Appendix I Recommendation Appraisal Summary Tables – Explanatory Note

December 2022

1. Introduction

This introduction to Appendix I Recommendation Appraisal Summary Tables (ASTs) provides additional background information as an aid to the interpretation of the Recommendation ASTs that make up the rest of this appendix and includes the following:

* Section 2 - STPR2 Recommendations: A list of the 45 STPR2 recommendations;
* Section 3 - Sustainable Investment Hierarchy and the second National Transport Strategy (NTS2) Outcomes: A description of the Sustainable Investment Hierarchy and a list of the NTS2 outcomes which the STPR2 Recommendations are designed to support;
* Section 4 - Appraisal Scoring System: An explanation of the appraisal scoring system used in STPR2;
* Section 5 - Assessment Criteria: A list of all the assessment criteria used in STPR2 and confirmation of the cost bandings that have been applied to estimate the capital costs of STPR2 Recommendations; and

Section 6 - Glossary of Terms: Definitions of technical terms and acronyms.

1. STPR2 Recommendations
2. Connected neighbourhoods
3. Active freeways and cycle parking hubs
4. Village-town active travel connections
5. Connecting towns by active travel
6. Long-distance active travel network
7. Behavioural change initiatives
8. Changing road user behaviour
9. Increasing active travel to school
10. Improving access to bikes
11. Expansion of 20mph limits and zones
12. Clyde Metro
13. Edinburgh & South East Scotland Mass Transit
14. Aberdeen Rapid Transit
15. Provision of strategic bus priority measures
16. Highland Main Line rail corridor enhancements
17. Perth-Dundee-Aberdeen rail corridor enhancements
18. Edinburgh/Glasgow-Perth/Dundee rail corridor enhancements
19. Supporting integrated journeys at ferry terminals
20. Infrastructure to provide access for all at railway stations
21. Investment in Demand Responsive Transport and Mobility as a Service
22. Improved public transport passenger interchange facilities
23. Framework for the delivery of mobility hubs
24. Smart, integrated public transport ticketing
25. Ferry vessel renewal and replacement, and progressive decarbonisation
26. Decarbonisation of the rail network
27. Decarbonisation of the bus network
28. Behavioural change and modal shift for freight
29. Zero emission vehicles and infrastructure transition
30. Access to Argyll (A83)
31. Trunk road and motorway safety improvements to progress towards ‘Vision Zero’
32. Trunk road and motorway network climate change adaptation and resilience
33. Trunk road and motorway network renewal for reliability, resilience and safety
34. Future Intelligent Transport Systems
35. Traffic Scotland System Renewal
36. Intelligent Transport System renewal and replacement
37. Strategy for improving rest and welfare facilities for hauliers
38. Improving active travel on trunk roads through communities
39. Speed Management Plan
40. Sustainable access to Grangemouth Investment Zone
41. Access to Stranraer and the ports at Cairnryan
42. Potential Sound of Harris, Sound of Barra fixed link and fixed link between Mull and Scottish mainland
43. Investment in port infrastructure to support vessel renewal and replacement, and progressive decarbonisation
44. Major station masterplans
45. Rail freight terminals and facilities
46. High speed and cross-border rail enhancements
47. Sustainable Investment Hierarchy and NTS2 Outcomes

The second National Transport Strategy (NTS2) states that the Sustainable Investment Hierarchy (SIH) will be used to inform future investment decisions. It prioritises transport options according to the hierarchy shown in Figure 1: first reducing the need to travel unsustainably; then maintaining and safely operating existing assets; then making better use of existing capacity;, before finally, considering targeted infrastructure improvements.

The STPR2 Recommendation ASTs identify the position of each recommendation on this hierarchy.

The figure shows the Sustainable Investment Hierarchy which reads from top to bottom: Reducing the need to travel unsustainably.
Maintaining and safely operating existing assets.
Making better use of existing capacity.
Targeted infrastructure improvements.

Figure 1: Sustainable Investment Hierarchy

The NTS2 identified the following outcomes:

* provide fair access to services we need;
* be easy to use for all;
* be affordable for all;
* help deliver our net-zero target;
* adapt to the effects of climate change;
* promote cleaner, greener choices;
* get people and goods where they need to get to;
* be reliable, efficient and high quality;
* use beneficial innovation;
* be safe and secure for all;
* enable us to make healthy travel choices; and
* help make our communities great places to live.

