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**Meeting:** Scrutiny Committee  
**Subject:** Road Investment Strategy (RIS) Recommendations  
**Author:** Owen Wilson, Head of Major Roads  
**Sponsor:** Darren Oldham, Director Rail and Road  
**Meeting Date:** Thursday 2 March 2023

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**1. Purpose of the Report:**

1.1 To outline the approach to developing TfN's recommendations for investment in the Strategic Road Network (SRN) and seek comments from the Scrutiny Committee.

The report seeks specific feedback on:

- a) Key messages to National Highways and Department for Transport on the RIS Programme.
- b) The methodology and analytical approach used to develop the recommendations for future RIS investment.

**2. Recommendations:**

2.1 The Scrutiny Committee is asked to comment on TfN's approach to preparing recommendations for RIS.

**3. Main Issues:**

**3.1 Road Investment Strategy (RIS)**

The Department for Transport (DfT) has set out six strategic objectives that it expects to underpin the next RIS, these are:

- Improving safety for all;
- Network performance to meet customer needs;
- Improved environmental outcomes;
- Growing the economy;
- Managing and planning the SRN for the future; and
- A technology-enabled and enabling network.

3.2 Transport for the North has been working collaboratively with National Highways to provide evidence on the North's requirements for investment in our strategic roads. TfN has provided input into the development of the SRN Initial Report and NH Route Strategy reports. Both documents had been expected to be published and consulted upon in autumn 2022; at time of writing, the reports are still to be published.

3.3 Current advice is that National Highways will publish a suite of documents in late February / early March 2023, including the SRN Initial Report, Route Strategy reports and a new strategic document 'Connecting the Country', setting out a long-term vision to 2050, on the role of the SRN.

3.4 Funding for new interventions in the RIS3 period is likely to be severely constrained by the limits that apply to public sector funding more generally. Budget pressures are also arising from delay and cost inflation impacting on the current RIS Programme (RIS2).

3.5 For RIS2 schemes in the North still to progress through statutory planning, there is a significant risk that Government will review their funding alongside emerging priorities identified in RIS3. Consideration of RIS2 schemes is not in scope of the work described in this report, however partners' views on RIS2 schemes still within the development stages will be a necessary part of Transport for the North recommendations to Government.

**Proposed key messages in recommendations on the RIS**

- 3.6 TfN's recent submission to the House of Commons Transport Select Committee included a suggestion that the National Highways Licence should be amended to reflect the statutory role of TfN, and a requirement placed on National Highways to formally seek the views of Transport for the North and to then report on how that advice has been reflected in RIS3.
- 3.7 Early and ongoing engagement, collaboration and transparency in decision making with the key regional and local partners is vitally important; this should as a minimum include TfN, Mayoral and Combined Authorities and Local Transport Authorities.
- 3.8 The SRN operates as part of the wider transport network and there is a need to ensure that the objectives set for RIS3 are grounded in the agreed outcomes for the North as set out in the statutory Strategic Transport Plan.
- 3.8 It takes significant time (10 or more years) for new technologies and major infrastructure to impact at scale. As the Transport for the North evidence base in support of the Strategic Transport Plan highlights, rapid concerted action is required now to reduce carbon emissions and to maximise the efficient use of the existing transport system. Investment on the SRN should therefore first seek to optimise the function of the existing road network as an important community asset, delivering safe and reliable journeys for road users, and making the most of opportunities to reduce carbon emissions, minimise severance, improve air quality and biodiversity.
- 3.9 Alternative options to new road capacity should be thoroughly considered as part of early options appraisal work. This should include appraisal of policies and investment which would reduce the need for travel by car, LGV or HGV, and go beyond a basic assessment of a 'do minimum or business as usual' appraisal of the potential for planned investment in public transport and/or active travel to reduce vehicle trips on the SRN. Collaborative engagement with Transport for the North and with Local Transport Authorities is critical to fully appraising all options to support greater use of more sustainable travel modes.
- 3.10 The DfT is due to publish new Local Transport Plan guidance in 2023. In planning for RIS3 National Highways will need to engage with Local Transport Authorities in considering the role of the SRN in supporting local transport plans and targets, with for example the monitoring and reduction in transport related carbon emissions, a new duty placed on local transport authorities.
- 3.11 To meet policy priorities, transport investment, including through the RIS Programme, must be grounded in the delivery of the strategic objectives and outcomes identified in the Strategic Transport Plan, and not predicated on more easily monetised Benefit Cost Ratio (BCR) calculations, particularly when based on a narrow 'predict and provide' model of how to adapt to traffic growth.
- 3.12 Investment in new road capacity for motorised traffic is still required, particularly to improve safety and resilience but capacity enhancements should only be taken forward where there is compelling evidence that options for reducing traffic levels have been fully considered and increased road capacity is required to deliver economic and social benefits. For example, the dualling of the A66 (A1(M) at

