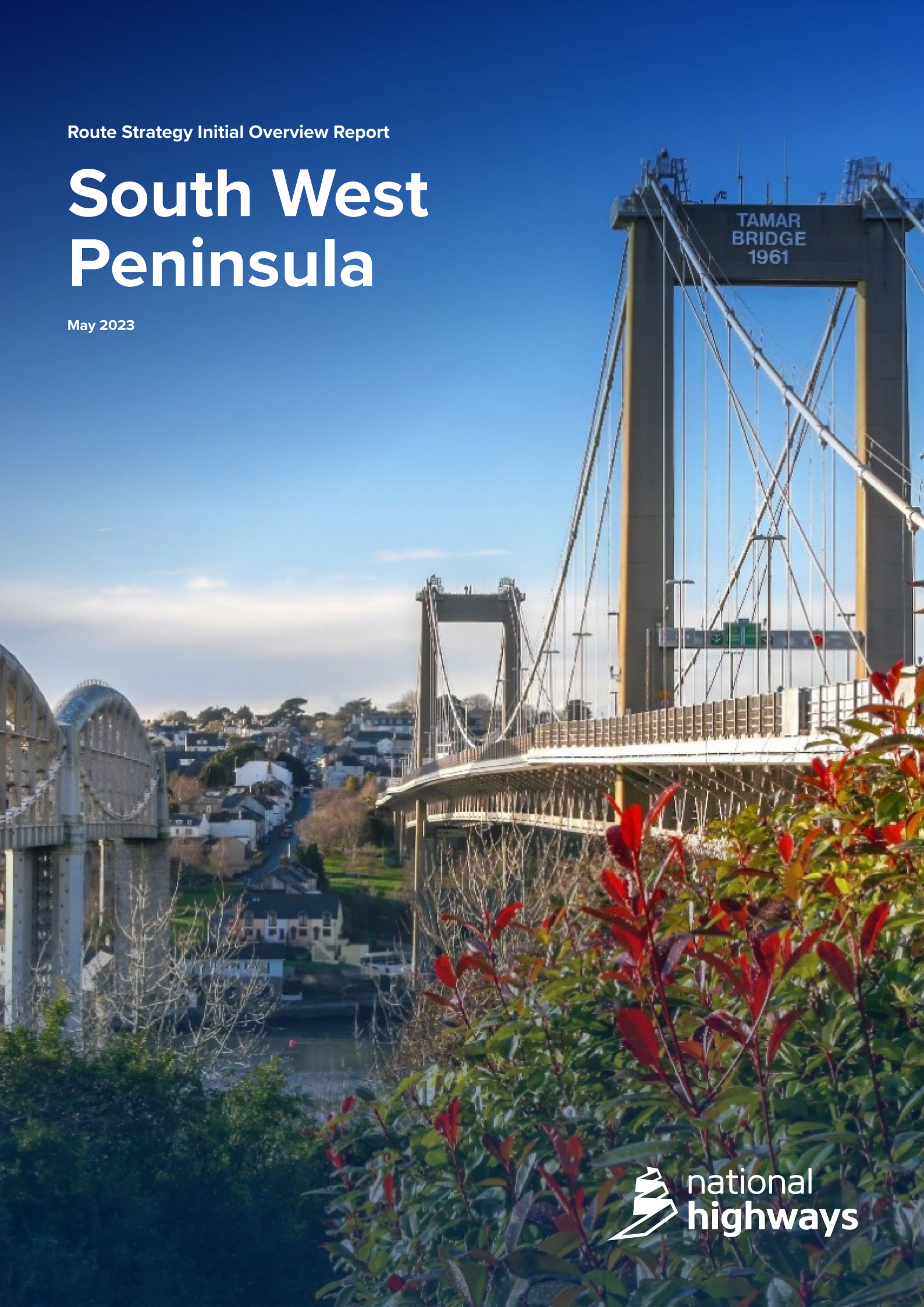
Route Strategy Initial Overview Report

South West Peninsula

May 2023



national highways

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- Midlands Connect
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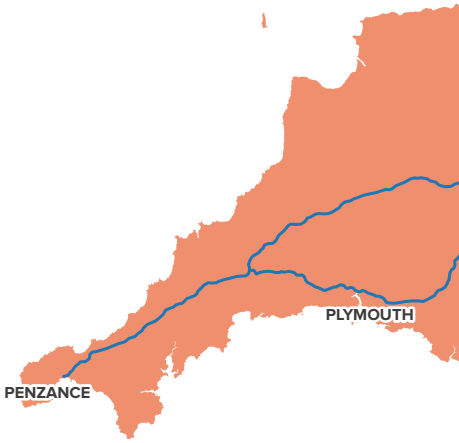
- Transport East
- Transport for the North
- Transport for the South East
- Western Gateway

There are 17 routes relating to route strategies across our strategic road network (SRN). To take better account of our customers' end-to-end journeys, we have split some of the longer routes into sub-strategies across 20 reports.




N
BERWICK-UPON-TWEED
NEWCASTLE UPON TYNE
CARLISLE
MIDDLESBROUGH
YORK
LEEDS
PRESTON
KINGSTON UPON HULL
LIVERPOOL
MANCHESTER
SHEFFIELD
LINCOLN
STOKE-ON-TRENT
NOTTINGHAM
DERBY
GRANTHAM
NORWICH
SHREWSBURY
LEICESTER
WOLVERHAMPTON
PETERBOROUGH
BIRMINGHAM
COVENTRY
CAMBRIDGE
BEDFORD
IPSWICH
HEREFORD
MILTON KEYNES
LUTON
CHELTENHAM
COLCHESTER
OXFORD
SWINDON
LONDON
SOUTHEND-ON-SEA
BRISTOL
READING
DOVER
SOUTHAMPTON
HASTINGS
BRIGHTON
PORTSMOUTH
EXETER
BOURNEMOUTH

Executive summary

Introduction

Our strategic road network (SRN) is the backbone of the country. Our more than 4,500 miles of motorways and major A-roads connect people, build communities, create opportunities and help the nation thrive. To plan for the future, we take a long-term view of our network and the trends that could impact transport, road travel, and personal and commercial mobility. Route strategies are at the centre of this dynamic future planning of our network, informing how we operate, maintain and renew our network. This report is the *Initial overview report* for the South West Peninsula route and summarises the outcomes of the route strategy. The report builds on the first two rounds of route strategies in 2015 and 2017. It aims to be more forward looking, integrated and collaborative, while being dynamic enough to respond to the future needs of our customers and neighbours.

In this report, we detail the route context, current constraints on the route, and opportunities for improved connections with local roads and rail links. We set out intelligence-led route objectives aligned with the six Department for Transport (DfT) strategic objectives. These objectives aim to ensure the route can serve its function, while mitigating the identified constraints and challenges. They conclude with locations for further consideration to achieve the route objectives. The route objectives and locations for further consideration will be presented to the Department for Transport to inform future decision-making about investment planning through the Road investment strategy (RIS). It should be recognised that not all aspirations outlined in this report can be funded or delivered.

DFT'S SIX STRATEGIC OBJECTIVES FOR THE STRATEGIC ROAD NETWORK

- Improving safety for all
- Network performance
- Improved environmental outcomes
- Growing the economy
- Managing and planning the SRN for the future
- A technology-enabled network

For clarity, this document does not:

- identify committed schemes for delivery as part of future RIS periods. This will be part of the wider RIS setting process
- commit to the delivery of local plans or economic growth developments mentioned
- guarantee funding for any locations identified for further studying to understand the challenges and issues in more detail
- preclude the inclusion of other locations for consideration in the light of other evidence or imperatives

Customers and neighbours

Engagement with our customers and neighbours has been central to developing our route strategies. We have already gathered a wealth of evidence from the previous rounds of route strategies and through our ongoing monitoring of road condition and performance.

Our performance is monitored through the National Highways' Performance Framework. This Performance Framework was established at the start of the second road period (2020 – 2025) and sets out National Highways' commitments to 2025. It is outlined in the *RIS2 Delivery plan (2020 - 2025)*[1]. We will continue this monitoring approach into the third road period (2025 – 2030).

To add to this existing evidence, we carried out a detailed engagement programme for this round of route strategies to understand the current and future needs of those using and living alongside the SRN.

The route

The roads in the South West Peninsula route provide key links between the South West Peninsula, the South Coast, London and the South East. The length of the route is approximately 510 miles and includes the M3 (from J2 to J14), M27(J1 to J4), A303, A46, A36, A35, A31, A38 and A30.

1 Highways England, *Delivery Plan 2020 – 2025*, https://nationalhighways.co.uk/media/vh0byhfl/5-year-delivery-plan-2020-2025-final.pdf

Challenges and issues

We have identified challenges and issues of those using the route and living alongside it. These correspond to the DfT's six strategic objectives, which are the strategic objectives for RIS3. They were agreed by National Highways and DfT, and are set out in the RIS3 Planning ahead for the *Strategic Road Network*[2] document in December 2021.

Improving safety for all

Whilst overall the route performs relatively well for safety, there are significant sections of the route which are predominately rated 1 or 2 stars, which is the lowest safety rating by the International Road Assessment Programme (iRAP). There are a number of sections of the route where collisions have resulted in people being killed or seriously injured.

Network performance

Sections of the route experience congestion, traffic delay and unreliable journey times. Seasonal delay also occurs due to tourism and leisure use, with high seasonal demand. The route is also notable for sections of single carriageway and a lack of alternative routes.

Improved environmental outcomes

Whilst large sections of the route are rural, there is the potential for localised noise and air quality impacts where the route passes through communities. Where the route directly bisects settlements, often on single carriageway sections, this can cause severance.

Growing the economy

The route provides access to areas of major development and freight assets, including Enterprise Zones and International Gateways such as the Port of Southampton. It serves an important economic function for regional economies in the South West and for tourism connectivity to the South West Peninsula. A key challenge for the route will be to accommodate future demand flows from tourism and future developments whilst maintaining the strategic function of the SRN and facilitating sustainable economic growth.

Managing and planning the SRN for the future

The road surface, earthworks, structures and drainage assets along the route are generally in good condition. Nevertheless, to enhance route resilience, we have identified significant structures renewals for RIS3, and these schemes affect 4 structures along the route.

A technology-enabled network

Technology will have an increasing role to play in managing the route. Communication with road users can help to manage events and incidents, including adverse weather and sporting and cultural events that occur along the route. The route also needs to enable increased electric vehicle use, and the expected uptake of alternative fuel vehicles, along with connected and autonomous vehicles when they are introduced to the network.

2 Department for Transport, December 2021, *Planning ahead for the Strategic Road Network: Developing the third Road Investment Strategy*, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1045938/planning-ahead-for-the-strategic-road-network-developing-the-third-road-investment-strategy.pdf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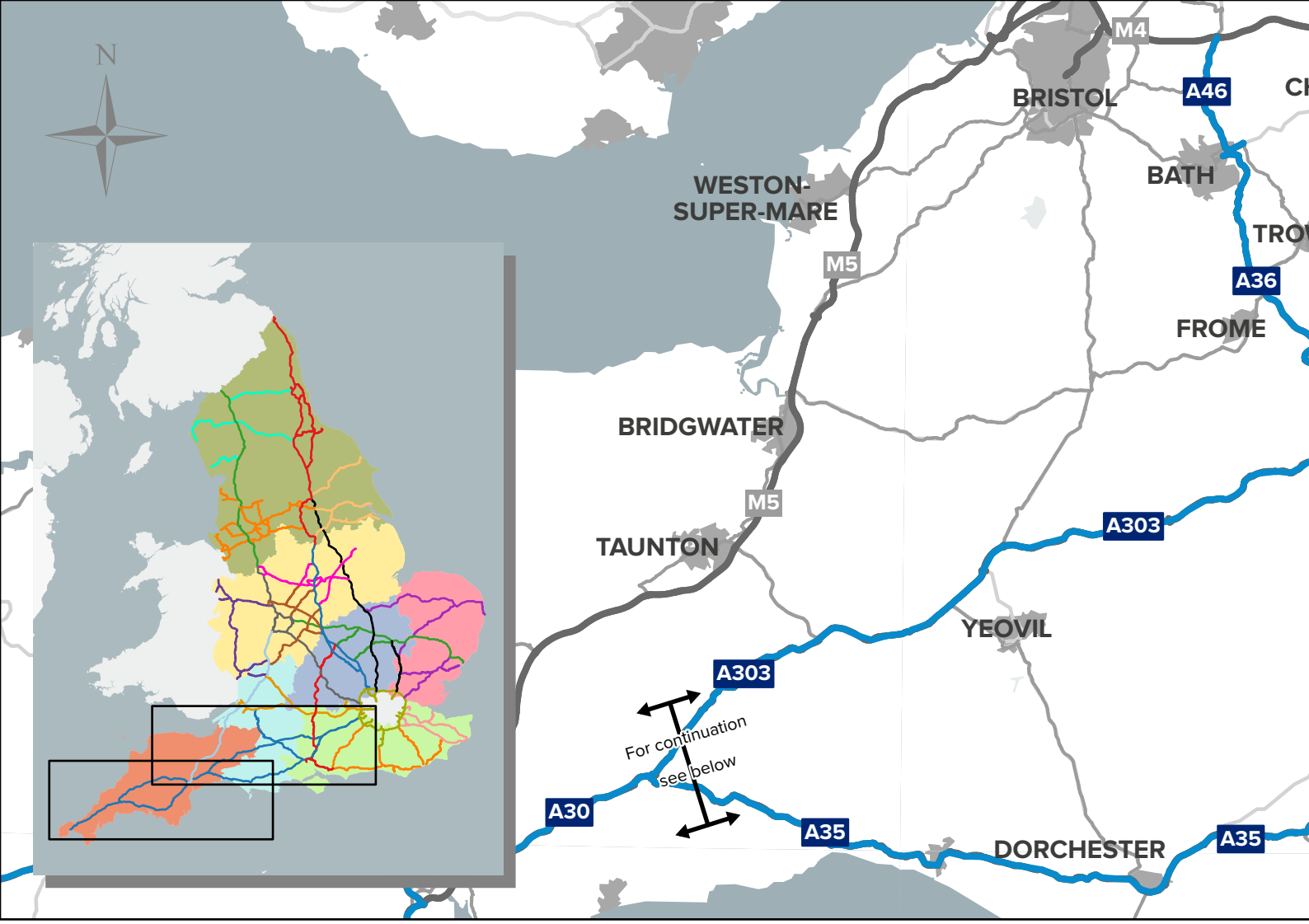

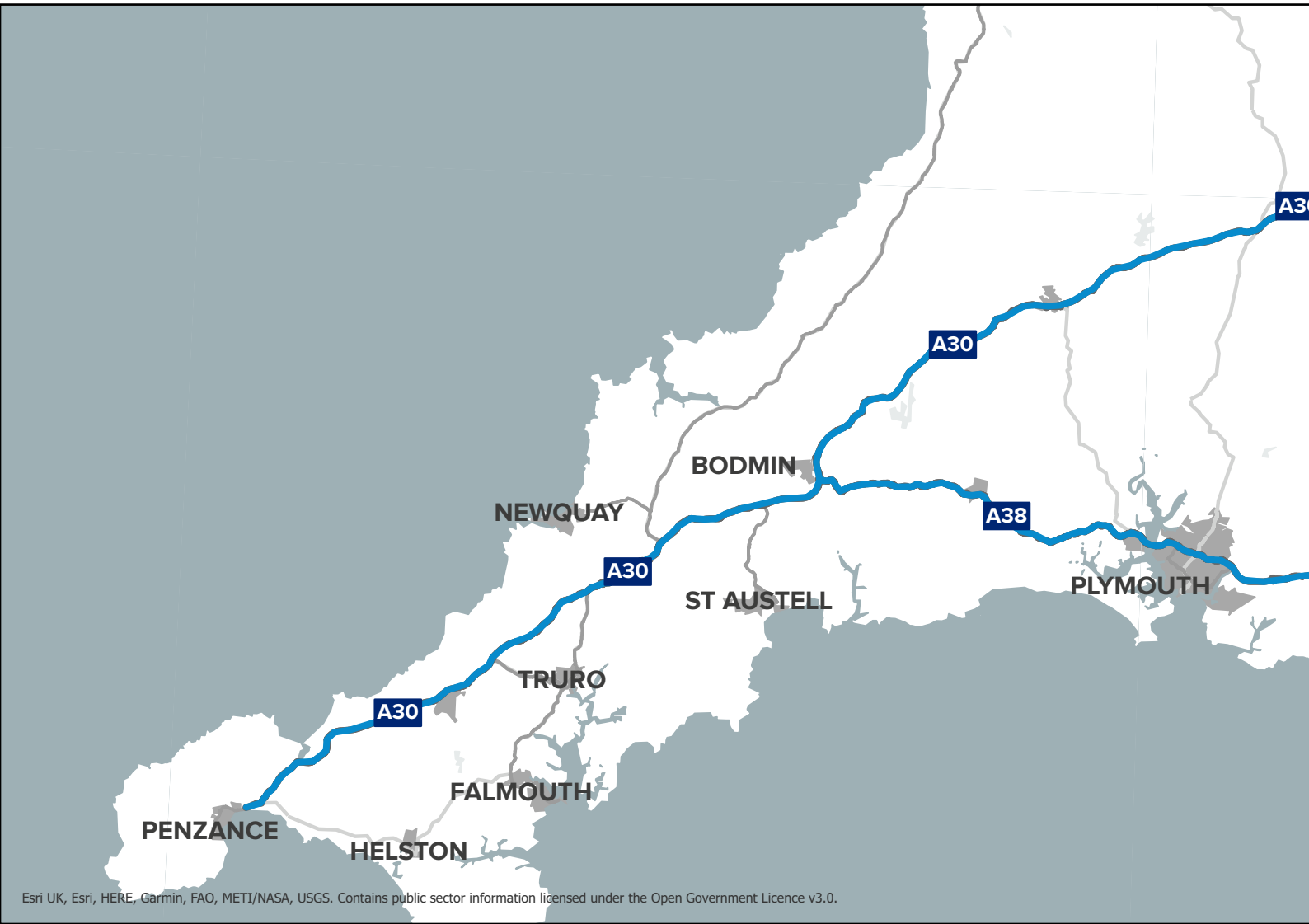


M4
HIPPENHAM
WBRIDGE
BRACKNELL
M3
WOKING
A34
BASINGSTOKE
FARNBOROUGH
M3
ANDOVER
WARMINSTER
A303
A303
A36
M3
A3
SALISBURY
WINCHESTER
A36
M3
A3
EASTLEIGH
SOUTHAMPTON
M27
A27
A31
BOURNEMOUTH
TIVERTON
A303
M5
For continuation
see above
A30
A35
A35
EXETER
DORCHESTER
EXMOUTH
A38
TORQUAY
South West Peninsula route
SRN
MRN
Local roads

Initial route objectives

We want to provide safer and more reliable journeys for all those who use or live alongside our network, and support the route in achieving the economic and housing growth ambitions of surrounding areas. Based on our engagement and data analysis, we have defined a set of objectives for the route. The table below shows the route objectives and how they contribute to the six DfT strategic objectives for the SRN as a whole.

		DfT's strategic objectives for our network					
Ref.	**Route objective**	**Improving safety for all**	**Network performance**	**Improved environmental outcomes**	**Growing the economy**	**Managing and planning the SRN for the future**	**A technology-enabled network**
A	**A resilient and consistent route** Promote safe and reliable journeys to improve customer experience through the provision of a resilient and consistent network particularly along the A31/ A35, A38, A30 and on the A36 / A46 and A303.	✓	✓				✓
B	**Resilience and management of seasonal traffic** Improve the resilience to and management of additional seasonal traffic flows to tourism locations such as the New Forest, Dorset, Stonehenge, Bath, Exmoor, Dartmoor and Cornwall to support the route's wider economic function for all users.		✓	✓	✓	✓	✓
C	**Supporting sustainable economic and housing growth** Support regionally significant and sustainable economic and housing growth, particularly in garden communities, enterprise zones and Freeport sites, whilst maintaining the safe and effective operation of the route.	✓	✓	✓	✓		
D	**Supporting the needs of the freight sector** Support the needs of the freight sector to achieve the efficient movement of goods on the east-west M3, M27, A303, A35, A30, A38 corridors and north-south on the A46 and A36 corridor.	✓	✓	✓	✓	✓	✓
E	**To be a better neighbour** To be a better neighbour by reducing adverse impacts of air quality, noise and severance on the communities on the A31 in Dorset and Hampshire, A35 in Devon and Dorset, A303 in Somerset and Devon, A36 in Bath and Wiltshire, and the A30 and A38 in Devon and Cornwall.	✓	✓	✓			✓
F	**Support local connections and integration** Support shifts in modes of transport through better integration with public transport and improved active travel options to relieve pressure on the SRN, particularly in urban areas including Southampton, Bournemouth, Salisbury, Exeter, Plymouth and Truro.	✓		✓			

Ref.	Route objective	DfT's strategic objectives for our network: Improving safety for all	Network performance	Improved environmental outcomes	Growing the economy	Managing and planning the SRN for the future	A technology-enabled network
	North-South Connectivity						
G	Support improved connectivity for the strategic movement of traffic between the M4, Dorset Coast and Southampton through the provision of a resilient and consistent route.	✓	✓	✓	✓		
	Promoting a key strategic route						
H	Support the role of the A303/A30/A358 corridor as the key strategic route between London and the far South West, to improve long distance connectivity and to support regional economies.	✓	✓	✓	✓		✓

Next steps

The 20 route strategy *Initial overview reports* will combine with other related evidence to inform the broader *SRN initial report*[3] as part of the RIS process for the third road period. The *SRN initial report* includes an assessment of the current state of the network and user needs from it, potential maintenance and enhancement priorities, and future developmental needs and prospects. DfT will consult on this *SRN initial report*, which will serve to inform the RIS and *Strategic business plan*.

We will finalise the *Route strategy reports* following feedback on the publication of these I*nitial overview reports.* They will be used as a forward planning tool by National Highways to help identify investment opportunities for enhancements, as well as to support decisions around operating and maintaining our network. Providing an understanding of the strategies for each route will also help inform the decisions taken by our interested parties. These finalised *Route strategy reports* will also serve to inform the RIS and *Strategic business plan*.

3 National Highways, 2023, *Strategic Road Network Initial Report*, https://nationalhighways.co.uk/futureroads

Helping the nation to thrive

01 Introduction

Our strategic road network (SRN) is the backbone of the country. Our more than 4,500 miles of motorways and major A-roads connect people, build communities, create opportunities and help the nation thrive.

Our network provides safe, high-speed connections that:

- enable businesses to transport products and services
- provide access to jobs and suppliers
- facilitate trade and investment
- support commercial and housing development that is integrated with local roads and other modes of transport

The SRN also supports leisure journeys, connecting people and places, and will play a central role in delivering the social, economic and environmental needs of the nation, especially as we seek to reduce the carbon footprint of our network.

To plan for the future, we are taking a long-term view of our network and the trends that could impact transport, road travel and personal and commercial mobility. We consider factors ranging from climate change and low-carbon transport to increasing automation, digital technologies and changing travel preferences. Route strategies are at the centre of this dynamic future planning of our network. They build on our Connecting the country; *Our long-term strategic plan to 2050*[4] that sets out our vision and plan for the SRN until 2050, aligning with the *Government's Ten Point Plan for a Green Industrial Revolution*[5].

Purpose of route strategies

Our route strategies are based on 17 routes across England, with some split into two sub-strategies where this better reflects our customers' end-to-end journeys. There are 20 reports in total. We outline the objectives of each route along with the constraints faced and the current and predicted future performance based on analysis and widespread engagement with our customers and neighbours.
Our customers and neighbours include:

- local authorities, devolved administrations, and Sub-national Transport Bodies
- other transport network operators (including local highway authorities, Network Rail, port and airport operators)
- operational partners (including, but not limited to, the emergency services)
- road users
- local communities
- other relevant interested parties with a significant stake in the long-term development of the network
- Members of Parliament

We also provide a list of locations for further consideration to inform investment planning across National Highways and for the Road investment strategy (RIS). We develop and publish these route strategies to:

- help us develop an understanding of the future state of the routes
- identify the locations for further consideration to inform our investment programmes and guide our vision

4 National Highways, 2023, *Connecting the country; Our long-term strategic plan to 2050*, https://nationalhighways.co.uk/futureroads
5 HM Government, *The Ten Point Plan for a Green Industrial Revolution Building back better, supporting green jobs, and accelerating our path to net zero, November 2020* https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/936567/10_POINT_PLAN_BOOKLET.pdf

- give a practical tool to National Highways as a whole, while supporting external interested parties who anchor their infrastructure planning and investment around our network
- help ensure that all investment delivers safer and more reliable journeys for our customers and neighbours

For clarity, this document does not:

- identify committed schemes for delivery as part of future RIS periods. This will be part of the wider RIS setting process
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- guarantee funding for any locations identified for further studying to understand the challenges and issues in more detail
- preclude the inclusion of other locations for consideration in the light of other evidence or imperatives

Route strategy reports

These Route strategy initial overview reports have informed the *SRN initial report*[6] that sets out our vision and proposed priorities for the third road period (2025-2030) and beyond.

