RD7	Grouping focusses on the introduction of HOV (High Occupancy Vehicle) lanes at various locations across Scotland.

GROUPING REFERENCE	SCENARIO (1 OR 2)	SEA OBJECTIVES ASSESSMENT SCORES														CUMULATIVE SCORE
		1. CLIMATE MITIGATION	2. CLIMATE ADAPTATION	3. AIR QUALITY	4. PHH QUALITY OF LIFE	5. PHH NOISE AND VIBRATION	6. PHH HIGH QUALITY PLACES	7. PHH SAFETY	8. MATERIAL ASSETS SUSTAINABILITY	9. MATERIAL ASSETS NATURAL RESOURCES	10. WATER ENVIRONMENT	11. BIODIVERSITY	12. SOIL	13. CULTURAL HERITAGE	14. LANDSCAPE AND VISUAL AMENITY	
RD1	1	-	+	-	?	0	?	+	-	-	?	?	?	?	?	?
RD1	2	-	+	-	?	0	?	+	-	-	?	?	?	?	?	?
RD3	1	-	0	-	?	-	0	+	-	-	?	?	?	?	?	?
RD3	2	-	0	-	?	-	0	+	-	-	?	?	?	?	?	?

GROUPING REFERENCE	SCENARIO (1 OR 2)	SEA OBJECTIVES ASSESSMENT SCORES														CUMULATIVE SCORE
		1. CLIMATE MITIGATION	2. CLIMATE ADAPTATION	3. AIR QUALITY	4. PHH QUALITY OF LIFE	5. PHH NOISE AND VIBRATION	6. PHH HIGH QUALITY PLACES	7. PHH SAFETY	8. MATERIAL ASSETS SUSTAINABILITY	9. MATERIAL ASSETS NATURAL RESOURCES	10. WATER ENVIRONMENT	11. BIODIVERSITY	12. SOIL	13. CULTURAL HERITAGE	14. LANDSCAPE AND VISUAL AMENITY	
RD2	1	--	0	0	?	0	~	+	-	-	?	?	?	?	?	?
RD2	2	--	0	0	?	0	~	+	-	-	?	?	?	?	?	?
RD3	1	-	0	-	?	-	0	+	-	-	?	?	?	?	?	?
RD3	2	-	0	-	?	-	0	+	-	-	?	?	?	?	?	?

GROUPING REFERENCE	SCENARIO (1 OR 2)	SEA OBJECTIVES ASSESSMENT SCORES														CUMULATIVE SCORE
		1. CLIMATE MITIGATION	2. CLIMATE ADAPTATION	3. AIR QUALITY	4. PHH QUALITY OF LIFE	5. PHH NOISE AND VIBRATION	6. PHH HIGH QUALITY PLACES	7. PHH SAFETY	8. MATERIAL ASSETS SUSTAINABILITY	9. MATERIAL ASSETS NATURAL RESOURCES	10. WATER ENVIRONMENT	11. BIODIVERSITY	12. SOIL	13. CULTURAL HERITAGE	14. LANDSCAPE AND VISUAL AMENITY	
RD4	1	-	0	-	?	?	~	+	-	-	?	?	?	?	?	?
RD4	2	-	0	-	?	?	~	+	-	-	?	?	?	?	?	?
RD4 (Dundee bypass)	1	--	+	--	?	0	+	+	-	-	?	?	?	?	?	?
RD4 (Dundee bypass)	2	-	+	-	?	0	+	+	-	-	?	?	?	?	?	?

GROUPING REFERENCE	SCENARIO (1 OR 2)	SEA OBJECTIVES ASSESSMENT SCORES														CUMULATIVE SCORE
		1. CLIMATE MITIGATION	2. CLIMATE ADAPTATION	3. AIR QUALITY	4. PHH QUALITY OF LIFE	5. PHH NOISE AND VIBRATION	6. PHH HIGH QUALITY PLACES	7. PHH SAFETY	8. MATERIAL ASSETS SUSTAINABILITY	9. MATERIAL ASSETS NATURAL RESOURCES	10. WATER ENVIRONMENT	11. BIODIVERSITY	12. SOIL	13. CULTURAL HERITAGE	14. LANDSCAPE AND VISUAL AMENITY	
RD5	1	++	0	++	+	+	~	0	++	++	0	0	0	0	0	+
RD5	2	++	0	++	+	+	~	0	++	++	0	0	0	0	0	+
RD6	1	?	0	?	+	?	~	++	0	0	0	0	0	0	0	0
RD6	2	?	0	?	+	?	~	++	0	0	0	0	0	0	0	0

GROUPING REFERENCE	SCENARIO (1 OR 2)	SEA OBJECTIVES ASSESSMENT SCORES														CUMULATIVE SCORE
		1. CLIMATE MITIGATION	2. CLIMATE ADAPTATION	3. AIR QUALITY	4. PHH QUALITY OF LIFE	5. PHH NOISE AND VIBRATION	6. PHH HIGH QUALITY PLACES	7. PHH SAFETY	8. MATERIAL ASSETS SUSTAINABILITY	9. MATERIAL ASSETS NATURAL RESOURCES	10. WATER ENVIRONMENT	11. BIODIVERSITY	12. SOIL	13. CULTURAL HERITAGE	14. LANDSCAPE AND VISUAL AMENITY	
RD7	1	+	0	?	+	?	~	+	0	?	?	?	?	?	?	
RD7	2	+	0	?	+	?	~	+	0	?	?	?	?	?	?	
Cumulative Road Mode Summary	1	-	0	-	?	?	~	+	-	-	?	?	?	?	?	
Cumulative Road Mode Summary	2	-	0	-	?	?	~	+	-	-	?	?	?	?	?	

GROUPING REFERENCE	SCENARIO (1 OR 2)	NATIONAL ASSESSMENT SUMMARY FOR RD GROUPING
RD1	1	<p>The junction improvement, realignment / widening, overtaking opportunities, bypass and dualling options within this grouping would result in potential positive effects on Population and Human Health (SEA objective 7) due to improved safety of the trunk road network in the South West.</p> <p>Bypass and / or dualling options could result in negative effects on Climate Change, Air Quality and Material Assets SEA objectives (SEA Objectives 1, 3 and 8) as they have the potential to increase capacity for the number of vehicles on the trunk road network thus increasing associated emissions. Junction improvements, realignment / widening and overtaking opportunities are not anticipated to have a notable impact on traffic volumes or mode share and subsequently transport-based emissions. In addition, any opportunity to employ methods for decarbonisation of construction, through innovation in design, procurement and construction methods, should be identified as part of the design and development process. Similar work undertaken to date in exploring options for decarbonising construction on other road schemes could be used as a basis for developing these methods.</p> <p>Significant quantities of materials and construction related trips would be required for bypasses and dualling schemes in particular, and overtaking opportunities and realignment / widening to a lesser extent depending on the complexity and scale of individual schemes. Depending on the source and type of materials/natural resources used, there is the potential for negative impacts on Material Assets (SEA Objective 9). There is though 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 with associated positive impacts.</p> <p>Any increase in the number of vehicles using the trunk road network would also cause increases in noise, although there is the potential to mitigate noise impacts and a bypass also has the potential to reduce traffic from communities and as such minimise noise and air pollution exposure at a local level. As such, a neutral impact for bypasses has been assessed for the Population and Human Health (SEA Objective 5) as is the case for junction</p>

GROUPING REFERENCE	SCENARIO (1 OR 2)	NATIONAL ASSESSMENT SUMMARY FOR RD GROUPING
		<p>improvements, realignment / widening and overtaking opportunities which are not expected to increase traffic volumes while dualling is anticipated to have a negative impact.</p> <p>An uncertain impact is assessed in relation to Population and Human Health (SEA objective 4), as although the options within this grouping would support connectivity to employment and other services this would be primarily for road based transport. The trunk road network is, however, important to the operation of local bus services as well as inter-urban services in the South West 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 network is also important in providing connections to other regions, for example through providing access to ports and key freight centres.</p> <p>There is the potential for negative environmental impacts during the construction and operation of the types of options within this grouping on SEA objectives related to Biodiversity, Water, Soil, Cultural Heritage, Landscape/townscape (SEA Objectives 10,11,12,13 and 14 respectively). However, the scale of the impacts is uncertain at this stage and the location of the options will have a strong influence on this, particularly for junction improvements, realignment / widening and overtaking opportunities.</p> <p>It is recommended that further environmental assessment is undertaken 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. It is also recommended that further cumulative impact assessment and environmental mitigation and enhancement measures proposed can be embedded in any final options.</p> <p>Overall the indirect/direct/synergistic and cumulative environmental effects are scored uncertain for this grouping as there is the potential for some interventions to detract from SEA objectives with the effects determined by the location, complexity, scale and design of</p>

GROUPING REFERENCE	SCENARIO (1 OR 2)	NATIONAL ASSESSMENT SUMMARY FOR RD GROUPING
		individual schemes. It is, however, expected that bypasses and dualling options will have increased potential for significant environmental impact compared to other types of options and more so in the high travel demand scenario due to the potential for these types of options to increase road based trips compared to the other types of options within this grouping. These types of options are also of likely to be of a greater scale involving more land take and associated construction activities.
RD1	2	For Scenario 2, the magnitude of effects would be the same as for Scenario 1.

GROUPING REFERENCE	SCENARIO (1 OR 2)	NATIONAL ASSESSMENT SUMMARY FOR RD GROUPING
RD3	1	<p>This grouping would result in potential positive effects on population and human health SEA objective 7 due to improved safety on the road network.</p> <p>However, the interventions are likely to result in negative effects on Climate Change, Air Quality and Material Assets SEA objectives as trunk road improvements could potentially increase the number of unsustainable private vehicles on the road network and associated emissions. Increased vehicles would also cause increases in noise associated with the transport network, although this is dependent on the proximity of noise sensitive receptors.</p> <p>An uncertain impact is assessed in relation to Population and Human Health SEA objective 4, as although the grouping would improve journey time reliability and accessibility, this would be for road transport and as such would not be considered to increase sustainable access.</p> <p>Depending on the source and type of materials/natural resources used to construct the enhancements, there is potential for negative impacts on Material Assets SEA Objective 9. As such, it is recommended that further environmental assessment be undertaken as the option develops to identify areas for re-use of construction materials, adhering with circular economy principles.</p> <p>It is recommended that further environmental assessment be undertaken as the option is developed in order to assess location specific potentially significant environmental effects and to identify appropriate mitigation where required.</p>
RD3	2	<p>For Scenario 2, the magnitude of effects would be the same as for Scenario 1.</p>
RD2	1	<p>The junction improvement, realignment / widening, overtaking opportunities, bypass and dualling options within this grouping would result in potential positive effects on Population and Human Health (SEA Objective 7) due to improved safety of the trunk road network in the North West.</p> <p>Bypass and / or dualling options could result in negative effects on Climate Change, Air</p>

GROUPING REFERENCE	SCENARIO (1 OR 2)	NATIONAL ASSESSMENT SUMMARY FOR RD GROUPING
		<p>Quality and Material Assets SEA objectives (SEA Objectives 1, 3 and 8) as they have the potential to increase capacity for the number of vehicles on the trunk road network thus increasing associated emissions. Junction improvements, realignment / widening and overtaking opportunities are not anticipated to have a notable impact on traffic volumes or mode share and subsequently transport-based emissions. In addition, any opportunity to employ methods for decarbonisation of construction, through innovation in design, procurement and construction methods, should be identified as part of the design and development process. Similar work undertaken to date in exploring options for decarbonising construction on other road schemes could be used as a basis for developing these methods.</p> <p>Significant quantities of materials and construction related trips would be required for bypasses and dualling schemes in particular, and overtaking opportunities and realignment / widening to a lesser extent depending on the complexity and scale of individual schemes. Depending on the source and type of materials/natural resources used, there is the potential for negative impacts on Material Assets (SEA Objective 9). There is though 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 with associated positive impacts.</p> <p>Any increase in the number of vehicles using the trunk road network would also cause increases in noise, although there is the potential to mitigate noise impacts and a bypass also has the potential to reduce traffic from communities and as such minimise noise and air pollution exposure at a local level. As such, a neutral impact for bypasses has been assessed for the Population and Human Health (SEA Objective 5) as is the case for junction improvements, realignment / widening and overtaking opportunities which are not expected to increase traffic volumes while dualling is anticipated to have a negative impact.</p> <p>An uncertain impact is assessed in relation to Population and Human Health (SEA Objective 4), as although the options within this grouping would support connectivity to employment and other services this would be primarily for road based transport. The trunk road network</p>

GROUPING REFERENCE	SCENARIO (1 OR 2)	NATIONAL ASSESSMENT SUMMARY FOR RD GROUPING
		<p>is, however, important to the operation of local bus services as well as inter-urban services in the North West 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 network is also important in providing connections to Uig on Skye and other ferry services on the mainland which provide access to the Inner and Outer Hebrides.</p> <p>There is the potential for negative environmental impacts during the construction and operation of the types of options within this grouping on SEA objectives related to Biodiversity, Water, Soil, Cultural Heritage, Landscape/townscape (SEA Objectives 10, 11, 12, 13 and 14 respectively). However, the scale of the impacts is uncertain at this stage, particularly for junction improvements, realignment / widening and overtaking opportunities.</p> <p>It is recommended that further environmental assessment is undertaken 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. It is also recommended that further cumulative impact assessment and environmental mitigation and enhancement measures proposed can be embedded in any final options.</p> <p>Overall the indirect/direct/synergistic and cumulative environmental effects are scored uncertain for this grouping as there is the potential for some interventions to detract from SEA objectives with the effects determined by the location, complexity, scale and design of individual schemes. It is, however, expected that bypasses and dualling options will have increased potential for significant environmental impact compared to other types of options and more so in the high travel demand scenario due to the potential for these types of options to increase road based trips compared to the other types of options within this grouping. These types of options are also of likely to be of a greater scale involving more land take and associated construction activities.</p>

GROUPING REFERENCE	SCENARIO (1 OR 2)	NATIONAL ASSESSMENT SUMMARY FOR RD GROUPING
RD2	2	For Scenario 2, the magnitude of effects would be the same as for Scenario 1.
RD4	1	<p>This grouping would result in potential positive effects on population and human health SEA objective 7 due to improved safety on the road network.</p> <p>However, the grouping is likely to result in negative effects on Climate, Air Quality and Material Assets SEA objectives as junction improvements could potentially increase the number of unsustainable private vehicles on the road network and associated emissions. Increased vehicles would also cause increases in noise associated with the transport network, although this is dependent on the proximity of noise sensitive receptors.</p> <p>An uncertain impact is assessed in relation to Population and Human Health SEA objective 4, as although the grouping would improve journey time reliability and accessibility, this would be for road transport and as such would not be considered to increase sustainable access. Positive effects could be experienced where complementary bus priority and active travel provisions are introduced.</p> <p>Depending on the source and type of materials/natural resources used to construct the enhancements, there is likely to be negative impacts on Material Assets SEA Objective 9. As such, it is recommended that further environmental assessment be undertaken as the option develops to identify areas for re-use of construction materials, adhering with circular economy principles.</p> <p>It is recommended that further environmental assessment be undertaken as the option is developed in order to assess location specific potentially significant environmental effects and to identify appropriate mitigation where required.</p>
RD4	2	For Scenario 2, the magnitude of effects would be the same as for Scenario 1.
RD4 (Dundee bypass)	1	<p>The grouping is likely to support Population and Human Health objective 7 due to improved safety on the transport network.</p> <p>However, the interventions are likely to result in significant negative effects on Climatic</p>

GROUPING REFERENCE	SCENARIO (1 OR 2)	NATIONAL ASSESSMENT SUMMARY FOR RD GROUPING
		<p>Factors and Air Quality SEA objectives and negative effects on the Material Assets SEA objectives as the construction of a bypass could potentially increase the number of unsustainable private vehicles on the road network and associated emissions. Significant quantities of material resources and associated delivery trips would also be required for road construction. Increased vehicles would also cause increases in noise associated with the transport network, however the grouping has the potential to remove traffic from urban areas and as such minimise noise and air pollution at a local level in the areas being bypassed. As such, a neutral impact has been assessed for the Population and Human Health SEA objective 5.</p> <p>An uncertain impact is assessed in relation to Population and Human Health SEA objective 4, as although the grouping would improve journey time reliability and accessibility, this would be for road transport and as such would not be considered to increase sustainable access. Uncertain impacts are also assessed for SEA Objectives 10-14 and as such it is recommended that further environmental assessment be undertaken as the option is developed in order to assess location specific potentially significant environmental effects and to identify appropriate mitigation where required.</p> <p>Depending on the source and type of materials/natural resources used for construction, there is potential for negative impacts on Material Assets SEA Objective 9. As such, it is recommended that further environmental assessment be undertaken as the option develops to identify areas for re-use of construction materials, adhering with circular economy principles.</p>
RD4 (Dundee bypass)	2	For Scenario 2, the magnitude of effects would be the same as for Scenario 1.

GROUPING REFERENCE	SCENARIO (1 OR 2)	NATIONAL ASSESSMENT SUMMARY FOR RD GROUPING
RD5	1	<p>The grouping is likely to result in Significant Positive Effects on Climatic Factors, Air Quality and Material Assets SEA Objectives as the interventions would support the reduction of emissions from the transport sector and promote the sustainable use of transport network, in addition to reducing the use of natural resources.</p> <p>Minor Positive Effects are assessed in relation to Population and Human Health SEA Objectives 4 and 5, as the interventions would both improve sustainable access to essential services, employment and the natural environment, in addition to reducing the noise associated with vehicle transport due to electric vehicle technology.</p> <p>Neutral impacts are assessed in relation to Climatic Factors (2), Population & Human Health (7) and SEA objectives 10-14, as the grouping is related, however it is not expected to contribute to the achievement of these objectives.</p>
RD5	2	<p>For Scenario 2, the magnitude of effects would be the same as for Scenario 1.</p>
RD6	1	<p>The interventions are likely to result in Significant Positive Effects upon Population & Human Health SEA Objective 7 due to improvements in safety on the road network.</p> <p>Uncertain effects have been assessed in relation to Climatic Factors and Air Quality SEA Objectives 1 and 3, as it is uncertain whether the proposed interventions will result in reductions in transport based emissions due to changes in driver behaviour.</p> <p>Neutral effects are assessed in relation to Climatic Factors (SEA Objective 2) and both Material Assets objectives as the interventions are not anticipated to adapt the transport network to the effects of climate change, promote and improve the sustainable use of the transport network, or reduce the use of natural resources. In addition, Neutral effects are assessed in relation to SEA Objectives 10-14 as the interventions would not cause any significant effects upon these environmental topics.</p>
RD6	2	<p>For Scenario 2, the magnitude of effects would be the same as for Scenario 1.</p>

GROUPING REFERENCE	SCENARIO (1 OR 2)	NATIONAL ASSESSMENT SUMMARY FOR RD GROUPING
RD7	1	<p>This grouping would result in potential positive effects on Population and Human Health SEA Objectives 4 and 7 due to improved safety on the road network and improved reliability and opportunities for sustainable accessibility via public transport vehicles to reduce the number of vehicles in some locations. In addition, positive impacts are assessed in relation to Climatic Factors (SEA Objective 1) and Air Quality (SEA Objective 3) as the grouping seeks to reduce congestion vehicle numbers and encourage car users to switch to public transport methods, and as such reducing associated vehicle-derived greenhouse gas emissions.</p> <p>Neutral effects have been assessed in relation to Climatic Factors (SEA Objective 2) and Material Assets (SEA Objective 8) as the grouping is not anticipated to adapt the transport network to the effects of climate change or promote and improve the sustainable use of the transport network. Neutral effects have also been assessed for Air Quality (SEA Objective 3) as, although the overall number of vehicles could reduce in some areas, the reallocation of road space could increase congestion on both the trunk and local road networks.</p> <p>The extent to which HOV lanes will reallocate existing road space or additional lanes will be used is not known and as such uncertain impacts are assessed for Material Assets (SEA Objective 9). As such, it is recommended that further environmental assessment be undertaken as the option develops to maximise the reallocation of existing road space, adhering with circular economy principles.</p> <p>In relation to the Uncertain effects assessed for SEA Objectives 10 to 14 (Water Environment, Biodiversity, Soil, Cultural Heritage and Landscape and Visual Amenity), it is recommended that further environmental assessment be undertaken as the option is developed in order to assess location specific potentially significant environmental effects and to identify appropriate mitigation where required.</p>
RD7	2	For Scenario 2, the magnitude of effects would be the same as for Scenario 1.
Cumulative Road Mode	1	Overall, the Road recommendations are anticipated to result in minor negative effects on SEA Objective 1 (Climatic Factors) as several of the interventions proposed have the

GROUPING REFERENCE	SCENARIO (1 OR 2)	NATIONAL ASSESSMENT SUMMARY FOR RD GROUPING
Summary		<p>potential to increase capacity for the number of vehicles on the trunk road network thus increasing associated transport emissions.</p> <p>The Road recommendations are generally anticipated to result in neutral effects on SEA Objective 2 as the majority of the intervention proposed are unlikely to have a notable effect on adapting the transport network to the predicted effects of climate change.</p> <p>The Road recommendations are anticipated to result in minor negative effects on SEA Objective 3 (Air Quality) as several of the interventions proposed have the potential to increase capacity for the number of vehicles on the trunk road network thus increasing associated transport emissions and potentially reducing air quality.</p> <p>The Road recommendations are generally anticipated to result in uncertain effects on SEA Objectives 4 and 5 (both Population and Human Health) as while some of the interventions may improve access to essential services, employment and the natural environment, this access will be achieved via the road network and therefore will not be sustainable. In addition, the various interventions proposed have the potential to both reduce and maintain / increase noise and vibration levels.</p> <p>The Road recommendations are anticipated to result in negligible effects on SEA Objective 6 (Population and Human Health) as there is no clear link between the majority of the interventions proposed and the promotion / investment in / building / maintenance of infrastructure to support the development of high-quality places.</p> <p>The Road recommendations are anticipated to result in minor positive effects on SEA Objective 7 (Population and Human Health) as the interventions proposed focus on improving safety on the road network.</p> <p>The Road recommendations are anticipated to result in minor positive effects on SEA Objectives 8 and 9 (both Material Assets) as several of the interventions proposed may require significant quantities of materials, and construction related trips would be required for bypasses and dualling schemes in particular, and overtaking opportunities and realignment /</p>

GROUPING REFERENCE	SCENARIO (1 OR 2)	NATIONAL ASSESSMENT SUMMARY FOR RD GROUPING
		<p>widening to a lesser extent depending on the complexity and scale of individual schemes. The significance of any effects will depend on the source and type of materials / natural resources used. However, it should also be noted that there is also 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 with associated positive impacts.</p> <p>The Road recommendations are generally anticipated to result in uncertain effects on SEA Objectives 10 (Water Environment), 11 (Biodiversity), 12 (Soil), 13 (Cultural Heritage) and 14 (Landscape and Visual Amenity) as there is potential for negative environmental effects during both the construction and operation of several of the interventions proposed. However, the scale of the impacts is uncertain at this stage, particularly for junction improvements, realignment / widening and overtaking opportunities.</p>
Cumulative Road Mode Summary	2	For Scenario 2, the magnitude of effects would be the same as for Scenario 1.