Scotch Corner to junction 40 of the M6 at Penrith) is a primary example of a fundamental strategic need to provide a safer, more reliable, and resilient east-west route connecting Yorkshire and the Northeast to Cumbria and the West Coast of Scotland.

- 3.13 Plans for new road capacity should be accompanied by complementary policies to mitigate for unintended growth in 'induced' traffic. For example, where new road infrastructure is supporting growth in new housing and/or jobs the design of that infrastructure should seek to reduce the need for car-based travel.
- 3.14 There is an opportunity for National Highways to build on lessons gained from the RIS2 Programme, and to work with Transport for the North and local partners to re-scope the approach to identifying and appraising potential solutions. Key to this would be to collaboratively agree a shared view on an integrated 'place-based' strategy, one that encompasses options for complementary policy, technology, and infrastructure interventions.
- 3.15 Government has provided no indication of the funding for the RIS3 period (2025-2030), or how cost inflation experienced in the RIS2 Programme will impact on available funding for new investment in RIS3. It is essential that where there is a need for National Highways and DfT to consider the implications of cost pressures that have consequences for future investment periods, there is an effective mechanism for seeking the formal views of Transport for the North prior to a decision being made. This is particularly important where a reassessment of the scope of proposed works might enable a more efficient approach that represents better value for money once the wider benefits to local communities are considered.

### **Summary of approach to identifying the need for an SRN intervention**

- 3.16 Evidence from the Strategic Development Corridor (SDC) studies, which underpinned the 2019 Investment Programme, plus work on sequencing interventions agreed by Transport for the North Board in 2020 formed the basis of work on identifying locations on the SRN for assessment.
- 3.17 The SDC studies included extensive engagement with Transport for the North partners on the development of strategic objectives, the completion of 'Options Appraisal reports', shortlisting and modelling of proposed transport schemes and completion of Strategic Programme Outline Business Cases<sup>1</sup> for each SDC corridor, available on TfN's website.
- 3.18 Building on the previous work and utilising the following evidence, the analysis is focused on identifying where the SRN is performing poorly and/or where there are substantial issues which need to be addressed by 2033:
- Transport for the North commissioned mobile phone data
  - TfN's Northern Highway Assignment Model (NoHAM),
  - TfN's Development Log (jobs & housing),
  - Transport Related Social Exclusion (TRSE) evidence
  - Nationally available data on air quality, noise and safety
- 3.19 The assessment is based on baseline performance (2018 & 2019 data) and outputs from NoHAM for 2033. See Appendix 2 for an overview of the metrics and data source for each level of service indicator.

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<sup>1</sup> SDC Strategic Programme Outline Business Cases available here: <https://transportforthenorth.com/strategic-development-corridors/#:~:text=The%20corridor%20links%20advanced%20manufacturing,of%20the%20Government's%20Industrial%20Strategy>.

- 3.20 The 2033 assessment has been completed for two future scenarios, TfN's Urban Zero Carbon (UZC) scenario and the National Trip End Matrix (NTEM) scenario published by DfT.<sup>2</sup>
- 3.21 The Transport for the North future scenarios<sup>3</sup> were developed through collaboration with Transport for the North partners and identify four plausible future states based on a plausible mix of policy actions, societal and technological changes. The UZC scenario assumes the most national and local policy activity to reduce traffic levels, resulting in a lower overall road vehicle km growth up to 2050, than the 15% advised by the Climate Change Committee 6<sup>th</sup> Carbon Budget.
- 3.22 Use of the scenarios enables testing for uncertain future circumstances. For example, considering whether policy actions such as greater investment in active travel and public transport, a focus on compact urban rather than dispersed development combined with traffic demand management, mitigate for the need for new road capacity. It is important to note that the assessment of alternate scenarios provides a high-level indication and would need to be looked at in further detail should work on appraising options for specific SRN locations be taken forward.