The final Route strategy overview reports will be published by the end of the RIS period, which covers 2020-2025. The three delivery phases of route strategies are shown in Figure 1.

Purpose of the report

This report is the South West Peninsula *Route strategy initial overview report*. In this report, we detail the route context, current constraints on the route, and opportunities for improved connections with local roads and rail links. We set out intelligence-led route objectives aligned with the six DfT strategic objectives. These objectives aim to ensure the route can serve its function, while mitigating the identified constraints and challenges. They conclude with locations for further consideration to achieve the route objectives.

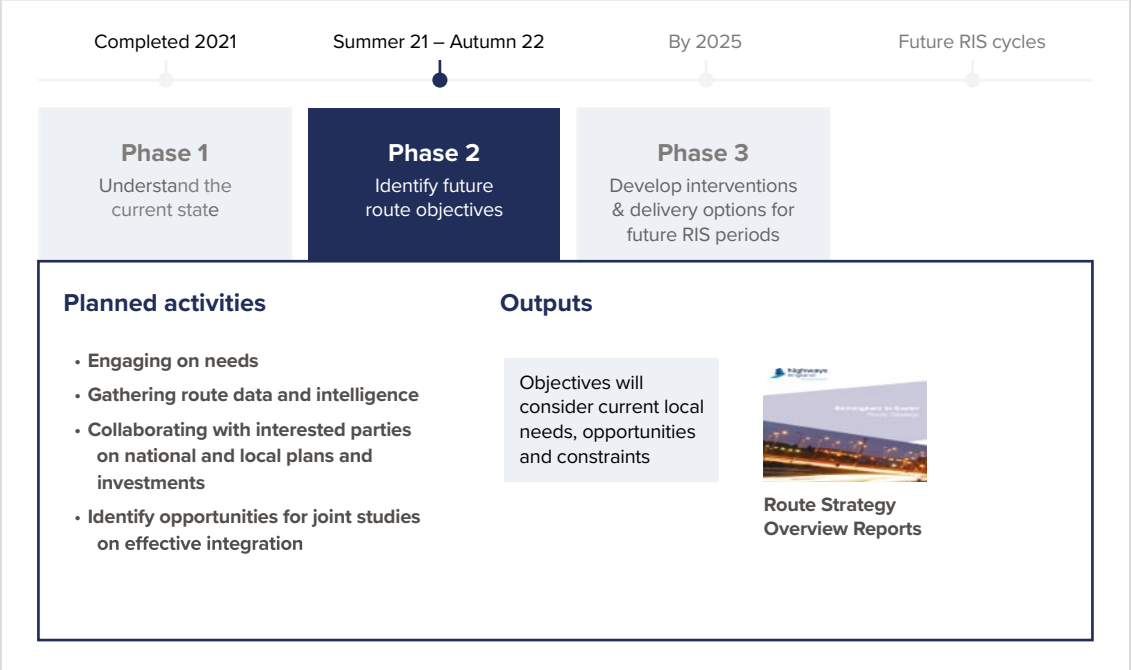


Figure 1: The route strategies delivery phases

6 National Highways, 2023, *Strategic Road Network Initial Report,* https://nationalhighways.co.uk/futureroads

The route objectives and locations for further consideration will be presented to DfT to inform future decision-making about investment planning through the RIS. It should be recognised that not all aspirations outlined in this report can be funded or delivered.

The development cycle for the third Road Investment Strategy (RIS3)

Preparing route strategies is a requirement under the Infrastructure Act as well as a National Highways Licence requirement. The Licence sets out the Secretary of State for Transport's statutory directions and guidance to National Highways. It states that we must periodically prepare and publish route strategies covering the whole of the network to maintain an understanding of how the network is performing, while identifying any potential challenges. Each set of route strategies informs each RIS outlined by government, as well as supporting decision-making for the ongoing management and development of the network.

Route strategies are one of the key steps of research required by DfT to inform the setting of a RIS. Following the setting of RIS1 and RIS2, which covered the first road period (2015-2020) and second road period (2020-2025), we are now in our third round of route strategy planning informing RIS3 for the third road period (2025-2030) and beyond.

Looking across the whole of the SRN, our route strategies form one of the most important parts of the 'research' phase of the RIS3 development cycle. These strategies explore the current performance and future pressures on every stretch of the SRN, covering matters such as safety, reliability, congestion, environmental impacts, and local ambitions for economic and housing growth. Through the extensive engagement we have undertaken to inform the strategies, we provide insight to DfT and government into local, regional and national priorities for the SRN to support investment decisions for RIS3 and beyond. Grounded in evidence, the strategies identify the immediate needs of the network as well as highlighting longer-term issues or potential opportunities as shown in Figure 2.

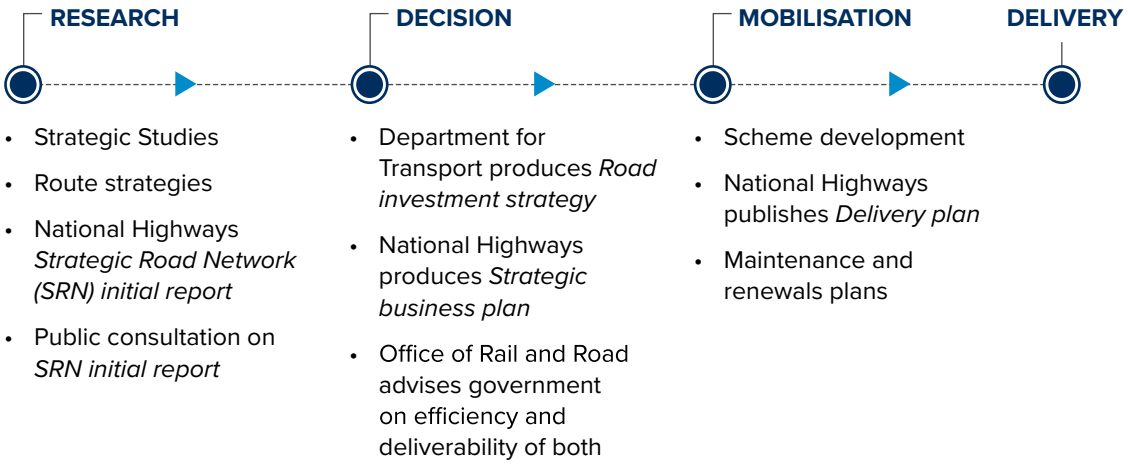


Figure 2: The RIS development cycle

We have developed a revised approach to route strategies, building on past versions, to ensure they respond to the current and future needs of our customers and neighbours. The approach for route strategies is outlined in our approach document *Vision for route strategies: Planning for the future of our roads*[7].

Our ambitions for route strategies, summarised in Figure 3, are to be forward-looking, widely supported, and integrated with other networks and modes of travel. They will consider the implications of local development plans and government ambitions and be dynamic to respond to the changing needs of our customers and neighbours in how they use and interact with our network. Such needs may evolve as a result of how people use our network due to COVID-19, environment considerations, or the need to support strategic connections and integrated solutions that connect locations, all of which will have an influence on the scale and type of future investments. We will work with interested parties to ensure that the route strategies are widely supported and integrated into regional and local strategies.

Engagement with customers and neighbours

Engagement with customers and neighbours has been central to developing our route strategies. We have already gathered a wealth of evidence from the previous rounds of route strategies and through our ongoing monitoring of road condition and performance.

Building on engagement to date, we have worked with Sub-national Transport Bodies, Office of Rail and Road, Department for Transport, and Transport Focus to ensure a diverse range of people and their views are represented. This has allowed us to further improve our understanding of our customers and neighbours' requirements, helping us identify locations for further consideration to improve the SRN.

We will continue to evolve this engagement process for future cycles of route strategies. We used a range of methods to gather information from customers and neighbours throughout the route strategies' evidence collection period, which ran from August to December 2021 (Figure 7). These included round tables, workshops, and an online feedback form and we designed the approach to be more inclusive by engaging with and learning from a wide range of interested parties.

Thinking about how the SRN integrates with the surrounding rail and road network, including parts of the Major Road Network (MRN) and local roads, we designed our engagement around the following objectives:

- to understand the current role of the SRN and how it could better support the aspirations of customers and neighbours of the future
- to gather views and seek evidence on current and future issues, challenges and opportunities – both local and strategic

We have also gained an in-depth understanding of what our road users want nationally from Transport Focus' *Strategic roads user survey 2021/22*[8] into road users' priorities for improvements to journeys on the SRN. This research was based on focus groups and interviews with all types of road users across the country, alongside a survey of more than 5,000 drivers. It asked for users' views on key issues, such as sustainability and electric vehicles, and the stress of driving on the SRN.

From this research, Transport Focus identified that the majority of road users want the focus of investment to be on keeping National Highways' existing roads in good order before building new ones. Their top priority for improvement to journeys on the SRN is road surface quality, followed by the safer design and upkeep of roads.

7 Highways England, 2021, *Vision for route strategies Planning for the future of our roads,* https://nationalhighways.co.uk/media/w0vhd3un/vision-for-route-strategies.pdf
8 Transport Focus, 2022, *Strategic Roads User Survey - 2021/22 Summary Report*, https://www.transportfocus.org.uk/publication/strategic-roads-user-survey-2021-22-summary-report/

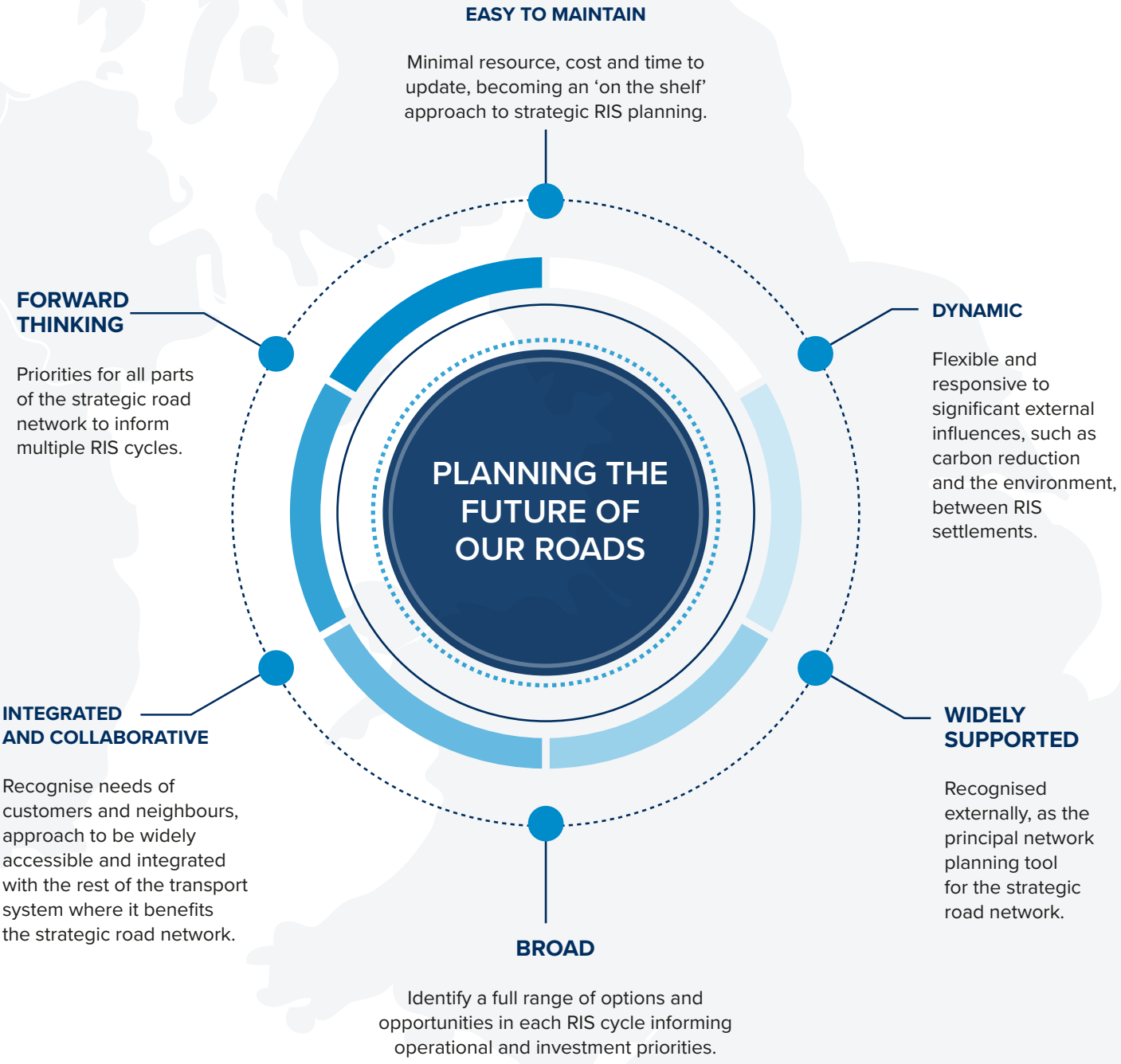


Figure 3: Our ambition for route strategies

Users also want to see better management of roadworks and of unplanned delays, such as incidents or breakdowns, and better information about unplanned disruptions to journeys. Walkers, cyclists and horse riders using the SRN highlighted concerns about the speed of traffic and want action on lighting and litter. This research will be used by Transport Focus to make recommendations about what National Highways should be required to deliver during the third road period.

The findings from the Transport Focus survey align with findings from our route strategies engagement with customers and neighbours across the SRN.

Engagement during workshops with interested parties (shown in Figure 6) identified the following national priorities:

- better driver education aimed at teaching road users about new technology
- deeper consideration of environmental constraints at the earliest stage of planning, and consideration for key environmental issues such as biodiversity, air quality and sustainable transport
- a resilient and reliable SRN to support economic growth
- better integration between the SRN and local road network to improve journey times
- greater support for the freight industry in terms of:
  - the future of low emission vehicles and commercial fleet
  - the impact of congestion on productivity, fuel cost, driver breaks, lorry park locations and delivery times
- greater collaboration and early engagement with interested parties, and greater alignment between network operators, including consideration for joint funding opportunities
- in addition, feedback on the SRN provided by communities and neighbours via the online tool, showed similar national priorities. The breakdown of the 1700 responses we received via the online feedback tool are shown in Figure 4 and Figure 5.

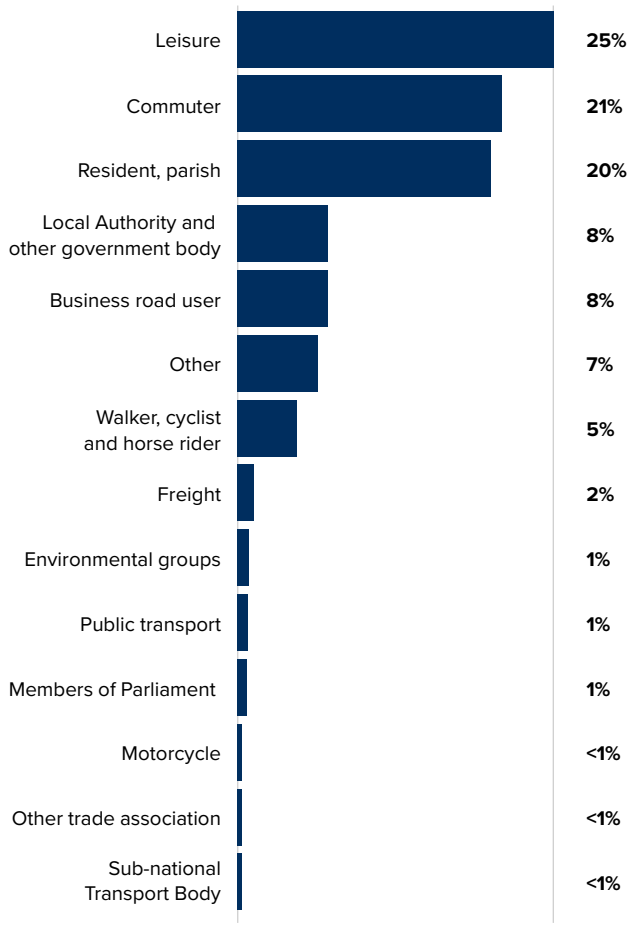


Figure 4: All responses to online tool by participant type

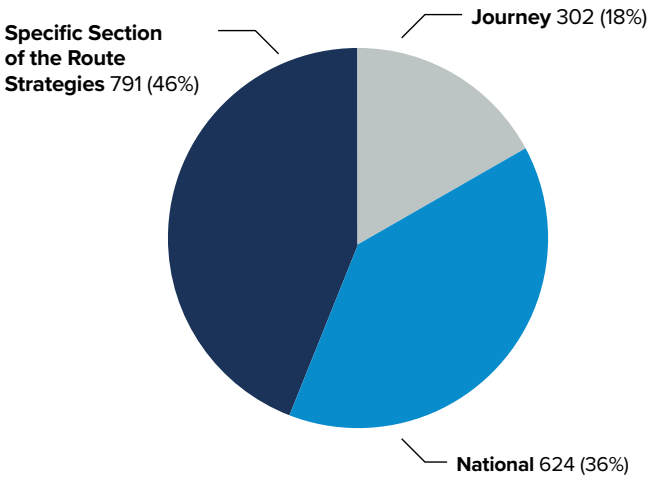


Figure 5: All response to online tool by type

A breakdown of the national issues and general feedback raised is shown in Figure 8, which highlights that, in terms of the issues identified:

- 26% were related to safety
- 23% were related to congestion
- 28% were related to the environment or carbon

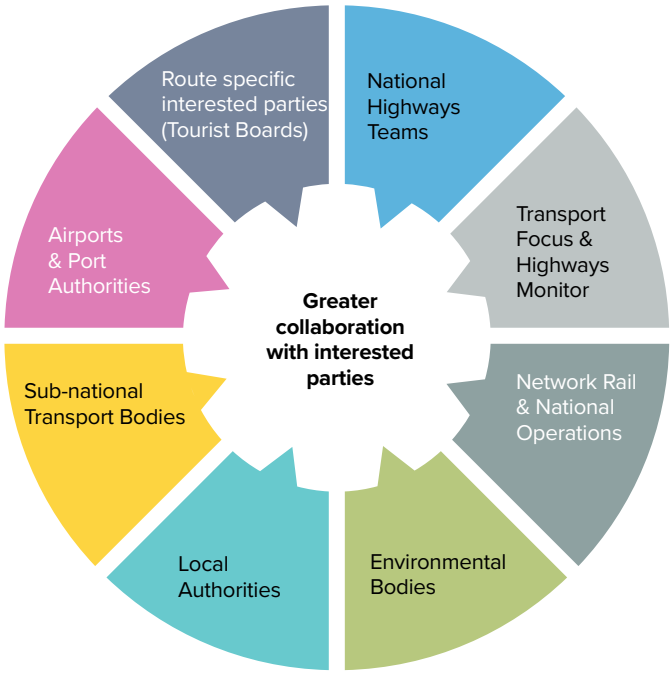


Figure 6: Interested parties involved in the route strategy engagement

Figure 7: Timeline of engagement with interested parties

DfT's strategic objectives for the strategic road network

DfT have published six objectives for the SRN. These are the strategic objectives for RIS3 that have been agreed between National Highways and DfT and were set out in the *RIS3 Planning ahead*[9] document in December 2021. They cover safety, network performance, environment, economy, management and planning for the future and technology.

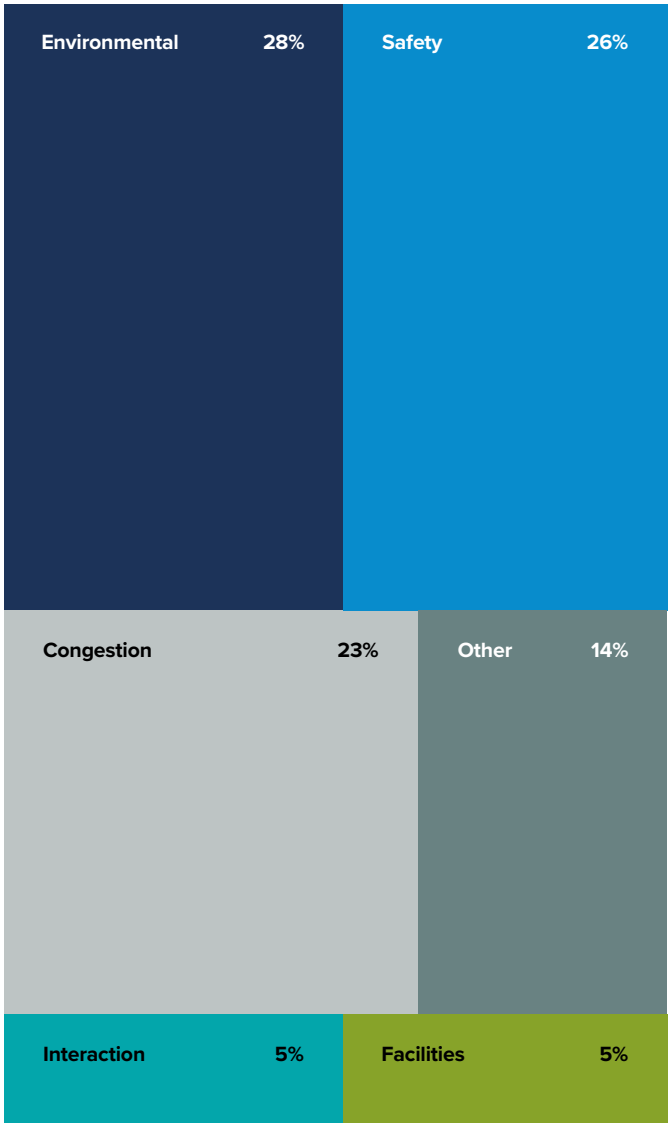


Figure 8: National themes from feedback through the online tool

9 Department for Transport, December 2021, *Planning ahead for the Strategic Road Network: Developing the third Road Investment Strategy,* https://assets.publishing.service.gov.uk/Government/uploads/system/uploads/attachment_data/file/1045938/planning-ahead-for-the-strategic-road-network-developing-the-third-road-investment-strategy.pdf

All our route strategies need to show how they contribute to the delivery of the six DfT strategic objectives for our network, to ensure we meet future challenges. These help us create relevant, meaningful and effective strategies that address evolving concerns. Such concerns include decarbonisation, ecology, the need for new homes and the desire for a better-connected country.

This aligns with the Infrastructure Act 2015, where National Highways has a statutory obligation to have regard to the effect of its functions on the environment, and the safety of users of highways.