The STPR2 Recommendation ASTs identify the NTS2 outcomes which could be addressed by each recommendation.

1. Appraisal Scoring System

The detailed appraisal has been undertaken in line with STAG guidance using the seven-point scale, defined as follows:

* Major positive +++

The recommendation is anticipated to have a major positive contribution to achievement of the objective, or has a major (positive) benefit on the appraisal criterion. In relation to aspects of deliverability, the assessment is very positive with minimal projected risk, and strong supporting evidence/examples can be provided.

* Moderate positive ++

The recommendation is anticipated to have a moderate positive contribution to achievement of the objective, or have a moderate (positive) benefit on the appraisal criterion. In relation to aspects of deliverability, the assessment is positive with minimal projected risk, and supporting evidence/examples can be provided.

* Minor positive +

The recommendation is anticipated to contribute to the achievement of the objective but not significantly, or have a minor (positive) benefit on the appraisal criterion. In relation to aspects of deliverability, the overall assessment is positive with relatively low risk, and some evidence/examples can be provided.

* Neutral 0

The recommendation is related to but is not anticipated to have any effect on the achievement of the objective, or has no effect (neither positive or negative) on the appraisal criterion, or the assessment of the category is neither positive nor negative.

* Minor Negative -

The recommendation is anticipated to detract from the achievement of the objective but not significantly, or have a minor (negative) impact on the appraisal criterion. In relation to aspects of deliverability, the overall assessment is negative with some identified risks and/or uncertainty.

* Moderate Negative - -

The recommendation is anticipated to have a moderate negative impact on the achievement of the objective, or have a moderate (negative) impact on the appraisal criterion. In relation to aspects of deliverability, the overall assessment is negative with identified risks and/or a degree of uncertainty.

* Major Negative - - -

The recommendation is anticipated to have a major negative impact on the achievement of the objective, or have a major (negative) impact on the appraisal criterion. In relation to aspects of deliverability, the overall assessment is strongly negative with multiple identified risks and/or a high degree of uncertainty.

1. Assessment Criteria

The detailed appraisal considers the performance of each recommendation against the following criteria, using the seven-point scale outlined in Section 4 above. The criteria are:

* The five STPR2 Transport Planning Objectives (TPOs):
  + A sustainable strategic transport system that contributes significantly to the Scottish Government’s net-zero emissions target;
  + An inclusive strategic transport system that improves the affordability and accessibility of public transport;
  + A cohesive strategic transport system that enhances communities as places, supporting health and wellbeing;
  + An integrated strategic transport system that contributes towards sustainable inclusive growth in Scotland; and
  + A reliable and resilient strategic transport system that is safe and secure for users.
* The five STAG criteria:
  + Environment – encompassing Biodiversity and Habitats, Geology and Soils, Land Use, Water, Drainage and Flooding, Air Quality, Historic Environment, Landscape, and Noise and Vibration
  + Climate Change – encompassing Greenhouse Gas Emissions, Vulnerability to Effects of Climate Change, and Potential to Adapt to Effects of Climate Change;
  + Health, Safety and Wellbeing – encompassing Accidents, Security, Health, Access to Health and Wellbeing Infrastructure and Visual Amenity;
  + Economy – encompassing Transport Economic Efficient (TEE) and Wider Economic Impact (WEI); and
  + Equality and Accessibility – encompassing Public & Active Travel Network Coverage, Comparative Accessibility by People Groups and Geographic Location, and Affordability.
* The three deliverability criteria:
  + Feasibility – of construction and operation, and status of technology and timescale or cost risks;
  + Affordability – scale of financial burden and risks associated with operating costs and likely revenue; and
  + Public Acceptability – likely public response to option with reference to consultation findings where appropriate.
* The five Statutory Impact Assessment criteria:
  + Strategic Environmental Assessment (SEA);
  + Equalities Impact Assessment (EqIA);
  + Island Communities Impact Assessment (ICIA);
  + Children’s Rights and Wellbeing Impact Assessment (CRWIA); and
  + Fairer Scotland Duty Assessment (FSDA).
* Specifically, the SEA has included an assessment of the options against the following specific SEA objectives:

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;
2. Adapt the transport network to the predicted effects of climate change;
3. Reduce all forms of transport-related air pollution and improve air quality throughout Scotland;
4. Improve quality of life and human health and increase sustainable access to essential services, employment and the natural environment;
5. Reduce noise and vibration associated with the transport network;
6. Promote, invest in, build and maintain infrastructure to support the development of high-quality places;
7. Improve safety on the transport network;
8. Promote and improve the sustainable use of the transport network;
9. Reduce use of natural resources;
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;
11. Protect, maintain and enhance biodiversity and ecosystem services, avoiding damage to or loss of designated and undesignated wildlife or geological sites;
12. Safeguard and improve soil quality in Scotland, particularly high value agricultural land and carbon-rich soil;
13. Protect and enhance (where appropriate) historic and archaeological sites and other culturally and historically important features, landscapes and their settings; and
14. Safeguard and enhance the character and diversity of the Scottish landscape and areas of valuable landscape.

* The eight cost bands that have been used to determine the estimated capital costs of the recommendation are as follows:
  + Band 1: Under £25m;
  + Band 2: £26m - £50m;
  + Band 3: £51m - £100m;
  + Band 4: £101m - £500m;
  + Band 5: £501m - £1,000m;
  + Band 6: £1,001m - £2,500m;
  + Band 7: £2,501m - £5,000m; and
  + Band 8: Over £5,000m

1. Glossary of Terms

**High Scenario** – this scenario assumes no policy ambition on car kilometres and is similar to a traditional “Do Minimum” forecast. It is fully referred to as “High growth sensitivity with no policy ambition on car km”. Further information is provided in Appendix F.

**Low Scenario** – this scenario assumes a 20 per cent reduction policy ambition on car kilometres. It is fully referred to as “Low growth sensitivity with a 20% reduction policy ambition on car km”. Further information is provided in Appendix F.

**Acronyms**

Acronyms and their definitions are provided below.

APPI Assembly of Planning Policy Inputs process (land use planning data)

AST Appraisal Summary Table

BRT Bus Rapid Transit

BSL British Sign Language

CAV Connected and Autonomous Vehicle

CCRA3 Climate Change Risk Assessment 3

CCTV Closed-Circuit Television

CHFS Clyde and Hebrides Ferry Services

C-ITS Cooperative Intelligent Transport Systems

COSLA Convention of Scottish Local Authorities

CRWIA Child Rights and Wellbeing Impact Assessment

CSR Capital Spending Review

CT Community Transport

DMRB Design Manual for Roads and Bridges

DRT Demand Responsive Transport

ECML East Coast Main Line

EqIA Equality Impact Assessment

FSDA Fairer Scotland Duty Assessment

FMS Fault Management System

GDP Gross Domestic Product

HGV Heavy Goods Vehicles

HRA Habitat Regulations Appraisal

HS2 High Speed Two

ICIA Island Communities Impact Assessment

ICP Islands Connectivity Plan

IDM Investment Decision Making

IIP Infrastructure Investment Plan

IMS Incident Management System

ISM Individual, Social, Material

ITS Intelligent Transport System

KSI Killed and Seriously Injured

LGV Light Goods Vehicle

MaaS Mobility as a Service

MSP Member of the Scottish Parliament

NaPTAT National Public Transport Accessibility Tool

NIFS Northern Isles Ferry Service

NPF4 National Planning Framework 4

NSET National Strategy for Economic Transformation

NTS2 National Transport Strategy 2

OBR Office for Budget Responsibility

ORR Office of Rail and Road

PIA Personal Injury Accident

RET Road Equivalent Tariff

RTP Regional Transport Partnership

RTWG Regional Transport Working Group

SAC Special Area of Conservation

SCOTS Society of Chief Officers of Transportation in Scotland

SCSP Smarter Choices, Smarter Places

SEA Strategic Environmental Assessment

SOLACE Society of Local Authority Chief Executives and Senior Managers

SPA Special Protection Area

STAG Scottish Transport Appraisal Guidance

STPR2 Strategic Transport Projects Review 2

TELMoS Transport and Economic Land-use Model of Scotland

TMfS Transport Model for Scotland

TPO Transport Planning Objective

TSNCC Traffic Scotland National Control Centre

TSS Traffic Scotland System

WCML West Coast Main Line

WS2+1 Wide single 2+1 carriageway cross-section, 2 lanes one direction, 1 lane opposing direction