### Level of Service

- 3.23 The assessment reports on 'Levels of Service' looking at environmental, economic and social outcomes, summarised in figure 1.

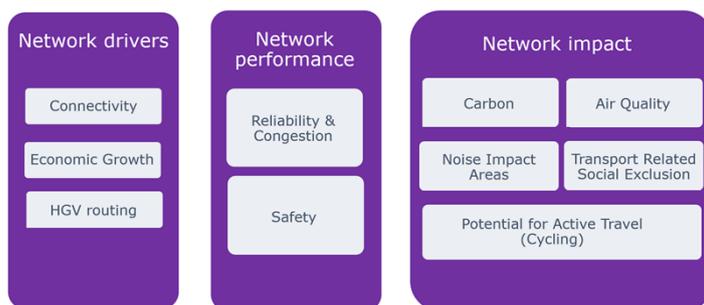


Figure 1 –Level of Service Indicators.

- 3.24 'Level of service' performance has been assessed using baseline evidence and 2033 data measures for the two future states (NTEM and UZC). Relative need for intervention based upon and assessment across all measures, is shown in decreasing order below:
- Substantial number of 'levels of service' measures identified as performing poorly or presenting a substantial issue, across environmental, economic, and social outcome measures;
  - Significant number of 'levels of service' measures identified as performing poorly or presenting a substantial issue, across environmental, economic, and social outcome measures; and
  - Some 'level of service' measures identified as performing poorly or presenting a substantial issue.
- 3.25 The identification of locations requiring an intervention does not replace the need for detailed location specific options appraisal, or pre-judge potential solutions. However, it does point to the need for National Highways to work with Transport

<sup>2</sup> NTEM shows a similar level of traffic growth to TfN's 'Just About Managing' (JAM) scenario.

<sup>3</sup> Transport for the North Transport for the North Future Travel Scenarios report 2020

<https://transportforthenorth.com/future-travel-scenarios/>

for the North and Local Authority partners on identifying options for improving performance of the SRN at those locations.

### **Deliverability and Affordability**

- 3.26 The sequencing work completed in 2020 considered deliverability and affordability of potential road schemes<sup>4</sup>. This has been used to consider the relative deliverability and affordability of potential new road infrastructure, but at this early stage of assessment should not be viewed as a preferred option.
- 3.27 The deliverability and affordability measures have been used to develop an initial view of the earliest likelihood an infrastructure scheme could be delivered. For the Board to reach a considered position on recommending priorities for RIS3 and RIS4 it is essential that Government engages with Transport for the North in sharing information on future funding for the RIS programme.
- 3.28 Recommendations on relative need for an intervention developed through combining evidence on strategic alignment, level of service measures and deliverability have been categorised in relative order of need as Category A, B & C.

### **Not currently in scope**

- 3.29 The level of service measures do not include an assessment of embodied carbon associated with new infrastructure or the potential growth in induced motorised road traffic resulting from road capacity enhancements. Transport for the North has developed the analytical tools to complete a user carbon assessment of a proposed programme or programmes of transport interventions and can undertake this work when the level of RIS funding and therefore potential scale of any programme becomes clearer. An assessment of embodied carbon would need to take place at the options appraisal stage for proposed schemes.
- 3.30 Appraisals of a programme of RIS interventions. This is work Transport for the North could complete, following feedback and agreement on a proposed programme or programmes, and which would include an assessment of the impact on user carbon emissions and the socio-economic distributional impact of benefits. A clear indication of the RIS funding would be required to ensure further work is of most value.
- 3.31 Consideration of RIS2 schemes still to be delivered.

## **4. Corporate Considerations**

### ***Financial Implications***

- 4.1 There are no financial implications from this report.

### ***Resource Implications***

- 4.2 The Major Roads and Strategy Team will continue to engage with DfT and National Highways on the RIS Programme and undertake work to further develop TfN's evidence base underpinning recommendations for the RIS.

### ***Legal Implications***

- 4.3 There are no apparent significant legal implications resulting from this report.

### ***Risk Management and Key Issues***

- 4.4 A risk assessment is not required for this paper.

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<sup>4</sup> Transport for the North commissioned WSP and Costain to review costs estimates and appraise technical challenges in delivering proposed interventions. The Qualitative Sequencing report provides an explanation of the approach taken, Transport for the North Board July 2020.