At a national level, National Highways has existing commitments and ambitions to contribute to the DfT strategic objectives, as outlined below. The strategies for each route are aligned with these. They include:

i) Improving safety for all

- Our safety approach

ii) Network performance

- Expectations over COVID-19 and travel demand
- Our ambition for supporting freight, logistics and the coach industry
- Our ambition for supporting end-to-end journeys for a variety of modes
- Our approach to trunking and de-trunking for SRN

iii) Improved environmental outcomes

- *Net zero highways: Our 2030/2040/2050 plan*[10]
- Our plan for net zero carbon travel on our roads covering emissions from the vehicles using the SRN
- Our approach to improved environmental outcomes

DFT'S SIX STRATEGIC OBJECTIVES FOR THE STRATEGIC ROAD NETWORK

- Improving safety for all
- Network performance
- Improved environmental outcomes
- Growing the economy
- Managing and planning the SRN for the future
- A technology-enabled network

iv) Growing the economy

- Our contribution to growing the economy and levelling up
- Our approach to spatial planning

v) Managing and planning the SRN of the future

- Our approach to asset management

vi) A technology-enabled network

- Our ambition for digital roads

10 National Highways (2021) *Net zero highways: our 2030 / 2040 / 2050 plan*. https://nationalhighways.co.uk/media/eispcjem/net-zero-highways-our-2030-2040-2050-plan.pdf

IMPROVING SAFETY FOR ALL

OUR SAFETY APPROACH: We are committed to reducing the number of road users killed or seriously injured on the strategic road network, by 50% (from the 2005-2009 baseline) by the end of 2025, with a long-term vision to eliminate harm arising from use of the SRN. We recognise:

- safety is National Highways' top priority. We believe that everyone who travels or works on our roads should get home safe and well
- billions of miles are travelled on the SRN each year, with the vast majority of these safe and reliable journeys
- our roads are some of the safest in the world, but we know there is more we can do. Every death or serious injury on our roads is a tragedy and we are committed to creating the safest roads in the world

NETWORK PERFORMANCE

EXPECTATIONS OVER COVID-19 AND TRAVEL DEMAND: COVID-19 has had the biggest single-year impact on road traffic since records began in 1949. But car traffic on the SRN is now back to approximately 95% of pre-pandemic levels.

At the time of writing, while the onset of COVID-19 and the rapid rise in homeworking initially decreased demand for both public and private transport, the greatest impact has been on public transport, with private vehicle travel the first mode to rebound. Homeworking has not noticeably reduced demand for the SRN. An estimated 43% of UK jobs can be done entirely from home, but nearly two-fifths of businesses expect 75% of their workforce to eventually return to their normal place of work.

It is unclear if the scale of homeworking will continue or how it will affect long-term travel demand. For the short-term, transport flow data has generally shown that traffic peaks have become flatter but broader, with traffic more evenly spread across the day, suggesting some behaviour change.

Continued hybrid working could see a redistribution of demand, flattening the daily morning and afternoon peaks, and instead creating a mid-week peak.

The pandemic has also brought wider uncertainties, such as whether these loosened physical ties to employment locations could see increases in suburban living, as workers that are more 'knowledge-based' than 'location based' take advantage of greater geographic mobility across the country.

Changes in leisure trends caused by the pandemic could also have implications for the SRN, such as the changing demand for high street retail or choices around domestic versus overseas holiday-making. Such needs may evolve, all of which will have an influence on the scale and type of future investments.

SUPPORTING FREIGHT, LOGISTICS AND THE COACH INDUSTRY: We continue to collaborate with our freight and logistics customers to better understand how the SRN can support their operations, and work with wider government in the delivery of their *Future of freight plan*[11]. We recognise that lorry parking and facilities are key to enabling freight and logistics businesses to operate safely and efficiently. A lack of parking and good quality facilities impacts the recruitment and retention of drivers into a sector that is crucial to the country's economy. We are keen to play our part in ensuring good quality facilities are in the right places and that we support the sector in recruiting and retaining a diverse pool of drivers.

Our ambition is to improve lorry parking by:

- intervening where the market is not meeting the demand for lorry parking (areas of high demand with insufficient facilities)
- working with operators to improve the quality of existing facilities
- ensuring our major projects consider the needs of lorry drivers

11 Department for Transport (June 2022) *Future of Freight: a long-term plan.* https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1085917/future-of-freight-plan.pdf

In addition to supporting lorry parking, we remain focused on:

- reducing congestion on the SRN, which affects the speed, reliability and cost of logistics, as well as driver safety when journeys exceed regulated driving time
- improving the suitability of alternative routes and diversions off the SRN
- supporting the industry in achieving net zero carbon emissions by facilitating the adoption of alternative fuels linked to parking facilities
- ensuring resilience on key freight routes, such as between ports, airports, wharves and rail freight interchanges
- increased data sharing on incidents, roadworks and diversions
- understanding changes in how our freight and logistics customers use the SRN so we can continue to provide the best possible service

IMPROVING END-TO-END JOURNEYS FOR A VARIETY OF MODES: The SRN plays an important role in supporting a wide range of customer journeys by different modes of transport. We are exploring how to support customers' end-to-end journeys by creating travel choices that deliver our target of net zero carbon customer journeys by 2050. We recognise our role in supporting an integrated transport network that allows our current and future customers to re-route, re-time, re-mode and reduce their journeys, especially at peak times and during major disruption.

Through understanding National Highways' role in influencing and improving travel, we will identify how to support customers utilise the right mode for the right journey. By working closely with operators, we will ensure our network supports bus and coach services.

And through the development of active travel networks we can help deliver health and wider social benefits.

Our focus is on delivering net-zero customer journeys by 2050 through behaviour change towards sustainable travel by:

- understanding travel behaviours to identify customer needs for end-to-end journeys, supporting the development of a travel demand management strategy
- ensuring our customers have the information they need to make the travel choices that are right for them
- improving integration of different modes of travel by working with key interested parties to deliver a range of active travel and public transport interventions
- using behaviour change and techniques to manage future travel demand and minimise disruption from major works
- continuously improving our offer for walkers, cyclists and horse riders

SRN TRUNKING/DETRUNKING:
National Highways was asked to explore changes to the SRN to ensure the network aligns with RIS2 strategic priorities, reflected in the *Strategic business plan*. This plan relates to improving connections between main urban centres, to international gateways, to peripheral regions (for levelling up) and strategic cross-border routes (to strengthen union connectivity). It included a commitment to explore potential asset ownership changes between ourselves and local highway authorities that could be implemented no earlier than the start of RIS3. The DfT have produced a shortlist of 18 trunking and two de-trunking candidates, identified following the draft RIS2 public consultation in 2018, for us to assess desirability and viability of asset transfer.

De-trunking is the process of returning a National Highways road to the local highway authority control and vice versa for trunking. These candidates were put forward by a range of external interested parties, including local authorities, Local Enterprise Partnerships and Chambers of Commerce, then shortlisted by DfT.

These candidates were put forward by a range of external stakeholders including local authorities, Local Enterprise Partnerships and Chambers of Commerce, then shortlisted by DfT. There is ongoing work to review the assessment evidence and recommendations, after which government ministers are expected to announce the candidates that will progress to the detailed development stage, which will be led by National Highways and incorporated in the forward study programme and wider RIS3 process. Such needs may evolve, all of which will have an influence on the scale and type of future investments.

IMPROVED ENVIRONMENTAL OUTCOMES

NET ZERO HIGHWAYS: National Highways' *2030/2040/2050 plan*[12]. We are committed to being a Net Zero Carbon Company by 2050 (2040 for Maintenance and Construction emissions).

We published our ambitious net zero carbon plan in July 2021. It details how we will achieve net zero emissions for: our corporate space by 2030, our maintenance and construction emissions by 2040, and road user emissions by 2050. We're keen to support a sustainable future and know that road travel is vital to enabling a thriving net zero economy. Our plan strengthens the decarbonisation of the transport sector, which remains the biggest emitting sector of greenhouse gases in the country.

We also need to consider how the SRN will be resilient to climate change. Our route strategies will need to recognise that the schemes we construct are likely to be subjected to changes to the climate, such as flooding.

Our route strategies demonstrate how we will continue to connect the country and ensure that the SRN is environmentally sustainable and resilient to climate change. This includes understanding the right schemes and options that support integration across different modes of travel, improve the SRN's capacity through digital roads, and deliver broader environmental enhancements.

This will change the way we work both internally and with our supply chain and wider interested parties.

As part of our net zero commitment, we need to consider the contribution our schemes make to sustainable development. We are adopting the PAS2080 Carbon Management in Infrastructure Standard that will help us invest only where we can achieve our zero carbon goals. Guided by the PAS2080 Standard, we will use an investment hierarchy where we favour opportunities to deliver whole life value without undertaking construction. We will demonstrate that we have considered all interventions during our planning stages and that every effort is made to avoid negative impacts and maximise environmental benefits throughout the lifecycles of schemes. We will also work with government and the private sector to set out a clear proposition by 2023 for electric vehicle charging on our network. This will cover both customer need and the infrastructure required to deliver this.

More than ever we need to support the Government's wider plans for decarbonising transport. The SRN plays a pivotal role in supporting the transition to zero carbon cars, vans and heavy goods vehicles (HGVs), but we also recognise that we need to better integrate with other modes of transport too, including public transport and active travel.

NET ZERO CARBON TRAVEL ON OUR ROADS COVERING EMISSIONS FROM THE VEHICLES USING THE STRATEGIC ROAD NETWORK: We have set an ambition for all of our customers to be travelling using net zero transport by 2050, in line with the UK Climate Change Act. Many of the actions that will deliver this ambition are out of our direct control, but that does not mean we cannot play our part. Our priorities are to help roll-out solutions to decarbonise HGVs and support the uptake of electric cars and vans. We will also continue our work on integrating the SRN with other transport modes, while working to improve the efficiency of the network.

12 National Highways (2021) *Net zero highways: our 2030 / 2040 / 2050 plan.* https://nationalhighways.co.uk/media/eispcjem/net-zero-highways-our-2030-2040-2050-plan.pdf

Our actions relating to reducing emissions from road users of our network include:

- publishing our proposed approach to zero carbon HGV trials by the end of 2022
- publishing a blueprint for electric vehicle charging services on our roads by 2023
- integrating a strong modal shift programme in the third road period, building on our work to date

IMPROVED ENVIRONMENTAL OUTCOMES: We know there's a requirement to balance people's need to travel on our roads with doing all we can to protect and improve the environment. That means we will continue to consider a wider range of environmental factors in our future planning, such as improving biodiversity, protecting ancient woodlands, reducing pollution in Air Quality Management Areas, and protecting Sites of Special Scientific Interest. These will form part of our considerations during our early planning. In response to these emerging issues, our latest route strategies take a more balanced view on expanding the future capacity of the SRN. We now seek to develop strategies that produce balanced investment plans with schemes of different magnitudes, delivering across multiple objectives: safety, journey time improvements, network resilience, maintenance and renewals, technology, environmental enhancement, and integration with more sustainable transport modes. The outcome will be an SRN that supports the economy but also delivers on the wider environmental challenges.

GROWING THE ECONOMY

GROWING THE ECONOMY AND LEVELLING UP: The SRN is a vital part of England's – and the UK's – transport infrastructure. It facilitates the movement of people and goods nationally, regionally and locally through connections to the major road network and other transport infrastructure. The Government's levelling up agenda places emphasis on ensuring no community is left behind, particularly as we recover from the COVID-19 pandemic. With such a vital role in supporting the economy and facilitating connectivity - enabling access to jobs and homes, international gateways and supporting road-reliant sectors – National Highways and the SRN have a role to play in supporting the levelling up agenda and the wider aim of economic prosperity.

The Government is committed to strengthening transport connections across the UK. Sir Peter Hendy's *Union connectivity review*[13] was published in late 2021. The Review recommends the creation of UKNET, a strategic transport network spanning the entire United Kingdom based on a series of principal transport corridors between key urban and economic centres, including international gateways. The findings of this report have been considered in the context of our route strategies and will be a key objective for our cross-border routes and the roads connecting to important ports.

Additionally, the SRN plays a critical role in enabling international connectivity and trade by providing reliable and resilient access routes to global markets via the country's network of international ports, airports and the Channel Tunnel. Enhancing these links and supporting these gateway locations to thrive, including maximising the opportunities of Freeports, is a key part of National Highways' role in supporting the national economy.

13 Sir Peter Hendy CBE, 2021, *Union Connectivity Review Final Report.* https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1036027/union-connectivity-review-final-report.pdf

SPATIAL PLANNING: We recognise that businesses operate from the location that best suits their business requirements in terms of access to customers, the supply chain and employees. Location is equally critical to decision-making in the residential market, both for the house builder and the potential purchaser or occupier. In enabling new employment spaces and homes to be developed, at National Highways we engage appropriately and positively as a statutory consultee in the planning system.

This is in line with our statutory responsibilities as set out in our Licence, and in support of wider government policy and regulation. Our focus is on securing sustainable development, managing cumulative impacts of strategic growth, and minimising the potential for any negative impacts on the SRN.

MANAGING AND PLANNING THE SRN FOR THE FUTURE

We recognise that asset management is our core business. It is the service we provide to maintain, operate, and enhance the SRN safely, reliably and effectively for all our customers. We manage more than 4,500 miles of road, over 20,000 structures and 12 road tunnels, as well as drainage, earthworks, and technology equipment. We recognise that our customers rely on our roads to travel approximately 95 billion miles every year, and our work helps unlock housing and employment sites across the country. One of our main priorities is managing these assets effectively and efficiently, to deliver the outcomes our customers and interested parties want.

We have adopted an asset management approach in order to align our strategy and planning activities to create, maintain, operate, and renew all of the assets that make up our network. Asset management links all our activities and supports our three imperatives: safety, customer service and delivery.

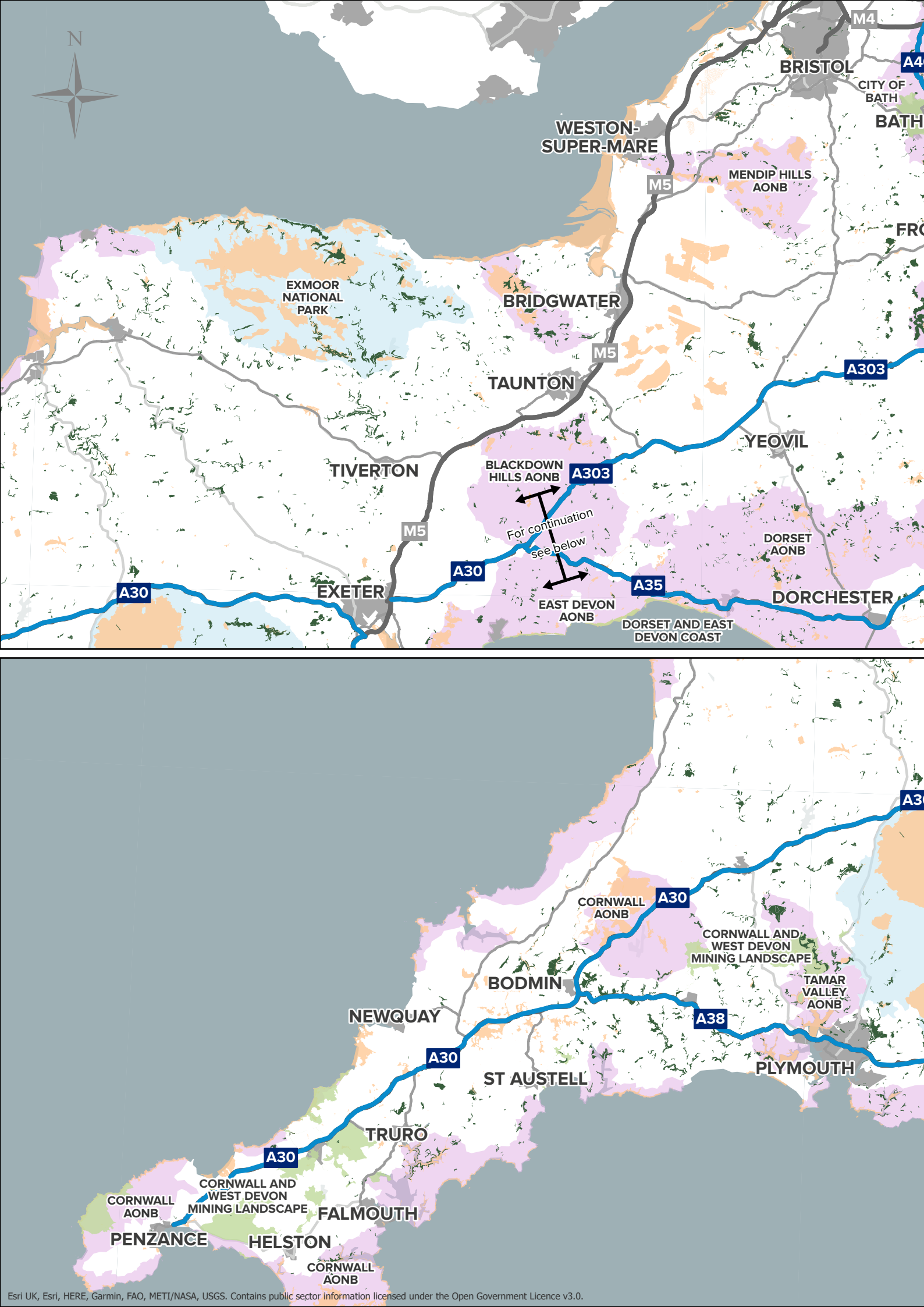
We know that good asset management is about understanding our customers and interested parties, identifying what they need and then using our assets effectively to deliver the right level of service. We are working to understand what satisfies our customers, and what we can do to influence this.

Our vision is to create an approach and establish ways of working that make sure all our asset management activity is aligned by following the key principles set out in our asset management policy. We work across the whole asset lifecycle, understanding that asset decisions we make may affect future service provision. This means that we are planning and accounting for emerging and evolving challenges around customer expectation, climate change and new technology. Since the beginning of the second road period we have continued on our journey to increase our asset management maturity, and our organisational objectives have developed significantly in light of COVID-19 and the Government's carbon plans.

A TECHNOLOGY-ENABLED NETWORK

DIGITAL ROADS: Our ambition for digital roads is to continue to harness data, technology and connectivity of people to places and communities and networks to improve the way the SRN is designed, built, operated and used. Our recently published *Digital roads strategy* (September 2021)[14] sets out how we will harness data, technology and connectivity to improve the way the SRN is designed, built, operated and used. This will also support our ambitions to achieve net zero carbon on the SRN. We have established three themes: Digital design and construction, digital operations and digital for customer. These themes will continue to frame our vision towards 2030 and beyon

14 National Highways (2021) *Digital roads*. https://nationalhighways.co.uk/our-work/digital-data-and-technology/digital-roads/



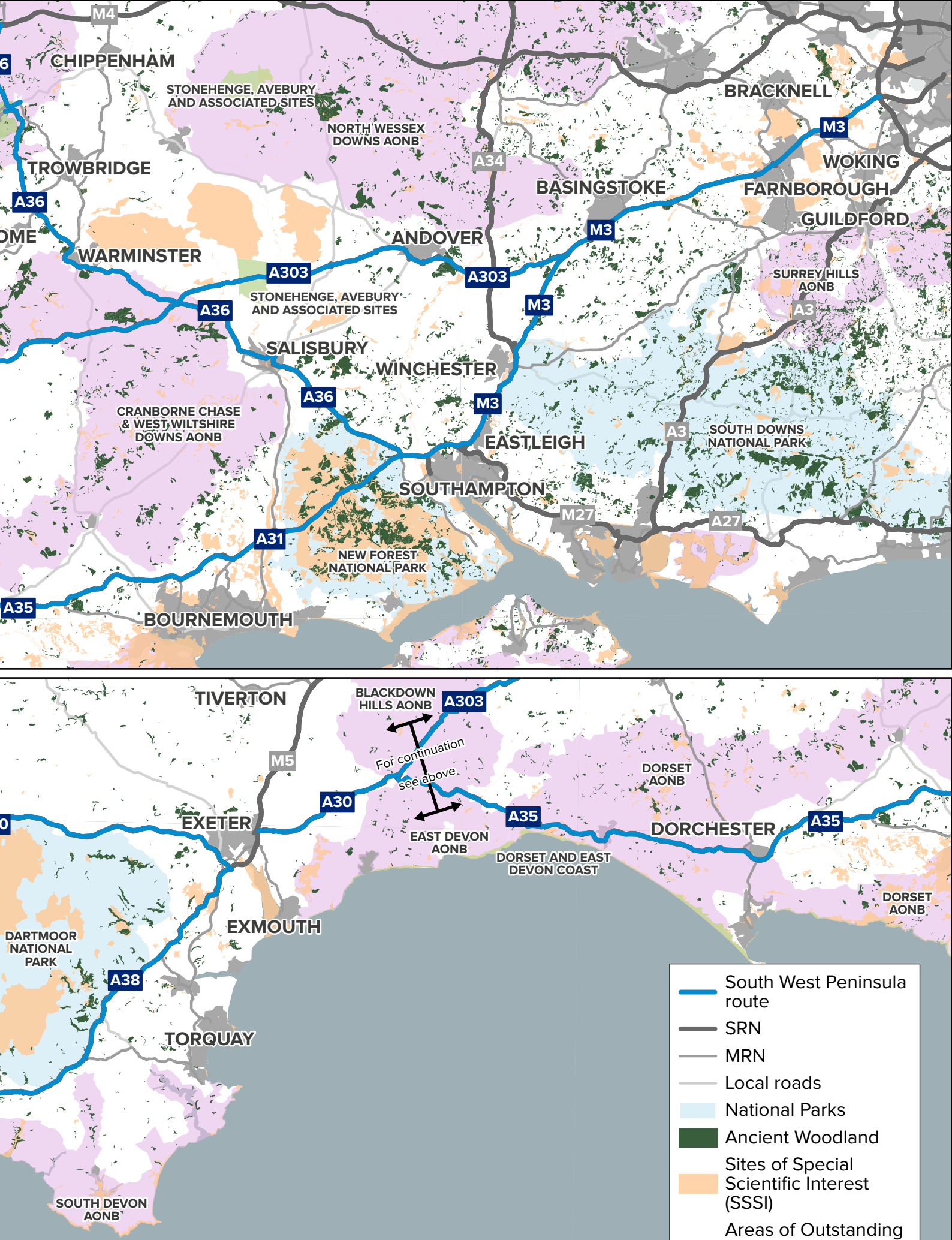


Figure 9: Environmental constraints

Our network connects the country

02 The route

The route is approximately 510 miles in length and provides key links between the South West Peninsula, the south coast, London and the South East. The route includes the M3, M27, A303, A46, A36, A35, A31, A38 and A30.

The route plays an important role in connecting people, businesses and communities and provides a critical link between major cities, towns and rural settlements.

The South West region contains major tourist and holiday destinations. Leisure-related traffic on the route significantly adds to the normal levels of strategic, local and freight traffic, particularly during seasonal peak holiday periods. Higher seasonal traffic flows and congestion are often present during school holidays and at weekends, during the summer.

Nationally, the route provides a gateway linking the far South West to London, the South East and the West of England. The M3 and A303 is the most direct route between the far South West and London and is a key strategic corridor providing important freight and leisure journey functions. The South West Peninsula route is a major point of connection to key towns and cities in the South West Peninsula. The route also connects with the; M25 to London, M5 to Bristol and Exeter, M4 to Bristol and London and the M27/M271 to Southampton.

Sections of the route run near or through several National Parks and Areas of Outstanding Natural Beauty (AONB). The A36, A46, A303, A35, A31 A30 and A38 also run near / through UNESCO World Heritage Sites.

The route provides a gateway to airports and ports in Southampton, Bournemouth, Poole, Portland, Exeter, Plymouth, Newquay and Falmouth.

The route consists of motorways and A-roads but is predominately A-roads. These are a mixture of dual and single carriageways. Some A-roads in the route have long sections of dual carriageway, such as the A303, A30 and A38. Other parts of the route are comprised of predominately longer single carriageway roads with shorter dual carriageway or overtaking sections such as on the A31, A35, A36 and A46.

The route is important for leisure-related journeys to tourist destinations in the South West, but the route is also important for movement of freight. Within and around the larger towns and cities such as Plymouth, Exeter, Salisbury, Bournemouth, Poole and Bath the route is also used for shorter local journeys.

The M3, M27, A36 and A46 have a relatively high percentage of freight traffic on this route, as they provide links from London and the south coast ports, such as Southampton and Poole, to the South-West and north to the M4. The A36-A46 provides the only north–south SRN link between the south coast and the M4.