REGION	REGIONAL DIFFERENCES IN ASSESSMENT FOR RD PACKAGE
Argyll and Bute	<p>The group references included in the Argyll and Bute region are:</p> <ul style="list-style-type: none"> • RD3 North West Trunk Road and Motorway Network Improvements • RD5 A National Action Plan to support the shift to Low Emission/Ultra Low Emission/Electric Vehicles and help deliver Scottish Government’s net zero targets • RD6 Changing Road User Behaviour <p>Key environmental features impacted by the package of interventions:</p>

REGION	REGIONAL DIFFERENCES IN ASSESSMENT FOR RD PACKAGE
	<ul style="list-style-type: none"> • Climatic Factors The Road recommendations are anticipated to result in negative effects on Climatic Factors as one of the groups proposed has the potential to increase capacity for the number of vehicles on the trunk road network thus increasing associated transport emissions. • Air Quality The Road recommendations are anticipated to result in minor negative effects on Air Quality as one of the groups proposed has the potential to increase capacity for the number of vehicles on the trunk road network thus increasing associated transport emissions and potentially reducing air quality. • Population and Human Health The Road recommendations are anticipated to result in minor negative effects on Population and Human Health as one of the groups proposed may result in an increase in noise and vibration during construction and operation. • Material Assets The Road recommendations are anticipated to result in negative effects on Material Assets as one of the groups proposed involves the improvement of the North West Trunk Road and Motorway Network which may require a large amount of material and therefore will not reduce the use of natural resources. The group also does not support / include any interventions focusing on sustainability / travelling using different modes / planning for future capacity.
Ayrshire and Arran	<p>The group references included in the Ayrshire & Arran region are:</p> <ul style="list-style-type: none"> • RD1 South West Trunk Road and Motorway Network Improvements • RD5 A National Action Plan to support the shift to Low Emission/Ultra Low Emission/Electric Vehicles and help deliver Scottish Government’s net zero targets

REGION	REGIONAL DIFFERENCES IN ASSESSMENT FOR RD PACKAGE
	<ul style="list-style-type: none"> • RD6 Changing Road User Behaviour <p>Key environmental features impacted by the package of interventions:</p> <ul style="list-style-type: none"> • Climatic Factors The Road recommendations are anticipated to result in negative effects on Climatic Factors as one of the groups proposed has the potential to increase capacity for the number of vehicles on the trunk road network thus increasing associated transport emissions. • Air Quality The Road recommendations are anticipated to result in minor negative effects on Air Quality as one of the groups proposed has the potential to increase capacity for the number of vehicles on the trunk road network thus increasing associated transport emissions and potentially reducing air quality. • Material Assets The Road recommendations are anticipated to result in negative effects on Material Assets as one of the groups proposed involves the improvement of the South West Trunk Road and Motorway Network which may require a large amount of material and therefore will not reduce the use of natural resources. The group also does not support / include any interventions focusing on sustainability / travelling using different modes / planning for future capacity.
Edinburgh and SE Scotland	<p>The group reference included in the Edinburgh & SE Section region is:</p> <ul style="list-style-type: none"> • RD2 South East Trunk Road and Motorway Network Improvements • RD4 North East Trunk Road and Motorway Network Improvements • RD5 A National Action Plan to support the shift to Low Emission/Ultra Low Emission/Electric Vehicles and help deliver Scottish Government's net zero targets • RD6 Changing Road User Behaviour

REGION	REGIONAL DIFFERENCES IN ASSESSMENT FOR RD PACKAGE
	<p>Key environmental features impacted by the package of interventions:</p> <p>Climatic Factors The Road recommendations are anticipated to result in negative effects on Climatic Factors as one of the groups proposed has the potential to increase capacity for the number of vehicles on the trunk road network thus increasing associated transport emissions.</p> <p>Air Quality The Road recommendations are anticipated to result in minor negative effects on Air Quality as one of the groups proposed has the potential to increase capacity for the number of vehicles on the trunk road network thus increasing associated transport emissions and potentially reducing air quality.</p> <p>Material Assets The Road recommendations are anticipated to result in negative effects on Material Assets as two of the proposed groups involves the improvement of the South East Trunk Road, North East Trunk Road and Motorway Network Improvements which may require a large amount of material and therefore will not reduce the use of natural resources. The group also does not support / include any interventions focusing on sustainability / travelling using different modes / planning for future capacity.</p>
Forth Valley	<p>The group reference included in the Forth Valley region is:</p> <ul style="list-style-type: none"> • RD2 South East Trunk Road and Motorway Network Improvements • RD3 North West Trunk Road and Motorway Network Improvements • RD4 North East Trunk Road and Motorway Network Improvements • RD5 A National Action Plan to support the shift to Low Emission/Ultra Low Emission/Electric Vehicles and help deliver Scottish Government’s net zero targets • RD6 Changing Road User Behaviour

REGION	REGIONAL DIFFERENCES IN ASSESSMENT FOR RD PACKAGE
	<p>Key environmental features impacted by the package of interventions:</p> <p>Climatic Factors The Road recommendations are anticipated to result in negative effects on Climatic Factors as one of the groups proposed has the potential to increase capacity for the number of vehicles on the trunk road network thus increasing associated transport emissions.</p> <p>Air Quality The Road recommendations are anticipated to result in minor negative effects on Air Quality as two of the groups proposed has the potential to increase capacity for the number of vehicles on the trunk road network thus increasing associated transport emissions and potentially reducing air quality.</p> <p>Population and Human Health The Road recommendations are anticipated to result in minor negative effects on Population and Human Health as one of the groups proposed may result in an increase in noise and vibration during construction and operation.</p> <p>Material Assets The Road recommendations are anticipated to result in negative effects on Material Assets as a number of the proposed groups involves the improvement of the South East Trunk Road, North East Trunk Road, North West Trunk Road and Motorway Network Improvements which may require a large amount of material and therefore will not reduce the use of natural resources. The group also does not support / include any interventions focusing on sustainability / travelling using different modes / planning for future capacity.</p>
Glasgow City	<p>The group reference included in the Glasgow City region is:</p> <ul style="list-style-type: none"> • RD1 South West Trunk Road and Motorway Network Improvements

REGION	REGIONAL DIFFERENCES IN ASSESSMENT FOR RD PACKAGE
Region	<ul style="list-style-type: none"> • RD2 South East Trunk Road and Motorway Network Improvements • RD3 North West Trunk Road and Motorway Network Improvements • RD5 A National Action Plan to support the shift to Low Emission/Ultra Low Emission/Electric Vehicles and help deliver Scottish Government’s net zero targets • RD6 Changing Road User Behaviour <p>Key environmental features impacted by the package of interventions:</p> <p>Climatic Factors The Road recommendations are anticipated to result in negative effects on Climatic Factors as one of the groups proposed has the potential to increase capacity for the number of vehicles on the trunk road network thus increasing associated transport emissions.</p> <p>Air Quality The Road recommendations are anticipated to result in minor negative effects on Air Quality as a number of the groups proposed has the potential to increase capacity for the number of vehicles on the trunk road network thus increasing associated transport emissions and potentially reducing air quality.</p> <p>Population and Human Health The Road recommendations are anticipated to result in minor negative effects on Population and Human Health as one of the groups proposed may result in an increase in noise and vibration during construction and operation.</p> <p>Material Assets The Road recommendations are anticipated to result in negative effects on Material Assets as a number of the proposed groups involves the improvement of the South West and Motorway Network Improvements which may</p>

REGION	REGIONAL DIFFERENCES IN ASSESSMENT FOR RD PACKAGE
	<p>require a large amount of material and therefore will not reduce the use of natural resources. The group also does not support / include any interventions focusing on sustainability / travelling using different modes / planning for future capacity.</p>
<p>Highlands and Islands</p>	<p>The group references included in the Highlands & Islands region are:</p> <ul style="list-style-type: none"> • RD3 North West Trunk Road and Motorway Network Improvements • RD5 A National Action Plan to support the shift to Low Emission/Ultra Low Emission/Electric Vehicles and help deliver Scottish Government’s net zero targets • RD6 Changing Road User Behaviour <p>Key environmental features impacted by the package of interventions:</p> <ul style="list-style-type: none"> • Climatic Factors <ul style="list-style-type: none"> • The Road recommendations are anticipated to result in negative effects on Climatic Factors as one of the groups proposed has the potential to increase capacity for the number of vehicles on the trunk road network thus increasing associated transport emissions. • Air Quality <ul style="list-style-type: none"> • The Road recommendations are anticipated to result in minor negative effects on Air Quality as one of the groups proposed has the potential to increase capacity for the number of vehicles on the trunk road network thus increasing associated transport emissions and potentially reducing air quality. • Population and Human Health <ul style="list-style-type: none"> • The Road recommendations are anticipated to result in minor negative effects on Population and Human Health as one of the groups proposed may result in an increase in noise and vibration during construction and operation. • Material Assets <ul style="list-style-type: none"> • The Road recommendations are anticipated to result in negative effects on Material Assets as one of the

REGION	REGIONAL DIFFERENCES IN ASSESSMENT FOR RD PACKAGE
	<p>groups proposed involves the improvement of the North West Trunk Road and Motorway Network which may require a large amount of material and therefore will not reduce the use of natural resources. The group also does not support / include any interventions focusing on sustainability / travelling using different modes / planning for future capacity.</p>
North East	<p>The group references included in the North East region are:</p> <ul style="list-style-type: none"> • RD4 North East Trunk Road and Motorway Network Improvements • RD5 A National Action Plan to support the shift to Low Emission/Ultra Low Emission/Electric Vehicles and help deliver Scottish Government’s net zero targets • RD6 Changing Road User Behaviour <p>Key environmental features impacted by the package of interventions:</p> <ul style="list-style-type: none"> • Climatic Factors <ul style="list-style-type: none"> • The Road recommendations are anticipated to result in negative effects on Climatic Factors as one of the groups proposed has the potential to increase capacity for the number of vehicles on the trunk road network thus increasing associated transport emissions. • Air Quality <ul style="list-style-type: none"> • The Road recommendations are anticipated to result in minor negative effects on Air Quality as one of the groups proposed has the potential to increase capacity for the number of vehicles on the trunk road network thus increasing associated transport emissions and potentially reducing air quality. • Material Assets <ul style="list-style-type: none"> • The Road recommendations are anticipated to result in negative effects on Material Assets as one of the groups proposed involves the improvement of the North East Trunk Road and Motorway Network which may require a large amount of material and therefore will not reduce the use of natural resources. The group also does not support / include any interventions focusing on sustainability / travelling using different modes / planning for future capacity.

REGION	REGIONAL DIFFERENCES IN ASSESSMENT FOR RD PACKAGE
	<ul style="list-style-type: none"> •
Borders	<p>The group references included in the Borders region are:</p> <ul style="list-style-type: none"> • RD2 South East Trunk Road and Motorway Network Improvements • RD5 A National Action Plan to support the shift to Low Emission/Ultra Low Emission/Electric Vehicles and help deliver Scottish Government’s net zero targets • RD6 Changing Road User Behaviour <p>Material Assets</p> <p>The Road recommendations are anticipated to result in negative effects on Material Assets as one of the groups proposed involves the improvement of the South East Trunk Road and Motorway Network which may require a large amount of material and therefore will not reduce the use of natural resources. The group also does not support / include any interventions focusing on sustainability / travelling using different modes / planning for future capacity.</p>
Shetland Isles	<ul style="list-style-type: none"> • The group references included in the Shetland Isles region are: • RD5 A National Action Plan to support the shift to Low Emission/Ultra Low Emission/Electric Vehicles and help deliver Scottish Government’s net zero targets • RD6 Changing Road User Behaviour • No key environmental features within the SEA topics in the region have been identified as being negatively impacted by the package.

REGION	REGIONAL DIFFERENCES IN ASSESSMENT FOR RD PACKAGE
South West	<p>The group references included in the South West region are:</p> <ul style="list-style-type: none"> • RD1 South West Trunk Road and Motorway Network Improvements • RD5 A National Action Plan to support the shift to Low Emission/Ultra Low Emission/Electric Vehicles and help deliver Scottish Government’s net zero targets • RD6 Changing Road User Behaviour <p>Climatic Factors</p> <p>The Road recommendations are anticipated to result in negative effects on Climatic Factors as one of the groups proposed has the potential to increase capacity for the number of vehicles on the trunk road network thus increasing associated transport emissions.</p> <p>Air Quality</p> <p>The Road recommendations are anticipated to result in minor negative effects on Air Quality as one of the groups proposed has the potential to increase capacity for the number of vehicles on the trunk road network thus increasing associated transport emissions and potentially reducing air quality.</p> <p>Material Assets</p> <p>The Road recommendations are anticipated to result in negative effects on Material Assets as one of the groups proposed involves the improvement of the South West Trunk Road and Motorway Network which may require a large amount of material and therefore will not reduce the use of natural resources. The group also does not support / include any interventions focusing on sustainability / travelling using different modes / planning for future capacity.</p>

REGION	REGIONAL DIFFERENCES IN ASSESSMENT FOR RD PACKAGE
Tay Cities	<p>The group references included in the Tay Cities region are:</p> <ul style="list-style-type: none"> • RD4 North East Trunk Road and Motorway Network Improvements • RD5 A National Action Plan to support the shift to Low Emission/Ultra Low Emission/Electric Vehicles and help deliver Scottish Government’s net zero targets • RD6 Changing Road User Behaviour <p>Climatic Factors</p> <p>The Road recommendations are anticipated to result in negative effects on Climatic Factors as one of the groups proposed has the potential to increase capacity for the number of vehicles on the trunk road network thus increasing associated transport emissions.</p> <p>Air Quality</p> <p>The Road recommendations are anticipated to result in minor negative effects on Air Quality as one of the groups proposed has the potential to increase capacity for the number of vehicles on the trunk road network thus increasing associated transport emissions and potentially reducing air quality.</p> <p>Material Assets</p> <p>The Road recommendations are anticipated to result in negative effects on Material Assets as one of the groups proposed involves the improvement of the North East Trunk Road and Motorway Network which may require a large amount of material and therefore will not reduce the use of natural resources. The group also does not support / include any interventions focusing on sustainability / travelling using different modes / planning for future capacity.</p>

National Technology (TY) Mode

GROUPING REFERENCE	GROUPING DESCRIPTION
TY6	Incident Management Software (IMS) Upgrade: Incident Management System replacement to maintain the current level of service across the trunk road network.
TY7	Control Centre of the Future: This would involve investment enhancement of the capabilities of the Traffic Scotland National Control Centre, and how to plan for the future renewal and replacement of equipment, systems and services to maximise network operations.
TY8	Intelligent Transport Systems (ITS) Roadside Infrastructure: Investment in ITS which helps to ensure the availability, resilience, safety and quality of the transport infrastructure that is used to actively manage and control traffic during incidents and hazardous weather conditions.
TY12	Integrated Public Transport Ticketing: Integration of ticketing across public transport (bus, rail and ferries).

GROUPING REFERENCE	SCENARIO (1 OR 2)	SEA OBJECTIVES ASSESSMENT SCORES														
		1. CLIMATE MITIGATION	2. CLIMATE ADAPTATION	3. AIR QUALITY	4. PHH QUALITY OF LIFE	5. PHH NOISE AND VIBRATION	6. PHH HIGH QUALITY PLACES	7. PHH SAFETY	8. MATERIAL ASSETS SUSTAINABILITY	9. MATERIAL ASSETS NATURAL RESOURCES	10. WATER ENVIRONMENT	11. BIODIVERSITY	12. SOIL	13. CULTURAL HERITAGE	14. LANDSCAPE AND VISUAL AMENITY	CUMULATIVE SCORE
TY6	1	?	+	?	+	0	~	+	+	~	0	0	0	0	0	0
TY6	2	?	+	?	+	0	~	+	+	~	0	0	0	0	0	0
TY7	1	?	+	?	+	0	~	+	+	~	0	0	0	0	0	0
TY7	2	?	+	?	+	0	~	+	+	~	0	0	0	0	0	0

GROUPING REFERENCE	SCENARIO (1 OR 2)	SEA OBJECTIVES ASSESSMENT SCORES														CUMULATIVE SCORE
		1. CLIMATE MITIGATION	2. CLIMATE ADAPTATION	3. AIR QUALITY	4. PHH QUALITY OF LIFE	5. PHH NOISE AND VIBRATION	6. PHH HIGH QUALITY PLACES	7. PHH SAFETY	8. MATERIAL ASSETS SUSTAINABILITY	9. MATERIAL ASSETS NATURAL RESOURCES	10. WATER ENVIRONMENT	11. BIODIVERSITY	12. SOIL	13. CULTURAL HERITAGE	14. LANDSCAPE AND VISUAL AMENITY	
TY8	1	?	+	?	+	0	~	+	+	?	0	0	0	0	0	0
TY8	2	?	+	?	+	0	~	+	+	?	0	0	0	0	0	0
TY12	1	+	0	+	+	0	~	0	++	0	0	0	0	0	0	0
TY12	2	0	+	0	+	?	~	+	+	?	?	?	?	?	?	?

GROUPING REFERENCE	SCENARIO (1 OR 2)	SEA OBJECTIVES ASSESSMENT SCORES														
		1. CLIMATE MITIGATION	2. CLIMATE ADAPTATION	3. AIR QUALITY	4. PHH QUALITY OF LIFE	5. PHH NOISE AND VIBRATION	6. PHH HIGH QUALITY PLACES	7. PHH SAFETY	8. MATERIAL ASSETS SUSTAINABILITY	9. MATERIAL ASSETS NATURAL RESOURCES	10. WATER ENVIRONMENT	11. BIODIVERSITY	12. SOIL	13. CULTURAL HERITAGE	14. LANDSCAPE AND VISUAL AMENITY	CUMULATIVE SCORE
Cumulative Technology Mode Summary	1	?	+	?	+	0	~	+	+	~	0	0	0	0	0	0
Cumulative Technology Mode Summary	2	?	+	?	+	0	~	+	+	~	0	0	0	0	0	0

GROUPING REFERENCE	SCENARIO (1 OR 2)	NATIONAL ASSESSMENT SUMMARY FOR TY GROUPING
TY6	1	<p>The grouping is likely to support some of the SEA objectives related to Population and Human Health (4 and 7) and Climatic Factors (2) due to improved journey reliability and safety and resilience of the road network through management during incidents or severe weather events. Minor positive effects are also assessed in relation to the Material Assets SEA objective 8, due to the improvements in transport technology.</p> <p>Uncertain effects have been assessed in relation to SEA objectives Climatic Factors (1) and Air Quality (3) as it is uncertain whether the grouping would result in a reduction or increase in the emissions of the transport system. Although improvements may result in the smoother flow of traffic and reduction of congestion, this may encourage greater use of the transport network generally.</p> <p>It is considered that there would be neutral or negligible effects on the remaining SEA objectives as the grouping is not directly related to them. However, it is not assessed to result in any negative effects on the achievement of SEA objectives related to Population & Human Health (5), Water Environment (10), Biodiversity (11), Soil (12), Cultural Heritage (13) and Landscape and Visual Amenity (14).</p>
TY6	2	For the High Scenario, the magnitude of effects will be less than for the Low Scenario.

GROUPING REFERENCE	SCENARIO (1 OR 2)	NATIONAL ASSESSMENT SUMMARY FOR TY GROUPING
TY7	1	<p>The grouping is likely to support SEA objectives related to Population and Human Health (Objectives 4 and 7) and Climatic Factors (Objective 2) due to improved journey reliability and safety and resilience of the road network through the planning, monitoring, control, co-ordination and response to major travel incidents and severe weather incidents on the trunk road network. Minor positive effects are also assessed in relation to Material Assets (Objective 8), due to improvements in transport technology.</p> <p>Uncertain effects have been assessed in relation to SEA objectives for Climatic Factors (Objective 1) and Air Quality (Objective 3) as it is uncertain whether the grouping would result in a reduction or increase in the emissions of the transport system generally and the extent of modal shift.</p> <p>It is considered that there would be neutral or negligible effects on the remaining SEA objectives as the grouping is not directly related to them. However, it is not assessed to result in any negative effects on the achievement of SEA objectives related to Population & Human Health (5), Water Environment (Objective 10), Biodiversity (Objective 11), Soil (Objective 12), Cultural Heritage (Objective 13) and Landscape and Visual Amenity (Objective 14).</p>
TY7	2	For the High Scenario, the magnitude of effects will be less than for the Low Scenario.