### ***Environmental Implications***

- 4.5 This report does not constitute or influence a plan or programme which sets the framework for future development consents of projects listed in the EIA Directive and therefore does not stimulate the need for Strategic Environmental Assessment (SEA) or Environmental Impact Assessment (EIA). All proposed infrastructure developments will be subject to screening for the need for EIA by the relevant development authority as part of the design development and consenting process.
- 4.6 TfN's appraisal of strategic options has included consideration of user carbon, air quality, noise and safety. Further consideration of the impacts of induced traffic and also embodied carbon, are recommended through further appraisal.

### ***Equality and Diversity***

- 4.7 There are no specific implications.

### ***Consultations***

- 4.8 Executive Board has been consulted on TfN's proposed recommendations for the RIS.

## **5. Background Papers**

- 5.1 Strategic Development Corridor Studies.  
5.2 Qualitative Sequencing Report, July 2020.

## **6. Appendices**

- 6.1 Appendix 1 - Level of service metrics and data sources.  
6.2 Appendix 2 - Slides summarising TfN's approach to considering the needs for an intervention on the SRN.

### **Glossary of terms, abbreviations and acronyms used.**

- a) *SRN – Strategic Road Network*  
b) *NoHAM – Northern Highway Assignment Model*  
c) *UZC – Urban Zero Carbon Future Scenario*  
d) *JAM – Just About Managing Future Scenario*  
e) *NTEM – National Trip End Matrix*  
f) TfN – Transport for the North  
g) RIS – Road Investment Strategy  
h) DfT – Department for Transport

## Appendix 1 – Level of Service Measures

### Network drivers

Level of service	Description	Assessment	Baseline TfN
Connectivity	Relative levels of connectivity to jobs by car – ranked.	The number of jobs that can be accessed in a 60-minute round trip (30 minutes to work in the morning peak plus 30 minutes to home in the evening peak)	NoHAM Base mod skims and NorMITs TMS jobs
Socio-economic	Relative levels of Transport Related Social Exclusion	Based on ranking of LSOAs using TfN TRSE statistics, based on a combination of IMD and transport accessibility data.	Transport Related Social Exclusion (analysis)
Economic growth	Relative levels of planned housing and jobs growth.	Information available in the forecast housing and employment uncertainty logs for 2030.	N/A
HGV routing	HGV flows – relative role of the road in supporting HGV freight movements.	Identify where there are high levels of HGV traffic, including where on roads that are not typically expected to support high levels of heavy vehicle usage.	Magnitude of HGV in 2018 Base NoH (scaled by absolute vehicle volume).

## Network performance

Level of service	Description	Assessment	Baseline TfN
Journey Time Reliability	Whether there are Journey time reliability issues – weekday peaks periods weekends	Mobile Network Data (2019) Congestion Efficiency - Median AM and PM speeds as a percentage of free-flow speeds (03.00-04.00), constrained to speed limit.  Base NoHAM V/C	Mobile Network Data comparison of AM and PM median speed v the 'off-peak' free-flow median speed.  Base NoHAM V/C percentage AM and PM
Safety	There are hotspots on the network with higher-than-average accident rates	STATS-19 Accident Data joined to the model network and an accident rate has been calculated for each level of severity (fatal, serious and slight).	<u>EuroRAP</u> (European Road Assessment Programme).

Network resilience would also be of interest for this pillar but information on this

## Network impact

Level of service	Description	Assessment	Baseline TfN
Carbon	Impact of the network on carbon emissions	Kg CO2 per veh km.  Potential to run NoCarb later for an agreed portfolio of interventions.	Calculate NoHAM line emissions from Baseline Year 12-hour flow.
Air Quality Management Area (AQMA) & NO2 / PM2.5 data	Where AQMA areas are associated with the SRN. Modelled data on NO2 and PM2.5 levels	AQMA & NO2/PM2.5 data mapped against road links.	Outputs generated from national datasets <sup>1</sup>
Noise Impact Areas	Where NIA designated zones are associated with the SRN	Noise Important Areas were mapped and rationalised with road links.	Outputs generated from national datasets
Socio-economic	Relative levels of Transport Related Social Exclusion	Based on ranking of LSOAs using TfN TRSE statistics, based on a combination of IMD and transport accessibility data.	Transport Related Social Exclusion (TRSE) analysis
Potential for Active Travel	Based on % of residents able to access a major employer within 30 mins	Based on % of residents able to access a major employer within 30 mins, using DfT travel time data and data on location of employment	Potential for cycling to work