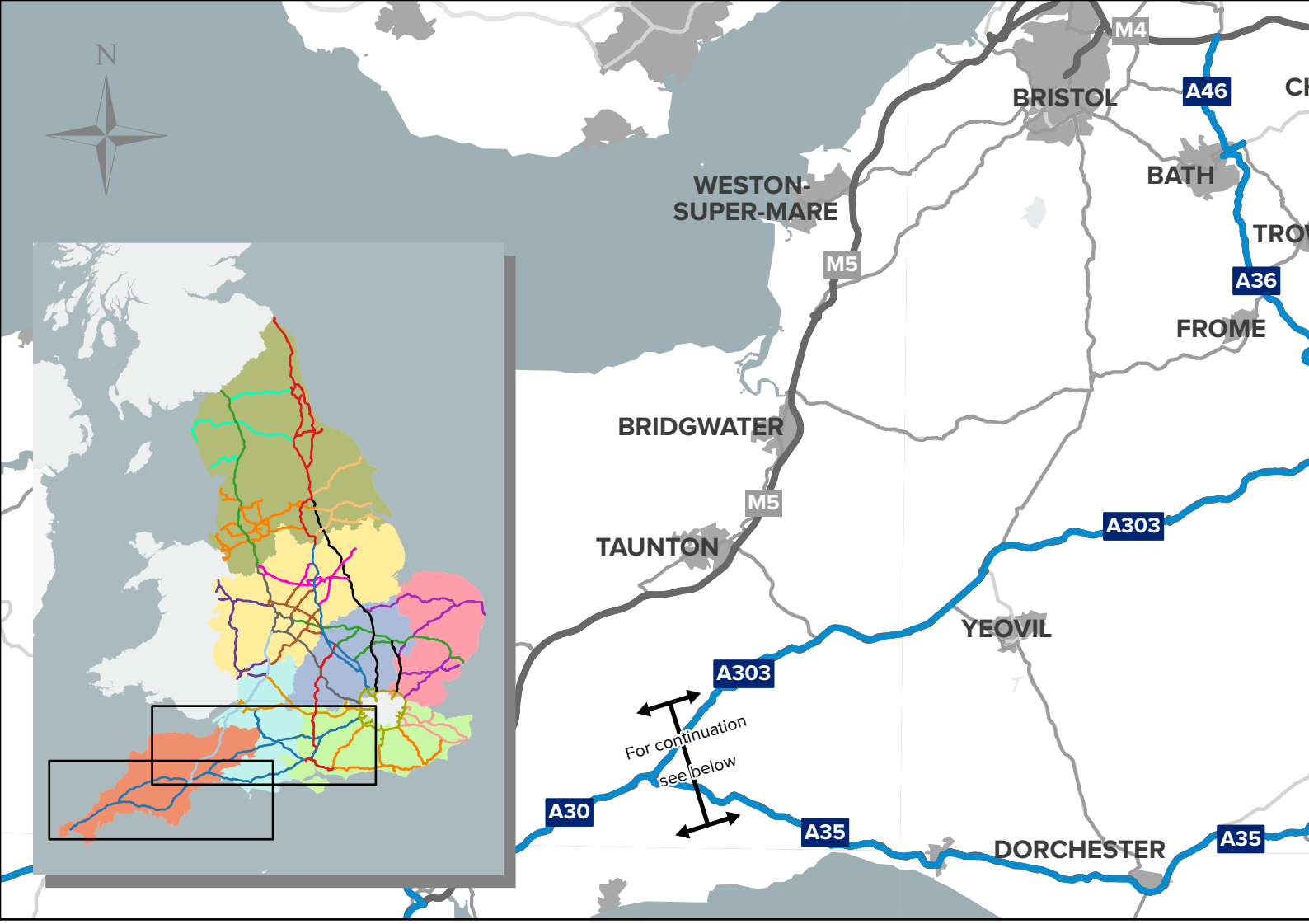
Collectively these roads support a diverse economy within the London to South West Peninsula area. The tourism industry is of particular importance to the South Western part of the route, along with logistics associated with port activity, fishing, communications, the marine sector, advanced manufacturing, renewable energy and the military.

A number of major developments are proposed across the route. Significant economic and housing development growth is planned in areas neighbouring the western part of the route including Garden Communities around Exeter, Freeport sites in Plymouth and South Devon and Enterprise Zones in Cornwall. Plymouth is also noted as a hub for maritime and defence industries which are key to the city's employment.

The eastern part of the route is characterised by the M3 which connects from Southampton through Hampshire to the M25. At its southern termination the M3 branches off into the M27 for access to Southampton Airport and to the Port of Southampton which is a key international port and the UK's second largest container terminal. The section of the M3 through the northern part of Hampshire provides connectivity to Basingstoke, Farnborough and Aldershot which are notable for aviation and defence within the local economies.

This route strategy is based on the road network as of the start of the second road period (2020-2025). During the first road period, the A30 Temple to Higher Carblake dualling scheme was opened to traffic. Major improvement schemes that commenced construction during this current second road period include: A30 Chiverton to Carland Cross, A303 Sparkford to Illchester and A31 Ringwood.

We recognise that some of the journeys on this route are part of longer trips and therefore need to be considered in conjunction with strategies on other routes.



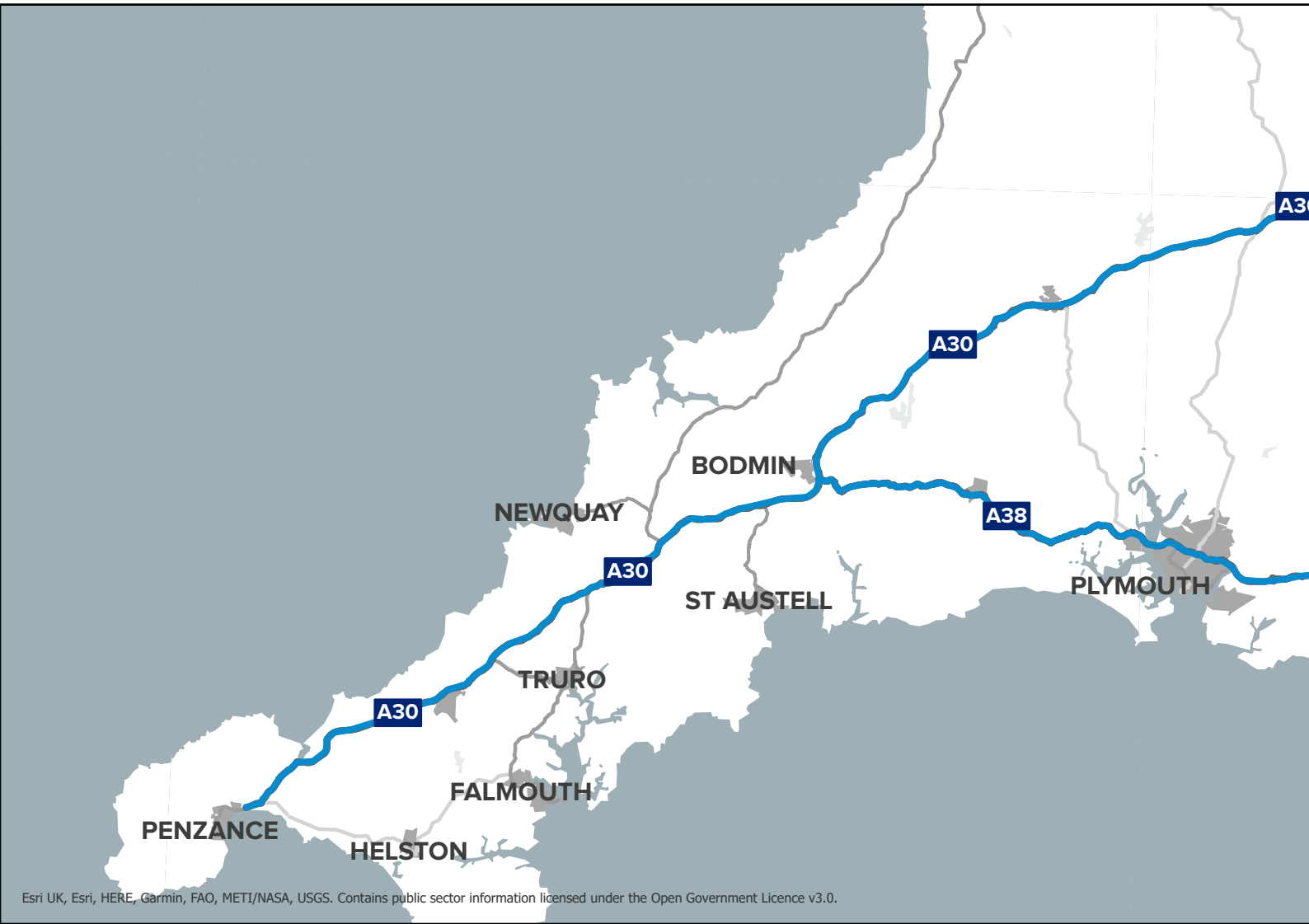


Figure 10: The route

Listening to your feedback

03 Engagement with customers and neighbours

Engagement with customers and neighbours has been central to developing our route strategies. The development of the route strategies is one of the key steps of initial research in the development of the Road investment strategy (RIS). This engagement, together with data analysis, will inform RIS3 (2025 to 2030) and beyond. It builds on a wealth of evidence from previous route strategies and our ongoing monitoring of road condition and performance.

Engagement with customers and neighbours in the South West Peninsula area

Early engagement with the Department for Transport (DfT), Office of Rail and Road, Transport Focus, Transport for the South East, (TfSE), Western Gateway and Peninsula Transport (Sub-national Transport Bodies) and Network Rail shaped our engagement with customers and neighbours in the South West Peninsula area. We gathered evidence from a cross-section of Members of Parliament (MPs), interested parties, road users and communities at a route level to understand their needs for the future. This built on engagement that had taken place with national interested parties, such as environmental groups, organisations representing road users, business organisations and transport campaigning groups. This engagement has informed the development of the route objectives.

Engagement took place through:

MP roundtables: MPs were invited to a regional roundtable with the Roads Minister to share their views on priorities for our customers and neighbours within their constituencies.

Regional workshops: As part of a programme of workshops with interested parties at a national and regional level, we invited interested parties to workshops on route strategies for the South West Peninsula route in late 2021. Attendees included local authorities, airports and port authorities, transport operators, and other key route-based interested parties, such as major businesses.

We designed the workshops to seek views on both current and future challenges and opportunities for the SRN, in relation to the six DfT strategic objectives. Views were sought on how the routes interacted with the major road network (MRN), local roads, public transport, walking and cycling, and links to the wider strategic road network (SRN). Interested parties also provided insight into key growth proposals and locations along the route, including committed and emerging economic and housing growth and infrastructure proposals. Interested parties shared their own data, studies and observations of the route area.

Route strategies online feedback form: Local interested parties, road users and communities were invited to give their feedback on specific locations on motorways and A-roads, and general comments on the road network, through the route strategies online feedback form. For the South West Peninsula route, regional interested parties were invited to workshops or to use the online form to share their views and feedback.

The information gathered was a mix of evidence, studies and personal experience. All the evidence gathered through these engagement methods was considered alongside route analysis and data to inform the development of the route objectives. The evidence was supplemented by route-based information from *Transport Focus' Strategic Road User Survey*[15] to gain an understanding of the breadth of feedback.

Key themes from engagement

We have drawn out the common themes that emerged from our engagement with our customers and neighbours on the South West Peninsula route to inform our route objectives. The themes have been aligned with the DfT's six strategic objectives:

i) Improving safety for all

- Safety and reliability concerns were identified on the route. It was felt that the inconsistent standard of some roads, particularly sections that had a lot of variation between older and improved single carriageway and dual carriageway, presented challenges for drivers
- The local community organisation 'Safe38' is seeking to improve road safety and reduce the environmental impacts from traffic using the A38 on communities in South East Cornwall

ii) Network performance

- Concerns about reliability and difficulty of planning freight journeys during periods of congestion and road related incidents were highlighted, particularly in relation to Poole Harbour, Southampton and Portland Ports into the South West
- As the A35 and A303 are parallel roads located a number of miles apart, the lack of north-south connectivity between the two roads is problematic when incidents occur as it difficult for drivers to divert to the open carriageway
- Although the A303 is an important strategic route to the South West of England and a key corridor for the business, freight and tourism industries, it experiences reliability issues. Sections of the A303 prone to delays include Amesbury (Stonehenge) and the A303 / A34 Bullington Cross junction
- Need to improve resilience of the A303, especially for freight traffic, by potentially upgrading the provision
- Connectivity challenges between the M4 and M3
- The A36 and A46 has connectivity issues around Bath and does not fulfil purpose of a trunk road
- The A46 is a winding route and not very suitable for heavy goods vehicles and also passes through picturesque villages
- Capacity issues along the A46 and northern section of A36 which are difficult to address due to the geography and cultural heritage of the area
- The route needs to manage existing network constraints such as year-round congestion, often prevalent at peak times in specific locations, before the issues are compounded by future economic growth and development

15 Transport Focus, 2022, *Strategic roads user survey*, https://www.transportfocus.org.uk/insight/strategic-roads-user-survey/

- The A30/A35 is heavily used by heavy goods vehicles on narrow roads through villages and communities leading to congestion, safety issues and air quality
- A case for action for corridor improvements between Cambourne and Penzance on the A30 was made, led by residents, campaign groups and the MP
- There is a confluence of routes on the A38 on the southern approach to Exeter with congestion in peak periods

iii) Improved environmental outcomes

- Climate change and the role of the SRN in the decarbonisation agenda was a consistent theme, with discussion around electric vehicle infrastructure, integration of different modes of transport, and resilience to extreme weather events
- Available capacity at service stations and speed of charging were seen as barriers for greater electric vehicle (EV) usage for longer journeys on the SRN, and there is a consequential need to support electric vehicle infrastructure where appropriate
- The A-roads throughout the South West Peninsula Route were identified for causing severance to communities and Public Rights of Way (PROW) where the roads travel through villages
- Need to ensure the network responds to net zero carbon and environmental ambition, whilst looking to reduce noise pollution and improve air quality where appropriate such as at Chideock (A35) and Tideford (A38)
- Freight access to Southampton Port creates various issues including capacity, noise and air quality in Southampton

iv) Growing the economy

- Poole would benefit from improved connectivity to the SRN
- Negative effects of congestion on investment in other (non-tourism) employment sectors, and the impacts on demographics and housing availability
- Challenges brought about by the role of tourism in the region and seasonal impacts on travel demands. Potential for long-term increase in seasonal/ tourism demand to the South West
- Housing supply and demographics were highlighted as issues, with an ageing population and outward migration by younger age groups
- Importance of connections between and to key gateways including Bristol Airport, Avonmouth and Portbury Docks along with wider links to Southampton were highlighted. Proposed growth at each of these locations was also noted which could impact network performance
- Growth proposals around Farnborough and Basingstoke including a new hospital with the potential to increase trips on the M3
- Business growth in Winchester along with the Kings Barton residential site and major city centre regeneration plans
- Housing and employment growth in Salisbury off the A36
- Growth aspirations associated with the Port of Southampton and the potential to increase traffic on the M3
- Proposed expansion of Southampton Airport and runway extension which could increase airport usage

- Housing growth within East Dorset around the A31 north of Bournemouth, Christchurch and Poole. In addition, there are business park developments in Bournemouth including the airport (Aviation Business Park)
- Potential significant developments within and around Exeter including Liveable Exeter Garden Communities, Cranbrook and on the southern approach to Exeter near the A38 in Teignbridge and Torbay
- The Plymouth and South Devon Freeport sites and Oceansgate provide development opportunities for marine industry
- Potential for a number of Enterprise Zones in Cornwall including the Newquay Growth Area, Goonhilly, and Langarth

v) Managing and planning the SRN for the future

- Seasonality issues and 2021 'staycation' effects will provide future challenges to route performance that will continue beyond the Covid-19 pandemic
- The route needs to better accommodate increased demand during seasonal periods and ensure that sufficient network resilience and connections are in place to accommodate travel to and from the whole network

vi) A technology-enabled network

- No comments were noted on this topic during the engagement

vii) Other

- There are opportunities to reduce short-distance car trips through sustainable travel, improved local connections, and rail and road interchange
- Opportunity for multimodal trips and hubs and integration between road and rail networks
- Lack of rail connectivity between Devon and Cornwall and the wider UK which often leads to dependency on road travel
- Access constraints to Bristol and Bournemouth Airports across all modes
- Opportunities across route to improve connections between the SRN and nearby transport interchanges such as park and ride facilities and railway stations
- Improvement for active modes of travel throughout the A30 and A38 routes
- Concern over the adequacy of unsigned diversion routes especially when incidents occur on the SRN. Not all diversion routes used are appropriate for heavy goods vehicles
- Lack of service areas on many sections of the route and the quality of amenities available at these break locations
- Lack of sufficient heavy goods vehicles parking and freight facilities across the route

Engagement quotes from customers and neighbours:

"Whenever we use the A30 west of Cambourne it is always congested, with long traffic jams in both directions. A 10 minute journey takes at least 30 minutes.''

(Route strategies engagement)

"The A31 West of Ameysford roundabout is single carriageway and is frequently subject to large volumes of traffic, particularly westbound, often resulting in traffic queuing.''

(Route strategies engagement)

"Single track & congested. The small villages [on the A30] experience a constant flow of traffic, travelling very slowly and releasing high pollution."

(Route strategies engagement)

"There wasn't much traffic and it was moving at a normal pace. The road was quite smooth and easy to follow." (A31 Work journey April 2022)"

(Transport Focus SRUS)

"The stretch of the A38 between Carkeel and Trerulefoot is the site of many accidents. It bisects the villages of Tideford and Landrake, in both of which pulling out onto the road is often difficult."

(Route strategies engagement)

''The A36 through Salisbury is constantly congested and [causes] air quality issues in the city.''

(Route strategies engagement)

"The road surface was in good condition and there was no traffic congestion." (M3 HGV/LGV driver, April 2022)

(Transport Focus SRUS)

"It's a good road with plenty of lanes so it mostly runs very smoothly." (A38, May 2022)

(Transport Focus SRUS)

"Signage: more information should be available on A-road routes such as a next services sign which details the next service areas."

(Route strategies engagement)

Figure 11: Quotes from customers and neighbours

Route satisfaction

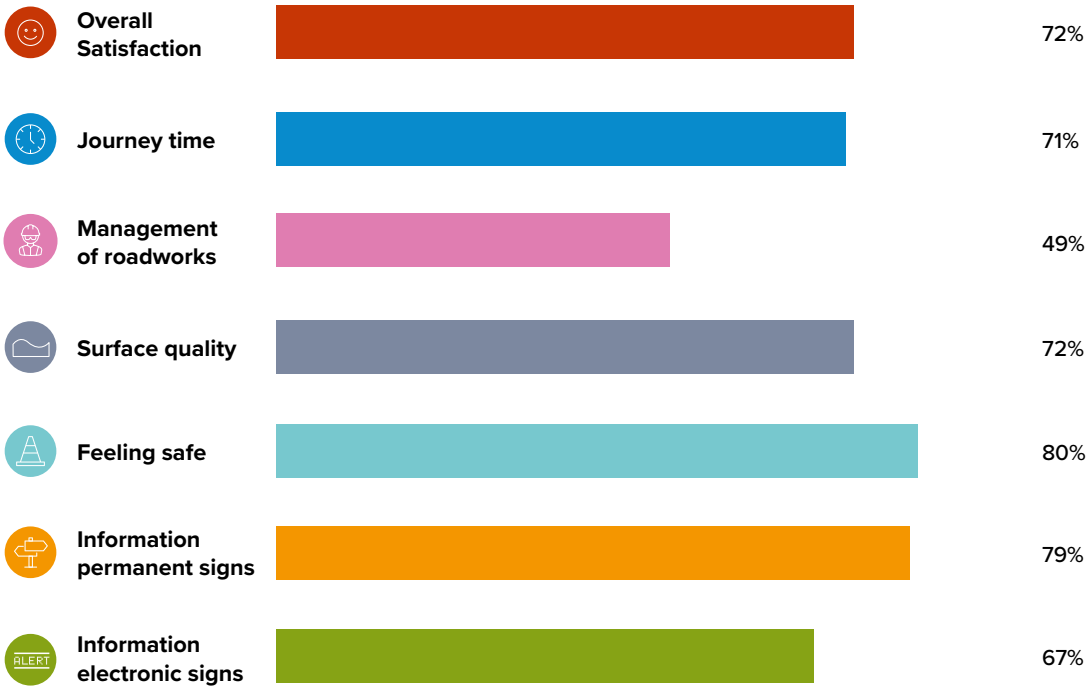
Satisfaction scores have been obtained from Transport Focus through their Strategic Roads *User Satisfaction Survey* from the last 12 months to May 2022. It covers the roads in this route but it should be noted that the satisfaction scores may not fully align with the extent of the roads in the route. Figure 12 below shows how satisfied drivers were with aspects of their journey and how they felt during their journey.

Additional comments and data from the Transport Focus survey of drivers on the SRN can be found on the Transport Focus website data hub[16].

The engagement themes and feedback from MPs, interested parties, road users and communities has been considered as part of the wider analysis in Section 5.

Strategic roads user survey route satisfaction

The survey was not run between April 2020 and March 2021 due to Covid-19. It restarted in April 2021 with a new methodology, so results prior to March 2020 and from April 2021 are not directly comparable.



Individual road M5

Last 12 months* May 2022 (last 12 months)

* Before March 2019 and from April 2021 to Februar 2022 this is year-to-date, not past 12 months

Figure 12: Satisfaction scores from headline results

16 Transport Focus (2022) *Transport Focus Website*. https://transportfocusdatahub.org.uk/

Working with our partners

04 Network collaboration

The strategic road network (SRN) does not exist in isolation. Most journeys on the SRN are part of a longer journey, involving other road networks or different transport modes.

To deliver safe and efficient journeys for our customers and to support economic and housing growth, at National Highways we have built relationships with other organisations to ensure the SRN maximises its contribution to the overall transport system, which includes local roads, rail networks, links with the devolved nations and international connectivity. We work with other network operators (such as Network Rail), airports and ports, Sub-national Transport Bodies, Transport for Wales and Transport Scotland, as well as combined authorities and local highway authorities. This is in line with National Highways' Licence requirements to consider opportunities for collaborative solutions. We recognise that joint early planning of interventions outside our network will ultimately improve the SRN and deliver greater benefit to the customer than could be achieved alone, where this delivers value for money.

An integrated transport network

Route strategies recognise the role that the SRN plays within the wider transport network. In planning for the future of the SRN, we recognise the importance of working closely with other network planners and operators to ensure our transport networks work well together, and that our investment priorities are aligned where possible.

Sub-national Transport Bodies have a key role in their regions in creating transport strategy and identifying key areas for investment, including for highways. There are seven such bodies in England, who are tasked with developing transport strategies and studies for their particular area.

Through the collection of evidence with their local authorities and Local Enterprise Partnerships, their work highlights multimodal issues, needs and opportunities. A list of potential interventions for transport are then provided to the Secretary of State for Transport, including where to prioritise investment in the major road network. We work closely with the Sub-national Transport Bodies on interdependencies and align our approaches where possible. The Sub-national Transport Bodies that cover the route are:

- Transport for the South East (TfSE)
- Western Gateway
- Peninsula Transport

National Highways and Sub-national Transport Bodies have worked together to develop an engagement framework. The need for closer working was highlighted as a priority in DfT's *Road investment strategy 2*[17], and within our *Strategic business plan*[18] and *Delivery plan*[19]. It enables National Highways and Sub-national Transport Bodies to work together to achieve mutually beneficial outcomes for transport users, regional economies and the environment. Our approach to engagement is contained in *Our vision for route strategies*[20], which sets out a shared commitment for a continued open, constructive and collaborative relationship. This is supported by engagement and action plans for each Sub-national Transport Body, which are proving instrumental in ensuring consistency and transparency in the information we share. The plans are monitored and reviewed regularly, with annual reviews occurring ahead of each new financial year.

17 Department for Transport, *Road Investment Strategy 2: 2020 - 2025,* https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/951100/road-investment-strategy-2-2020-2025.pdf
18 Highways England, *Strategic Business Plan: 2020 - 2025,* https://nationalhighways.co.uk/strategic-business-plan/
19 Highways England, *Delivery Plan: 2020 - 2025,* https://nationalhighways.co.uk/delivery-plan/
20 Highways England, 2021, *Vision for route strategies,* https://nationalhighways.co.uk/media/w0vhd3un/vision-for-route-strategies.pdf

At a more local level we also work with local authorities, who are the highway authorities for local roads, including those on the MRN. This collaboration ranges from operational matters to more strategic issues to ensure that the overall highway network operates safely, efficiently and effectively, providing high quality and seamless customer journeys. The local authority planning teams work closely with our spatial planning teams. In enabling new employment spaces and homes to be developed, we engage fully as a statutory consultee in the planning system and the evidence collected through the route strategies will support this decision making.