GROUPING REFERENCE	SCENARIO (1 OR 2)	NATIONAL ASSESSMENT SUMMARY FOR TY GROUPING
TY8	1	<p>The grouping is likely to support SEA objectives related to Population and Human Health (Objectives 4 and 7) and Climatic Factors (Objective 2) due to improved journey reliability and safety and resilience of the road network through the planning, monitoring, control, co-ordination and response to major travel incidents and severe weather incidents on the trunk road network. Minor positive effects are also assessed in relation to Material Assets (Objective 8), due to improvements in transport technology.</p> <p>Uncertain effects have been assessed in relation to SEA objectives for Climatic Factors (Objective 1) and Air Quality (Objective 3) as it is uncertain whether the grouping would result in a reduction or increase in the emissions of the transport system generally and the extent of modal shift. Uncertain effects have also been assessed in relation to Material Assets (Objective 9) as the design/extent of new roadside infrastructure is unknown at this stage.</p> <p>It is considered that there would be neutral or negligible effects on the remaining SEA objectives as the grouping is not directly related to them. However, it is not assessed to result in any negative effects on the achievement of SEA objectives related to Population & Human Health (5), Water Environment (Objective 10), Biodiversity (Objective 11), Soil (Objective 12), Cultural Heritage (Objective 13) and Landscape and Visual Amenity (Objective 14).</p>
TY8	2	Findings the same as scenario 1 however impact would be reduced with a decrease in travel

GROUPING REFERENCE	SCENARIO (1 OR 2)	NATIONAL ASSESSMENT SUMMARY FOR TY GROUPING
TY12	1	<p>The grouping is likely to support SEA objectives related to Climatic Factors (1) and Air Quality (3) as Integrated Public Transport Ticketing is likely to encourage more people to use public transport methods which are more sustainable methods of travel. In addition, the grouping supports the Population & Human Health SEA Objective 4, as Integrated Ticketing would enable greater accessibility to essential services, employment and the natural environment.</p> <p>A significant positive effect is assessed for Material Assets SEA objective 8 as the grouping would promote and improve the sustainable use of the transport network through integrated ticketing.</p> <p>It is considered that there would be neutral or negligible effects on the remaining SEA objectives as the grouping is unrelated. However, it is not assessed to result in any negative effects on the achievement of SEA objectives related to Population and Human Health (5 and 7), Material Assets (9), Water Environment (10), Biodiversity (11), Soil (12), Cultural Heritage (13) and Landscape and Visual Amenity (14).</p>
TY12	2	<p>For the High Scenario, the magnitude of effects will be less than for the Low Scenario.</p>
Cumulative Technology Mode Summary	1	<p>Overall, the Technology recommendations are anticipated to result in uncertain effects on SEA Objective 1 (Climatic Factors) as it is uncertain whether the majority of the interventions proposed would result in a reduction or increase in the emissions of the transport system generally, and the extent of the modal shift that these interventions would encourage.</p> <p>Overall, the Technology recommendations are anticipated to result in minor positive effects on SEA Objective 2 (Climatic Factors) as the majority of the interventions proposed are expected to result in improved journey reliability and safety and resilience of the road network through the planning, monitoring, control, co-ordination and response to major travel incidents and severe weather incidents on the trunk road network, thereby helping adapt the transport network to the predicted effects of climate change.</p> <p>The Technology recommendations are anticipated to result in uncertain effects on SEA</p>

GROUPING REFERENCE	SCENARIO (1 OR 2)	NATIONAL ASSESSMENT SUMMARY FOR TY GROUPING
		<p>Objective 3 (Air Quality) as it is uncertain whether the proposed interventions would result in a reduction or increase in the emissions of the transport system or, consequently, any improvements in air quality across Scotland.</p> <p>The Technology recommendations are anticipated to result in minor positive effects on SEA Objective 4 (Population and Human Health) as each of the interventions proposed are likely to improve quality of life and human health and increase sustainable access to essential services, employment and the natural environment by ensuring safe and sustainable access for all users to essential services and employment, providing increasing transport choice that meets the needs of the population, supporting changing demographics by providing appropriate transport facilities to meet their needs, allowing for greater journey time reliability, and improving access to healthcare facilities.</p> <p>The Technology recommendations are anticipated to result in neutral effects on SEA Objective 5 (Population and Human Health) as the interventions proposed are not expected to have any notable effect on noise and vibration levels associated with the transport network.</p> <p>The Technology recommendations are anticipated to result in negligible effects on SEA Objective 6 (Population and Human Health) as these recommendations are not considered to be directly linked to the promotion of / investment in / building or maintenance of infrastructure to support the development of high-quality places.</p> <p>The Technology recommendations are generally anticipated to result in minor positive effects on SEA Objective 7 (Population and Human Health) as the proposed interventions are expected to result in improved journey reliability and safety and resilience of the road network through the planning, monitoring, control, co-ordination and response to major travel incidents and severe weather incidents on the trunk road network, thereby resulting in improved safety on the transport network including potential reductions in the likelihood of transport-relate road accidents and casualties.</p> <p>The Technology recommendations are generally anticipated to result in minor positive effects on SEA Objective 8 (Material Assets) due to improvements in transport technology associated</p>

GROUPING REFERENCE	SCENARIO (1 OR 2)	NATIONAL ASSESSMENT SUMMARY FOR TY GROUPING
		<p>with the proposed interventions which are expected to promote and improve the sustainable use of the transport network.</p> <p>The Technology recommendations are generally anticipated to result in negligible effects on SEA Objective 9 (Material Assets) as the proposed interventions are generally not considered to be directly related to the reduction in use of natural resources.</p> <p>The Technology recommendations are anticipated to result in neutral effects on SEA Objectives 10 (Water Environment), 11 (Biodiversity), 12 (Soil), 13 (Cultural Heritage) and 14 (Landscape and Visual Amenity) as the proposed interventions are not considered to result any negative effects on the achievement of these SEA objectives.</p>
Cumulative Technology Mode Summary	2	For Scenario 2, the magnitude of effects will be less than for Scenario 1.

REGION	REGIONAL DIFFERENCES IN ASSESSMENT FOR TY PACKAGE
Argyll and Bute	<p>The group references included in the Argyll & Bute Section region are:</p> <ul style="list-style-type: none"> • TY6 Incident Management Software (IMS) Upgrade • TY7 Control Centre of the Future • TY8 Intelligent Transport Systems (ITS) Roadside Infrastructure • TY12 Integrated Public Transport Ticketing <p>No key environmental features within the SEA topics in the region have been identified as being negatively impacted by the package.</p>

REGION	REGIONAL DIFFERENCES IN ASSESSMENT FOR TY PACKAGE
Ayrshire and Arran	<ul style="list-style-type: none"> • The group references included in the Ayrshire & Arran Section region are: • TY6 Incident Management Software (IMS) Upgrade • TY7 Control Centre of the Future • TY8 Intelligent Transport Systems (ITS) Roadside Infrastructure • TY12 Integrated Public Transport Ticketing • No key environmental features within the SEA topics in the region have been identified as being negatively impacted by the package.
Edinburgh and SE Scotland	<p>The group references included in the Edinburgh & SE Section region are:</p> <ul style="list-style-type: none"> • TY6 Incident Management Software (IMS) Upgrade • TY7 Control Centre of the Future • TY8 Intelligent Transport Systems (ITS) Roadside Infrastructure • TY12 Integrated Public Transport Ticketing <p>No key environmental features within the SEA topics in the region have been identified as being negatively impacted by the package.</p>
Forth Valley	<p>The group references included in the Forth Valley region are:</p> <ul style="list-style-type: none"> • TY6 Incident Management Software (IMS) Upgrade • TY7 Control Centre of the Future • TY8 Intelligent Transport Systems (ITS) Roadside Infrastructure • TY12 Integrated Public Transport Ticketing <p>No key environmental features within the SEA topics in the region have been identified as being negatively impacted by the package.</p>

REGION	REGIONAL DIFFERENCES IN ASSESSMENT FOR TY PACKAGE
Glasgow City Region	<p>The group references included in the Glasgow City region are:</p> <ul style="list-style-type: none"> • TY6 Incident Management Software (IMS) Upgrade • TY7 Control Centre of the Future • TY8 Intelligent Transport Systems (ITS) Roadside Infrastructure • TY12 Integrated Public Transport Ticketing <p>No key environmental features within the SEA topics in the region have been identified as being negatively impacted by the package.</p>
Highlands and Islands	<ul style="list-style-type: none"> • The group references included in the Highlands & Islands region are: • TY6 Incident Management Software (IMS) Upgrade • TY7 Control Centre of the Future • TY8 Intelligent Transport Systems (ITS) Roadside Infrastructure • TY12 Integrated Public Transport Ticketing <p>No key environmental features within the SEA topics in the region have been identified as being negatively impacted by the package.</p>
North East	<ul style="list-style-type: none"> • The group references included in the North East region are: • TY6 Incident Management Software (IMS) Upgrade • TY7 Control Centre of the Future • TY8 Intelligent Transport Systems (ITS) Roadside Infrastructure • TY12 Integrated Public Transport Ticketing <p>No key environmental features within the SEA topics in the region have been identified as being negatively impacted by the package.</p>

REGION	REGIONAL DIFFERENCES IN ASSESSMENT FOR TY PACKAGE
Borders	<p>The group references included in the Borders region are:</p> <ul style="list-style-type: none"> • TY6 Incident Management Software (IMS) Upgrade • TY7 Control Centre of the Future • TY8 Intelligent Transport Systems (ITS) Roadside Infrastructure • TY12 Integrated Public Transport Ticketing <p>No key environmental features within the SEA topics in the region have been identified as being negatively impacted by the package.</p>
Shetland Isles	<ul style="list-style-type: none"> • The group references included in the Borders region are: • TY7 Control Centre of the Future • TY12 Integrated Public Transport Ticketing • No key environmental features within the SEA topics in the region have been identified as being negatively impacted by the package.
South West	<p>The group references included in the South West region are:</p> <ul style="list-style-type: none"> • TY6 Incident Management Software (IMS) Upgrade • TY7 Control Centre of the Future • TY8 Intelligent Transport Systems (ITS) Roadside Infrastructure • TY12 Integrated Public Transport Ticketing <p>No key environmental features within the SEA topics in the region have been identified as being negatively impacted by the package.</p>

REGION	REGIONAL DIFFERENCES IN ASSESSMENT FOR TY PACKAGE
Tay Cities	<p>The group references included in the Tay Cities region are:</p> <ul style="list-style-type: none"> • TY6 Incident Management Software (IMS) Upgrade • TY7 Control Centre of the Future • TY8 Intelligent Transport Systems (ITS) Roadside Infrastructure • TY12 Integrated Public Transport Ticketing <p>No key environmental features within the SEA topics in the region have been identified as being negatively impacted by the package.</p>

SEA Topics – National Summaries

SEA TOPIC	NATIONAL SUMMARY FOR ALL PACKAGES
<p>1. Climatic Factors (GHG)</p>	<p>Overall, most of the recommendations (Freight, Metro, Passenger Transport, Rail) are anticipated to result in minor positive effects on SEA Objective 1 (Climatic Factors) as the interventions proposed seek to promote a modal shift to more sustainable transport options and thus will help meet Scotland's wider targets to reduce greenhouse gas emissions. Additionally, intervention RL5 (Rail) will also help reduce emissions from Scotland's transport sector through the decarbonisation of the rail network, thereby helping contribute to the achievement of Scotland's CO2 emissions reduction target of net zero by 2045, and promoting and supporting the best use of clean fuels/technologies.</p> <p>The Island Connectivity and Multi Modal recommendations are anticipated to result in uncertain effects on SEA Objective 1 (Climatic Factors) as the various interventions are not likely to contribute to reducing emissions from Scotland's transport sector by reducing the need to travel and encouraging modal shift and help meet Scotland's wider targets to reduce greenhouse gas emissions. In addition, some of the new fixed links proposed (Island Connectivity) have the potential to result in an increase in motorised traffic to and from the mainland, potentially resulting in increases in emissions in turn. However, intervention IC4 (Island Connectivity) is likely to result in major positive effects on SEA Objective 1 as the decarbonisation of the CHFS and NIFS ferry networks will directly contribute to the achievement of Scotland's CO2 emissions reduction target of net zero by 2045, promote and support the best use of clean fuels / technologies, and promote and facilitate modal shift to more sustainable transport options.</p> <p>The Road recommendations are anticipated to result in minor negative effects on SEA Objective 1 (Climatic Factors) as several of the interventions proposed have the potential to increase capacity for the number of vehicles on the trunk road network thus increasing associated transport emissions.</p>

SEA TOPIC	NATIONAL SUMMARY FOR ALL PACKAGES
<p>2. Climatic Factors (Adaptation)</p>	<p>Overall, just under half of the recommendations (Island Connectivity, Metro, Multi modal, Rail, technology) are anticipated to result in minor positive effects on SEA Objectives 2 (Climatic Factors) as the interventions proposed encourage a modal shift to more sustainable transport options, thereby helping reduce emissions from Scotland's transport sector and meet Scotland's wider targets to reduce greenhouse gas emissions, and helping adapt the transport network to the predicted effects of climate change. The interventions involve prioritisation of adaptation of transport connections to critical infrastructure, islands and coastal communities that are more vulnerable to the projected impacts of climate change through the proposed improvements to railway resilience, new rail lines, new trail rail stations and new ferry connections. Interventions IC2 and IC4 (Island Connectivity) are anticipated to result in uncertain and negligible effects on SEA Objective 2 respectively as these interventions will not necessarily adapt the ferry network to the predicted effects of climate change. However, the new ferry routes proposed as part of IC2 could potentially improve access to / within isolated island communities at risk from climate change.</p> <p>Some of the recommendations (Active Travel, Behaviour change and Bus) are anticipated to result in negligible effects on SEA Objective 2 (Climatic Factors) as the majority of the interventions proposed will not directly help to adapt the transport network to the predicted effects of climate change.</p> <p>The Passenger Transport recommendations are anticipated to result in uncertain effects on SEA Objective 2 (Climatic Factors) as there is no clear relationship between the interventions proposed and the adaptation of the transport network to the predicted impacts of climate change.</p> <p>The Road and the Freight recommendations are generally anticipated to result in neutral effects on SEA Objective 2 as the majority of the intervention proposed are unlikely to have a notable effect on adapting the transport network to the predicted effects of climate change. However, intervention FT4 (Freight) is anticipated to have a minor positive effect on SEA Objective 2 as this intervention aims to provide improved resilience on the road network in Scotland for the freight industry e.g. strengthening bridges.</p>

SEA TOPIC	NATIONAL SUMMARY FOR ALL PACKAGES
3. Air quality	<p>Overall, most of the recommendations (Active Travel, Behaviour Change, Bus, Freight, Metro, Passenger Transport, Rail) are anticipated to result in minor positive effects on SEA Objective 3 (Air Quality) as the interventions proposed seek to promote a modal shift to more sustainable transport options and consequently will help reduce all forms of transport-related air pollution and improve air quality throughout Scotland by, for example, helping to reduce traffic congestion, limiting more polluting vehicles, limiting polluting traffic growth, decarbonisation of freight deliveries and improving the modal shift of freight from road to rail.</p> <p>Island Connectivity, Multi Modal and Technology recommendations are anticipated to result in uncertain effects on SEA Objective 3 (Air Quality) as it is uncertain whether the proposed interventions would result in a reduction or increase in the emissions of the transport system or, consequently, any improvements in air quality across Scotland. Furthermore, island Connectivity proposals have the potential to result in increases in motorised traffic to and from the mainland, thereby potentially resulting in increases in emissions and reductions in air quality. However, interventions IC1c, IC1d, IC1e, IC1g and IC1h also involve upgrades to / replacement of vessels which could potentially result in reductions in air pollution and contribute to improvements in air quality. Intervention IC4 is anticipated to result in major positive effects on SEA Objective 3 as the decarbonisation of the CHFS and NIFS ferry networks will help reduce emissions of key air pollutants (NO_x, particulates, SO₂) from ferry transport, help to limit polluting traffic growth, and potentially limit more polluting vehicles in sensitive areas.</p> <p>The Road recommendations are anticipated to result in minor negative effects on SEA Objective 3 (Air Quality) as several of the interventions proposed have the potential to increase capacity for the number of vehicles on the trunk road network thus increasing associated transport emissions and potentially reducing air quality.</p>

SEA TOPIC	NATIONAL SUMMARY FOR ALL PACKAGES
<p>4. Population & Human Health (Quality of life)</p>	<p>A significant majority of recommendations (Active Travel, Behaviour Change, Bus, Island Connectivity, Metro, Multi Modal, Passenger Transport, Rail, Technology) are anticipated to result in minor positive effects on SEA Objective 4 (Population and Human Health) as the interventions proposed will improve quality of life and human health and increase sustainable access to essential services, employment and the natural environment through improved access to more sustainable forms of transport, provision of active travel connections and related interventions between villages and nearby towns/regional centres, and improvements to existing roads for the purpose of active travel (e.g. improved crossing points, surfacing, lighting etc.). The decarbonisation of the bus network will also potentially encourage sustainable access to the natural and historic environment and ensure safe and sustainable access for all users to essential services and employment.</p> <p>The Freight recommendations are anticipated to result in neutral effects on SEA Objective 4 (Population and Human Health) as the relationship between the majority of the interventions and the achievement of SEA Objective 4 (i.e. improvements in quality of life and human health and increases in sustainable access to essential services, employment and the natural environment) is uncertain/unclear. However, it should be noted that several of the interventions proposed (including FT3, FT4 and FT6) are anticipated to result in minor positive effects on SEA Objective 4 largely owing to these interventions ensuring safe and sustainable access to essential services and employment, and allowing for greater journey time reliability.</p> <p>The Road recommendations are generally anticipated to result in uncertain effects on SEA Objective 4 (Population and Human Health) as while some of the interventions may improve access to essential services, employment and the natural environment, this access will be achieved via the road network and therefore will not be sustainable. In addition, the various interventions proposed have the potential to both reduce and maintain/increase noise and vibration levels.</p>

SEA TOPIC	NATIONAL SUMMARY FOR ALL PACKAGES
<p>5. Population & Human Health (Noise and Vibration)</p>	<p>Most of the recommendations (Bus, Freight, Metro, Multi Modal, Passenger Transport, Rail, Road) are anticipated to result in uncertain effects on SEA Objective 5 (Population and Human Health) as it is unclear if the proposed interventions will reduce noise and vibration associated with the transport network, or promote/invest in/build and maintain infrastructure to support the development of high-quality places. Additionally, while some of the Freight interventions would result in a reduction in noise and vibration on key routes, there is potential for negative environmental effects associated with the construction and operation of other Freight interventions, although this will be dependent of the location and nature of the enhancements adopted. Some of the Rail interventions could result in reductions in noise and vibration (e.g. RL5 which involves a move away from diesel engines to alternatives such as hydrogen or battery), several of the other Rail interventions proposed could lead to potential increases in noise associated with the proposed expansions to the rail network, although this is dependent on the proximity of noise sensitive receptors.</p> <p>The Active Travel and Behavioural Change recommendations are generally anticipated to result in minor positive effects on SEA Objective 5 (Population and Human Health) as the majority of the interventions proposed will help reduce noise and vibration on the transport network by encouraging a modal shift to more sustainable modes of travel, i.e. active travel options and expanding 20mph zones and limits across Scotland.</p> <p>The Technology recommendations are anticipated to result in neutral effects on SEA Objective 5 (Population and Human Health) as the interventions proposed are not expected to have any notable effect on noise and vibration levels associated with the transport network.</p> <p>The Island Connectivity recommendations are generally anticipated to result in minor negative effects on SEA Objective 5 (Population and Human Health) as the majority of the interventions proposed will not reduce noise and vibration on the transport network as many of the proposals comprise expansions to the existing ferry network including more frequent ferry services and new ferry routes, resulting in potential increases in noise and vibration during both the construction and operation phases of these interventions.</p>

SEA TOPIC	NATIONAL SUMMARY FOR ALL PACKAGES
<p>6. Population & Human Health (High Quality Places)</p>	<p>Four of the recommendations (Freight, Multi Modal, Passenger Transport, Rail) are anticipated to result in neutral effects on SEA Objective 6 (Population and Human Health) as, given the nature of the various interventions proposed, it is unlikely to have a notable effect on the promotion/investment in/building/maintenance of infrastructure to support the development of high quality places. Although there is potential for positive effects on SEA Objective 6 associated with one of the interventions (Passenger Transport) due to the proposed improvements to the quality of passenger facilities for all users, including those with reduced mobility.</p> <p>Three of the recommendations (Behaviour Change, Bus and Metro) are anticipated to result in uncertain effects on SEA Objective 6 (Population and Human Health) as while the expansion of 20mph zones and limits across Scotland will support the development of places that feel safe to all users, the encouragement of more people to make use of active and sustainable transport choices more often through national, regional and/or local initiatives will not directly help promote/invest in/build/maintain infrastructure to support the development of high-quality places.</p> <p>Three of the recommendations (Island Connectivity, Road and Technology) are anticipated to result in negligible effects on SEA Objective 6 (Population and Human Health) as these interventions will not significantly promote/invest in/build/maintain infrastructure to support the development of high-quality places (including the development of places that feel safe to all users, prioritisation of pedestrians in the public realm or the creation and maintenance of an attractive public realm), or improve safety on the transport network.</p> <p>The Active Travel recommendations are anticipated to result in minor positive effects on SEA Objective 6 (Population and Human Health) as the interventions proposed will help promote/invest in/build/maintain infrastructure to support the development of high-quality places by prioritising pedestrians in the public realm. Some of the interventions will also help support the development places that feel safe to all users through improvements to active travel routes including road crossings and lighting, and measures to reduce traffic volumes and/or speeds and campaigns to promote better driver behaviour.</p>

SEA TOPIC	NATIONAL SUMMARY FOR ALL PACKAGES
<p>7. Population & Human Health (Safety)</p>	<p>Overall, most of the recommendations (Active Travel, behaviour Change, Freight, Multi Modal, Passenger Transport, Rail, Road, technology) are anticipated to result in minor positive effects on SEA Objective 7 (Population and Human Health) as these interventions will help improve safety on the transport network by potentially reducing the likelihood of transport-related road accidents and casualties by encouraging a modal shift to more sustainable modes of travel, i.e. active travel options; the expansion of 20mph zones and limits across Scotland; a modal shift of freight from road to rail, in addition to proposals for freight rest stops; various improvements/upgrades to existing mobility hubs and public transport facilities.</p> <p>The Bus and Metro recommendations are anticipated to result in uncertain effects on SEA Objective 7 as while the delivery of faster and more reliable journey times for bus passengers will support the development of places that feel safe to all users, it is unlikely that the decarbonisation of the network would contribute to the achievement of the promotion/investment in/building/maintenance of infrastructure to support the development of high-quality places. It is unclear if the Metro mode interventions proposed will improve safety on the transport network by reducing the likelihood of transport-related road accidents and casualties. However, one of the interventions proposed is considered to have minor positive effects on SEA Objective 7 as this intervention involves proposals for bus rapid transit, rail conversion and tram network extension, thereby potentially leading to reduced road traffic and consequently, road accidents and casualties as well.</p> <p>The Island Connectivity recommendations are anticipated to result in negligible effects on SEA 7 as these interventions will not significantly promote/invest in/build/maintain infrastructure to support the development of high-quality places (including the development of places that feel safe to all users, prioritisation of pedestrians in the public realm or the creation and maintenance of an attractive public realm) , or improve safety on the transport network.</p>

8. Material Assets
(Sustainability)

Most of the recommendations (Active Travel, Bus, Island Connectivity, Freight, Passenger Transport, Rail, Road, Technology) are anticipated to result in minor positive effects on SEA Objective 8 (Material Assets) as the interventions proposed each aim to promote/improve the sustainable use of the transport network by planning for future travel arrangements where journeys are made by a number of different recommendations (including Active Travel). The Island Connectivity recommendations propose improvements to ferry interchanges and timetabling, and helping plan for the future capacity of public transport, taking demographic and other societal changes, particularly within island/coastal communities, into account. Some of the interventions will also help plan for future travel arrangements where journeys are made by a number of different modes by providing new ferry/fixed links which will connect to new road connections (e.g. IC1d). Interventions IC1c, IC1d, IC1e, IC1g, IC1h and IC4 also support improvements to transport technology and promotes the sustainable use and management of existing infrastructure through the various proposals for upgrades to/replacement of vessels, and the decarbonisation of the ferry network. Several of the Road interventions proposed may require significant quantities of materials, and construction related trips would be required for bypasses and dualling schemes in particular, and overtaking opportunities and realignment/widening to a lesser extent depending on the complexity and scale of individual schemes. The significance of any effects will depend on the source and type of materials/natural resources used. However, it should also be noted that there is also 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 with associated positive impacts.