Transport for the South East (TfSE)

TfSE published their *Transport Strategy*[21] for the South East in 2020. The plan has been created with the support of the 16 local transport authorities within the TfSE area, along with the five Local Enterprise Partnerships, 46 district and borough councils and other key interested parties.

The strategy sets out TfSE's thirty-year vision for the region, with their strategic goals and priorities. Their fifteen strategic priorities sit under three strategic goals; economy, society, or environmental.

The economic priorities are:

- better connectivity between our major economic hubs, international gateways (ports, airports and rail terminals) and their markets
- more reliable journeys for people and goods travelling between the South East's major economic hubs and to and from international gateways
- a transport network that is more resilient to incidents, extreme weather and the impacts of a changing climate
- a more integrated approach to land use and transport planning that helps our partners across the South East meet future housing, employment and regeneration needs sustainably
- a 'smart' transport network that uses digital technology to manage transport demand, encourage shared transport and make more efficient use of our roads and railways

The social priorities are:

- a network that promotes active travel and active lifestyles to improve our health and wellbeing
- improved air quality supported by initiatives to reduce congestion and encourage further shifts to public transport
- an affordable, accessible transport network for all that promotes social inclusion and reduces barriers to employment, learning, social, leisure, physical and cultural activity
- a seamless, integrated transport network with passengers at its heart, making it simpler and easier to plan and pay for journeys and to use and interchange between different forms of transport
- a safely planned, delivered and operated transport network with no fatalities or serious injuries among transport users, workforce or the wider public

The environmental priorities are:

- a reduction in carbon emissions to net zero by 2050 at the latest, to minimise the contribution of transport and travel to climate change
- a reduction in the need to travel, particularly by private car, to reduce the impact of transport on people and the environment
- a transport network that protects and enhances our natural, built and historic environments
- use of the principle of 'biodiversity net gain' in all transport initiatives , where development leaves biodiversity in a better state than before
- minimisation of transport's consumption of resources and energy

The strategic priorities set out in the TfSE Transport Strategy provide a clear framework which informs future decision-making. It will help to create a 'more productive, healthier, happier and more sustainable South East'.

21 Transport for the South East (TfSE), *Transport Strategy for the South East, June 2020, TfSE website,* https://transportforthesoutheast.org.uk/our-work/transport-strategy/

Western Gateway

The Western Gateway Sub-national Transport Body covers the area from Gloucestershire in the north of the South West region, to Dorset and Bournemouth, Christchurch and Poole in the south via the Bristol city region and Wiltshire.

Western Gateway's objective is to maximise the capacity and resilience of the strategic transport corridors, and targets delivery of 300,000 new homes and 190,000 new jobs over the next 20 years. To achieve the area's full potential, there is a need to improve connectivity for businesses, employees, and the leisure and tourism sector.

Western Gateway is developing a long-term Strategic Transport Plan for the area with the following key objectives:

- ensure effective access to labour markets
- greater integration of employment clusters
- enhance business connectivity to international markets
- improve North-South connectivity
- decarbonisation of the strategic transport network
- adoption of electrification and alternative fuels

Western Gateway also explicitly target a shift in journeys from private car use to other modes.

The *Western Gateway 2019 Economic Connectivity Study*[22] identified several corridors of varying performance levels based on productivity, new employment gross value added (GVA) and housing (land value gain).

The following six corridors interfaces with the South West Peninsula route; the A350 'North South' Link, the A46 / A36 Wessex Main Line, the A303 West of England Line, the A338 / A354 (between Weymouth, Salisbury and the A303), A31 / A35 / A354 South Western Main Line and the Bournemouth / Poole urban area.

For productivity gains, the A303 West of England Line was ranked the highest of the above corridors for both producer services and manufacturing, whilst the Bournemouth and Poole Urban Area performed the best for construction services. The A350 'North South' Link ranked the highest for consumer services.

For new employment GVA, the A350 'North South' link was the highest scoring corridor overall with additional GVA of £2.3bn for corridor improvements. The A350 'North South' link was the second highest ranked corridor overall for unlocking new housing and generating additional land value gains.

Peninsula Transport

The Peninsula Transport Sub-national Transport Body (STB) covers the South West Peninsula from Somerset through Devon, Torbay and Plymouth to Cornwall.

The Peninsula Transport STB is particularly impacted by the seasonal traffic demands of leisure and tourism travel on the SRN.

The Peninsula Transport STB has published their *'Vision'*[23] to "transform transport across the peninsula to enable our society and economy to thrive and our unique and outstanding environment to flourish". This is underpinned by five main goals:

- improving connections between people, business and places
- enhancing the resilience of the transport network
- delivering affordable zero- emissions transport for everyone
- improving the health and wellbeing of communities in the peninsula
- help the peninsula to be a great place to live and work

22 Western Gateway, *Appendix A Economic Connectivity Study, July 2019, Western Gateway website:*, https://westerngatewaystb.org.uk/strategy/economic-connectivity-study/
23 Peninsula Transport, Vision, *Peninsula Transport website:* https://www.peninsulatransport.org.uk/

The SRN is particularly important to the peninsula in connecting far South West rural areas with the wider South West of England. Improving the standard and achieving a more consistent network along the length of the peninsula SRN is a priority in improving regional connectivity and unlocking the full potential for economic growth, housing development and job creation. The PT STB recommendations for corridor enhancements include:

- consistent corridor standards for road and rail
- connectivity improvements across all modes
- investment in technology and digital infrastructure, including electric vehicle charging
- investment in decarbonisation, including modal shift and EV

Interaction with the major road network and local roads

The major road network (MRN) is the middle tier of England's road network, comprising the busiest and most economically important local authority A-roads. It is key to supporting the economic vitality of England, particularly with its role, along with the SRN, of delivering 'first and last mile' connections and onward journeys. It acts as a connecting spine for the SRN, with one of the objectives in establishing the MRN being to support the SRN through improving journeys across both networks. The MRN represents the roads that our partners in local authorities and Sub-national Transport Bodies see as being strategically most important, along with the SRN.

The relationship between the SRN and MRN is complex. The two networks connect people with economically important locations across England, as well as providing resilience for each other. Interventions on one network can also significantly influence travel behaviours on the other. Most SRN journeys involve elements of both networks.

It is therefore important that decisions about the SRN, MRN and other local roads are made in a joined-up way to ensure that the networks are consistent, coherent and complementary. We recognise that the key to the success of the Road investment strategy (RIS) is ensuring the impacts of any interventions are appropriately considered across all networks as well as at their junctions. Both networks play a key role in customers' journeys, and they expect a seamless transition between the two. We are continually seeking to identify collaborative solutions that meet our obligations under the National Highways Licence to improve network performance and provide integration benefits. In developing the route strategies, we aim to ensure the planning for the SRN, MRN and other local roads is complementary.

Within the South West Peninsula route area, there are many locations where the MRN intersects the route. The sections of the MRN relevant to the route are:

- A322 to Bracknell / Guildford
- A287 and A31 to Farnham
- A321/A3895 to Bracknell
- A331 to Guildford
- A339 to Basingstoke
- A27 to Bursledon
- A326 to Holbury
- A338 to Bournemouth /Salisbury
  A3094 to Salisbury
- A348 to Ferndown
- A354 to Weymouth
- A349 and A35 to Oakdale
- A37 to Bristol via Yeovil
- A361 to Shepton Mallet / Trowbridge
- A36 to Bath
- A379 to Exeter
- A363 to Bradford upon Avon
- A350 to Upton (A35)
- A420 to Bristol ring road (A4174)
- A358 to Taunton / M5

- A376 to Exmouth
- A380 and A382 to Newton Abbott A385 to Paignton
- A374 and A3064 to Plymouth
- A38 Tamar Bridge (cantilever lanes)
- A39 to Wadebridge / Bude
- A391 to St Austell
- A39 and A390 to Truro
- A30 through Penzance

Freight and logistics

Future of freight: *A long-term plan (DfT June 2022)*[24] sets out priorities for the UK's freight industry. It recognises that in 2019 the sector contributed 10% of the UK non-financial business economy and £127billion gross value added (GVA) through more than 200,000 enterprises, noting that, with imports and exports comprising 63% of GDP in 2019, we are reliant on the freight and logistics sector for our economic wellbeing.

In the UK, around 1.65 billion tonnes of freight are lifted by all modes each year.

The route is a key spine for freight movement, connecting the South West to the rest of England. In the South West Peninsula, Southampton is an essential asset to the UK as one of the top 10 ports, handling 33 million tonnes of freight annually[25] and relies upon the SRN and the rail network for onward freight journeys.

The Solent Commercial Ports (Southampton and Portsmouth) to the Midlands is a key freight corridor for the UK with connections provided by the A34 and surrounding rail routes.

The Route also provides a mechanism for specialist hauliers to connect with some of the most important fishing ports in the UK including Newlyn, Falmouth, Plymouth and Brixham.

In the South West Peninsula, the SRN carries a lower percentage of heavy good vehicles compared to other areas of the UK particularly along the A30 and A38. However, within the route there are concentrations of high percentage of heavy goods vehicles along the M27 and M3 surrounding Southampton, a result of its priority as a key port. The eastern extent of the route also experiences higher volumes of heavy good vehicle journeys on the M3, between Junction 5 and the M25.

The level of lorry parking and utilisation varies across the route. Some facilities are not at capacity, particularly in Cornwall, however other areas are at capacity, particularly near the M3, the A36 near Bath and around Exeter.

The published *National Survey of Lorry Parking undertaken by the DfT*[26] in 2017 showed the South West region is close to exceeding the available lorry parking capacity across the area with an overall utilisation of 72% in 2017. Several lorry parks are ranked as in a state of critical utilisation (defined as over 85%) in the South West region, these are concentrated along the M5 and surrounding Bristol area, with the lorry parking sites on the South West Peninsula categorised at a serious or acceptable level of utilisation. This demonstrates the high usage of the SRN and its supporting infrastructure to transport freight around the area.

Quality of driver welfare facilities is a key issue in the region in addition to opening times with some facilities not being available 24 hours a day. In the future, there is the potential for additional freight journeys linked to the Plymouth Freeport, as well as an increase in maritime journeys to and from Peninsula ports, which may increase lorry parking demand and utilisation.

24 Department for Transport, 2022, *Future of Freight: a long term plan, Department for Transport,* https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1085917/future-of-freight-plan.pdf
25 Department for Transport, 2022, *Port and domestic waterborne freight statistics,* https://www.gov.uk/government/statistical-data-sets/port-and-domestic-waterborne-freight-statistics-port#port-level-statistics
26 Department for Transport, *National Survey of Lorry Parking, 2017,* https://www.gov.uk/government/publications/national-survey-of-lorry-parking

The South West boasts a wealth of freight assets that provide a strong multimodal freight capability. These include:

- four major ports (Portsmouth, Southampton, Poole and Plymouth), 3 ports with Freeport status (Portsmouth, Southampton and Plymouth) in addition to Bristol port, which provide both freight and tourist opportunities
- five airports: Bristol, Southampton, Bournemouth, Exeter and Newquay
- four strategic Rail Freight Interchanges across Southampton and Portsmouth

A strategic rail network comprising:

- South West Mainline (London to Weymouth)
- West of England Main Line (Basingstoke to Exeter)
- Great Western Mainline (London to Bristol)
- Heart of Wessex Line (Bristol to Weymouth)
- Bristol to Exeter line
- Exeter to Plymouth line
- Cornish Main Line (Plymouth to Penzance)

National Highways is investing in improved roadside facilities, as part of continued government action to boost driver welfare and tackle the effect of a current driver shortage impacting the UK[27]. Roadside service operators are currently being encouraged to apply for funding under the Users and Communities Fund to improve the standard of lorry parking and driver welfare facilities.

Diversionary routes

To operate a resilient road network, we need to be able to effectively divert traffic off the SRN in the event of unplanned incidents (such as collisions or emergency roadworks), or as part of planned closures (such as planned improvement schemes). The MRN, along with the rest of the local road network, supports the SRN as diversion routes during these events.

We have agreed diversion routes for emergency events with local authorities. Diversion routes for planned events are discussed and agreed with local authorities on a case-by-case basis. These routes are dependent upon the nature of the incident, and the suitability and availability of the surrounding network. In some cases, the diversion route may not be suitable for certain types of traffic, such as heavy goods vehicles (HGVs), or non-motorway traffic, such as cycles and tractors. In other cases, diversionary routes may not be available due to events on the local road network. We work closely with local authorities to ensure that suitable diversion routes are available.

Network Rail and other network operators

The SRN plays an important role in the movement of passengers and freight across England, and it needs to be considered alongside the wider transport network. The rail network is also important in moving freight and people over longer distances and helping commuters travel into congested cities. Better integration between road and rail can help to transfer more journeys onto rail. This can help to relieve congestion on the SRN, as well as improve the environment by increasing the use of more sustainable transport modes.

At a strategic level we work closely with Network Rail and train operators to find opportunities to better integrate the two networks to benefit the movement of freight and people. This involves seeking opportunities to place rail stations in strategically important locations with easy access to the SRN.

Network Rail's Delivery plan for 2019-2024[28] presents a vision of "putting passengers and freight users first". This Strategy recognises that Network Rail can improve the daily lives of people across the country by striving to constantly improve the quality of its service across the whole railway system.

27 Department for Transport, 2022, https://www.gov.uk/government/news/20-million-to-improve-roadside-facilities-for-hgv-drivers
28 Network Rail, *Our delivery plan for 2019 - 2024,* https://www.networkrail.co.uk/who-we-are/publications-and-resources/our-delivery-plan-for-2019-2024/

Network Rail delivers its vision through a regional structure committed to responding to the needs of local customers and interested parties, more quickly than if such decisions were to be made at a national level.

The strategic rail network for the South West Peninsula route comprises the:

- South West Main Line (London to Weymouth)
- West of England Main Line (Basingstoke to Exeter)
- Great Western Main Line (London to Bristol)
- Heart of Wessex Line (Bristol to Weymouth)
- Bristol to Exeter line
- Exeter to Plymouth line
- Cornish Main Line (Plymouth to Penzance)

The rail provision in the route area is varied and includes extremely busy urban and suburban services in the east with regional and inter-regional services further west. There is relatively little rail freight traffic along the predominant east west axis. Strategy for rail service development needs to accommodate these different purposes and journey types. In the east, capacity is an important consideration whilst further west improved connectivity is the key strategic objective. With the aim to make more journeys of all purposes more attractive by rail.

The South West Peninsula route lies within two Network Rail Regions; Southern, and Wales and Western. There are several important railways stations which act as business, leisure and tourist gateways, and are therefore important links to the SRN. These are Southampton Central, Dorchester South, Salisbury, Bath Spa, Exeter St Davids, Plymouth and Truro railway stations. There are also numerous other railway stations across the route that provide access to a range of tourist destinations. National Highways understands the role of the SRN in providing access to and from these key railway stations.

The Exeter to Okehampton railway line that reopened in 2021 encourages tourism, but also helps alleviate pressure from additional seasonal traffic flows on the SRN. Plans are also in development to improve infrastructure on the Exeter to Waterloo rail line, enabling half hour frequency services to East Devon towns (on the A30) and improving cross city connectivity by rail from North, West and Mid Devon to destinations east of Exeter, relieving pressure on the Exeter A30/M5 Gateway.

In recent years, Network Rail has moved away from Route Utilisation Strategies (RUS) to more tailored area focused local strategies. These include the South West Main Line (London to Weymouth), the Dorset area, the West of England Line (Salisbury to Exeter), and the Peninsula Corridor (Exeter to Penzance). However, the development of the Route Strategies provides an opportunity for the rail industry and National Highways to consider jointly whether any changes to the SRN or railway would improve connectivity and support wider local and regional policy aspirations.

Network Rail priorities include:

- increased capacity and resilience between Woking and London
- freight and passenger services, and line capacity constraints between Basingstoke and Southampton
- capacity constraints through Bournemouth, Christchurch and Poole
- addressing electrification and signalling constraints in Salisbury
- capacity constraints due to single line working on the large sections of the West of England line
- resilience and weather related events at Dawlish
- limited rail freight opportunities in the South West
- improved rail connectivity in the Exeter and Plymouth travel to work area
- improved rail connectivity between growing but isolated settlements in the peninsula

TfSE, Western Gateway and Peninsula Transport are seeking ways to integrate transport into a single network, where the SRN has a key role in connecting other transport modes through Rail Parkways and park and ride sites. Across the Local Transport Authorities, there is varying success in developing and funding transport schemes to encourage economic growth and address the forecast demand on their local network, which in turn will improve performance on the SRN.

Western Gateway and Peninsula Transport also have a shared aspiration for improving rail freight, as mentioned in the joint Western Gateway and Peninsula *Transport Freight Strategy.*[29] Whilst at present, there is limited rail freight to the South West Peninsula, there are opportunities to enhance the provision through growth of existing and recent markets, for example in aggregates, and untapped opportunities such as intermodal containers that could directly impact shift in modes of transport and the volume of vehicles on the SRN.

We also work with the operators and promoters of urban rapid transit systems where there are opportunities for better integration. For example, through the creation of park and ride sites to remove traffic from the road network.

Strategic connectivity

The SRN plays a key social and economic role in connecting England with the devolved authorities of the UK, particularly Wales and Scotland, but also, via ports, Northern Ireland. We work closely with Transport for Wales and Transport Scotland to ensure our key cross-border routes are joined up effectively with those in Wales and Scotland to ensure easy journeys for our customers.

This strategic connectivity is reflected in the Government's commitment to strengthening transport connections across the UK, guided by Sir Peter Hendy's *Union Connectivity Review*[30] published in late 2021. The report recommends the creation of UKNET, a strategic transport network spanning the entire United Kingdom. UKNET would be based on a series of principal transport corridors between key urban and economic centres, including international gateways. The findings of this report have been considered in our route strategies, particularly for our cross-border routes and roads connecting to important ports.

Within the South West Peninsula route, the A30 and A36/A46 provide onward connectivity to cross border routes into Wales via the M5, M4 and M48

International connectivity

One of the objectives of the SRN is to support the important economic activity involved in international passenger and freight movement via good connections to ports and airports. A key aspect of route strategies is ensuring that future investment continues to support these essential journeys.

The South West Peninsula route needs to be considered not only within the context of the local access it provides but also the connectivity it has to ports such as Southampton and Plymouth. The M5/A38 and A36 corridors are a vital link for tourists, hauliers and other travelers using the cross-channel ferries that connect the UK with France and Spain. Further afield, the South West Peninsula route also provides onward connectivity to Heathrow and Gatwick Airports via the M3 and M25.

29 Peninsula Transport and Western Gateway STB, *South West Freight Strategy, July 2022, Peninsula Transport website:* https://www.peninsulatransport.org.uk/wp-content/uploads/2022/07/Freight-Strategy-for-the-South-West-Full-Report.pdf
30 Sir Peter Hendy CBE, 2021, *Union Connectivity Review Final Report,* https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1036027/union-connectivity-review-final-report.pdf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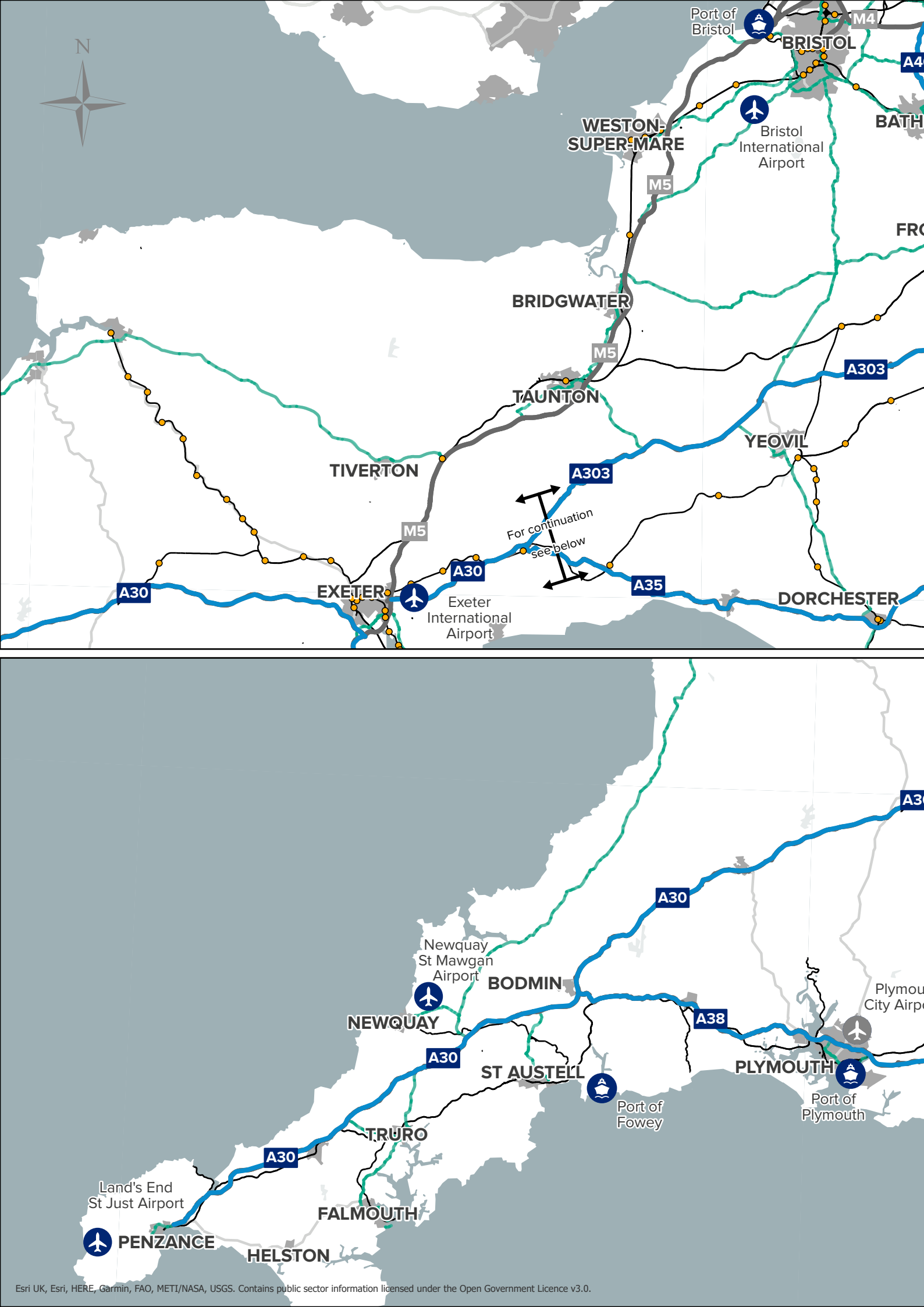


Figure 13: Network integration

* Plymouth City Airport land safeguarded in the local plan for aviation use

Challenges and issues on the route

05 Challenges and issues

We recognise that there are existing challenges and issues on the network and these are outlined against the six DfT's strategic objectives as part of the route strategy evidence base.

1. Improving safety for all

The International Road Assessment Programme (iRAP) star ratings are based on road inspection data and provide a simple and objective measure of the level of safety which is 'built-in' to the road. The higher the star rating, the safer the road. iRAP star ratings are produced for each 100-metre section of road, based on detailed inspections of roadside features as well as traffic flow, speed, pedestrian and cyclist use, and crash data.

iRAP data helps us to predict future risk within a wider Safe System approach. Safe System thinking accepts that humans will make mistakes but considers what is within the scope of our influence to limit the injuries sustained. The iRAP approach to managing future risk complements the more traditional approach of analysing historical incident data provided by STATS19 as a means of predicting future collisions and casualties.

STATS19 data are the statistical data published by the Office for National Statistics about personal-injury road traffic collisions reported to the police. STATS19 remains the most detailed, complete, and reliable single source of information on road casualties covering the whole of Great Britain, in particular for monitoring trends over time.

For the purposes of National Highways Route Strategies, the total fatal and serious injuries are aggregated by the section of road on which they occurred, based on the NTIS (National Traffic Information Service) network. The NTIS network used for displaying traffic data is the full extent of the roads for which National Highways are the highway authority. The NTIS network is modelled for each side of the carriageway, such that NTIS links are one-directional and split at junctions. The data used only includes main carriageways; slip roads, roundabouts and other types of road are not modelled in this dataset. The length of an NTIS link can vary greatly depending on what part of the network it represents. Use of the NTIS network provides a common geometry which can be used to compare the STATS19 data with network performance and other metric data.

A combination of star ratings and historic data can help us to prioritise route treatments. Where the density of incidents resulting in death or serious injury is high, and the star rating is low (poor) it indicates something can be done to prevent future collisions where people are killed or seriously injured.

Road Safety Foundation (RSF) produce maps that show the statistical risk of fatal or serious injury crashes occurring. The risk is calculated by comparing the frequency of road crashes that result in death and serious injury with how much traffic each road is carrying. For example. the risk on a road carrying 10,000 vehicles a day with 20 crashes is ten times the risk on a road that has the same number of crashes but which carries 100,000 vehicles.

Although large parts of the route, particularly motorway and dual carriageway sections of A-roads perform relatively well for safety with Road Safety Foundation ratings of 3-stars , other roads have a lower star rating. The Road Safety Foundation iRAP star rating 2020 data (Figure 14) shows that there are multiple sections of the route that have a safety rating of 1 and 2-star. The 1-star designations on the route tend to correlate with the older single carriageway sections of roads on the A46, A36, A31, A35, A303, A30 and A38. The sections with 1-star safety rating include:

- A46 – Upper Swainswick to M4 J18
- A36 – Bathampton to Fisherton de la Mere (excluding Upton Lovell); Stapleford to Stoford; Petersfinger; Alderbury to Landford; A36 / A3090 Junction to A36 / M27 Junction
- A35 – Dorchester to Honiton (except some shorter sections at by-passes and dual carriageways, which are 2-star)
- A31 – Colehill and Stapehill; Wimborne to Bere Regis; Ameysford to Canford Bottom
- A303 – Winterbourne Stoke; near Stockton Wood; Hindon to Mere; South Petherton to Newtown; Marsh to Upottery
- A30 – Upottery Marsh to Honiton; Bolventor; Carland Cross to Chiverton (RIS2 funded Major Improvement scheme is under construction); Roseworthy to Connor Downs; Whitecross to Long Rock
- A38 – Carkeel to start of dual carriageway to Liskeard; Doublebois to Turfdown Road (Glynn Valley)

STATS19 data for the period 2015-2018 (Figure 15) shows the sections of the route where people have been killed or seriously injured. Review of this data highlights the following sections of the route where collisions have resulted in higher numbers of people being killed or seriously injured:

- A35 – Axminster to Wilmington
- M3 – Junctions 2 to 3 and 8 to 9 (The collision data is for the period 2015 to 2018, a significant portion of which pre-dates the completion of the all lane running smart motorway scheme on the M3 Junction 2 to Junction 4A, which was opened to traffic 30 June 2017)
- A303 – Mere to A350
- A31 – New Forest, M27 Junction 1 to Picket Post; Merely to Bere Regis
- A30 –Upottery (A303) to Honiton
- A38 - Bodmin to Dobwalls

Improving safety and minimising collision rates is a key consideration for all our routes

The STATS19 data shows the following sections of the route with higher percentage of collisions resulting in walkers, cyclists and horse riders being killed or seriously injured:

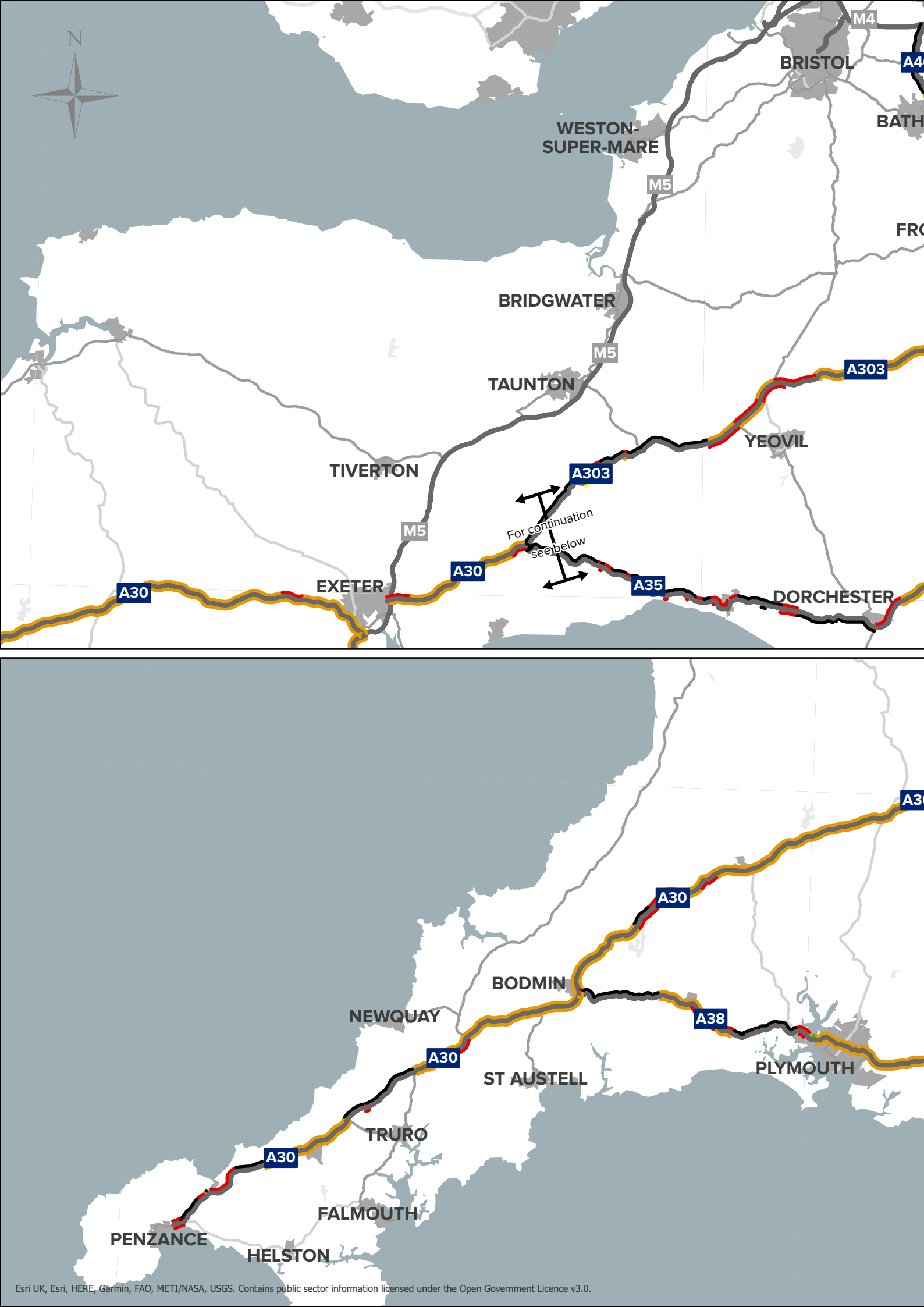
- A36 – between M27 and A303
- A30 – Upottery to Exeter; Bodmin to Penzance
- A35 – Dorchester to Penn
- A31 – Bere Regis to M27 Junction 1

In relation to motorcyclists, RSF data shows that the following sections of the route have a record of higher densities of fatal and serious crashes involving motorcyclists only:

- A38 – Carkeel to Plympton
- M3 – Winchester to M27
- A35 –Bere Regis to Dorchester
- A31 – Cadnam to Ringwood
- A38 – Carkeel to Bodmin (Carminnow Cross)

Key challenges

- The route performs relatively well for safety but there are sections of route which has either a lower safety rating or people have been killed or seriously injured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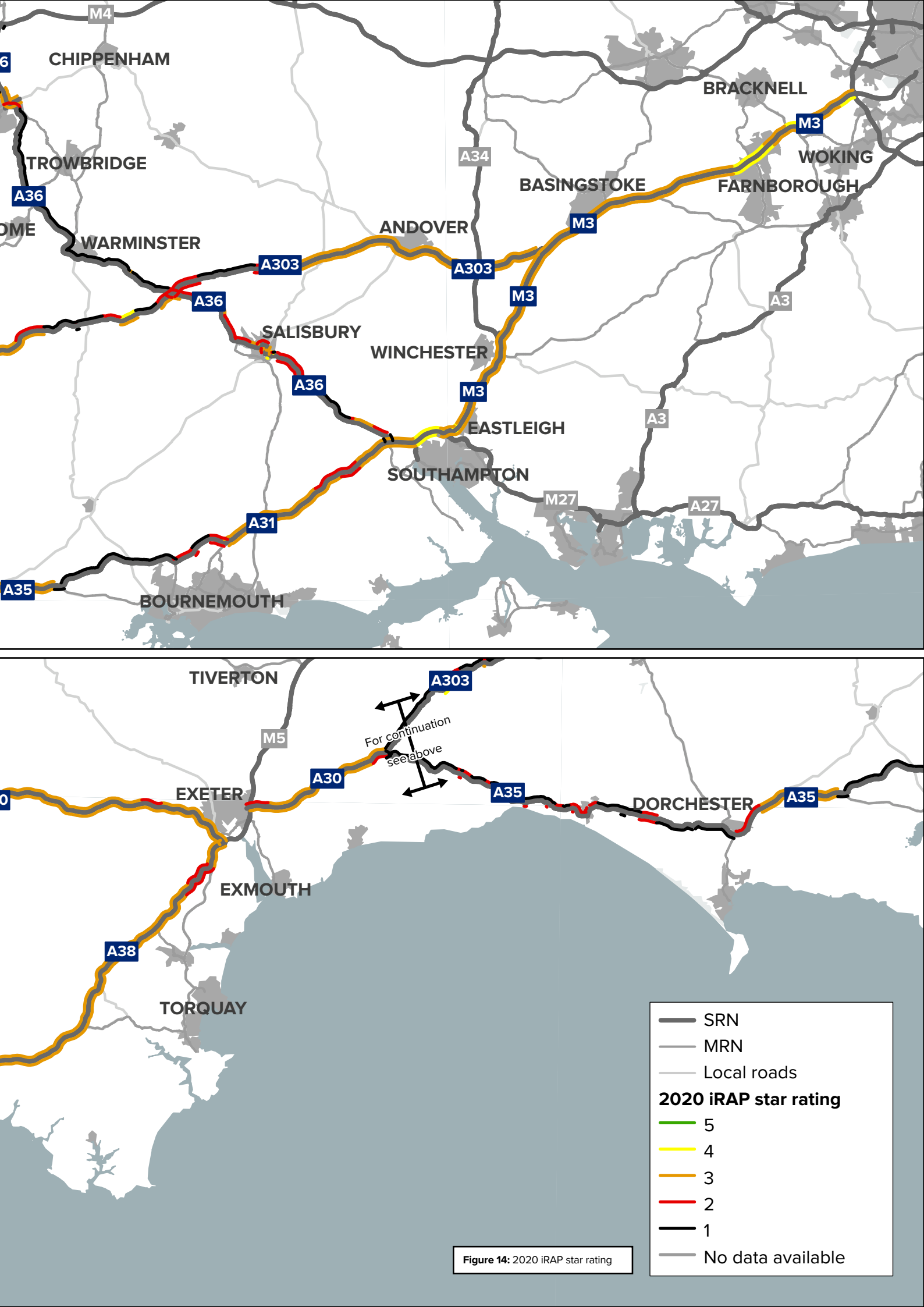
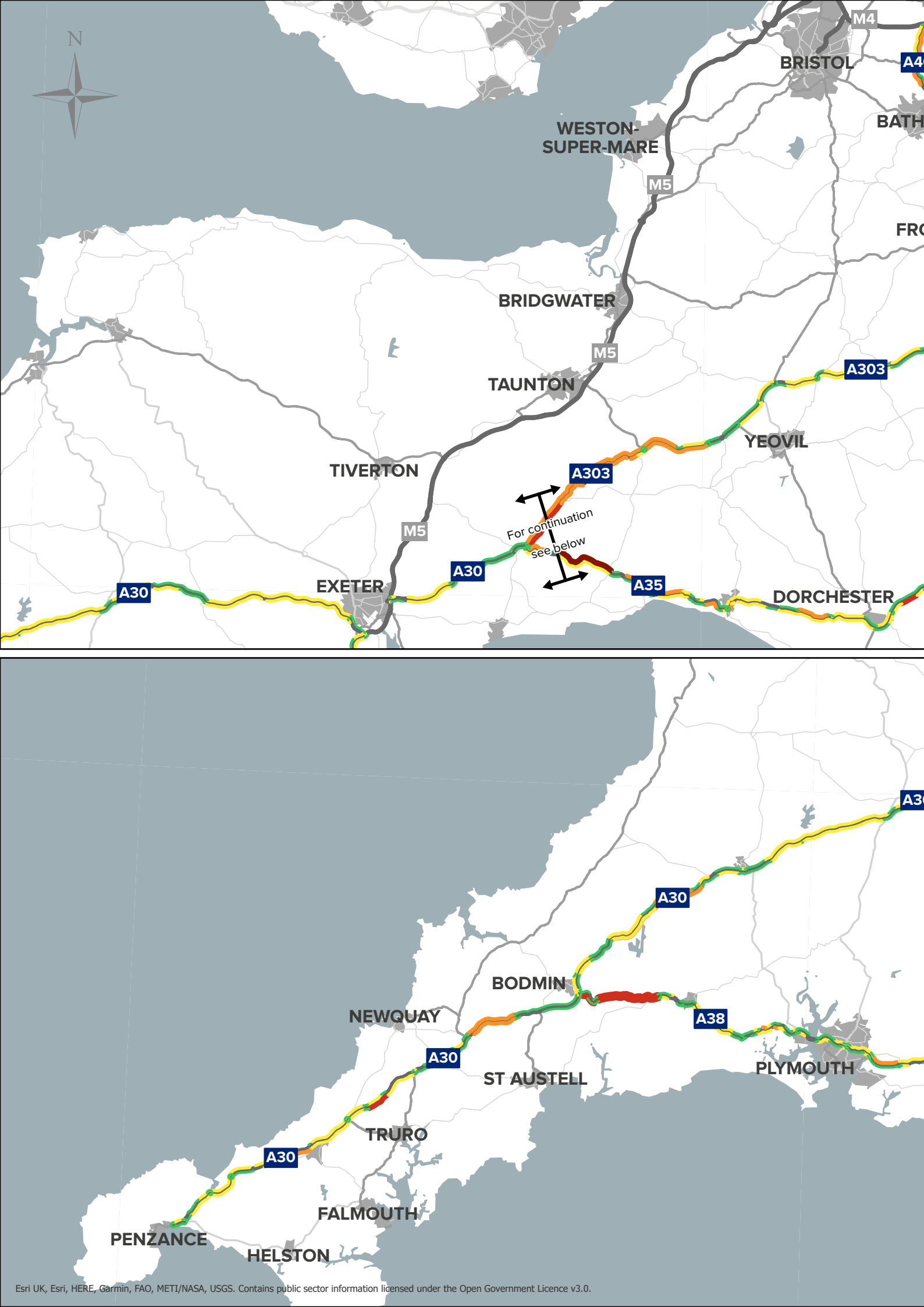


Figure 14: 2020 iRAP star rating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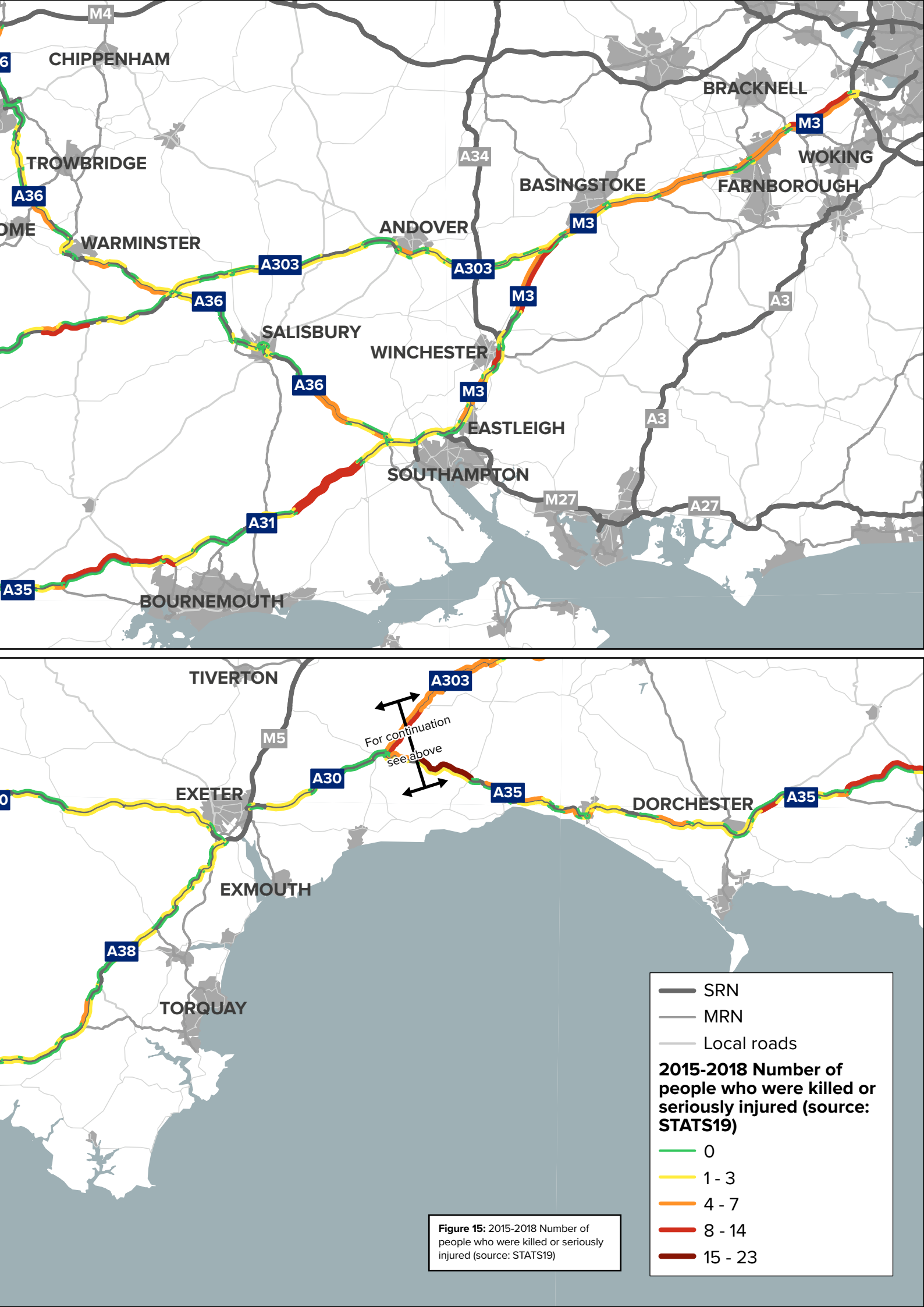


Figure 15: 2015-2018 Number of people who were killed or seriously injured (source: STATS19)

2. Network performance

Network performance is measured by average peak period delay in the morning or afternoon, seasonal delay, and journey time reliability. Many sections of the South West Peninsula route experience one or more of these types of delay.

The majority of the South West Peninsula route performs well in terms of average morning peak period delay (Figure 16), however, notable locaions which experience longer morning peak period delay include:

- A303 Winterbourne Stoke (14 seconds per vehicle per mile (seconds pvpm) and Amesbury (19 seconds pvpm)
- A31 Junction with A350 to Ameysford (38 seconds pvpm)
- A35 westbound approach to East Road roundabout, Bridport (16 seconds pvpm west bound) and A35 eastbound approach to Monkeys Jump roundabout, Dorchester (21 seconds pvpm westbound)
- A36 Salisbury (37 seconds pvpm southbound)

We want to improve journey times on route sections which currently experience high levels of delay and are expected to worsen in the future

- A46 northbound approach to Cold Ashton roundabout A420 (41 seconds pvpm)
- A38 Plymouth, westbound approach to Tamar Bridge (32 seconds pvpm)
- A30 Cornwall westbound approach to Chiverton Cross roundabout (48 seconds pvpm). (RIS2 major improvement scheme under construction); westbound approach to Long Rock, Penzance (14 seconds pvpm)

Average peak period delay is measured in seconds per vehicle mile and is the difference between average delay in the morning or afternoon peak period and the average delay during free flow conditions.

Seasonal delay refers to the difference between the average afternoon peak delay for Fridays in August 2019 (high demand in summer holidays) and the average delay during very low demand periods (in this case, Christmas day is used). This measure is designed to reflect the parts of the network that do not appear to have a problem on average over the year but have seasonal peaks.

Seasonal delay is of interest to tourist traffic, particularly people travelling to airports, or other destinations where arriving later than intended could have significant implications.

Reliability is the difference between the typical travel time, allowing for average peak period delays, and the observed travel time. This measures the amount of variation due to unexpected variations or unplanned events. Like delay, it is measured in seconds per vehicle mile. It is a concern for most drivers, but particularly affects just-in-time freight traffic and other strategic journeys.

During school holidays and weekends the South West Peninsula route sees heightened demand due to increased leisure journeys to the many holiday destinations and tourist attractions located across the route. Interested Parties have also indicated that seasonal delay has a notable impact between Easter and October. Sections of the route subject to seasonal delay include:

- M3 Junction 3 (Lightwater) (70 seconds per vehicle per mile (pvpm) westbound)
- M27 Junction 3/ M271 eastbound (69 seconds pvpm)
- A31: Ringwood (191 seconds pvpm westbound) and Ferndown to Canford (82 seconds pvpm westbound)
- A36: Salisbury (130 seconds pvpm southbound); Monkton Coombe (64 seconds pvpm southbound); Beckington (86 seconds pvpm southbound); (82 seconds pvpm westbound)
- A35: Dorchester (143 seconds pvpm westbound); eastbound approach to Bridport (171 seconds pvpm); eastbound approach to Chideock (126 seconds pvpm)
- A303 westbound approach to Stonehenge (337 seconds pvpm); Winterbourne Stoke (121 seconds pvpm eastbound); Podimore to Sparkford (86 seconds pvpm eastbound); Chicklade (78 seconds pvpm westbound)
- A30: Honiton to Upottery (68 seconds pvpm eastbound); Exeter (39 seconds pvpm eastbound to J31 M5); Zelah to Carland Cross (108 seconds pvpm eastbound); Crowlas to Long Rock roundabout (76 seconds pvpm westbound)

In relation to the reliability, the South West Peninsula route generally performs well. However, there are sections of the route which are prone to have less reliable journey times at:

- A303: westbound approach to Stonehenge (31 seconds pvpm); Winterbourne Stoke (12 seconds pvpm eastbound); Podimore (12 seconds pvpm eastbound)
- A31 north of Poole & Bournemouth (11 seconds pvpm eastbound)
- A36 at Salisbury (33 seconds pvpm southbound)
- A35 Bridport (17 seconds pvpm westbound)
- A38: Plymouth, westbound approach to Tamar Bridge (9 seconds pvpm); Saltash eastbound approach to Carkeel roundabout (12 seconds pvpm)
- A30: Zelah between Chiverton and Carland (10 seconds pvpm eastbound) (a RIS2 major improvement scheme is under construction); westbound approach to Hayle, Loggans Moor roundabout (8 seconds pvpm)

There are minimal delays along large sections of the route with good reliability on the SRN, including along the A30 between Bodmin and Exeter, the A38 between Plymouth and Exeter and the M3 between Winchester to Lightwater (Junction 3).

National Highways has a suite of five regional traffic models (RTMs) covering England's SRN. The models allow us to identify future performance and delay on the network, assisting with the development of the route strategies. The RTM models use projected growth, expected trends and changes to the network (including National Highway's RIS2 schemes) to forecast the performance of the network in 2031.