The Behaviour Change and Metro recommendations are anticipated to result in uncertain effects on SEA Objective 8 (Material Assets) as the encouragement/enablement/incentivisation for more people to make use of active and sustainable transport choices more often through national, regional and/or local initiatives will promote and improve the sustainable use of the transport network. However, there is not a clear link between the expansion of 20mph zones and limits across Scotland and the promotion and improvement of the sustainable use of the transport network. Additionally, MT2 (Metro) is considered to result in major positive effects on SEA Objective 8 as this intervention involves proposals for bus rapid transit, rail conversion and tram network extension, thereby potentially helping plan for future travel arrangement where journeys are made by a number of different modes, and plan for the future capacity of public transport, taking demographic and other societal changes into account.

9. Material Assets (Natural Resources)

A significant majority of the recommendations (Active Travel, Behaviour Change, Bus, Freight, Metro, Multi, Passenger Transport, Rail) are anticipated to result in uncertain effects on SEA Objective 9 (Material Assets). Depending on the source and type of materials/natural resources used to construct some of the new infrastructure associated with several of the proposed interventions, there is potential for negative impacts on material assets, particularly in relation to the use of natural resources. There is not a clear link between the expansion of 20mph zones and limits across Scotland and the reduction in the use of natural resources. Additionally, there is potential for negative environmental effects during both the construction and operation of the interventions proposed. It is therefore recommended that further environmental assessment is undertaken as options develop to identify potentially significant location-specific environmental impacts and mitigation where appropriate.

The Road recommendations are anticipated to result in minor positive effects on SEA Objective 9 (Material Assets) as several of the interventions proposed may require significant quantities of materials, and construction related trips would be required for bypasses and dualling schemes in particular, and overtaking opportunities and realignment/widening to a lesser extent depending on the complexity and scale of individual schemes. The significance of any effects will depend on the source and type of materials/natural resources used.

The Technology recommendations are generally anticipated to result in negligible effects on SEA Objective 9 (Material Assets) as the proposed interventions are generally not considered to be directly related to the reduction in use of natural resources.

The Island Connectivity recommendations are generally anticipated to result in minor negative effects on SEA Objective 9 (Material Assets) as the majority of the interventions proposed involve expansions to the existing ferry network including more frequent ferry services and new ferry routes and therefore will not reduce the use of natural resources. Intervention IC4 is anticipated to result in uncertain effects on SEA Objective 9 as this intervention may result in reductions in the use of natural resources and contributions to the circular economy; however, this is dependent on the methods/technologies adopted in relation to the decarbonisation of the ferry network.

The Multi Modal recommendations are anticipated to result in

SEA TOPIC	NATIONAL SUMMARY FOR ALL PACKAGES
	<p>neutral effects on SEA Objective 8 (Material Assets) as the interventions proposed are not considered to significantly promote/improve the sustainable use of the transport network.</p>
<p>10. Water Environment</p>	<p>A significant majority of the recommendations (Behaviour Change, bus, Freight, Metro, Multi Modal, Passenger Transport, Rail, Road) are anticipated to result in uncertain effects on SEA Objective 10 (Water Environment) as depending on the location/design of the measures, there is potential for negative environmental impacts during construction and operation of the improvements. It is therefore recommended that further environmental assessment is undertaken as the grouping develops, in order to identify potentially significant location-specific environmental impacts and mitigation where appropriate. Furthermore, there are possible positive effects (Bus mode) on the water environment, biodiversity and soil as a result of a reduction in diffuse pollution on key receptors associated with the decarbonisation of the bus network; however, the significance of effect is uncertain at this stage.</p> <p>Overall, Active Travel and Technology recommendations are anticipated to result in neutral effects on SEA Objectives 10 (Water Environment) as minimal hard infrastructure is required as part of the majority of the interventions proposed (Active Travel) and therefore, there will be minor effects on the water environment.</p> <p>The Island Connectivity recommendations are generally anticipated to result in minor negative effects on SEA Objective 10 (Water Environment) as the majority of the interventions proposed involve expansions to the existing ferry network including more frequent ferry services and new ferry routes and therefore have the potential to result in direct impacts on the water environment, e.g. physical impacts on waterbodies/watercourses/coastlines associated with development, constraining water bodies from the achievement of Good Ecological Status/Good Ecological Potential under the Water Framework Directive, or increasing the risk of diffuse pollution from current or increasing traffic volumes. Intervention IC4 is anticipated to result in minor positive effects on SEA Objective 10 as the decarbonisation of the ferry network has the potential to protect/maintain/improve the quality of the water environment.</p>

SEA TOPIC	NATIONAL SUMMARY FOR ALL PACKAGES
<p>11. Biodiversity</p>	<p>A significant majority of the modes (Behaviour Change, Bus, Freight, Metro, Multi Modal, Passenger Transport, Rail, Road) are anticipated to result in uncertain effects on SEA Objective 11 (Biodiversity) as depending on the location/design of the of the measures implementations and upgrades, there is potential for negative environmental impacts during construction and operation of the improvements. It is therefore recommended that further environmental assessment is undertaken as the grouping develops, in order to identify potentially significant location-specific environmental impacts and mitigation where appropriate. There is also no clear relationship between some of the interventions and SEA Objective 11.</p> <p>The Active Travel recommendations are generally anticipated to result in neutral effects on SEA Objective 11 (Biodiversity) as minimal hard infrastructure is required as part of the majority of the interventions proposed and therefore, there will be minor effects on the biodiversity. The Technology recommendations are also anticipated to result in neutral effects on SEA Objective 11 (Biodiversity) as the proposed interventions are not considered to result any negative effects on the achievement of these SEA objectives.</p> <p>The Island Connectivity recommendations are generally anticipated to result in minor negative effects on SEA Objective 11 (Biodiversity) as the majority of the interventions proposed involve expansions to the existing ferry network including more frequent ferry services and new ferry routes and therefore have the potential to result in direct impacts on biodiversity, including potential damage to/loss of designated and undesignated wildlife or geological sites. Intervention IC4 is anticipated to result in minor positive effects on SEA Objective 11 as the decarbonisation of the ferry network (e.g. the use of alternative fuel sources, the transition to zero carbon emissions) could potentially protect and/or enhance the integrity of existing habitat, and protect and/or enhance the integrity of any site of biodiversity or geological value that has been designated at international, national or local levels.</p>

SEA TOPIC	NATIONAL SUMMARY FOR ALL PACKAGES
12. Soil	<p>A majority of the modes (Behaviour Change, Bus, Island Connectivity, Freight, Metro, Multi Modal, Passenger Transport, Rail, Road) are generally anticipated to result in uncertain effects on SEA Objective 12 (Soil) as depending on the location/design of the of the measures implementations and upgrades, there is potential for negative environmental impacts during construction and operation of the improvements. It is therefore recommended that further environmental assessment is undertaken as the grouping develops, in order to identify potentially significant location-specific environmental impacts and mitigation where appropriate. There is also no clear relationship between some of the interventions and SEA Objective 12. The Island Connectivity interventions proposed involve expansions to the existing ferry network, including the development of new ferry routes, and therefore have the potential to result in the disturbance of soils, contamination, and indirect impacts on the natural processes of hydrological and ecological regimes. Intervention IC4 is anticipated to result in negligible effects on SEA Objective 12 as there is no clear relationship between this intervention and soils.</p> <p>The Active Travel recommendations are generally anticipated to result in neutral effects on SEA Objective 12 (Soil) as minimal hard infrastructure is required as part of the majority of the interventions proposed and therefore, there will be minor effects on soil. The Technology recommendations are also anticipated to result in neutral effects on SEA Objectives 12 (Soil) as the proposed interventions are not considered to result any negative effects on the the achievement of these SEA objectives.</p>

SEA TOPIC	NATIONAL SUMMARY FOR ALL PACKAGES
13. Cultural Heritage	<p>Most of the modes (Active Travel, Behaviour Change, Bus, Island Connectivity, Freight, Metro, Multi Modal, Passenger Transport, Rail, Road) are anticipated to result in uncertain effects on SEA Objectives 13 (Cultural Heritage). There is no clear relationship between the decarbonisation of the bus network and the achievements of SEA Objective 13. The majority of Island Connectivity interventions proposed involve expansions to the existing ferry network, including the development of new ferry routes, and therefore have the potential for negative effects on designated and undesignated archaeological sites and other culturally and historically important features. Intervention IC1c is anticipated to result in minor negative effects on SEA Objective 13 due to the new fixed link and harbour infrastructure proposed which could result in negative effects on designated and undesignated archaeological sites and other culturally and historically important features/affect key views to and from heritage assets. Intervention IC4 is anticipated to result in negligible effects on SEA Objective 13 as there is no clear relationship between this intervention and cultural heritage. There is potential for negative environmental effects during both the construction and operation of several of the Road interventions proposed. However, the scale of the impacts is uncertain at this stage, particularly for junction improvements, realignment/widening and overtaking opportunities. It is therefore recommended that further environmental assessment is undertaken as options develop to identify potentially significant location-specific environmental impacts and mitigation where appropriate.</p> <p>The Technology recommendations are anticipated to result in neutral effects on SEA Objective 13 (Cultural Heritage) as the proposed interventions are not considered to result any negative effects on the achievement of these SEA objectives.</p>

SEA TOPIC	NATIONAL SUMMARY FOR ALL PACKAGES
<p>14. Landscape and Visual Amenity</p>	<p>Most of the modes (Active Travel, Behaviour Change, Bus, Island Connectivity, Freight, Metro, Multi Modal, Passenger Transport, Rail, Road) are anticipated to result in uncertain effects on SEA Objective 14 (Landscape and Visual Amenity) . There is no clear relationship between the decarbonisation of the bus network and the achievement of SEA Objective 14. Most Island Connectivity interventions proposed involve expansions to the existing ferry network, including the development of new ferry routes, and therefore have the potential for negative effects on national/regional/local landscape designations; however, further environmental assessment would be required to identify location-specific environmental impacts and mitigation where appropriate. There is potential for negative environmental effects during both the construction and operation of several of the Road interventions proposed. However, the scale of the impacts is uncertain at this stage, particularly for junction improvements, realignment/widening and overtaking opportunities. It is therefore recommended that further environmental assessment is undertaken as options develop to identify potentially significant location-specific environmental impacts and mitigation where appropriate.</p> <p>The Technology recommendations are anticipated to result in neutral effects on SEA Objective 14 as the proposed interventions are not considered to result any negative effects on the the achievement of this SEA objective.</p>

Compatibility Assessment of the STPR2 Recommendations and SEA Objectives

STPR2 Recommendations	Recommendation number	SEA Objectives														Summary
		1. Climate Mitigation	2. Climate Adaptation	3. Air Quality	4. PHH Quality of Life	5. PHH Noise and Vibration	6. PHH High Quality Places	7. PHH Safety	8. Material Assets Sustainability	9. Material Assets Natural Resources	10. Water Environment	11. Biodiversity	12. Soil	13. Cultural Heritage	14. Landscape and Visual Amenity	
Connected Neighbourhoods	1	+	0	+	+	+	+	+	+	~	~	~	~	~	~	<p>This recommendation is likely to result in positive effects on SEA objectives related to Climatic Factors and Air Quality (SEA Objectives 1 and 3), as it seeks to encourage a modal shift to more sustainable modes of travel, and, as a result, reduce levels of transport related air pollution and carbon emissions. This also has the potential for positive effects on reducing transport related noise and vibration in urban and suburban areas for a significant number of people and improving the quality of</p>

STPR2 Recommendations	Recommendation number	SEA Objectives														Summary
		1. Climate Mitigation	2. Climate Adaptation	3. Air Quality	4. PPH Quality of Life	5. PPH Noise and Vibration	6. PPH High Quality Places	7. PPH Safety	8. Material Assets Sustainability	9. Material Assets Natural Resources	10. Water Environment	11. Biodiversity	12. Soil	13. Cultural Heritage	14. Landscape and Visual Amenity	
																<p>places (SEA Objectives 5 and 6).</p> <p>The recommendation would also have a positive effect on Material Assets (SEA Objective 8) and Population and Human Health as it seeks to expand the existing active travel network, providing more active travel options and safer routes (SEA Objectives 4 and 7).</p> <p>Whilst the recommendation is related to SEA Objective 2 (climate change adaptation), it is unlikely to have a notable effect on the achievement of this objective and is therefore considered neutral.</p>

STPR2 Recommendations	Recommendation number	SEA Objectives														Summary	
		1. Climate Mitigation	2. Climate Adaptation	3. Air Quality	4. PHH Quality of Life	5. PHH Noise and Vibration	6. PHH High Quality Places	7. PHH Safety	8. Material Assets Sustainability	9. Material Assets Natural Resources	10. Water Environment	11. Biodiversity	12. Soil	13. Cultural Heritage	14. Landscape and Visual Amenity		
																	The recommendation has no (or negligible) clear relationship to the achievement of the remaining SEA Objectives.
Active Freeways and Cycle Parking Hubs	2	+	~	+	+	+	+	+	+	?	0	0	0	?	?		This recommendation is likely to result in positive effects on the SEA objectives related to Climatic Factors and Air Quality (SEA Objectives 1 and 3), as it seeks to encourage a modal shift to more sustainable and active travel methods and reduce traffic by providing higher quality routes for people walking, cycling and wheeling. In addition to helping reduce levels of transport related air pollution and carbon emissions, this is

STPR2 Recommendations	Recommendation number	SEA Objectives														Summary	
		1. Climate Mitigation	2. Climate Adaptation	3. Air Quality	4. PHH Quality of Life	5. PHH Noise and Vibration	6. PHH High Quality Places	7. PHH Safety	8. Material Assets Sustainability	9. Material Assets Natural Resources	10. Water Environment	11. Biodiversity	12. Soil	13. Cultural Heritage	14. Landscape and Visual Amenity		
																	<p>likely to help reduce transport related noise and vibration - and improve the quality of these spaces (SEA Objectives 5 and 6).</p> <p>The recommendation would also have a positive effect on Material Assets (SEA Objective 8) and Population and Human Health (SEA Objectives 4 and 7) as it promotes a more sustainable use of the existing transport network, encouraging sustainable access and increased travel choice with a focus on improved safety, user convenience and creating accessible spaces for all users.</p>

STPR2 Recommen- dations	Recommendation number	SEA Objectives												Summary		
		1. Climate Mitigation	2. Climate Adaptation	3. Air Quality	4. PHH Quality of Life	5. PHH Noise and Vibration	6. PHH High Quality Places	7. PHH Safety	8. Material Assets Sustainability	9. Material Assets Natural Resources	10. Water Environment	11. Biodiversity	12. Soil		13. Cultural Heritage	14. Landscape and Visual Amenity
																<p>There is potential for negative environmental effects during construction and operation of the recommendation, particularly on Material Assets, Cultural Heritage and Landscape and Landscape and Visual Amenity (SEA Objectives 9, 13 and 14) depending on the design and location of the interventions.</p> <p>The recommendation has no (or negligible) clear relationship to the achievement of SEA Objective 2 (climate change adaptation). Whilst the recommendation is related to the remaining SEA objectives, it is unlikely to have a notable effect on the</p>

STPR2 Recommendations	Recommendation number	SEA Objectives														Summary	
		1. Climate Mitigation	2. Climate Adaptation	3. Air Quality	4. PHH Quality of Life	5. PHH Noise and Vibration	6. PHH High Quality Places	7. PHH Safety	8. Material Assets Sustainability	9. Material Assets Natural Resources	10. Water Environment	11. Biodiversity	12. Soil	13. Cultural Heritage	14. Landscape and Visual Amenity		
																	achievement of these objectives, and is therefore considered neutral.
Village-Town Active Travel Connections	3	+	~	+	+	+	+	+	+	?	?	?	?	?	?		This recommendation is likely to result in positive effects on SEA objectives related to Climatic Factors and Air Quality (SEA Objectives 1 and 3), as it seeks to encourage a modal shift to more sustainable modes of travel, and, as a result, reduce levels of transport related air pollution and carbon emissions. The recommendation would also have a positive effect on Material Assets (SEA Objective 8) and Population

STPR2 Recommen- dations	Recommendation number	SEA Objectives												Summary		
		1. Climate Mitigation	2. Climate Adaptation	3. Air Quality	4. PHH Quality of Life	5. PHH Noise and Vibration	6. PHH High Quality Places	7. PHH Safety	8. Material Assets Sustainability	9. Material Assets Natural Resources	10. Water Environment	11. Biodiversity	12. Soil		13. Cultural Heritage	14. Landscape and Visual Amenity
																<p>and Human Health (SEA Objectives 4, 5, 6 and 7) as it seeks to expand the existing active travel network, providing more active travel options, safer routes, improving the quality of places and helping to reduce noise and vibration in both more urban and rural locations.</p> <p>There is an uncertain relationship between the recommendation and the Water Environment, Biodiversity, Soil, Cultural Heritage and Landscape and Visual Amenity during construction and operation (SEA Objectives 10, 11, 12, 13 and 14 respectively), due to</p>

STPR2 Recommendations	Recommendation number	SEA Objectives														Summary
		1. Climate Mitigation	2. Climate Adaptation	3. Air Quality	4. PHH Quality of Life	5. PHH Noise and Vibration	6. PHH High Quality Places	7. PHH Safety	8. Material Assets Sustainability	9. Material Assets Natural Resources	10. Water Environment	11. Biodiversity	12. Soil	13. Cultural Heritage	14. Landscape and Visual Amenity	
																the effect of new routes. The effects on Material Assets (SEA Objective 9) are also uncertain at this stage. The recommendation has no (or negligible) clear relationship to the achievement of SEA Objective 2 (climate change adaptation).
Connecting Towns by Active Travel	4	+	~	+	+	+	+	+	+	?	?	?	?	?	?	This recommendation is likely to result in positive effects on SEA objectives related to Climatic Factors and Air Quality (SEA Objectives 1 and 3), as it seeks to encourage a modal shift to more sustainable modes of travel, and, as a result, reduce levels of transport related air

STPR2 Recommendations	Recommendation number	SEA Objectives												Summary		
		1. Climate Mitigation	2. Climate Adaptation	3. Air Quality	4. PHH Quality of Life	5. PHH Noise and Vibration	6. PHH High Quality Places	7. PHH Safety	8. Material Assets Sustainability	9. Material Assets Natural Resources	10. Water Environment	11. Biodiversity	12. Soil		13. Cultural Heritage	14. Landscape and Visual Amenity
																<p>pollution and carbon emissions.</p> <p>The recommendation would also have a positive effect on Material Assets (SEA Objective 8) and Population and Human Health (SEA Objectives 4, 5, 6 and 7) as it seeks to expand the existing active travel network, providing more active travel options, safer routes, improving the quality of places and helping to reduce noise and vibration in urban and rural areas for a significant number of people.</p> <p>There is an uncertain relationship between the recommendation and the</p>

STPR2 Recommendations	Recommendation number	SEA Objectives														Summary
		1. Climate Mitigation	2. Climate Adaptation	3. Air Quality	4. PPH Quality of Life	5. PPH Noise and Vibration	6. PPH High Quality Places	7. PPH Safety	8. Material Assets Sustainability	9. Material Assets Natural Resources	10. Water Environment	11. Biodiversity	12. Soil	13. Cultural Heritage	14. Landscape and Visual Amenity	
																Water Environment, Biodiversity, Soil, Cultural Heritage and Landscape and Visual Amenity during construction and operation (SEA Objectives 10, 11, 12, 13 and 14 respectively), due to the effect of new routes. The effects on Material Assets (SEA Objective 9) are also uncertain at this stage. The recommendation has no (or negligible) clear relationship to the achievement of SEA Objective 2 (climate change adaptation).
Long-Distance Active	5	+	~	+	+	+	+	+	+	?	?	?	?	?	?	This recommendation is likely to result in positive effects on SEA objectives related to

STPR2 Recommendations	Recommendation number	SEA Objectives														Summary
		1. Climate Mitigation	2. Climate Adaptation	3. Air Quality	4. PHH Quality of Life	5. PHH Noise and Vibration	6. PHH High Quality Places	7. PHH Safety	8. Material Assets Sustainability	9. Material Assets Natural Resources	10. Water Environment	11. Biodiversity	12. Soil	13. Cultural Heritage	14. Landscape and Visual Amenity	
Travel Network																<p>Climatic Factors and Air Quality (SEA Objectives 1 and 3), as it seeks to encourage a modal shift to more sustainable travel choices, and, as a result, reduce levels of transport related air pollution and carbon emissions. It would also have a positive effect on Material Assets (SEA Objective 8), and Population and Human Health (SEA Objectives 4, 5, 6 and 7), as it seeks to expand the existing and popular active travel network, providing more active travel options, safer routes, improving the quality of places and helping to reduce</p>

STPR2 Recommendations	Recommendation number	SEA Objectives												Summary		
		1. Climate Mitigation	2. Climate Adaptation	3. Air Quality	4. PPH Quality of Life	5. PPH Noise and Vibration	6. PPH High Quality Places	7. PPH Safety	8. Material Assets Sustainability	9. Material Assets Natural Resources	10. Water Environment	11. Biodiversity	12. Soil		13. Cultural Heritage	14. Landscape and Visual Amenity
																<p>noise and vibration in both urban and rural locations. There is an uncertain relationship between the recommendation and the Water Environment, Biodiversity, Soil, Cultural Heritage and Landscape and Visual Amenity during construction and operation (SEA Objectives 10, 11, 12, 13 and 14 respectively), due to the effect of new routes. The effects on Material Assets (SEA Objective 9) are also uncertain at this stage.</p> <p>The recommendation has no (or negligible) clear relationship to the</p>

STPR2 Recommendations	Recommendation number	SEA Objectives														Summary
		1. Climate Mitigation	2. Climate Adaptation	3. Air Quality	4. PHH Quality of Life	5. PHH Noise and Vibration	6. PHH High Quality Places	7. PHH Safety	8. Material Assets Sustainability	9. Material Assets Natural Resources	10. Water Environment	11. Biodiversity	12. Soil	13. Cultural Heritage	14. Landscape and Visual Amenity	
																achievement of SEA Objective 2 (climate change adaptation).
Behaviour Change Initiatives	6	+	~	+	+	+	~	+	+	~	~	~	~	~	~	<p>This recommendation is likely to result in positive effects on SEA objectives related to Climatic Factors and Air Quality (SEA Objectives 1 and 3), as it seeks to encourage a modal shift to more sustainable and active travel methods, and, as a result, a reduction in transport related emissions and improvement in air quality.</p> <p>This could also result in a beneficial effect on noise and vibration (SEA Objective 5). The recommendation would also have a positive effect on</p>

STPR2 Recommendations	Recommendation number	SEA Objectives												Summary	
		1. Climate Mitigation	2. Climate Adaptation	3. Air Quality	4. PHH Quality of Life	5. PHH Noise and Vibration	6. PHH High Quality Places	7. PHH Safety	8. Material Assets Sustainability	9. Material Assets Natural Resources	10. Water Environment	11. Biodiversity	12. Soil		13. Cultural Heritage
															<p>Material Assets (SEA Objective 8) and Population and Human Health (SEA Objectives 4 and 7), as it would promote more sustainable use of the existing transport network, encourage sustainable access and increase travel choice, with improved road safety, and facilitating change for those otherwise unable to access travel options.</p> <p>The recommendation has no (or negligible) clear relationship to the achievement of the remaining SEA objectives, given the nature of the recommendation (i.e. encouragement,</p>

STPR2 Recommendations	Recommendation number	SEA Objectives														Summary
		1. Climate Mitigation	2. Climate Adaptation	3. Air Quality	4. PHH Quality of Life	5. PHH Noise and Vibration	6. PHH High Quality Places	7. PHH Safety	8. Material Assets Sustainability	9. Material Assets Natural Resources	10. Water Environment	11. Biodiversity	12. Soil	13. Cultural Heritage	14. Landscape and Visual Amenity	
																enablement and incentivisation).
Changing Road User Behaviour	7	+	0	?	+	?	~	+	0	0	0	0	0	0	0	The recommendation is likely to result in significant positive effects on the SEA objectives related to Population & Human Health (SEA Objective 7), due to improvements in safety on the road network. In addition, the recommendation is likely to result in positive effects on Climatic Factors and Population & Human Health (SEA Objectives 1 and 4), as it would, by improving perceptions of road safety, encourage more people to use sustainable and active travel choices.

STPR2 Recommendations	Recommendation number	SEA Objectives														Summary
		1. Climate Mitigation	2. Climate Adaptation	3. Air Quality	4. PPH Quality of Life	5. PPH Noise and Vibration	6. PPH High Quality Places	7. PPH Safety	8. Material Assets Sustainability	9. Material Assets Natural Resources	10. Water Environment	11. Biodiversity	12. Soil	13. Cultural Heritage	14. Landscape and Visual Amenity	
																<p>Uncertain effects have been assessed in relation to Air Quality (SEA Objective 3), as it is uncertain whether the recommendation would result in reductions in transport-based emissions due to changes in driver behaviour. Similarly, the effect on noise and vibration (SEA Objective 5) is uncertain.</p> <p>The recommendation has no (or negligible) clear relationship to the achievement of SEA Objective 6.</p> <p>The recommendation is not anticipated to adapt the transport network to the effects of climate change,</p>

STPR2 Recommendations	Recommendation number	SEA Objectives														Summary	
		1. Climate Mitigation	2. Climate Adaptation	3. Air Quality	4. PHH Quality of Life	5. PHH Noise and Vibration	6. PHH High Quality Places	7. PHH Safety	8. Material Assets Sustainability	9. Material Assets Natural Resources	10. Water Environment	11. Biodiversity	12. Soil	13. Cultural Heritage	14. Landscape and Visual Amenity		
																	promote and improve the sustainable use of the transport network, or reduce the use of natural resources and therefore is unlikely to have a notable effect on the achievement of the SEA Objectives 2, 8 and 9, and is therefore considered neutral. In addition, it is considered unlikely to have a notable effect on the achievement of the remaining SEA objectives.
Increasing Active Travel to School	8	+	~	+	+	+	+	+	+	~	~	~	~	~	~	~	This recommendation is likely to result in positive effects on the SEA objectives related to Climatic Factors and Air Quality (SEA Objectives 1 and 3), as it seeks to encourage a modal shift to more

STPR2 Recommen- dations	Recommendation number	SEA Objectives														Summary
		1. Climate Mitigation	2. Climate Adaptation	3. Air Quality	4. PPH Quality of Life	5. PPH Noise and Vibration	6. PPH High Quality Places	7. PPH Safety	8. Material Assets Sustainability	9. Material Assets Natural Resources	10. Water Environment	11. Biodiversity	12. Soil	13. Cultural Heritage	14. Landscape and Visual Amenity	
																<p>sustainable and active travel methods and reduce traffic and congestion through reallocation of road space and encouragement to travel actively. As a result, decreasing levels of transport-related air pollution outside of schools and carbon emissions would result.</p> <p>The recommendation would also have a positive effect on Material Assets (SEA Objective 8) and Population and Human Health (SEA Objectives 4, 6 and 7) as it promotes a more sustainable use of the existing transport network, encouraging sustainable access and</p>

STPR2 Recommendations	Recommendation number	SEA Objectives														Summary
		1. Climate Mitigation	2. Climate Adaptation	3. Air Quality	4. PHH Quality of Life	5. PHH Noise and Vibration	6. PHH High Quality Places	7. PHH Safety	8. Material Assets Sustainability	9. Material Assets Natural Resources	10. Water Environment	11. Biodiversity	12. Soil	13. Cultural Heritage	14. Landscape and Visual Amenity	
																<p>increased travel choice with a focus on improved safety and creating accessible spaces for all users. There would also be a likely reduction in noise and vibration around schools (SEA Objective 5).</p> <p>The recommendation has no (or negligible) clear relationship to the achievement of the remaining SEA Objectives.</p>
Improving Access to Bikes	9	+	~	+	+	+	~	0	+	+	0	0	0	0	0	<p>This recommendation would likely result in positive effects on SEA objectives related to Climatic Factors and Air Quality (SEA Objectives 1 and 3), due to promoting a modal shift to more sustainable and</p>

STPR2 Recommen- dations	Recommendation number	SEA Objectives														Summary
		1. Climate Mitigation	2. Climate Adaptation	3. Air Quality	4. PHH Quality of Life	5. PHH Noise and Vibration	6. PHH High Quality Places	7. PHH Safety	8. Material Assets Sustainability	9. Material Assets Natural Resources	10. Water Environment	11. Biodiversity	12. Soil	13. Cultural Heritage	14. Landscape and Visual Amenity	
																<p>active travel options for functional and recreational journeys and as a result, a reduction in transport related emissions and improvement in air quality. This could also result in a beneficial effect on noise and vibration (SEA Objective 5).</p> <p>Positive effects are anticipated on Population and Human Health and Material Assets (SEA Objectives 4 and 8) due to an expected increase in users choosing more sustainable travel to essential services. Due to the modal shift to cycling, there would also be a slight reduction in wear and tear and need for</p>

STPR2 Recommendations	Recommendation number	SEA Objectives														Summary
		1. Climate Mitigation	2. Climate Adaptation	3. Air Quality	4. PHH Quality of Life	5. PHH Noise and Vibration	6. PHH High Quality Places	7. PHH Safety	8. Material Assets Sustainability	9. Material Assets Natural Resources	10. Water Environment	11. Biodiversity	12. Soil	13. Cultural Heritage	14. Landscape and Visual Amenity	
																<p>maintenance of the road network, which would in turn reduce raw material requirements and help to progress the Material Assets SEA objective (SEA Objective 9).</p> <p>Neutral effects are anticipated for SEA Objective 7. Neutral effects are anticipated for SEA objectives related to the Water Environment, Biodiversity, Soil, Cultural Heritage and as minimal hard infrastructure is required.</p> <p>The recommendation has no (or negligible) clear relationship to the achievement of SEA Objective 2 or 6.</p>

STPR2 Recommendations	Recommendation number	SEA Objectives														Summary
		1. Climate Mitigation	2. Climate Adaptation	3. Air Quality	4. PHH Quality of Life	5. PHH Noise and Vibration	6. PHH High Quality Places	7. PHH Safety	8. Material Assets Sustainability	9. Material Assets Natural Resources	10. Water Environment	11. Biodiversity	12. Soil	13. Cultural Heritage	14. Landscape and Visual Amenity	
Expansion of 20mph limits and zones	10	+	~	+	+	+	+	+	0	0	~	~	~	~	~	<p>This recommendation is likely to result in positive effects on the SEA objectives related to Climatic Factors (SEA Objective 1) and Population and Human Health (SEA Objectives 4, 6 and 7) as it seeks to improve safety of the road network and street environments, and prioritise pedestrians in the public realm, which in turn would encourage greater use of sustainable and active travel methods. In addition, road traffic travelling at slower speeds may also reduce noise and vibration (SEA Objective 5) and air pollution (SEA</p>

STPR2 Recommendations	Recommendation number	SEA Objectives														Summary
		1. Climate Mitigation	2. Climate Adaptation	3. Air Quality	4. PHH Quality of Life	5. PHH Noise and Vibration	6. PHH High Quality Places	7. PHH Safety	8. Material Assets Sustainability	9. Material Assets Natural Resources	10. Water Environment	11. Biodiversity	12. Soil	13. Cultural Heritage	14. Landscape and Visual Amenity	
																Objective 3), due to a reduction in fuel consumption. Given the nature of the recommendation, it has no (or negligible) clear relationship to the achievement of SEA Objectives 2, 10, 11, 12, 13 and 14. The recommendation is related to, but unlikely to have a notable effect on the achievement of SEA objectives 8 and 9, and is therefore considered neutral.
Clyde Metro	11	+	+	+	+	?	?	?	+	?	?	?	?	?	?	This recommendation is likely to result in positive effects on SEA objectives related to Climatic Factors and Air Quality (SEA Objectives 1, 2

STPR2 Recommen- dations	Recommendation number	SEA Objectives														Summary
		1. Climate Mitigation	2. Climate Adaptation	3. Air Quality	4. PHH Quality of Life	5. PHH Noise and Vibration	6. PHH High Quality Places	7. PHH Safety	8. Material Assets Sustainability	9. Material Assets Natural Resources	10. Water Environment	11. Biodiversity	12. Soil	13. Cultural Heritage	14. Landscape and Visual Amenity	
																<p>and 3) due to enhancing the rail network, increasing its resilience to climate change effects and promoting a modal shift to more sustainable transport options. As a result, there is an expected reduction in air pollution and carbon emissions.</p> <p>Positive effects are anticipated on Population and Human Health (SEA Objectives 4 and 8) due to an expected increase in sustainable access to essential services and planning for the future capacity of public transport.</p> <p>There is potential for negative environmental effects during construction and operation of</p>

STPR2 Recommen- dations	Recommendation number	SEA Objectives												Summary	
		1. Climate Mitigation	2. Climate Adaptation	3. Air Quality	4. PHH Quality of Life	5. PHH Noise and Vibration	6. PHH High Quality Places	7. PHH Safety	8. Material Assets Sustainability	9. Material Assets Natural Resources	10. Water Environment	11. Biodiversity	12. Soil		13. Cultural Heritage
															<p>the improvements on the Population and Human Health (noise and vibration, public realm, safety), the Water Environment, Biodiversity, Soil, Cultural Heritage and Landscape and Visual Amenity (SEA Objectives 5, 6, 7, 10, 11, 12, 13 and 14).</p> <p>In addition, significant quantities of materials and construction related trips would be required. In addition, significant quantities of materials and construction related trips would be required. Depending on the source and type of materials/natural resources used, there is the potential for</p>

STPR2 Recommendations	Recommendation number	SEA Objectives														Summary
		1. Climate Mitigation	2. Climate Adaptation	3. Air Quality	4. PHH Quality of Life	5. PHH Noise and Vibration	6. PHH High Quality Places	7. PHH Safety	8. Material Assets Sustainability	9. Material Assets Natural Resources	10. Water Environment	11. Biodiversity	12. Soil	13. Cultural Heritage	14. Landscape and Visual Amenity	
																negative effects on Material Assets (SEA Objective 9), which is currently scored as uncertain.
Edinburgh & South East Scotland Mass Transit	12	+	+	+	+	?	?	?	+	?	?	?	?	?	?	This recommendation is likely to result in positive effects on SEA objectives related to Climatic Factors and Air Quality (SEA Objectives 1, 2 and 3) due to modal shift to public transport, and increasing the network's resilience to climate change effects. As a result, there is an expected reduction in air pollution and carbon emissions. Positive effects are anticipated on Population and Human Health (SEA Objectives 4 and 8) due to an

STPR2 Recommendations	Recommendation number	SEA Objectives												Summary	
		1. Climate Mitigation	2. Climate Adaptation	3. Air Quality	4. PHH Quality of Life	5. PHH Noise and Vibration	6. PHH High Quality Places	7. PHH Safety	8. Material Assets Sustainability	9. Material Assets Natural Resources	10. Water Environment	11. Biodiversity	12. Soil		13. Cultural Heritage
															<p>expected increase in sustainable access to essential services and planning for the future capacity of public transport.</p> <p>There is potential for negative environmental effects during construction and operation of the improvements on the Population and Human Health (noise and vibration, public realm, safety), Water Environment, Biodiversity, Soil, Cultural Heritage and Landscape and Visual Amenity (SEA Objectives 5, 6, 7, 10, 11, 12, 13 and 14).</p> <p>In addition, significant quantities of materials and construction related trips</p>

STPR2 Recommendations	Recommendation number	SEA Objectives														Summary
		1. Climate Mitigation	2. Climate Adaptation	3. Air Quality	4. PHH Quality of Life	5. PHH Noise and Vibration	6. PHH High Quality Places	7. PHH Safety	8. Material Assets Sustainability	9. Material Assets Natural Resources	10. Water Environment	11. Biodiversity	12. Soil	13. Cultural Heritage	14. Landscape and Visual Amenity	
																would be required. In addition, significant quantities of materials and construction related trips would be required. Depending on the source and type of materials/natural resources used, there is the potential for negative effects on Material Assets (SEA Objective 9), which is currently scored as uncertain.
Aberdeen Rapid Transit	13	+	+	+	+	?	0	?	+	?	?	?	?	?	?	This recommendation is likely to result in positive effects on SEA objectives related to Climatic Factors and Air Quality (SEA Objectives 1, 2 and 3) due to modal shift to public transport, and increasing the network's

STPR2 Recommen- dations	Recommendation number	SEA Objectives													Summary	
		1. Climate Mitigation	2. Climate Adaptation	3. Air Quality	4. PHH Quality of Life	5. PHH Noise and Vibration	6. PHH High Quality Places	7. PHH Safety	8. Material Assets Sustainability	9. Material Assets Natural Resources	10. Water Environment	11. Biodiversity	12. Soil	13. Cultural Heritage		14. Landscape and Visual Amenity
																<p>resilience to climate change effects. As a result, there is an expected reduction in air pollution and carbon emissions. Positive effects are anticipated on Population and Human Health (SEA Objectives 4 and 8) due to an expected increase in sustainable access to essential services and planning for the future capacity of public transport.</p> <p>Whilst the recommendation is related to of SEA Objective 6, it is unlikely to have a notable effect on the achievement of this objective, and is therefore considered neutral.</p>

STPR2 Recommendations	Recommendation number	SEA Objectives												Summary		
		1. Climate Mitigation	2. Climate Adaptation	3. Air Quality	4. PHH Quality of Life	5. PHH Noise and Vibration	6. PHH High Quality Places	7. PHH Safety	8. Material Assets Sustainability	9. Material Assets Natural Resources	10. Water Environment	11. Biodiversity	12. Soil		13. Cultural Heritage	14. Landscape and Visual Amenity
																<p>There is potential for negative environmental effects during construction and operation of the improvements on the Population and Human Health (noise and vibration and safety), Water Environment, Biodiversity, Soil, Cultural Heritage and Landscape and Visual Amenity (SEA Objectives 5, 7, 10, 11, 12, 13 and 14). In addition, significant quantities of materials and construction related trips would be required. In addition, significant quantities of materials and construction related trips would be required.</p>

STPR2 Recommendations	Recommendation number	SEA Objectives														Summary
		1. Climate Mitigation	2. Climate Adaptation	3. Air Quality	4. PHH Quality of Life	5. PHH Noise and Vibration	6. PHH High Quality Places	7. PHH Safety	8. Material Assets Sustainability	9. Material Assets Natural Resources	10. Water Environment	11. Biodiversity	12. Soil	13. Cultural Heritage	14. Landscape and Visual Amenity	
																Depending on the source and type of materials/natural resources used, there is the potential for negative effects on Material Assets (SEA Objective 9), which is currently scored as uncertain.
Provision of Strategic Bus Priority Measures	14	+	~	+	+	?	0	+	+	?	?	?	?	?	?	This recommendation is likely to result in positive effects on the SEA objectives related to Climatic Factors and Air Quality (SEA Objectives 1 and 3), particularly in relation to the achievement of a reduction in transport related emissions; as it seeks to encourage a modal shift to more sustainable public transport. Positive environmental effects are anticipated, particularly if the

STPR2 Recommen- dations	Recommendation number	SEA Objectives												Summary		
		1. Climate Mitigation	2. Climate Adaptation	3. Air Quality	4. PHH Quality of Life	5. PHH Noise and Vibration	6. PHH High Quality Places	7. PHH Safety	8. Material Assets Sustainability	9. Material Assets Natural Resources	10. Water Environment	11. Biodiversity	12. Soil		13. Cultural Heritage	14. Landscape and Visual Amenity
																<p>interventions support reinvestment in a low carbon fleet. It would also have a positive effect on Material Assets (SEA Objective 8) as it promotes a more sustainable use and management of the existing transport network.</p> <p>The recommendation would have a positive effect on Population and Human Health (SEA Objectives 4 and 7) by providing a sustainable alternative for users to travel to employment, education, healthcare and leisure activities; which has potential for improved safety on the transport network. It could also result in a beneficial effect on</p>

STPR2 Recommendations	Recommendation number	SEA Objectives												Summary		
		1. Climate Mitigation	2. Climate Adaptation	3. Air Quality	4. PPH Quality of Life	5. PPH Noise and Vibration	6. PPH High Quality Places	7. PPH Safety	8. Material Assets Sustainability	9. Material Assets Natural Resources	10. Water Environment	11. Biodiversity	12. Soil		13. Cultural Heritage	14. Landscape and Visual Amenity
																<p>noise and vibration (SEA Objective 5), however this would depend on the location of the measures / upgrades and is therefore uncertain at this stage.</p> <p>There is potential for possible positive effects on Biodiversity (SEA Objective 11) as a result of a reduction in diffuse pollution on key receptors; however the significance of effect is uncertain at this stage as the overall effect would depend on whether physical construction works are required.</p> <p>Depending on the location of the bus priority measure implementation or upgrades,</p>

STPR2 Recommen- dations	Recommendation number	SEA Objectives												Summary	
		1. Climate Mitigation	2. Climate Adaptation	3. Air Quality	4. PHH Quality of Life	5. PHH Noise and Vibration	6. PHH High Quality Places	7. PHH Safety	8. Material Assets Sustainability	9. Material Assets Natural Resources	10. Water Environment	11. Biodiversity	12. Soil		13. Cultural Heritage
															<p>there is potential for negative environmental effects during construction and operation of the improvements, particularly on Material Assets (SEA Objective 9), the Water Environment, Biodiversity, Soil, Cultural Heritage, Landscape and Visual Amenity (SEA Objectives 10, 11, 12, 13 and 14 respectively) and also on noise and vibration (SEA Objective 5).</p> <p>Whilst the recommendation is related to SEA Objective 6, it is unlikely to have a notable effect on the achievement of this objective and is therefore considered neutral.</p>

STPR2 Recommendations	Recommendation number	SEA Objectives														Summary	
		1. Climate Mitigation	2. Climate Adaptation	3. Air Quality	4. PHH Quality of Life	5. PHH Noise and Vibration	6. PHH High Quality Places	7. PHH Safety	8. Material Assets Sustainability	9. Material Assets Natural Resources	10. Water Environment	11. Biodiversity	12. Soil	13. Cultural Heritage	14. Landscape and Visual Amenity		
																	The recommendation has no (or negligible) clear relationship to the achievement of SEA Objective 2 (climate change adaptation).
Highland Mainline Rail corridor enhancements	15	+	+	+	+	?	0	+	+	?	?	?	?	?	?	?	This recommendation is likely to result in positive effects on the SEA objectives related to Climatic Factors, Air Quality and Population and Human Health (SEA Objectives 1, 3, 4), particularly in relation to the achievement of a reduction in transport related emissions; as it seeks to encourage a modal shift to public transport (rail). It would have a positive effect on Population and Human Health (SEA Objectives 7 and