Whilst some parts of this route will see improved performance and reduced delays as a result of RIS2 investment in major schemes at places such as A303 in Somerset, A31 Ringwood and A30 in mid Cornwall, route performance is projected to decline in the future, with increases in traffic, population and housing growth. Forecasts suggest that the greatest morning peak delay increases (Figure 17) are predicted at the following locations:

- M27 westbound between Junctions 2 and 3 (19 seconds pvpm)
- A36 at Salisbury, predicted delays of up to 139 seconds pvpm northbound
- A30 St Erth, predicted delays of up to 57 seconds pvpm eastbound
- A31 Canford to Merely, predicted delays of up to 87 seconds pvpm westbound
- A35 westbound approach to Dorchester is predicted to experience up to 64 seconds pvpm delay
- To the west of Plymouth the A38 will experience delays around Saltash and between Bodmin and Dobwalls. The eastbound approach to Tideford is predicted to experience delays of up to 185 seconds pvpm

Limited technology provision across the route makes it more difficult to manage disruptive incidents and communicate information to drivers. Issues can be particularly difficult during times of increased demand, such as bank holidays and school holidays.

The lack of less suitable and some long diversion routes, on some sections of the route, means that incidents can create disruption on the local road network. Some diversion routes are less suitable for heavy goods vehicles, which can result in secondary impacts in the form of increased congestion, reduced air quality and increased noise.

For the majority of the route, heavy goods vehicles comprise around 6-10 % of daily traffic.

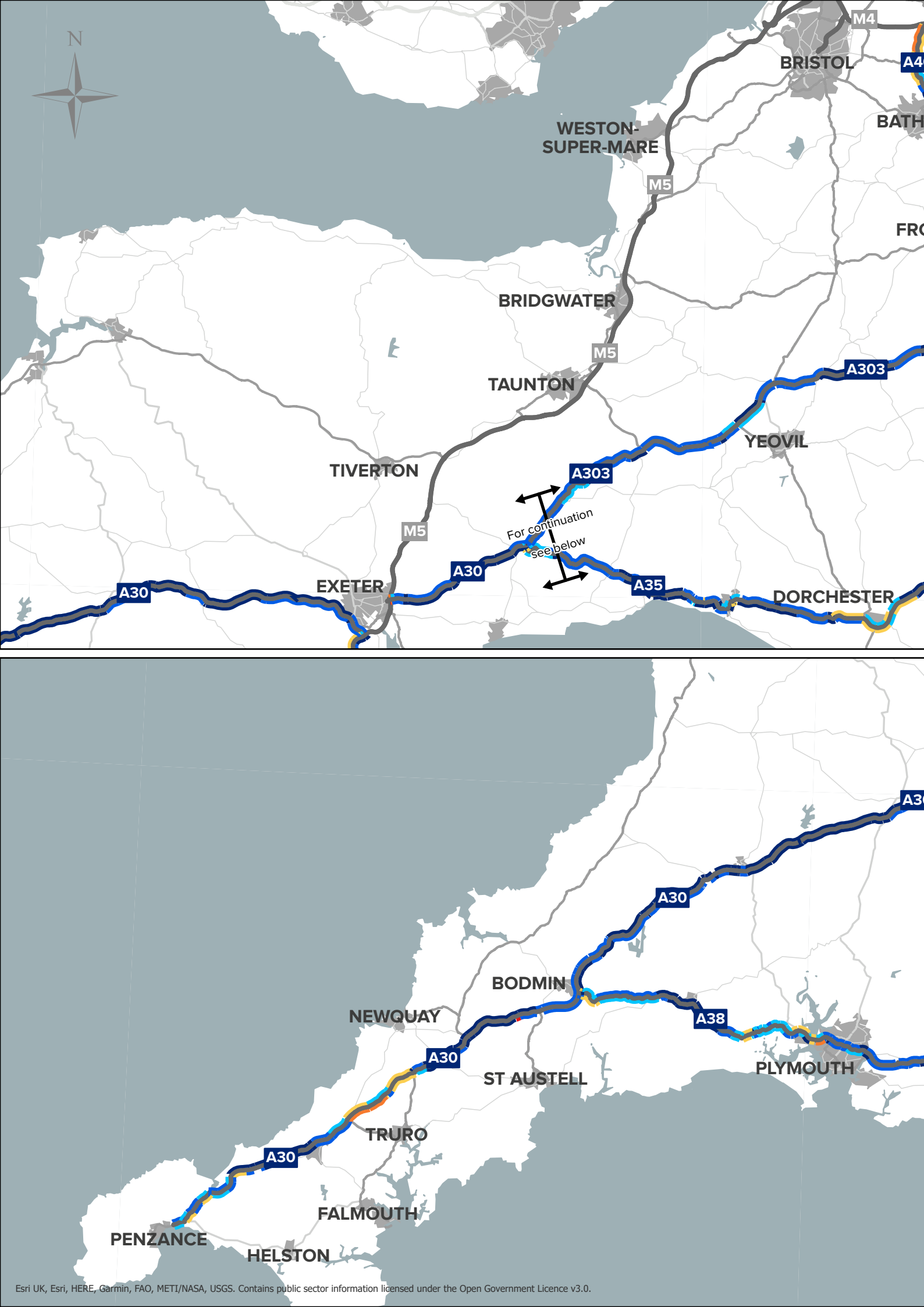
Sections of the route, including the M3 in Surrey, the M27 around Southampton and the A30 between Exeter and Bodmin experience marginally higher percentage of daily heavy goods vehicle traffic, of between 11-15%.

Sections of the route with lower heavy goods vehicle usage of under 6% include the A36 between Warminster and the A303 and the A30 between Exeter and Ottery St Mary and west of Truro.

Key challenges

The route sees significant demand during holiday periods with seasonal delay impacts in particular on the A303, A35 and A30. The route is generally free flowing and reliable but there are sections which are more prone to peak period delays and having less reliable journey times on the A31 north of Poole and Bournemouth, the A303, the A35 at Dorchester, the A36 at Salisbury and the A46 north of Bath

Route performance is projected to decline in the future with additional delays including the A36 at Salisbury, A38 west of Plymouth, A30 between Camborne and Penzance and the M27 north of Southampton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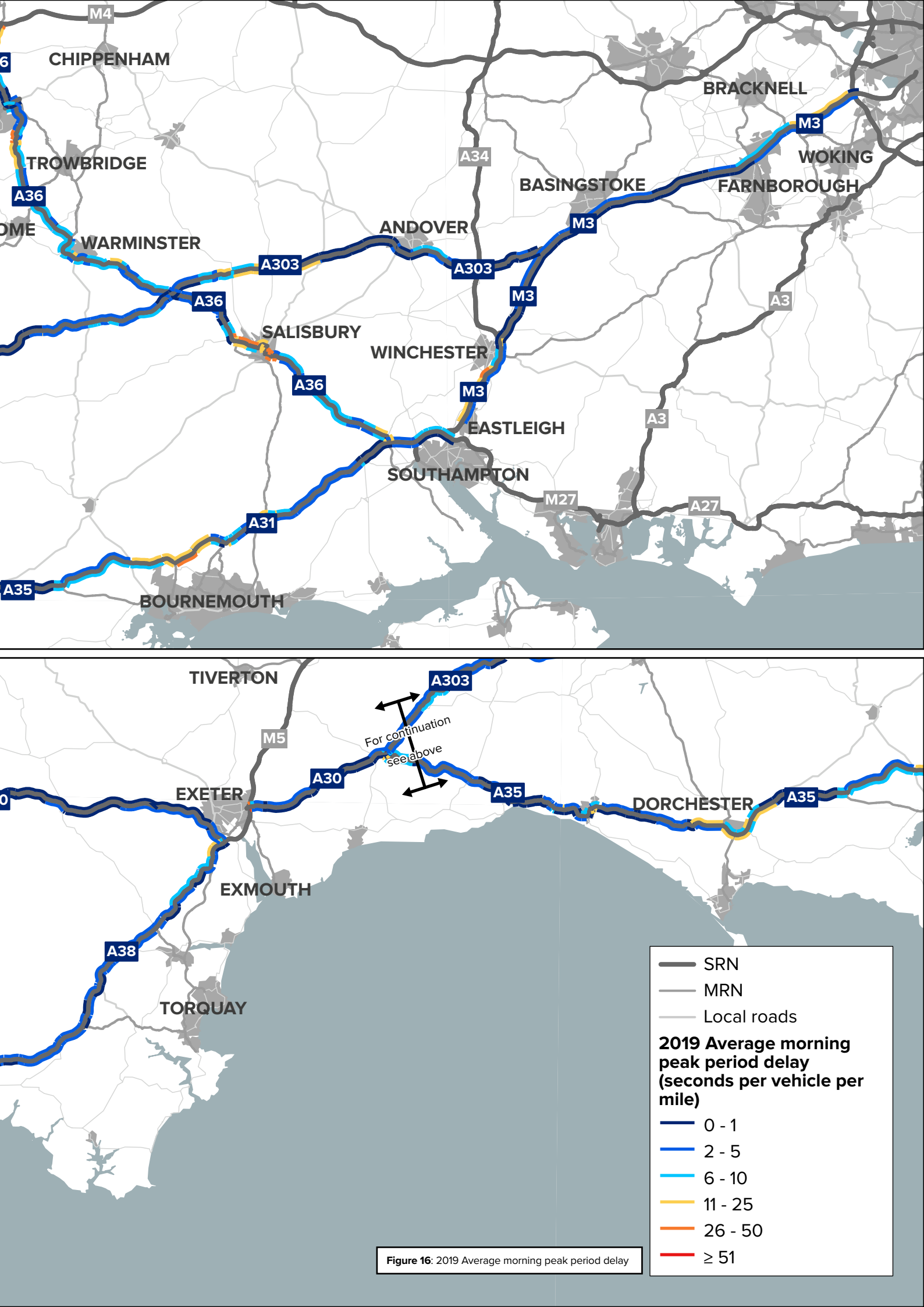
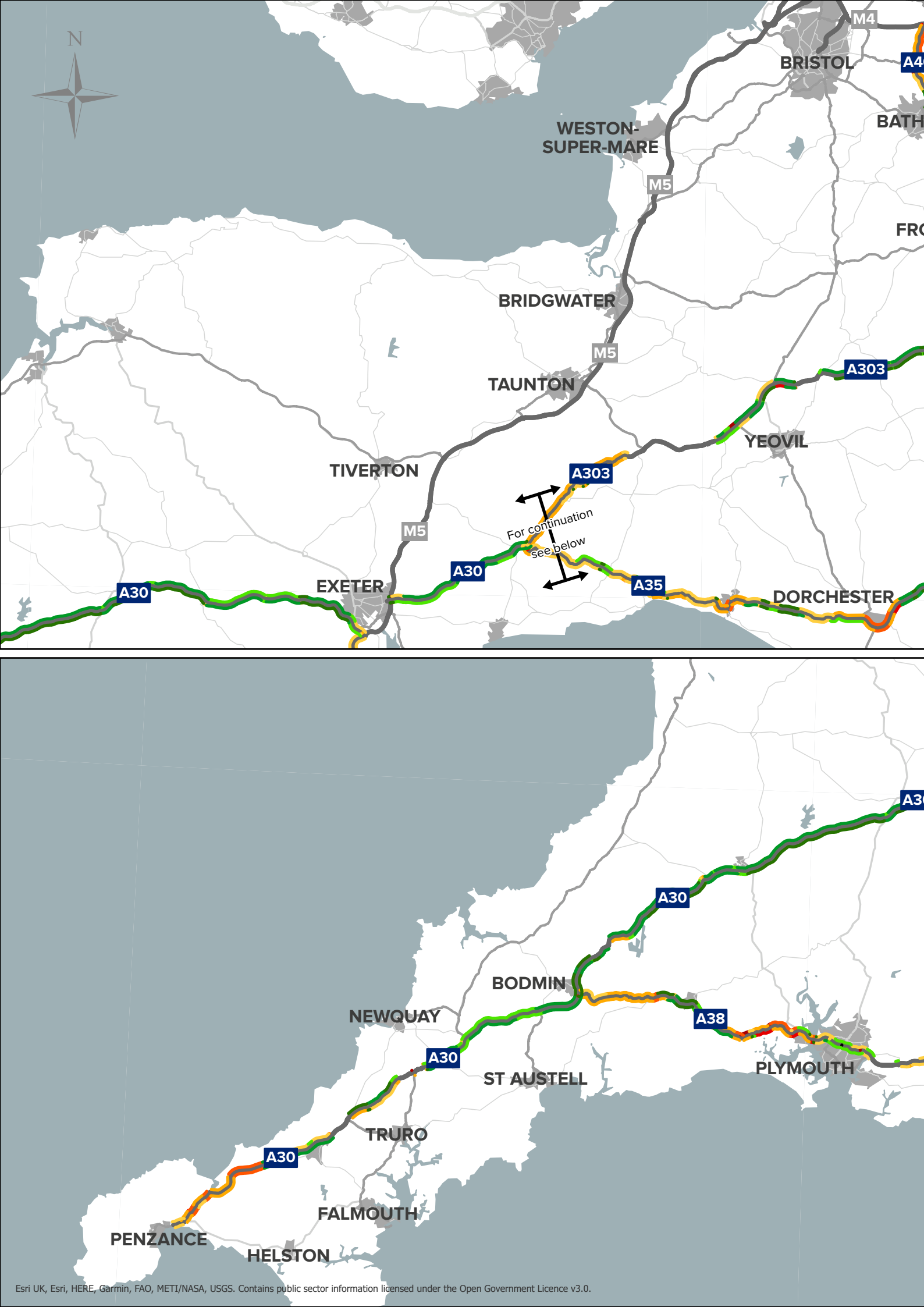


Figure 16: 2019 Average morning peak period delay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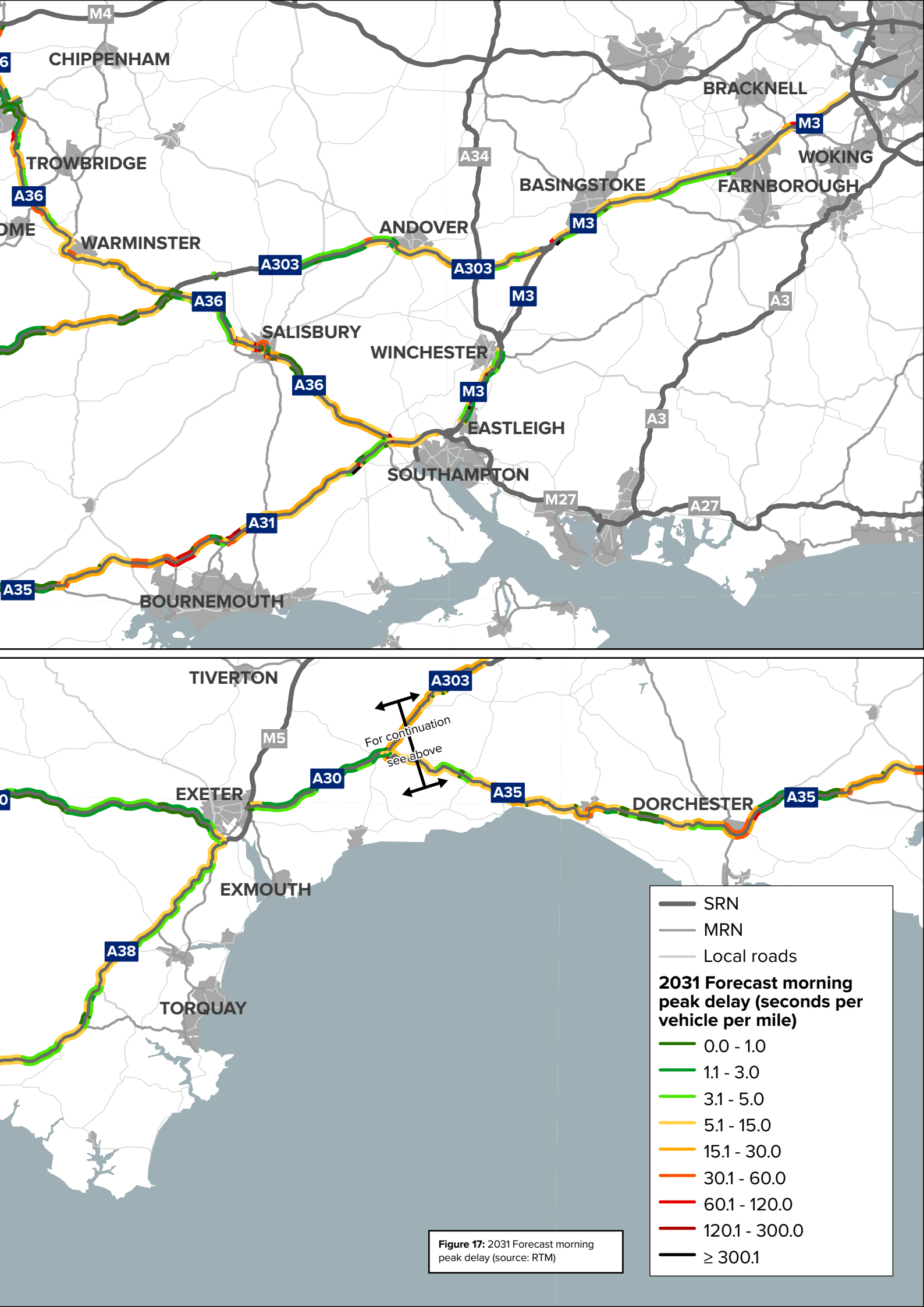


Figure 17: 2031 Forecast morning peak delay (source: RTM)

3. Improved environmental outcomes

Climate change is affecting society as a whole, and the transport sector is no exception. As the Government owned company tasked with building and maintaining the SRN, we need to show both how we can help tackle the causes of climate change and how we are preparing for a changing climate. In 2021 we published our *Net zero highways plan*[31] to show how we will meet the target of net zero greenhouse gas emissions.

The latest climate projections from the Met Office have helped us to understand how the climate is changing, including that summers will on average be hotter and drier, while winters will be milder and wetter and critically, that extreme weather will become more common. We have also seen, from reports such as the Climate Change Committee's third and most recent *Independent Assessment of UK Climate Risk*[32] that there are key risks from a changing climate for infrastructure, such as risks to bridges from flooding and erosion and risks to subterranean and surface infrastructure from subsidence.

Where possible we will seek to protect environmentally important locations and reduce air quality and noise impacts on communities served by the route

Sections of the route currently considered to be at risk of flooding from surface water include:

- M27 west of Eastleigh
- A303 north of Yeovil
- A36 West of Salisbury
- A35 Dorchester, west of Axminister and Winterbourne Abbas

Air quality describes how polluted the air we breathe is. Poor air quality can cause both short-term and long-term effects on the health of humans and other living beings. The amount of air pollution depends on the concentrations of different substances in the atmosphere, such as sulphur dioxide, oxides of nitrogen, and particulate matter. In the UK, the concentrations of these pollutants are regulated and regularly monitored. If a local authority identifies any locations within its boundaries where targets are not being achieved, it must declare an Air Quality Management Area (AQMA) and put together a plan to improve air quality in that area.

While noise is often an inevitable consequence of societal activities, it can have serious implications for human health, quality of life, economic prosperity and the natural environment. Elevated levels of noise, particularly from traffic, can be associated with heart attacks, strokes and hearing impairment, as well as sleep disturbance and annoyance. While there's no legal limit to road noise, environmental noise regulations in the UK require regular noise mapping and the creation of action plans for Noise Important Areas (areas exposed to the highest levels of noise).

Severance is where transport infrastructure or motorised traffic passes through settlements and acts as a physical or psychological barrier, limiting people's ability or desire to move through that area. This can reduce accessibility to key services, and damage local social networks and community cohesion.

31 National Highways, *Net zero highways: our 2030 / 2040 / 2050 plan*, https://nationalhighways.co.uk/media/eispcjem/net-zero-highways-our-2030-2040-2050-plan.pdf
32 Climate Change Committee, 2021, *Independent Assessment of UK Climate Risk*, https://www.theccc.org.uk/publication/independent-assessment-of-uk-climate-risk/

- A31 south of Wimborne Minster and Ringwood
- A30 Launceston and Penzance area

We are committed to net zero carbon construction by 2040 and net zero carbon travel by 2050. This will involve significant changes to the way we build and manage our network, including on the South West Peninsula route. In the future, we will need to consider better integration with other transport modes and how to support the transition to electric cars and zero carbon heavy goods vehicles (HGVs).

The route has significant ecological, cultural and environmental assets. Sections of the route run near or through several National Parks and Areas of Outstanding Natural Beauty (AONB) including the South Downs National Park, New Forest National Park, Cranborne Chase AONB, Cotswolds AONB, Dorset AONB, Blackdown Hills AONB, East Devon AONB and Dartmoor National Park. The A36, A46, A303, A35, A31, A30 and A38 run near or through the following UNESCO World Heritage Sites: Bath, Stonehenge, the Dorset and East Devon Coast and the Cornwall and West Devon Mining Landscape.

In terms of air quality, there are receptors within 100 metres of the SRN which may be more likely to experience adverse air quality impacts at the following locations:

- M3 – Lightwater to Farnborough; Basingstoke; Winchester to Eastleigh
- A303 – Andover; Wincanton to Leigh Common
- A36 – West Wellow to Plaiford; Salisbury; Bathampton
- A35 – Dorchester; Winterbourne Abbas; Bridport to Bothenhampton; Chideock
- A31 – Ringwood to Poulner; St Ives to St Leonards
- A30 – Honiton; Stourscombe; Redruth to Camborne; Hayle; Crowlas
- A38 – Ashburton; Buckfastleigh to Higher Dean; Wrangaton to Lee Mill; Eggbuckland; Honicknowle; St Budeaux; Saltash; Landrake; Liskeard

Air Quality Management Areas (AQMAs) have been declared at several locations across the route. Examples of larger AQMAs that are particularly significant to the route are situated in Bath, Salisbury, Winchester, Eastleigh, Southampton, Plymouth and on the A30 between Cambourne and Redruth. Smaller AQMAs have also been designated in communities such as Tideford on the A38 and Chideock on the A35.

The South West Peninsula route also passes near the Clean Air Zone (CAZ) in Bath which has been operational since March 2021.

There are receptors within 300 metres of the SRN which may be more sensitive to high noise levels at the following locations:

- M3 – Lightwater to Farnborough; Basingstoke; Winchester to Eastleigh
- A303 – Andover
- A31 – Ringwood and Ferndown
- A38 – Ivybridge

Noise Important Areas (NIAs) for roads are based upon the Department for Environment, Food and Rural Affairs (DEFRA) strategic noise maps results and have been produced in line with the requirements set out in the noise action plans. Examples of NIA locations include:

- M3 – Camberley and Farnborough; Basingstoke; Winchester and Eastleigh
- A36 - Salisbury
- A36/A46 - Bath
- A35 – Chideock
- A31 - Ringwood
- A30 - Honiton and Redruth to Cambourne; Canonstown; Crowlas
- A38 - Manadon in Plymouth; Saltash

On more rural sections of the route, the SRN frequently interacts with local communities including paths used by walkers, cyclists and horse riders. Several National Cycle Network paths interact and connect into the route, along with various public footpaths and bridleways which either run parallel or directly cross the SRN.

The National Cycle Network (NCN) that interacts with the route includes:

- NCN 23 with the M3 at Basingstoke
- NCN 23 with the M27 to connect Southampton, Winchester and beyond
- NCN 2 with the M5 to connect South East Exeter with Exmouth
- NCN 327 with the A30 near Launceston (severance)
- NCN 27 and NCN2 with the A38 east of Plymouth
- NCN 267 with the A35 at Bridport
- NCN 26 with the A35 at Dorchester

The routing of the SRN through local communities can cause severance for residents where the road acts as a barrier restricting accessibility by active modes of travel such as Crowlas (A30), Chideock and Wilmington (A35), Tideford (A38), Salisbury (A36).

Regular public bus services use sections of the route, providing a vital link between dispersed rural communities and larger towns. The South West Falcon Stagecoach inter-urban coach service, for example, runs a frequent daily service between Plymouth and Bristol (Airport and City Centre). The South West Falcon is routed via the A38 and M5 with up to 19 services per day.

The following park and ride (P&R) sites are located near the South West Peninsula route. These are:

- Petersfinger park and ride in Salisbury (accessed from the A36)
- Dorchester park and ride near Dorchester West Station (accessed from the A35)
- Sowton park and ride near Digby & Sowton station in Exeter (accessed from the M5 J30)
- Honiton Road park and ride in Exeter (accessed from the M5 J29/A30)
- Matford park and ride in Exeter (accessed from the A38/A379)
- Coypool park and ride to the east of Plymouth (accessed from the A38)
- St Erth park and ride at St Erth railway station (accessed from the A30)

There is an opportunity to better integrate the route with the local highway and the major road network. On the trunk road sections of the route, there are issues with the consistency and navigability of junction layouts.