STPR2 Recommen- dations	Recommendation number	SEA Objectives												Summary		
		1. Climate Mitigation	2. Climate Adaptation	3. Air Quality	4. PPH Quality of Life	5. PPH Noise and Vibration	6. PPH High Quality Places	7. PPH Safety	8. Material Assets Sustainability	9. Material Assets Natural Resources	10. Water Environment	11. Biodiversity	12. Soil		13. Cultural Heritage	14. Landscape and Visual Amenity
																<p>8) as a result of improved safety on the transport network and encouraging sustainable access, increased travel choice and improved connectivity.</p> <p>The recommendation would have a positive effect on Material Assets (SEA Objective 8) as it promotes a more sustainable use and management of the existing transport network; and would contribute to the rail network's resilience to climate change (SEA Objective 2).</p> <p>There are uncertain environmental effects during construction and operation predicted for Material Assets,</p>

STPR2 Recommendations	Recommendation number	SEA Objectives														Summary
		1. Climate Mitigation	2. Climate Adaptation	3. Air Quality	4. PHH Quality of Life	5. PHH Noise and Vibration	6. PHH High Quality Places	7. PHH Safety	8. Material Assets Sustainability	9. Material Assets Natural Resources	10. Water Environment	11. Biodiversity	12. Soil	13. Cultural Heritage	14. Landscape and Visual Amenity	
																the Water Environment, Biodiversity, Soil, Cultural Heritage, Landscape and Visual Amenity (SEA Objectives 9, 10, 11, 12, 13 and 14 respectively) and also on noise and vibration (SEA Objective 5). Whilst the recommendation is related to SEA Objective 6, it is unlikely to have a notable effect on the achievement of this objective and is therefore considered neutral.
Perth-Dundee-Aberdeen Rail Corridor	16	+	+	+	+	?	0	+	+	?	?	?	?	?	?	This recommendation is likely to result in positive effects on the SEA objectives related to Climatic Factors, Air Quality and Population and Human

STPR2 Recommendations	Recommendation number	SEA Objectives														Summary
		1. Climate Mitigation	2. Climate Adaptation	3. Air Quality	4. PHH Quality of Life	5. PHH Noise and Vibration	6. PHH High Quality Places	7. PHH Safety	8. Material Assets Sustainability	9. Material Assets Natural Resources	10. Water Environment	11. Biodiversity	12. Soil	13. Cultural Heritage	14. Landscape and Visual Amenity	
Enhancements																<p>Health (SEA Objectives 1, 3, 4), particularly in relation to the achievement of a reduction in transport related emissions; as it seeks to encourage a modal shift to public transport (rail).</p> <p>It would have a positive effect on Population and Human Health (SEA Objectives 7 and 8) as a result of improved safety on the transport network and encouraging sustainable access, increased travel choice and improved connectivity.</p> <p>The recommendation would have a positive effect on Material Assets (SEA Objective 8) as it promotes a more sustainable use and</p>

STPR2 Recommen- dations	Recommendation number	SEA Objectives												Summary		
		1. Climate Mitigation	2. Climate Adaptation	3. Air Quality	4. PHH Quality of Life	5. PHH Noise and Vibration	6. PHH High Quality Places	7. PHH Safety	8. Material Assets Sustainability	9. Material Assets Natural Resources	10. Water Environment	11. Biodiversity	12. Soil		13. Cultural Heritage	14. Landscape and Visual Amenity
																<p>management of the existing transport network; and would contribute to the rail network's resilience to climate change (SEA Objective 2).</p> <p>There are uncertain environmental effects during construction and operation predicted for Material Assets, the Water Environment, Biodiversity, Soil, Cultural Heritage, Landscape and Visual Amenity (SEA Objectives 9, 10, 11, 12, 13 and 14 respectively) and also on noise and vibration (SEA Objective 5).</p> <p>Whilst the recommendation is related to SEA Objective 6, it is unlikely to have a notable</p>

STPR2 Recommendations	Recommendation number	SEA Objectives														Summary
		1. Climate Mitigation	2. Climate Adaptation	3. Air Quality	4. PHH Quality of Life	5. PHH Noise and Vibration	6. PHH High Quality Places	7. PHH Safety	8. Material Assets Sustainability	9. Material Assets Natural Resources	10. Water Environment	11. Biodiversity	12. Soil	13. Cultural Heritage	14. Landscape and Visual Amenity	
																effect on the achievement of this objective and is therefore considered neutral.
Edinburgh/ Glasgow- Perth Rail Corridor Enhancements	17	+	+	+	+	?	0	+	+	?	?	?	?	?	?	This recommendation is likely to result in positive effects on the SEA objectives related to Climatic Factors, Air Quality and Population and Human Health (SEA Objectives 1, 3, 4), particularly in relation to the achievement of a reduction in transport related emissions; as it seeks to encourage a modal shift to public transport (rail). It would have a positive effect on Population and Human Health (SEA Objectives 7 and 8) as a result of improved

STPR2 Recommendations	Recommendation number	SEA Objectives												Summary		
		1. Climate Mitigation	2. Climate Adaptation	3. Air Quality	4. PPH Quality of Life	5. PPH Noise and Vibration	6. PPH High Quality Places	7. PPH Safety	8. Material Assets Sustainability	9. Material Assets Natural Resources	10. Water Environment	11. Biodiversity	12. Soil		13. Cultural Heritage	14. Landscape and Visual Amenity
																<p>safety on the transport network and encouraging sustainable access, increased travel choice and improved connectivity.</p> <p>The recommendation would have a positive effect on Material Assets (SEA Objective 8) as it promotes a more sustainable use and management of the existing transport network; and would contribute to the rail network's resilience to climate change (SEA Objective 2).</p> <p>There are uncertain environmental effects during construction and operation predicted for Material Assets, the Water Environment,</p>

STPR2 Recommendations	Recommendation number	SEA Objectives													Summary	
		1. Climate Mitigation	2. Climate Adaptation	3. Air Quality	4. PHH Quality of Life	5. PHH Noise and Vibration	6. PHH High Quality Places	7. PHH Safety	8. Material Assets Sustainability	9. Material Assets Natural Resources	10. Water Environment	11. Biodiversity	12. Soil	13. Cultural Heritage		14. Landscape and Visual Amenity
																<p>Biodiversity, Soil, Cultural Heritage, Landscape and Visual Amenity (SEA Objectives 9, 10, 11, 12, 13 and 14 respectively) and also on noise and vibration (SEA Objective 5).</p> <p>Whilst the recommendation is related to SEA Objective 6, it is unlikely to have a notable effect on the achievement of this objective and is therefore considered neutral.</p>
Supporting integrated journeys at ferry terminals	18	+	~	?	+	~	~	?	+	~	~	~	~	~	~	<p>This recommendation is likely to result in positive effects on SEA objectives related to Climatic Factors and Population and Human Health SEA Objective 4 (SEA</p>

STPR2 Recommendations	Recommendation number	SEA Objectives													Summary	
		1. Climate Mitigation	2. Climate Adaptation	3. Air Quality	4. PHH Quality of Life	5. PHH Noise and Vibration	6. PHH High Quality Places	7. PHH Safety	8. Material Assets Sustainability	9. Material Assets Natural Resources	10. Water Environment	11. Biodiversity	12. Soil	13. Cultural Heritage		14. Landscape and Visual Amenity
																<p>Objectives 1 and 4) due to improved sustainable accessibility and modal shift. Minor positive effects are also assessed in relation to the Material Assets (SEA Objective 8), due to the improvements in transport technology (timetabling etc). Uncertain effects have been assessed in relation to Air Quality and safety (SEA Objectives 3 and 7) as it is uncertain whether the recommendation would improve air quality or safety on the transport network. It is considered that there would be no (or negligible) effects on the remaining SEA</p>

STPR2 Recommendations	Recommendation number	SEA Objectives														Summary
		1. Climate Mitigation	2. Climate Adaptation	3. Air Quality	4. PHH Quality of Life	5. PHH Noise and Vibration	6. PHH High Quality Places	7. PHH Safety	8. Material Assets Sustainability	9. Material Assets Natural Resources	10. Water Environment	11. Biodiversity	12. Soil	13. Cultural Heritage	14. Landscape and Visual Amenity	
																objectives as the recommendation is not directly related to them. However, it is not assessed to result in any negative effects on the achievement of SEA objectives related to Population & Human Health, the Water Environment, Biodiversity, Soil, Cultural Heritage and Landscape and Visual Amenity.
Infrastructure to provide access for all at rail stations	19	+	~	+	+	0	+	+	+	?	?	?	?	?	?	This recommendation is likely to result positive effects on SEA objectives related to Climatic Factors, Air Quality and Population and Human Health (SEA Objectives 1, 3, 4, 6 and 7 respectively) as the enhancements seek to

STPR2 Recommen- dations	Recommendation number	SEA Objectives												Summary		
		1. Climate Mitigation	2. Climate Adaptation	3. Air Quality	4. PHH Quality of Life	5. PHH Noise and Vibration	6. PHH High Quality Places	7. PHH Safety	8. Material Assets Sustainability	9. Material Assets Natural Resources	10. Water Environment	11. Biodiversity	12. Soil		13. Cultural Heritage	14. Landscape and Visual Amenity
																<p>encourage modal shift to more sustainable travel. The recommendation seeks to improve the mobility of passengers and access for all to essential services with a focus on improved safety and reducing barriers for passengers with reduce mobility and creating an attractive public realm. It would also have a positive effect on Material Assets (SEA Objective 8) as it seeks to improve the existing transport network, planning for future capacity of public transport and seeking to improve interchanges. Depending on the location and</p>

STPR2 Recommendations	Recommendation number	SEA Objectives												Summary		
		1. Climate Mitigation	2. Climate Adaptation	3. Air Quality	4. PHH Quality of Life	5. PHH Noise and Vibration	6. PHH High Quality Places	7. PHH Safety	8. Material Assets Sustainability	9. Material Assets Natural Resources	10. Water Environment	11. Biodiversity	12. Soil		13. Cultural Heritage	14. Landscape and Visual Amenity
																<p>nature of facilities and station enhancements there is potential for negative environmental effects during construction and operation of the improvements, particularly on Material Assets, the Water Environment, Biodiversity, Soil, Cultural Heritage, Landscape and Visual Amenity (SEA Objectives 9, 10, 11, 12, 13 and 14).</p> <p>The recommendation is related to, but unlikely to have any effect on the achievement of SEA Objective 5 and is therefore considered neutral.</p> <p>Given the nature of the recommendation, it has no (or negligible) clear relationship to</p>

STPR2 Recommendations	Recommendation number	SEA Objectives														Summary
		1. Climate Mitigation	2. Climate Adaptation	3. Air Quality	4. PHH Quality of Life	5. PHH Noise and Vibration	6. PHH High Quality Places	7. PHH Safety	8. Material Assets Sustainability	9. Material Assets Natural Resources	10. Water Environment	11. Biodiversity	12. Soil	13. Cultural Heritage	14. Landscape and Visual Amenity	
																the achievement of SEA Objective 2 (climate change adaptation).
Investment in DRT and MaaS	20	+	~	~	+	~	~	~	+	~	~	~	~	~	~	This recommendation is likely to result positive effects on SEA objectives related to Climatic Factors and Population and Human Health (SEA Objectives 1 and 4) due to improved sustainable accessibility and modal shift. Minor positive effects are also assessed in relation to Material Assets (SEA Objective 8), due to the expected increase in sustainable accessibility and use of the existing transport network.

STPR2 Recommendations	Recommendation number	SEA Objectives														Summary
		1. Climate Mitigation	2. Climate Adaptation	3. Air Quality	4. PHH Quality of Life	5. PHH Noise and Vibration	6. PHH High Quality Places	7. PHH Safety	8. Material Assets Sustainability	9. Material Assets Natural Resources	10. Water Environment	11. Biodiversity	12. Soil	13. Cultural Heritage	14. Landscape and Visual Amenity	
																It is considered that there would be no (or negligible) effects on the remaining SEA objectives as the recommendation is not directly related to them. However, it is not assessed to result in any negative effects on the achievement of any SEA objectives.
Improved Public Transport Passenger Interchange Facilities	21	+	0	+	+	?	?	+	+	?	?	?	?	?	?	The recommendation is likely to result in positive effects on the SEA objectives related to Climatic Factors and Air Quality (SEA Objectives 1 and 3), due to promoting a modal shift to more sustainable transport options. Positive effects are anticipated on Population and Human Health

STPR2 Recommen- dations	Recommendation number	SEA Objectives												Summary	
		1. Climate Mitigation	2. Climate Adaptation	3. Air Quality	4. PHH Quality of Life	5. PHH Noise and Vibration	6. PHH High Quality Places	7. PHH Safety	8. Material Assets Sustainability	9. Material Assets Natural Resources	10. Water Environment	11. Biodiversity	12. Soil		13. Cultural Heritage
															<p>(SEA Objectives 4 and 7) due to an expected increase in sustainable access to essential services and where interchange reduces car use, this is likely to result in a small net decrease in accidents. The significance of effects are dependent on the alternatives being safe, affordable and available for all users.</p> <p>Minor positive effects are also assessed in relation to Material Assets (SEA Objective 8), due to the expected increase in sustainable accessibility and use of the existing transport network.</p>

STPR2 Recommendations	Recommendation number	SEA Objectives														Summary
		1. Climate Mitigation	2. Climate Adaptation	3. Air Quality	4. PHH Quality of Life	5. PHH Noise and Vibration	6. PHH High Quality Places	7. PHH Safety	8. Material Assets Sustainability	9. Material Assets Natural Resources	10. Water Environment	11. Biodiversity	12. Soil	13. Cultural Heritage	14. Landscape and Visual Amenity	
																There are uncertain (potentially negative) environmental effects during construction and operation of the transit options with possible negative effects on Material Assets, the Water Environment, Biodiversity, Soil, Cultural Heritage and Landscape and Visual Amenity depending on the design and location of the interventions.
Framework for delivery of Mobility Hubs	22	+	0	+	+	?	?	+	+	?	?	?	?	?	?	The recommendation is likely to result in positive effects on the SEA objectives related to Climatic Factors and Air Quality (SEA Objectives 1 and 3), due to promoting a modal

STPR2 Recommen- dations	Recommendation number	SEA Objectives												Summary		
		1. Climate Mitigation	2. Climate Adaptation	3. Air Quality	4. PPH Quality of Life	5. PPH Noise and Vibration	6. PPH High Quality Places	7. PPH Safety	8. Material Assets Sustainability	9. Material Assets Natural Resources	10. Water Environment	11. Biodiversity	12. Soil		13. Cultural Heritage	14. Landscape and Visual Amenity
																<p>shift to more sustainable transport options.</p> <p>Positive effects are anticipated on Population and Human Health (SEA Objectives 4 and 7) due to an expected increase in sustainable access to essential services and where mobility hubs help reduce car use, this is likely to result in a small net decrease in accidents. The significance of effects are dependent on the alternatives being safe, affordable and available for all users.</p> <p>Minor positive effects are also assessed in relation to Material Assets (SEA Objective 8), due to the</p>

STPR2 Recommen- dations	Recommendation number	SEA Objectives														Summary
		1. Climate Mitigation	2. Climate Adaptation	3. Air Quality	4. PHH Quality of Life	5. PHH Noise and Vibration	6. PHH High Quality Places	7. PHH Safety	8. Material Assets Sustainability	9. Material Assets Natural Resources	10. Water Environment	11. Biodiversity	12. Soil	13. Cultural Heritage	14. Landscape and Visual Amenity	
																<p>expected increase in sustainable accessibility and use of the existing transport network.</p> <p>There are uncertain (potentially negative) environmental effects during construction and operation of the transit options with possible negative effects on Material Assets, the Water Environment, Biodiversity, Soil, Cultural Heritage and Landscape and Visual Amenity depending on the design and location of the interventions.</p>
National Integrated	23	+	0	+	+	0	~	0	++	0	0	0	0	0	0	The recommendation is likely to result in positive effects on

STPR2 Recommendations	Recommendation number	SEA Objectives														Summary
		1. Climate Mitigation	2. Climate Adaptation	3. Air Quality	4. PHH Quality of Life	5. PHH Noise and Vibration	6. PHH High Quality Places	7. PHH Safety	8. Material Assets Sustainability	9. Material Assets Natural Resources	10. Water Environment	11. Biodiversity	12. Soil	13. Cultural Heritage	14. Landscape and Visual Amenity	
Public Transport Ticketing																<p>the SEA objectives related to Climatic Factors and Air Quality (SEA Objectives 1 and 3), as Integrated Public Transport Ticketing is likely to encourage more people to use public transport methods. The recommendation is likely to result in positive effects on Population & Human Health (SEA Objective 4), as Integrated Ticketing would enable greater accessibility to essential services, employment and the natural environment.</p> <p>A significant positive effect is assessed for Material Assets (SEA Objective 8) as the recommendation would</p>

STPR2 Recommen- dations	Recommendation number	SEA Objectives														Summary	
		1. Climate Mitigation	2. Climate Adaptation	3. Air Quality	4. PHH Quality of Life	5. PHH Noise and Vibration	6. PHH High Quality Places	7. PHH Safety	8. Material Assets Sustainability	9. Material Assets Natural Resources	10. Water Environment	11. Biodiversity	12. Soil	13. Cultural Heritage	14. Landscape and Visual Amenity		
																	<p>promote and improve the sustainable use of the transport network through integrated ticketing.</p> <p>The recommendation has no (or negligible) clear relationship to the achievement of SEA Objective 6.</p> <p>Neutral effects are assessed the remaining SEA objectives as the recommendation has no clear relationship to or is unlikely to have a notable effect on the achievement of the remaining SEA objectives. However, it is not assessed to result in any negative effects on the achievement of these SEA objectives.</p>

STPR2 Recommendations	Recommendation number	SEA Objectives														Summary
		1. Climate Mitigation	2. Climate Adaptation	3. Air Quality	4. PHH Quality of Life	5. PHH Noise and Vibration	6. PHH High Quality Places	7. PHH Safety	8. Material Assets Sustainability	9. Material Assets Natural Resources	10. Water Environment	11. Biodiversity	12. Soil	13. Cultural Heritage	14. Landscape and Visual Amenity	
Ferry Vessel Renewal and Replacement and Progressive Decarbonisation	24	+	~	+	+	+	~	~	+	?	+	+	~	~	~	<p>This recommendation is likely to result in positive effects on SEA objectives related to Climatic Factors, Air Quality and the Water Environment (SEA Objectives 1, 3 and 10), particularly in relation to the achievement of a reduction in transport related emissions; as it seeks to reduce emissions from ferries through decarbonisation / use of alternative fuels (electric, hydrogen).</p> <p>The recommendation would also have a positive effect on Material Assets (SEA Objective 8) as it promotes a more sustainable use and management of the existing</p>

STPR2 Recommen- dations	Recommendation number	SEA Objectives														Summary
		1. Climate Mitigation	2. Climate Adaptation	3. Air Quality	4. PHH Quality of Life	5. PHH Noise and Vibration	6. PHH High Quality Places	7. PHH Safety	8. Material Assets Sustainability	9. Material Assets Natural Resources	10. Water Environment	11. Biodiversity	12. Soil	13. Cultural Heritage	14. Landscape and Visual Amenity	
																<p>transport network. It would also have a positive effect on Population and Human Health (SEA Objectives 4 and 5) as a result of encouraging sustainable access and a move away from diesel engines to alternatives such as electric, which could result in a beneficial effect on quality of life and reduced noise and vibration for those living or working near ferry terminals. There are positive effects predicted for the Water Environment and Biodiversity (SEA Objectives 10 and 11) as a result of a reduction in diffuse pollution on key receptors.</p>

STPR2 Recommendations	Recommendation number	SEA Objectives														Summary
		1. Climate Mitigation	2. Climate Adaptation	3. Air Quality	4. PHH Quality of Life	5. PHH Noise and Vibration	6. PHH High Quality Places	7. PHH Safety	8. Material Assets Sustainability	9. Material Assets Natural Resources	10. Water Environment	11. Biodiversity	12. Soil	13. Cultural Heritage	14. Landscape and Visual Amenity	
																The effects on Material Assets (SEA Objective 9) are uncertain at this stage. Given the nature of the recommendation, it has no (or negligible) clear relationship to the achievement of many of the SEA objectives, including SEA Objectives 2, 6, 7, 12, 13 and 14.
Rail Decarbonisation	25	+	0	+	+	+	0	~	+	?	?	?	?	?	?	This recommendation is likely to result in positive effects on SEA objectives related to Climatic Factors and Air Quality (SEA Objectives 1 and 3), particularly in relation to the achievement of a reduction in transport related emissions; as it seeks to reduce emissions from rail through

STPR2 Recommendations	Recommendation number	SEA Objectives												Summary		
		1. Climate Mitigation	2. Climate Adaptation	3. Air Quality	4. PHH Quality of Life	5. PHH Noise and Vibration	6. PHH High Quality Places	7. PHH Safety	8. Material Assets Sustainability	9. Material Assets Natural Resources	10. Water Environment	11. Biodiversity	12. Soil		13. Cultural Heritage	14. Landscape and Visual Amenity
																<p>decarbonisation / use of alternative fuels (electric, hydrogen).</p> <p>The recommendation would also have a positive effect on Material Assets (SEA Objective 8) as it promotes a more sustainable use and management of the existing transport network. It would also have a positive effect on Population and Human Health as a result of encouraging sustainable access and a move away from diesel engines to alternatives such as electric, which could result in a beneficial effect on quality of life and reduced noise and vibration (SEA Objectives 4</p>

STPR2 Recommendations	Recommendation number	SEA Objectives												Summary		
		1. Climate Mitigation	2. Climate Adaptation	3. Air Quality	4. PPH Quality of Life	5. PPH Noise and Vibration	6. PPH High Quality Places	7. PPH Safety	8. Material Assets Sustainability	9. Material Assets Natural Resources	10. Water Environment	11. Biodiversity	12. Soil		13. Cultural Heritage	14. Landscape and Visual Amenity
																and 5). There are possible positive effects on the Water Environment, Biodiversity and Soil as a result of a reduction in diffuse pollution on key receptors; however the significance of effect is uncertain at this stage. There is also potential for negative environmental effects during construction and operation of the improvements, particularly on Material Assets, Biodiversity, Soil, Cultural Heritage and Landscape and Visual Amenity (SEA Objectives 9, 10, 11, 12, 13 and 14 respectively) where overhead

STPR2 Recommendations	Recommendation number	SEA Objectives														Summary
		1. Climate Mitigation	2. Climate Adaptation	3. Air Quality	4. PHH Quality of Life	5. PHH Noise and Vibration	6. PHH High Quality Places	7. PHH Safety	8. Material Assets Sustainability	9. Material Assets Natural Resources	10. Water Environment	11. Biodiversity	12. Soil	13. Cultural Heritage	14. Landscape and Visual Amenity	
																line equipment is installed for rail electrification. Given the nature of the recommendation, it has no (or negligible) clear relationship to the achievement of SEA Objective 7. It is considered that there would be neutral effects on the remaining SEA objectives.
Decarbonisation of the Bus Network	26	+	~	+	+	+	~	~	+	0	+	+	+	~	~	This recommendation is likely to result in positive effects on SEA objectives related to Climatic Factors and Air Quality (SEA Objectives 1 and 3), particularly in relation to the achievement of a reduction in transport related emissions; as it seeks to reduce emissions

STPR2 Recommendations	Recommendation number	SEA Objectives												Summary		
		1. Climate Mitigation	2. Climate Adaptation	3. Air Quality	4. PHH Quality of Life	5. PHH Noise and Vibration	6. PHH High Quality Places	7. PHH Safety	8. Material Assets Sustainability	9. Material Assets Natural Resources	10. Water Environment	11. Biodiversity	12. Soil		13. Cultural Heritage	14. Landscape and Visual Amenity
																<p>from buses through decarbonisation / use of alternative fuels (electric, hydrogen).</p> <p>The recommendation would also have a positive effect on Material Assets (SEA Objective 8) as it promotes a more sustainable use and management of the existing transport network. It would also have a positive effect on Population and Human Health as a result of encouraging sustainable access and a move away from diesel engines to alternatives such as electric, which could result in a beneficial effect on quality of life and reduced noise and</p>

STPR2 Recommen- dations	Recommendation number	SEA Objectives														Summary
		1. Climate Mitigation	2. Climate Adaptation	3. Air Quality	4. PHH Quality of Life	5. PHH Noise and Vibration	6. PHH High Quality Places	7. PHH Safety	8. Material Assets Sustainability	9. Material Assets Natural Resources	10. Water Environment	11. Biodiversity	12. Soil	13. Cultural Heritage	14. Landscape and Visual Amenity	
																<p>vibration (SEA Objectives 4 and 5). There are possible positive effects on the Water Environment, Biodiversity and Soil as a result of a reduction in diffuse pollution on key receptors; however the significance of effect is uncertain at this stage. The recommendation is related to, but unlikely to have any effect on the achievement of SEA Objective 9, and is therefore considered neutral. Given the nature of the recommendation, it has no (or negligible) clear relationship to the achievement of SEA Objectives 2, 6, 7, 13 and 14.</p>

STPR2 Recommendations	Recommendation number	SEA Objectives														Summary
		1. Climate Mitigation	2. Climate Adaptation	3. Air Quality	4. PHH Quality of Life	5. PHH Noise and Vibration	6. PHH High Quality Places	7. PHH Safety	8. Material Assets Sustainability	9. Material Assets Natural Resources	10. Water Environment	11. Biodiversity	12. Soil	13. Cultural Heritage	14. Landscape and Visual Amenity	
Behaviour change and modal shift for freight	27	+	~	+	0	+	0	+	+	+	?	?	?	0	0	This recommendation is likely to result in positive effects on SEA objectives related to Climatic Factors and Air Quality (SEA Objectives 1 and 3), particularly in relation to the achievement of a reduction in transport related emissions; as it seeks to reduce emissions from freight through modal shift and behaviour change. It would also have a positive effect on Population and Human Health (SEA Objective 5 and 7) as a result of a reduction in freight vehicles and noise and vibration on key routes. The recommendation would also have a positive effect on

STPR2 Recommen- dations	Recommendation number	SEA Objectives														Summary
		1. Climate Mitigation	2. Climate Adaptation	3. Air Quality	4. PHH Quality of Life	5. PHH Noise and Vibration	6. PHH High Quality Places	7. PHH Safety	8. Material Assets Sustainability	9. Material Assets Natural Resources	10. Water Environment	11. Biodiversity	12. Soil	13. Cultural Heritage	14. Landscape and Visual Amenity	
																<p>Material Assets (SEA Objectives 8 and 9) as it promotes a more sustainable use and management of the existing transport network and should require fewer natural resources as more sustainable freight transport is introduced.</p> <p>There also is potential for positive and negative effects on the Water Environment, Biodiversity and Soil (SEA Objectives 10, 11 and 12 respectively) as a result of changes in diffuse pollution on key receptors; however this will be dependent on the location and therefore these effects are considered uncertain at this stage.</p>

STPR2 Recommendations	Recommendation number	SEA Objectives														Summary	
		1. Climate Mitigation	2. Climate Adaptation	3. Air Quality	4. PHH Quality of Life	5. PHH Noise and Vibration	6. PHH High Quality Places	7. PHH Safety	8. Material Assets Sustainability	9. Material Assets Natural Resources	10. Water Environment	11. Biodiversity	12. Soil	13. Cultural Heritage	14. Landscape and Visual Amenity		
																	The recommendation has no (or negligible) clear relationship to the achievement of SEA Objective 2 (climate change adaptation). The recommendation is related to, but unlikely to have a notable effect on the achievement of the remaining SEA Objectives, and is therefore considered neutral.
Zero Emission Vehicles and Infrastructure Transition	28	+	~	+	+	+	~	~	+	?	+	+	+	~	~		This recommendation is likely to result in significant positive effects on SEA objectives related to Climatic Factors and Air Quality (SEA Objectives 1 and 3), particularly in relation to reducing transport related emissions; as it seeks to

STPR2 Recommendations	Recommendation number	SEA Objectives														Summary
		1. Climate Mitigation	2. Climate Adaptation	3. Air Quality	4. PHH Quality of Life	5. PHH Noise and Vibration	6. PHH High Quality Places	7. PHH Safety	8. Material Assets Sustainability	9. Material Assets Natural Resources	10. Water Environment	11. Biodiversity	12. Soil	13. Cultural Heritage	14. Landscape and Visual Amenity	
																<p>reduce emissions through investment in fleets, facilities and emerging technologies. The recommendation would also have a positive effect on Material Assets (SEA Objective 8) as it promotes a more sustainable use and management of the existing transport network. It would also have a positive effect on Population and Human Health as a result of encouraging sustainable access and a move to cleaner technologies such as electric, which could result in a beneficial effect on quality of life and reduced noise and vibration (SEA Objectives 4 and 5).</p>

STPR2 Recommendations	Recommendation number	SEA Objectives														Summary	
		1. Climate Mitigation	2. Climate Adaptation	3. Air Quality	4. PHH Quality of Life	5. PHH Noise and Vibration	6. PHH High Quality Places	7. PHH Safety	8. Material Assets Sustainability	9. Material Assets Natural Resources	10. Water Environment	11. Biodiversity	12. Soil	13. Cultural Heritage	14. Landscape and Visual Amenity		
																	The effects on Material Assets (SEA Objective 9) are uncertain at this stage. Given the strategic nature of the recommendation, it has no (or negligible) clear relationship to the achievement of SEA Objectives 2, 6, 7, 13 and 14.
Access to Argyll	29	Not applicable														The Access to Argyll and Bute (A83) was subject to a separate SEA which has now been concluded.	
Trunk Road and Motorway Network Safety Improvements	30	-	?	-	?	?	~	+	-	-	?	?	?	?	?		This recommendation would result in potential positive effects on Population and Human Health (SEA Objective 7) due to improved safety on the road network. The recommendation is likely

STPR2 Recommen- dations	Recommendation number	SEA Objectives														Summary
		1. Climate Mitigation	2. Climate Adaptation	3. Air Quality	4. PPH Quality of Life	5. PPH Noise and Vibration	6. PPH High Quality Places	7. PPH Safety	8. Material Assets Sustainability	9. Material Assets Natural Resources	10. Water Environment	11. Biodiversity	12. Soil	13. Cultural Heritage	14. Landscape and Visual Amenity	
																to result in negative effects on Climatic Factors, Air Quality and Material Assets (SEA Objectives 1, 3, 8 and 9 respectively) as junction improvements could potentially increase the number of unsustainable private vehicles on the road network and associated emissions. Increased vehicles would also cause increases in noise and vibration associated with the transport network (SEA Objective 5), although this is dependent on the proximity of noise sensitive receptors and therefore considered uncertain.

STPR2 Recommen- dations	Recommendation number	SEA Objectives													Summary	
		1. Climate Mitigation	2. Climate Adaptation	3. Air Quality	4. PHH Quality of Life	5. PHH Noise and Vibration	6. PHH High Quality Places	7. PHH Safety	8. Material Assets Sustainability	9. Material Assets Natural Resources	10. Water Environment	11. Biodiversity	12. Soil	13. Cultural Heritage		14. Landscape and Visual Amenity
																<p>An uncertain effect has been assessed for Population and Human Health (SEA Objective 4), as although the recommendation would improve journey time reliability and accessibility, this would be for road transport and as such would not be considered to increase sustainable access.</p> <p>There are uncertain effects predicted during construction and operation of the improvements, for climate change adaptation, the Water Environment, Biodiversity, Soil, Cultural Heritage and Landscape and Visual Amenity (SEA Objectives 2,</p>

STPR2 Recommendations	Recommendation number	SEA Objectives														Summary
		1. Climate Mitigation	2. Climate Adaptation	3. Air Quality	4. PHH Quality of Life	5. PHH Noise and Vibration	6. PHH High Quality Places	7. PHH Safety	8. Material Assets Sustainability	9. Material Assets Natural Resources	10. Water Environment	11. Biodiversity	12. Soil	13. Cultural Heritage	14. Landscape and Visual Amenity	
																10, 11, 12, 13 and 14) at this strategic stage. The recommendation has no (or negligible) clear relationship to the achievement of SEA Objective 6.
Trunk Road and Motorway Network Climate Change Adaptation and Resilience	31	?	++	?	+	?	0	+	0	?	?	?	?	?	?	Interventions identified to either adapt or improve the resilience of the trunk road and motorway network to climate change effects, should lead to an improvement in the reliability of the network, particularly on routes that could be subject to flooding, landslides and erosion. It is therefore likely to have a significant positive effect on

STPR2 Recommendations	Recommendation number	SEA Objectives														Summary
		1. Climate Mitigation	2. Climate Adaptation	3. Air Quality	4. PHH Quality of Life	5. PHH Noise and Vibration	6. PHH High Quality Places	7. PHH Safety	8. Material Assets Sustainability	9. Material Assets Natural Resources	10. Water Environment	11. Biodiversity	12. Soil	13. Cultural Heritage	14. Landscape and Visual Amenity	
																<p>Climatic Factors (SEA Objective 2) due to increased adaptation and resilience of the trunk road and motorway network.</p> <p>This recommendation is likely to result in positive effects on SEA objectives related to Population and Human Health (SEA Objectives 4 and 7) due to improved reliability and safety on the transport network.</p> <p>While there are uncertain (potentially negative) effects on the Material Assets associated with asset improvements (SEA Objective 9), depending on the source and type of materials/natural</p>

STPR2 Recommendations	Recommendation number	SEA Objectives												Summary	
		1. Climate Mitigation	2. Climate Adaptation	3. Air Quality	4. PHH Quality of Life	5. PHH Noise and Vibration	6. PHH High Quality Places	7. PHH Safety	8. Material Assets Sustainability	9. Material Assets Natural Resources	10. Water Environment	11. Biodiversity	12. Soil		13. Cultural Heritage
															<p>resources used in construction, this should be balanced against the interventions potentially reducing the requirement for materials for recurring repairs, should they not be made.</p> <p>There are also uncertain (potentially negative) environmental effects during construction and operation on Climatic Factors (SEA Objective 1), Air Quality, Population and Human Health (SEA Objective 5), the Water Environment, Biodiversity, Soil, Cultural Heritage, and Landscape and Visual Amenity (SEA Objectives 10, 11, 12, 13 and 14</p>

STPR2 Recommendations	Recommendation number	SEA Objectives														Summary
		1. Climate Mitigation	2. Climate Adaptation	3. Air Quality	4. PHH Quality of Life	5. PHH Noise and Vibration	6. PHH High Quality Places	7. PHH Safety	8. Material Assets Sustainability	9. Material Assets Natural Resources	10. Water Environment	11. Biodiversity	12. Soil	13. Cultural Heritage	14. Landscape and Visual Amenity	
																respectively). However, at the strategic stage, the assessment for these SEA objectives is uncertain as the location and design of interventions is unknown. Given the nature of the recommendation it is not considered to significantly affect Population and Human Health (SEA Objective 6) or Material Assets (SEA Objective 8), therefore neutral scores were assessed in the SEA.
Trunk Road and Motorway Network	32	?	+	?	++	~	~	++	0	?	?	?	?	?	?	This recommendation is likely to result in significant positive effects on SEA objectives related to Population and

STPR2 Recommendations	Recommendation number	SEA Objectives												Summary	
		1. Climate Mitigation	2. Climate Adaptation	3. Air Quality	4. PPH Quality of Life	5. PPH Noise and Vibration	6. PPH High Quality Places	7. PPH Safety	8. Material Assets Sustainability	9. Material Assets Natural Resources	10. Water Environment	11. Biodiversity	12. Soil		13. Cultural Heritage
Renewal for Reliability, Resilience and Safety															<p>Human Health (SEA Objectives 4 and 7), due to improved safety of the trunk road and motorway network and access to essential services. It is also likely to result in positive effects on Climatic Factors (SEA Objective 2) due to increased resilience and adaptation of the road network.</p> <p>While this recommendation is not expected to have a notable effect on mode shift, a focus on maintaining the existing network as opposed to building new infrastructure is not anticipated to significantly increase traffic volumes or associated emissions which</p>

STPR2 Recommendations	Recommendation number	SEA Objectives														Summary
		1. Climate Mitigation	2. Climate Adaptation	3. Air Quality	4. PPH Quality of Life	5. PPH Noise and Vibration	6. PPH High Quality Places	7. PPH Safety	8. Material Assets Sustainability	9. Material Assets Natural Resources	10. Water Environment	11. Biodiversity	12. Soil	13. Cultural Heritage	14. Landscape and Visual Amenity	
																<p>could arise from other types of road schemes. Uncertain effects are therefore anticipated for Climatic Factors and Air Quality (SEA Objectives 1 and 3).</p> <p>While there are uncertain (potentially negative) effects on Materials Assets associated with the improvements (SEA Objective 9), depending on the source and type of materials/natural resources used in construction, this should be balanced against the interventions potentially reducing the requirement for materials for recurring repairs, should they not be made.</p>

STPR2 Recommendations	Recommendation number	SEA Objectives												Summary		
		1. Climate Mitigation	2. Climate Adaptation	3. Air Quality	4. PPH Quality of Life	5. PPH Noise and Vibration	6. PPH High Quality Places	7. PPH Safety	8. Material Assets Sustainability	9. Material Assets Natural Resources	10. Water Environment	11. Biodiversity	12. Soil		13. Cultural Heritage	14. Landscape and Visual Amenity
																<p>There are also uncertain (potentially negative) environmental effects during construction and operation on the Water Environment, Biodiversity, Soil, Cultural Heritage and Landscape and Visual Amenity (SEA Objectives 10, 11, 12, 13 and 14 respectively).</p> <p>The recommendation is related to, but unlikely to have a notable effect on the achievement of SEA Objective 8, and is therefore considered neutral. The recommendation has no (or negligible) clear relationship to the achievement of SEA Objectives 5 and 6, with</p>

STPR2 Recommendations	Recommendation number	SEA Objectives														Summary
		1. Climate Mitigation	2. Climate Adaptation	3. Air Quality	4. PHH Quality of Life	5. PHH Noise and Vibration	6. PHH High Quality Places	7. PHH Safety	8. Material Assets Sustainability	9. Material Assets Natural Resources	10. Water Environment	11. Biodiversity	12. Soil	13. Cultural Heritage	14. Landscape and Visual Amenity	
																respect to noise and vibration and the public realm.
Control Centre of the Future	33	?	+	?	+	0	~	+	+	~	0	0	0	0	0	This recommendation is likely to result in positive effects on SEA objectives related to Climatic Factors and Population and Human Health (SEA Objectives 2, 4 and 7), due to improved journey reliability and safety and resilience of the road network through the planning, monitoring, control, co-ordination and response to major travel incidents and severe weather incidents on the trunk road network. It would also have a minor positive effect on Material

STPR2 Recommendations	Recommendation number	SEA Objectives														Summary
		1. Climate Mitigation	2. Climate Adaptation	3. Air Quality	4. PPH Quality of Life	5. PPH Noise and Vibration	6. PPH High Quality Places	7. PPH Safety	8. Material Assets Sustainability	9. Material Assets Natural Resources	10. Water Environment	11. Biodiversity	12. Soil	13. Cultural Heritage	14. Landscape and Visual Amenity	
																<p>Assets (SEA Objective 8), due to improvements in transport technology.</p> <p>Uncertain effects have been assessed in relation to SEA objectives related to Climatic Factors and Air Quality (SEA Objectives 1 and 3), as it is uncertain whether the recommendation would result in a reduction or increase in the emissions of the transport system generally and the extent of modal shift.</p> <p>The recommendation is related to, but unlikely to have a notable effect on the achievement of the remaining SEA objectives, and is therefore considered neutral.</p>

STPR2 Recommen- dations	Recommendation number	SEA Objectives														Summary
		1. Climate Mitigation	2. Climate Adaptation	3. Air Quality	4. PHH Quality of Life	5. PHH Noise and Vibration	6. PHH High Quality Places	7. PHH Safety	8. Material Assets Sustainability	9. Material Assets Natural Resources	10. Water Environment	11. Biodiversity	12. Soil	13. Cultural Heritage	14. Landscape and Visual Amenity	
																<p>However, the recommendation is unlikely to result in any negative effects on the achievement of SEA objectives related to the Water Environment, Biodiversity, Soil, Cultural Heritage, and Landscape and Visual Amenity (SEA Objectives 10, 11, 12, 13 and 14 respectively), or noise and vibration (SEA Objective 5). The recommendation has no (or negligible) clear relationship to the achievement of SEA Objectives 6 and 9.</p>

STPR2 Recommendations	Recommendation number	SEA Objectives														Summary
		1. Climate Mitigation	2. Climate Adaptation	3. Air Quality	4. PHH Quality of Life	5. PHH Noise and Vibration	6. PHH High Quality Places	7. PHH Safety	8. Material Assets Sustainability	9. Material Assets Natural Resources	10. Water Environment	11. Biodiversity	12. Soil	13. Cultural Heritage	14. Landscape and Visual Amenity	
Incident Management System (IMS) Upgrade	34	?	+	?	+	0	~	+	+	~	0	0	0	0	0	<p>This recommendation is likely to result in positive effects on SEA objectives related to Climatic Factors and Population and Human Health (SEA Objectives 2, 4 and 7), due to improved journey reliability and safety and resilience of the road network through management during incidents or severe weather events. It would also have a minor positive effect on Material Assets (SEA Objective 8), due to the improvements in transport technology.</p> <p>Uncertain effects have been assessed in relation to SEA objectives related to Climatic</p>

STPR2 Recommen- dations	Recommendation number	SEA Objectives														Summary
		1. Climate Mitigation	2. Climate Adaptation	3. Air Quality	4. PPH Quality of Life	5. PPH Noise and Vibration	6. PPH High Quality Places	7. PPH Safety	8. Material Assets Sustainability	9. Material Assets Natural Resources	10. Water Environment	11. Biodiversity	12. Soil	13. Cultural Heritage	14. Landscape and Visual Amenity	
																<p>Factors and Air Quality (SEA Objectives 1 and 3), as it is uncertain whether the recommendation would result in a reduction or increase in the emissions of the transport system. Although improvements may result in the smoother flow of traffic and reduction of congestion, this may encourage greater use of the transport network generally.</p> <p>The recommendation is related to, but unlikely to have a notable effect on the achievement of the remaining SEA objectives, and is therefore considered neutral. However, the recommendation</p>

STPR2 Recommendations	Recommendation number	SEA Objectives														Summary
		1. Climate Mitigation	2. Climate Adaptation	3. Air Quality	4. PHH Quality of Life	5. PHH Noise and Vibration	6. PHH High Quality Places	7. PHH Safety	8. Material Assets Sustainability	9. Material Assets Natural Resources	10. Water Environment	11. Biodiversity	12. Soil	13. Cultural Heritage	14. Landscape and Visual Amenity	
																is unlikely to result in any negative effects on the achievement of SEA objectives related to the Water Environment, Biodiversity, Soil, Cultural Heritage, and Landscape and Visual Amenity (SEA Objectives 10, 11, 12, 13 and 14 respectively), or noise and vibration (SEA Objective 5). The recommendation has no (or negligible) clear relationship to the achievement of SEA Objectives 6 and 9.
Intelligent Transport Systems	35	?	+	?	+	0	~	+	+	?	0	0	0	0	0	This recommendation is likely to result in positive effects on SEA objectives related to

STPR2 Recommen- dations	Recommendation number	SEA Objectives													Summary	
		1. Climate Mitigation	2. Climate Adaptation	3. Air Quality	4. PPH Quality of Life	5. PPH Noise and Vibration	6. PPH High Quality Places	7. PPH Safety	8. Material Assets Sustainability	9. Material Assets Natural Resources	10. Water Environment	11. Biodiversity	12. Soil	13. Cultural Heritage		14. Landscape and Visual Amenity
																<p>Climatic Factors and Population and Human Health (SEA Objectives 2, 4 and 7), due to improved journey reliability and safety and resilience of the road network through the planning, monitoring, control, co-ordination and response to major travel incidents and severe weather incidents on the trunk road network. It would also have a minor positive effect on Material Assets (SEA Objective 8), due to improvements in transport technology.</p> <p>Uncertain effects have been assessed in relation to SEA objectives related to Climatic</p>

STPR2 Recommen- dations	Recommendation number	SEA Objectives														Summary
		1. Climate Mitigation	2. Climate Adaptation	3. Air Quality	4. PHH Quality of Life	5. PHH Noise and Vibration	6. PHH High Quality Places	7. PHH Safety	8. Material Assets Sustainability	9. Material Assets Natural Resources	10. Water Environment	11. Biodiversity	12. Soil	13. Cultural Heritage	14. Landscape and Visual Amenity	
																<p>Factors and Air Quality (SEA Objectives 1 and 3), as it is uncertain whether the recommendation would result in a reduction or increase in the emissions of the transport system generally and the extent of modal shift.</p> <p>Uncertain effects have also been assessed in relation to Material Assets (SEA Objective 9) as the design/extent of new roadside infrastructure is unknown at this stage.</p> <p>The recommendation is related to, but unlikely to have a notable effect on the achievement of the remaining SEA objectives, and is</p>

STPR2 Recommendations	Recommendation number	SEA Objectives														Summary
		1. Climate Mitigation	2. Climate Adaptation	3. Air Quality	4. PHH Quality of Life	5. PHH Noise and Vibration	6. PHH High Quality Places	7. PHH Safety	8. Material Assets Sustainability	9. Material Assets Natural Resources	10. Water Environment	11. Biodiversity	12. Soil	13. Cultural Heritage	14. Landscape and Visual Amenity	
																therefore considered neutral. However, the recommendation is unlikely to result in any negative effects on the achievement of SEA objectives related to the Water Environment, Biodiversity, Soil, Cultural Heritage, and Landscape and Visual Amenity (SEA Objectives 10, 11, 12, 13 and 14 respectively), or noise and vibration (SEA Objective 5). The recommendation has no (or negligible) clear relationship to the achievement of SEA Objective 6.

STPR2 Recommendations	Recommendation number	SEA Objectives														Summary
		1. Climate Mitigation	2. Climate Adaptation	3. Air Quality	4. PHH Quality of Life	5. PHH Noise and Vibration	6. PHH High Quality Places	7. PHH Safety	8. Material Assets Sustainability	9. Material Assets Natural Resources	10. Water Environment	11. Biodiversity	12. Soil	13. Cultural Heritage	14. Landscape and Visual Amenity	
Strategy for improving rest and welfare facilities for hauliers	36	0	~	~	+	~	0	+	0	~	~	~	~	~	~	<p>This recommendation is likely to result in positive effects on SEA objectives related to Population and Human Health (SEA Objectives 4 and 7), particularly in relation to improving safety on the transport network and access to essential services. The recommendation is related to, but unlikely to have any effect on the achievement of SEA Objectives 1, 6 and 8, and is therefore considered neutral.</p> <p>Given the nature of the recommendation, auditing to inform decision making for improvements to rest and welfare facilities for freight, the recommendation has no (or</p>

STPR2 Recommendations	Recommendation number	SEA Objectives														Summary	
		1. Climate Mitigation	2. Climate Adaptation	3. Air Quality	4. PHH Quality of Life	5. PHH Noise and Vibration	6. PHH High Quality Places	7. PHH Safety	8. Material Assets Sustainability	9. Material Assets Natural Resources	10. Water Environment	11. Biodiversity	12. Soil	13. Cultural Heritage	14. Landscape and Visual Amenity		
																	negligible) clear relationship to the achievement of many of the SEA objectives.
Improving active travel on trunk roads through communities	37	+	~	+	+	+	+	+	+	0	0	0	0	0	0	0	This recommendation would likely result in positive effects on the Climatic Factors (SEA Objective 1) and Air Quality SEA Objectives due to promoting modal shift to more sustainable and active travel options and thereby reducing air pollution and greenhouse gas emissions. Positive effects are anticipated on Population and Human Health and Material Assets (SEA Objective 8) due to an expected increase in users choosing more sustainable and safe routes to local

STPR2 Recommendations	Recommendation number	SEA Objectives														Summary	
		1. Climate Mitigation	2. Climate Adaptation	3. Air Quality	4. PHH Quality of Life	5. PHH Noise and Vibration	6. PHH High Quality Places	7. PHH Safety	8. Material Assets Sustainability	9. Material Assets Natural Resources	10. Water Environment	11. Biodiversity	12. Soil	13. Cultural Heritage	14. Landscape and Visual Amenity		
																	<p>amenities and a prioritisation of pedestrians in the public realm. Safer crossings also likely to result in a small net decrease in accidents.</p> <p>Given the nature of the recommendation, it has no (or negligible) clear relationship to the achievement of SEA Objective 2 (climate change adaptation).</p> <p>The recommendation is related to, but unlikely to have a notable effect on the achievement of the remaining SEA objectives, and is therefore considered neutral.</p>

STPR2 Recommendations	Recommendation number	SEA Objectives														Summary
		1. Climate Mitigation	2. Climate Adaptation	3. Air Quality	4. PHH Quality of Life	5. PHH Noise and Vibration	6. PHH High Quality Places	7. PHH Safety	8. Material Assets Sustainability	9. Material Assets Natural Resources	10. Water Environment	11. Biodiversity	12. Soil	13. Cultural Heritage	14. Landscape and Visual Amenity	
Speed Management Plan	38	+	0	+	+	+	~	++	0	0	0	0	0	0	0	<p>The recommendation is likely to result in significant positive effects on the SEA Objective related to safety (SEA Objective 7), due to improvements in safety on the road network.</p> <p>Minor positive effects have been assessed in relation to Climatic Factors, Air Quality and Population and Human Health (SEA Objectives 1,3 and 4), as reduced speeds should help to reduce greenhouse gas and other vehicle emissions, and encourage active travel options.</p> <p>Similarly, the noise and vibration (SEA Objective 5) is</p>

STPR2 Recommen- dations	Recommendation number	SEA Objectives														Summary
		1. Climate Mitigation	2. Climate Adaptation	3. Air Quality	4. PHH Quality of Life	5. PHH Noise and Vibration	6. PHH High Quality Places	7. PHH Safety	8. Material Assets Sustainability	9. Material Assets Natural Resources	10. Water Environment	11. Biodiversity	12. Soil	13. Cultural Heritage	14. Landscape and Visual Amenity	
																likely to be reduced so a minor positive effect has been assessed. The recommendation has no (or negligible) clear relationship to the achievement of SEA Objective 6. The recommendation is not anticipated to adapt the transport network to the effects of climate change, promote and improve the sustainable use of the transport network, or reduce the use of natural resources and therefore is unlikely to have a notable effect on the achievement of SEA Objectives 2, 8 and 9, and is therefore considered neutral.

STPR2 Recommendations	Recommendation number	SEA Objectives														Summary
		1. Climate Mitigation	2. Climate Adaptation	3. Air Quality	4. PHH Quality of Life	5. PHH Noise and Vibration	6. PHH High Quality Places	7. PHH Safety	8. Material Assets Sustainability	9. Material Assets Natural Resources	10. Water Environment	11. Biodiversity	12. Soil	13. Cultural Heritage	14. Landscape and Visual Amenity	
																In addition, it is considered unlikely to have a notable effect on the achievement of the remaining SEA objectives.
Sustainable Access to Grangemouth Investment Zone	39	+	~	+	+	+	+	+	+	?	0	0	0	?	?	This recommendation is likely to result in positive effects on the SEA objectives related to Climatic Factors and Air Quality (SEA Objectives 1 and 3), as it seeks to encourage a modal shift to more sustainable and active travel methods and reduce traffic and congestion through improved active travel and bus connections. In addition to helping reduce levels of transport related air pollution and carbon emissions, this is likely to help reduce transport

STPR2 Recommendations	Recommendation number	SEA Objectives												Summary		
		1. Climate Mitigation	2. Climate Adaptation	3. Air Quality	4. PHH Quality of Life	5. PHH Noise and Vibration	6. PHH High Quality Places	7. PHH Safety	8. Material Assets Sustainability	9. Material Assets Natural Resources	10. Water Environment	11. Biodiversity	12. Soil		13. Cultural Heritage	14. Landscape and Visual Amenity
																<p>related noise and vibration, and improve the quantity and/or quality of active travel routes (SEA Objectives 5 and 6).</p> <p>The recommendation would also have a positive effect on Material Assets (SEA Objective 8) and Population and Human Health (SEA Objectives 4 and 7) as it mostly promotes a more sustainable use of the existing transport routes to Grangemouth, encouraging sustainable access and increased travel choice.</p> <p>There are uncertain (potentially negative) environmental effects during</p>

STPR2 Recommendations	Recommendation number	SEA Objectives												Summary		
		1. Climate Mitigation	2. Climate Adaptation	3. Air Quality	4. PPH Quality of Life	5. PPH Noise and Vibration	6. PPH High Quality Places	7. PPH Safety	8. Material Assets Sustainability	9. Material Assets Natural Resources	10. Water Environment	11. Biodiversity	12. Soil		13. Cultural Heritage	14. Landscape and Visual Amenity
																<p>construction and operation of the recommendation, particularly on Material Assets, Cultural Heritage and Landscape and Visual Amenity (SEA Objectives 9, 13 and 14) depending on the design and location of the interventions.</p> <p>The recommendation has no (or negligible) clear relationship to the achievement of SEA Objective 2 (climate change adaptation). Whilst the recommendation is related to the remaining SEA objectives, it is unlikely to have a notable effect on the achievement of these</p>

STPR2 Recommendations	Recommendation number	SEA Objectives														Summary
		1. Climate Mitigation	2. Climate Adaptation	3. Air Quality	4. PHH Quality of Life	5. PHH Noise and Vibration	6. PHH High Quality Places	7. PHH Safety	8. Material Assets Sustainability	9. Material Assets Natural Resources	10. Water Environment	11. Biodiversity	12. Soil	13. Cultural Heritage	14. Landscape and Visual Amenity	
																objectives, and is therefore considered neutral.
Access to Stranraer and the ports at Cairnryan	40	-	?	-	?	?	~	+	-	-	?	?	?	?	?	This recommendation would result in potential positive effects on Population and Human Health (SEA Objective 7) due to improved safety on the road network. The recommendation is likely to result in negative effects on Climatic Factors, Air Quality and Material Assets (SEA Objectives 1, 3, 8 and 9 respectively) as the improvements could potentially increase the number of unsustainable private vehicles on the road network and associated

STPR2 Recommendations	Recommendation number	SEA Objectives												Summary		
		1. Climate Mitigation	2. Climate Adaptation	3. Air Quality	4. PHH Quality of Life	5. PHH Noise and Vibration	6. PHH High Quality Places	7. PHH Safety	8. Material Assets Sustainability	9. Material Assets Natural Resources	10. Water Environment	11. Biodiversity	12. Soil		13. Cultural Heritage	14. Landscape and Visual Amenity
																<p>emissions. Increased vehicles would also cause increases in noise and vibration associated with the transport network (SEA Objective 5), although this is dependent on the proximity of noise sensitive receptors and therefore considered uncertain.</p> <p>An uncertain effect has been assessed for Population and Human Health (SEA Objective 4), as although the recommendation would improve journey time reliability and accessibility, this would be for road transport and as such would not be considered to increase sustainable access.</p>

STPR2 Recommendations	Recommendation number	SEA Objectives													Summary	
		1. Climate Mitigation	2. Climate Adaptation	3. Air Quality	4. PHH Quality of Life	5. PHH Noise and Vibration	6. PHH High Quality Places	7. PHH Safety	8. Material Assets Sustainability	9. Material Assets Natural Resources	10. Water Environment	11. Biodiversity	12. Soil	13. Cultural Heritage		14. Landscape and Visual Amenity
																<p>There are uncertain effects predicted during construction and operation of the improvements, for climate change adaptation, the Water Environment, Biodiversity, Soil, Cultural Heritage and Landscape and Visual Amenity (SEA Objectives 2, 10, 11, 12, 13 and 14) at this strategic stage.</p> <p>The recommendation has no (or negligible) clear relationship to the achievement of SEA Objective 6.</p>
Potential Sound of Harris /	41	-	+	-	+	-	~	~	+	-	-	-	-	-	-	<p>This recommendation is likely to result in positive effects on the SEA objectives related to</p>

STPR2 Recommendations	Recommendation number	SEA Objectives														Summary
		1. Climate Mitigation	2. Climate Adaptation	3. Air Quality	4. PPH Quality of Life	5. PPH Noise and Vibration	6. PPH High Quality Places	7. PPH Safety	8. Material Assets Sustainability	9. Material Assets Natural Resources	10. Water Environment	11. Biodiversity	12. Soil	13. Cultural Heritage	14. Landscape and Visual Amenity	
Sound of Barra Fixed Link and Fixed Link between Mull and Scottish mainland																<p>Population and Human Health (SEA Objective 4) as the enhancements seek to improve accessibility, reduce severance and increase transport choice; and positive effects on Material Assets (SEA Objective 8) as it supports plans for future capacity of public transport, taking demographic and other societal changes into account.</p> <p>It is also likely to result in minor positive effects on Climatic Factors (SEA Objective 2) as the enhancements would help adapt the ferry network to the direct / indirect risks associated with climate</p>

STPR2 Recommendations	Recommendation number	SEA Objectives													Summary	
		1. Climate Mitigation	2. Climate Adaptation	3. Air Quality	4. PHH Quality of Life	5. PHH Noise and Vibration	6. PHH High Quality Places	7. PHH Safety	8. Material Assets Sustainability	9. Material Assets Natural Resources	10. Water Environment	11. Biodiversity	12. Soil	13. Cultural Heritage		14. Landscape and Visual Amenity
																<p>change, and maintain / improve access to and within isolated island communities at risk from climate change effects.</p> <p>The implementation of a fixed link is likely to result in negative effects on Climatic Factors and Air Quality (SEA Objectives 1 and 3) due to the potential for an increase in motorised traffic on the islands and to and from the mainland. There is also potential for negative effects on Population and Human Health (SEA Objective 5) with an increase in noise and vibration.</p>

STPR2 Recommen- dations	Recommendation number	SEA Objectives												Summary	
		1. Climate Mitigation	2. Climate Adaptation	3. Air Quality	4. PPH Quality of Life	5. PPH Noise and Vibration	6. PPH High Quality Places	7. PPH Safety	8. Material Assets Sustainability	9. Material Assets Natural Resources	10. Water Environment	11. Biodiversity	12. Soil		13. Cultural Heritage
															<p>Negative effects are also anticipated on the Water Environment, Biodiversity, Soil, Cultural Heritage, Landscape and Visual Amenity (SEA Objectives 10, 11, 12, 13, and 14 respectively) during construction and operation of both the fixed link and harbour upgrade infrastructure required; however the magnitude of these effects is uncertain at this stage. The effects on Material Assets (SEA Objective 9) are also assessed as minor negative at this strategic stage.</p> <p>The recommendation has no (or negligible) clear</p>

STPR2 Recommendations	Recommendation number	SEA Objectives														Summary
		1. Climate Mitigation	2. Climate Adaptation	3. Air Quality	4. PHH Quality of Life	5. PHH Noise and Vibration	6. PHH High Quality Places	7. PHH Safety	8. Material Assets Sustainability	9. Material Assets Natural Resources	10. Water Environment	11. Biodiversity	12. Soil	13. Cultural Heritage	14. Landscape and Visual Amenity	
																relationship to the achievement of SEA Objectives 6 and 7.
Investment in port infrastructure to support vessel renewal and replacement and progressive decarbonisation	42	+	~	+	+	~	?	?	?	?	?	?	?	?	?	This recommendation is likely to result in positive effects on SEA objectives related to Climatic Factors and Air Quality (SEA Objectives 1 and 3), as it seeks to reduce greenhouse gas emissions associated with ferry services through supporting vessel decarbonisation, with potential for improvement in air quality. It would also help achieve SEA Objective 4 as it would improve sustainable accessibility.

STPR2 Recommendations	Recommendation number	SEA Objectives												Summary		
		1. Climate Mitigation	2. Climate Adaptation	3. Air Quality	4. PHH Quality of Life	5. PHH Noise and Vibration	6. PHH High Quality Places	7. PHH Safety	8. Material Assets Sustainability	9. Material Assets Natural Resources	10. Water Environment	11. Biodiversity	12. Soil		13. Cultural Heritage	14. Landscape and Visual Amenity
																<p>The effects on air quality (SEA Objective 3) are uncertain at this stage. For most other SEA Objectives, the effects are also considered uncertain as the effects would be determined by the design (and physical footprint) of the port infrastructure</p> <p>The recommendation has no (or negligible) clear relationship to the achievement of SEA Objective 2 (climate change adaptation) and effects on noise and vibration (SEA Objective 5) are also expected to be negligible overall.</p>

STPR2 Recommendations	Recommendation number	SEA Objectives													Summary	
		1. Climate Mitigation	2. Climate Adaptation	3. Air Quality	4. PHH Quality of Life	5. PHH Noise and Vibration	6. PHH High Quality Places	7. PHH Safety	8. Material Assets Sustainability	9. Material Assets Natural Resources	10. Water Environment	11. Biodiversity	12. Soil	13. Cultural Heritage		14. Landscape and Visual Amenity
Major Stations Masterplans	43	+	~	+	+	~	?	?	?	?	?	?	?	?	?	<p>This recommendation is likely to result in positive effects on SEA objectives related to Climatic Factors and Air Quality (SEA Objectives 1 and 3), as it seeks to encourage modal shift to rail, and, as a result, reduce levels of transport related air pollution and carbon emissions. It would also help achieve SEA Objective 4 as it would improve sustainable accessibility.</p> <p>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.</p>

STPR2 Recommendations	Recommendation number	SEA Objectives													Summary	
		1. Climate Mitigation	2. Climate Adaptation	3. Air Quality	4. PHH Quality of Life	5. PHH Noise and Vibration	6. PHH High Quality Places	7. PHH Safety	8. Material Assets Sustainability	9. Material Assets Natural Resources	10. Water Environment	11. Biodiversity	12. Soil	13. Cultural Heritage		14. Landscape and Visual Amenity
																The recommendation has no (or negligible) clear relationship to the achievement of SEA Objective 2 (climate change adaptation) and effects on noise and vibration (SEA Objective 5) are also expected to be negligible overall.
Rail Freight Terminals and Facilities	44	+	~	+	+	~	?	?	?	?	?	?	?	?	?	This recommendation is likely to result in positive effects on SEA objectives related to Climatic Factors and Air Quality (SEA Objectives 1 and 3) as it seeks to encourage modal shift of freight from road to rail, and, as a result, reduce levels of transport related air

STPR2 Recommen- dations	Recommendation number	SEA Objectives														Summary
		1. Climate Mitigation	2. Climate Adaptation	3. Air Quality	4. PPH Quality of Life	5. PPH Noise and Vibration	6. PPH High Quality Places	7. PPH Safety	8. Material Assets Sustainability	9. Material Assets Natural Resources	10. Water Environment	11. Biodiversity	12. Soil	13. Cultural Heritage	14. Landscape and Visual Amenity	
																<p>pollution and carbon emissions.</p> <p>It would have a positive effect on Population and Human Health (SEA Objective 4) as it would improve sustainable accessibility.</p> <p>For most other SEA Objectives, the effects are considered uncertain as the effects would be determined by the design (and physical footprint) of the improvements to terminals and facilities.</p> <p>The recommendation has no (or negligible) clear relationship to the achievement of SEA Objective 2 (climate change adaptation) and effects on noise and</p>

STPR2 Recommendations	Recommendation number	SEA Objectives														Summary
		1. Climate Mitigation	2. Climate Adaptation	3. Air Quality	4. PHH Quality of Life	5. PHH Noise and Vibration	6. PHH High Quality Places	7. PHH Safety	8. Material Assets Sustainability	9. Material Assets Natural Resources	10. Water Environment	11. Biodiversity	12. Soil	13. Cultural Heritage	14. Landscape and Visual Amenity	
																vibration (SEA Objective 5) are also expected to be negligible overall.
High Speed Cross Border Rail Enhancements	45	+	+	+	+	?	~	+	0	-	-	-	-	-	-	This recommendation is likely to result in positive effects on SEA objectives related to Climatic Factors, Air Quality and Population and Human Health (SEA Objectives 1, 3, 4 and 7), particularly in relation to the achievement of a reduction in transport related emissions; as it seeks to encourage a modal shift to public transport (rail), encouraging sustainable access, increased travel choice, improved connectivity and potential for improved safety on the transport

STPR2 Recommen- dations	Recommendation number	SEA Objectives														Summary
		1. Climate Mitigation	2. Climate Adaptation	3. Air Quality	4. PHH Quality of Life	5. PHH Noise and Vibration	6. PHH High Quality Places	7. PHH Safety	8. Material Assets Sustainability	9. Material Assets Natural Resources	10. Water Environment	11. Biodiversity	12. Soil	13. Cultural Heritage	14. Landscape and Visual Amenity	
																<p>network. It would also contribute to the transport network's resilience to climate change effects by offering alternative means of transport for specific routes (SEA Objective 2).</p> <p>Given the scale of works likely to be required to facilitate the recommendation, it is likely to result in negative effects on SEA objectives for Material Assets (SEA Objective 9), the Water Environment, Biodiversity, Soil, Cultural Heritage and Landscape and Visual Amenity during construction and operation (SEA Objectives 10, 11, 12, 13 and 14 respectively).</p>

STPR2 Recommendations	Recommendation number	SEA Objectives														Summary	
		1. Climate Mitigation	2. Climate Adaptation	3. Air Quality	4. PHH Quality of Life	5. PHH Noise and Vibration	6. PHH High Quality Places	7. PHH Safety	8. Material Assets Sustainability	9. Material Assets Natural Resources	10. Water Environment	11. Biodiversity	12. Soil	13. Cultural Heritage	14. Landscape and Visual Amenity		
																	<p>Depending on the location and nature of such works to facilitate the recommendation, there is also potential for negative environmental effects during construction and operation on noise and vibration (Population and Human Health SEA Objective 5).</p> <p>Whilst the recommendation is related to SEA Objective 8, it is unlikely to have a notable effect on the achievement of this objective and is therefore considered neutral.</p> <p>It has no (or negligible) clear relationship to the achievement of SEA Objective 6.</p>