Key challenges

- Maintaining and protecting natural environmental assets and cultural heritage assets
- Reduce adverse air, noise and severance impacts on communities
- Minimising greenhouse gas emissions
- Building resilience to future climate change

4. Growing the economy

In order to understand the economic and housing growth aspirations of the area along the route we have considered key growth locations, such as those held in local plans and Freeports.

The route supports both east-west and north-south travel across the South West of England. The route therefore has a critical economic function in supporting the priorities of the three Sub-national Transport Bodies; Transport for the South East (TfSE); Western Gateway and Peninsula Transport. Furthermore, as the extent of the route incorporates both the South West and parts of the South East of England, it therefore, encapsulates different levels of economic activity across different economic sectors.

Along the route there are an array of major economic growth aspirations and priorities which are highlighted in the Strategic Economic Plans produced by respective Local Enterprise Partnerships (LEPs). There are eight LEPs across the route; each one represents a locally owned partnership between businesses and local authorities and are responsible for determining the key economic priorities in the area and driving economic growth and job creation[33]. The LEPs across the route include Enterprise M3, Solent, Dorset, Swindon and Wiltshire, West of England, Heart of the South West and Cornwall and the Isles of Scilly. Each LEP has produced a Strategic Economic Plan which details the major economic aspirations and priorities for growth. The key growth sectors across the route include advanced manufacturing, tourism and leisure, distribution and logics, and communication technologies and a number of growth zones have been identified along the route where there are several identified clusters of economic activity and significant capacity for supporting future growth[34].

> The SRN has a critical economic function in supporting national and cross-border connectivity and areas with high levels of deprivation

There are a number of towns and cities across the route. Areas that are expected to experience major economic growth include Southampton in particular expansion of the Port of Southampton and a potential runway expansion of Southampton Airport. Other areas of growth in Hampshire include mixed use development proposals around the M3 in the north west of the county at Farnborough and Basingstoke and planned residential developments in Winchester at the southern end of the M3.

Housing growth is planned for East Dorset including the Bournemouth, Christchurch and Poole urban area, in particular around the A31. Similarly, Plymouth is expected to see housing growth through the form of urban regeneration, urban extensions, and a new community in Sherford. Housing growth is also planned for Newton Abbott and Torbay, areas heavily dependent on the A38 and M5 for connectivity although located away from the SRN.

Significant residential developments in the form of garden communities are planned at Dorchester, Exeter, West Carglaze and St Austell. Enterprise Zones are designated at East Devon, Hayle, Falmouth, Newquay, Goonhilly and Plymouth.

33 Solent LEP website, https://solentlep.org.uk/who-we-are/
34 Swindon and Wiltshire LEP website, https://swlep.co.uk/our-advantage/growth-zones

A number of Freeport sites are also proposed around Plymouth along with developments associated with the marine industry such as Oceansgate which will further drive economic growth in the maritime sector in the Plymouth and South Devon area.

The importance of the Route's tourism sector is highlighted in the *Great South West Tourism Partnership Prospectus*[35] where the South West holiday destinations of Cornwall, the Isles of Scilly, Devon, Dorset and Somerset comprise the largest staying UK visitor market (outside London). In 2019, prior to the Covid-19 pandemic these destinations generated an annual visitor spend of £7.1 billion. By 2030, with the appropriate investment and support the visitor economy in the region could generate a tourism spend of £9 billion each year.

Across the route some of the areas with the highest levels of employment (more than 60% of the population) are located on the M3 (near Farnborough and Basingstoke); the A303 (near Salisbury plain and Ilchester) and on the A30 (between Exeter and Exmouth; Lizard Peninsula in West Cornwall).

Some communities along the route are heavily reliant on the SRN and the private car for journeys to support their livelihoods. The areas across the route where employment is most greatly reliant (more than 3.5%) on the SRN are found on the M3 (near Eastleigh); the A31 (near the New Forest) and the A38 (Plymouth).

Indices of Multiple Deprivation (IMD) data shows several locations on / near the South West Peninsula route that are within the top 10% of deprived areas in the England. These include parts of Southampton, north and east Bournemouth, Yeovil, Trowbridge, Torquay, Paignton, parts of Plymouth, Saltash, Liskeard, Bodmin, St Austell / Par, Newquay, Redruth, Camborne and Penzance / Newlyn.

The index of priority places for levelling up fund places local authorities into categories 1,2 or 3, depending on their identified level of need, with category 1 representing places deemed in most need of investment through this Fund. For the South West Peninsula route examples of areas categorised as level 1 include:

- Mendip
- Torbay
- Torridge

Key challenges

- Accommodate future demand flows on the network to facilitate sustainable economic growth
- The route provides critical connectivity for the South West peninsula. Local economic activity is impacted by seasonal increases in traffic, unreliable journey times and delay

35 England's Great South West Tourism Partnership, *Towards 2030 Reimagining the Visitor Economy in the South West:* https://heartofswlep.co.uk/wp-content/uploads/2021/07/Towards-2030-Reimaging-the-Visitor-Economy-in-the-South-West.pdf

5. Managing and planning the SRN for the future

Maintaining the strategic road network

We deliver a comprehensive programme of maintenance to keep our assets in the right condition to provide our customers with the right level of service; ensuring that the road network remains safe and fully open for use. We collect data on the condition of all of our assets so that our teams of specialist engineers can fully understand their current condition and identify the optimum time to intervene, maintaining the asset and replacing parts before they fail and impact customer journeys.

Our asset inspections to collect much needed condition data are undertaken through a number of methods - survey vehicles collecting road surface condition for the whole of the network every year right through to structures inspections, where we undertake over 23,000 inspections of individual structures every two years. The majority of our asset routine maintenance activities and the replacement of thousands of asset components as they near end of life are undertaken at night to minimise customer disruption, meaning that most of this work is never seen.

Road surface

The measure for road surface condition has been updated for 2022/23 onwards. The condition is reported as one of our Key Performance Indicators (KPI3) and shows the condition of all available lanes of the main carriageway (excluding DBFO lengths) based on 3 elements of the road surface condition namely - the levels of surface rutting (caused by wheel tracks being formed in the surfacing), skid resistance (how slippery the road is) and longitudinal profile (how bumpy the road feels) with a target of 96.2% or more in good condition. At the time of publication, the road surface had a score of 96.7% in good condition, thereby meeting the national surfacing condition target.

This route consists of approximately 2250 lane-km of road surfacing. The surface condition across the route is considered to be sound, with 98% of pavement asset not requiring investigation for possible maintenance.

Bridges and structures

There are 1504 structures across the route, including bridges and large culverts. According to an analysis of current data, 93% of our structures are in very good or good condition. By carrying out inspections of each individual structure every two years, we identify any defects that may require maintenance, thereby helping to ensure that structural components are replaced before they fail.

Figure 18 below shows how investment in this route has improved the average condition scores of structures, since 2006. The average condition score is derived from asset inspections on structural components, accounting for the relative importance and size of each component. If no maintenance or renewals were planned, the scores would be expected to decline from 100 (perfect) as the structures decline over time. We have a rolling renewals programme to replace asset components identified in our inspection programme, improving the structure condition to ensure all structures remain in a safe condition and fully open for use.

We have identified significant structures renewals for RIS3, and these schemes affect 13 structures in this route.

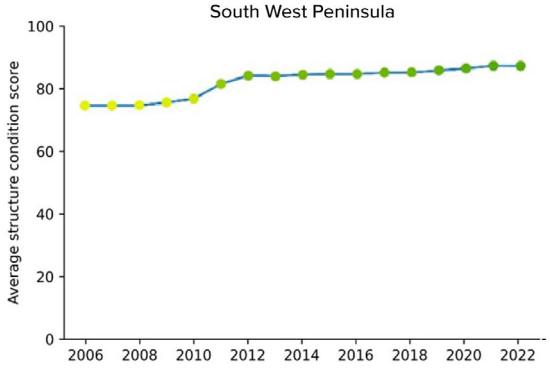


Figure 18: Average condition scores of structures, since 2006

Drainage

Drainage assets are represented by both linear assets (for example underground pipes, channels, ditches, drains) and nonlinear assets (for example gullies and chambers). At national level, 90% of the drainage assets are in good structural condition and 87% are in good service condition.

Geotechnical Features

The geotechnical asset, comprising over 12,000km of earthworks embankments and cuttings carrying the road network is assessed through a programme of inspections and rated for its ability to provide the right level of safe functionality. The condition assessment of this asset is that 99.61% is in good condition to continue to function correctly. We use the inspection surveys to identify where any of our geotechnical features may require maintenance now or in the future, to ensure they are never at risk of failure.

Future developments

We have been transforming our approach to maintenance through our Operational Excellence and Asset Management Transformation Programmes. Bringing our key asset maintenance decision making and planning activities back in-house so that our own staff are responsible for planning maintenance activities, along with improving the consistency of our end to end maintenance and asset replacement programmes will bring significant benefits. Our asset management transformation also includes the improved analysis to identify the investment required on the strategic road network during the next road period. The business case will provide evidence to support future maintenance investment, clearly articulating the costs and benefits of delivering an effective maintenance and asset replacement programme.

Operations

We are establishing a nationally consistent approach to the management of our operational capability through our Operational Excellence change programme. This will deepen our understanding of how our interventions impact on the performance of the network and on the journeys of our customers. We are using the latest analytical software to process traffic data and gain insight into:

- how our operational services can improve safety and provide security to road users
- how the attendance of a traffic officer has an impact on incident durations
- how information provided by National Highways can benefit road users who plan their journeys beforehand and while on their journeys

By better understanding our current operational performance, we can create a baseline from which we can identify opportunities for improvement.

Key challenges

- Contributing toward the national target of 96.2% or more of carriageway being in good condition
- Maintaining the good condition of the SRN's geotechnical assets
- Ensuring that drainage assets are maintained so that their good structural and service conditions can be upheld

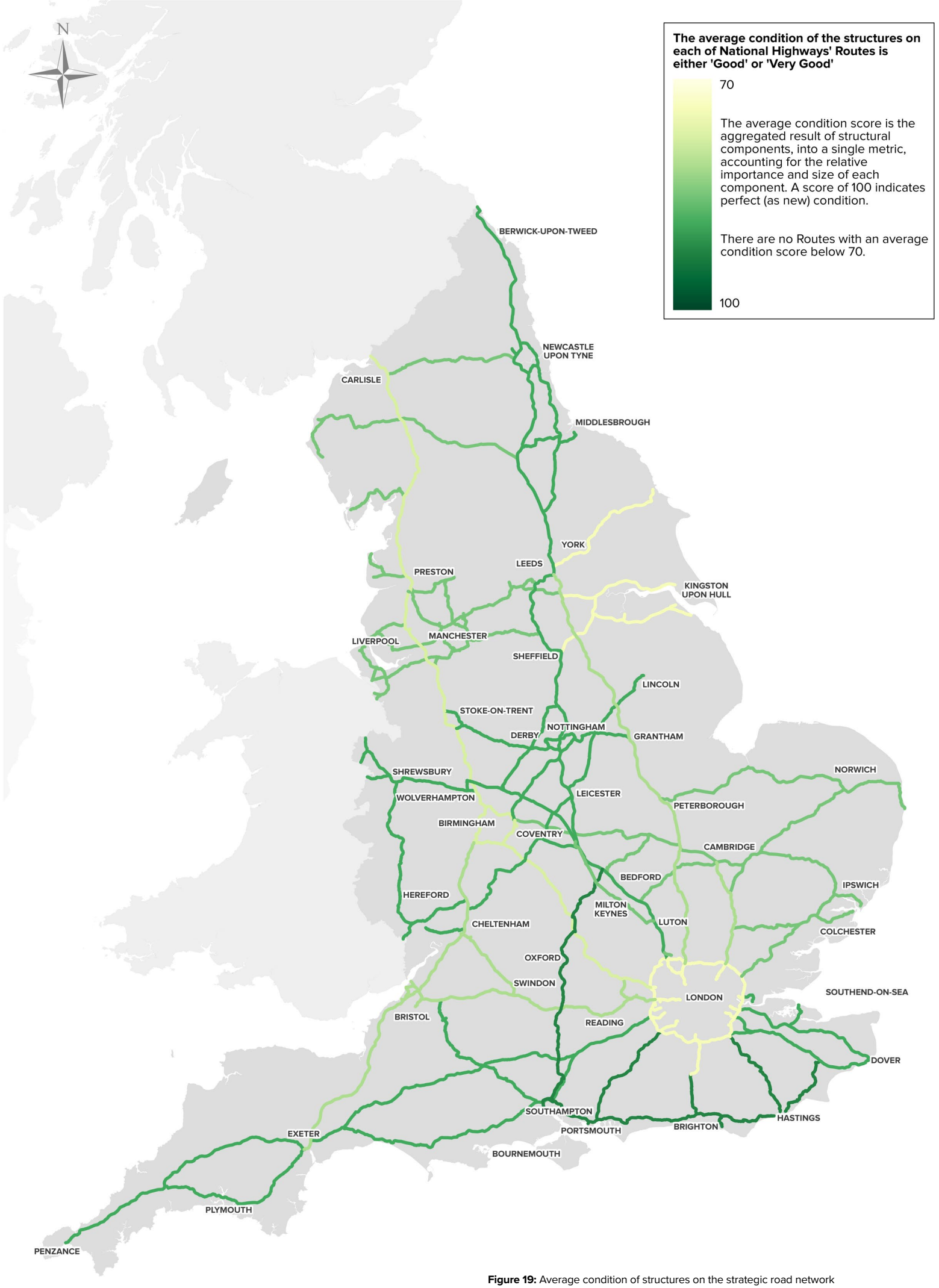


Figure 19: Average condition of structures on the strategic road network

6. A technology-enabled network

Technology will have an increasing role to play in managing incidents and providing information to users of the route. Communication with road users is a vital component of route management for incidents, events, festivals, sports events and agricultural shows, particularly where these coincide with daily or seasonal peak traffic periods.

High quality travel information before and during travel helps to:

- reduce day-to-day delays and improve reliability of the SRN
- minimise the adverse impacts of incidents
- improve quality of journey experience
- allow people to make more informed travel choices including about when and how to travel

The route includes sections of smart motorway on the M3 with associated Variable Message Signing and vehicle detection in Surrey.

On the South West Peninsula Route, electric charging points are located in close proximity to the SRN and are present throughout the route with higher concentrations in urban areas such as Plymouth, Exeter, Dorchester, Salisbury, Bath, Eastleigh, Winchester and Basingstoke.

Regular charging infrastructure is available on the M3, M27 and A30 / A303 (between Exeter and Basingstoke). However, whilst electric charging infrastructure is present on / near the A35, A31, A36 and A46 the provision is more sporadic. Similarly, on the A30 charging points are present along the A30 between Bodmin and Penzance, but are limited between Bodmin and Exeter.

We will support improved communications and facilities for all

The A38 also has inconsistent electric charging provision between Bodmin and Exeter, which could be problematic for those travelling long distances or trying access Plymouth, Dartmoor National Park or nearby tourist attractions.

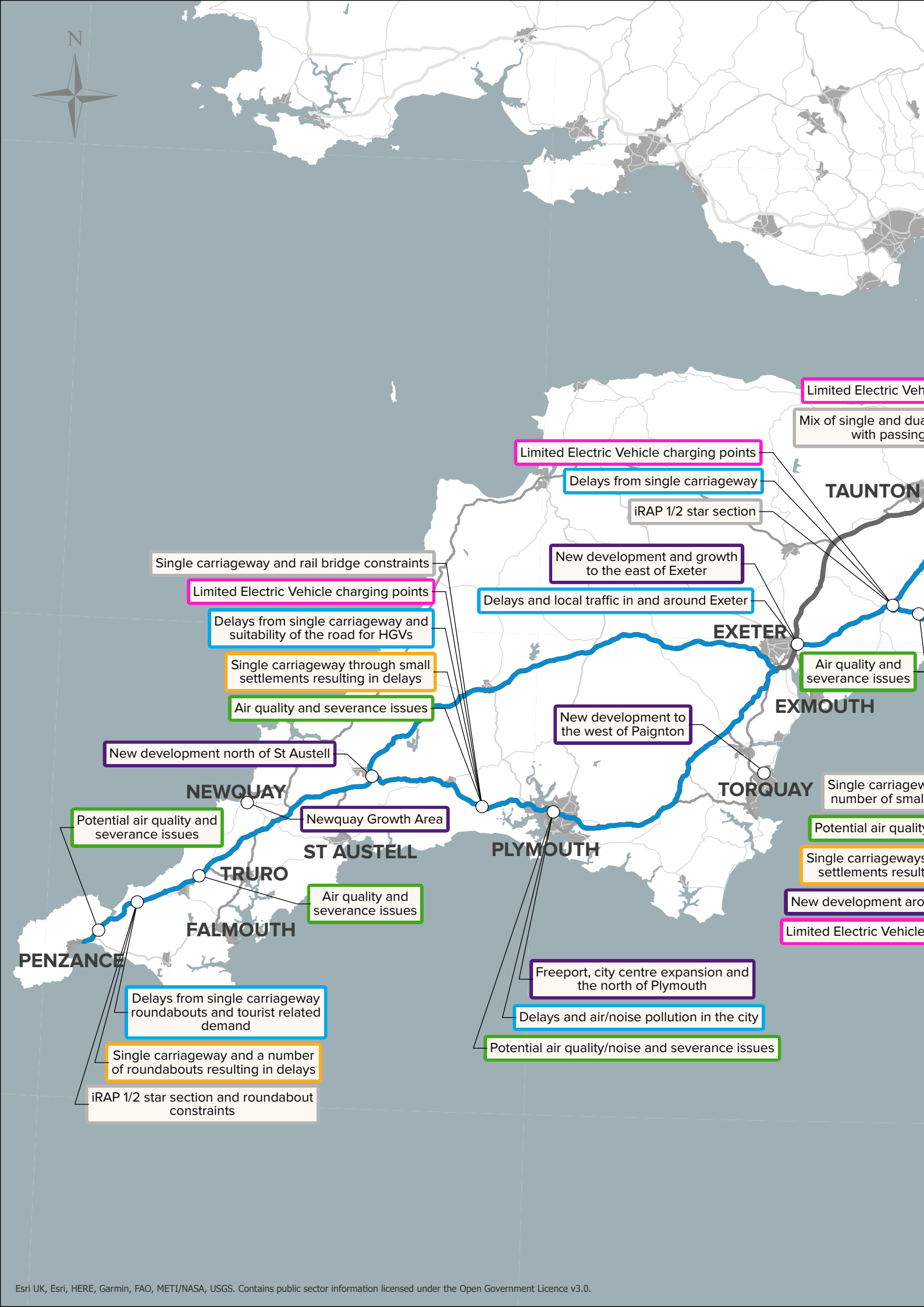
The route will also need to enable increased electric vehicle use and cater for expected uptake of alternative fuel vehicles, along with connected and autonomous vehicles. The quantity, capacity and speed of existing charging facilities will need to be upgraded to meet future demand and to suit HGVs and larger/longer vehicles such as motorhomes or towing vehicles.

The Government's March 2022 *UK electric vehicle infrastructure strategy*[36] sets out a vision for 2030 where charging infrastructure will be removed as both a perceived and real barrier to the adoption of electric vehicles. The Strategy outlines the intention to accelerate the rollout of high-powered chargers on the SRN through the £950m *Rapid Charging Fund*[37].

Key challenges

- Communication with customers provides a key role in managing incidents and events, with potential opportunities to integrate new technologies
- Demand for increased quantity, capacity and speed of existing electric vehicle charging facilities
- Planning for increased use of new technology, including connected and autonomous vehicles and hydrogen fuelled vehicles

36 UK Government, March 2022, *UK electric vehicle infrastructure strategy,* https://www.gov.uk/government/publications/uk-electric-vehicle-infrastructure-strategy
37 UK Government, September 2021, *Rapid Charging Fund,* https://www.gov.uk/guidance/rapid-charging-fund



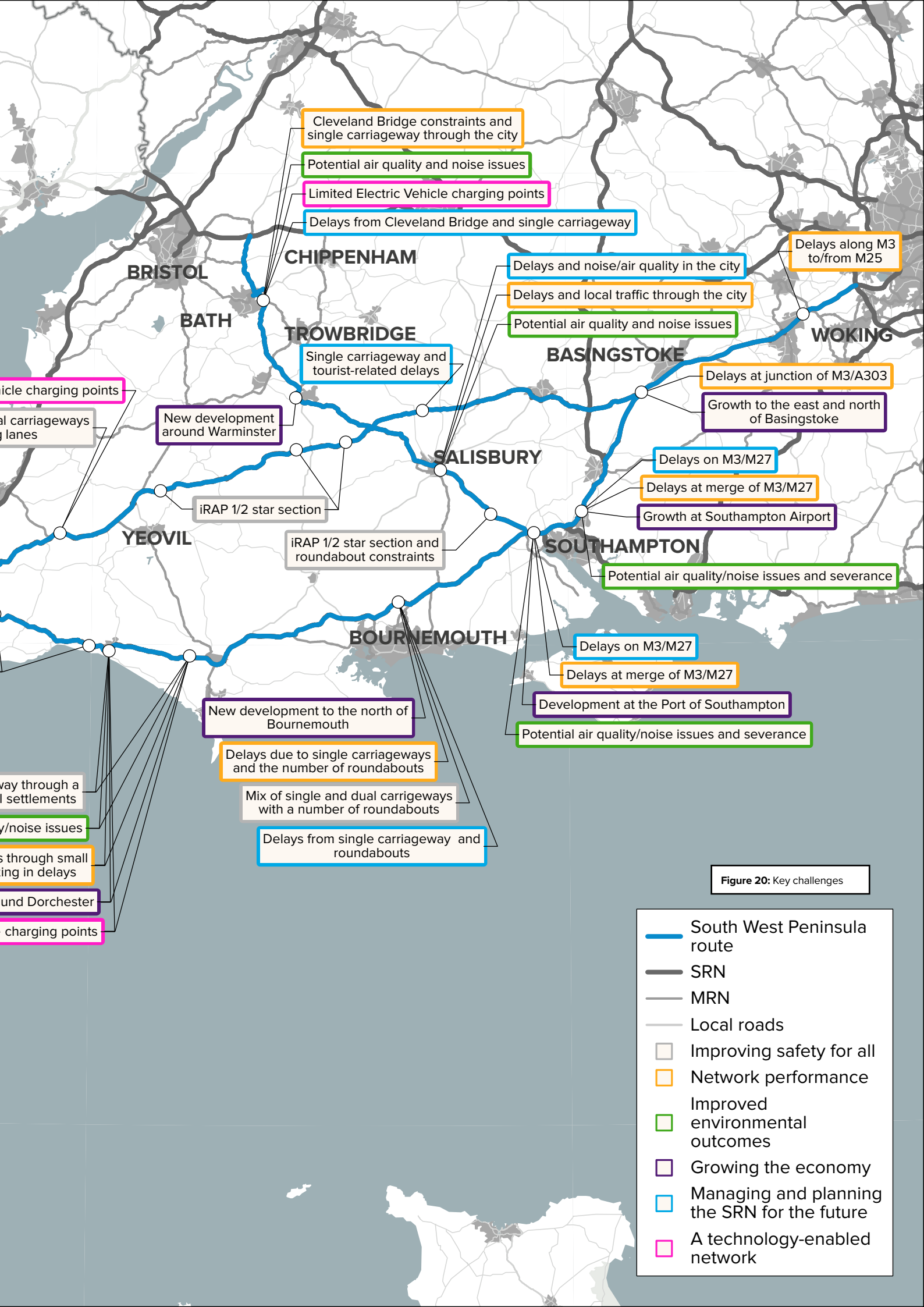


Figure 20: Key challenges

Our ambition for the route

06 Initial route objectives

We want to provide safer and more reliable journeys for all those who use or live alongside our network on the South West Peninsula route, and help the region achieve its economic and housing growth ambitions. Based on our engagement and data analysis, we have defined eight route objectives for the area.

We developed the route objectives based on:

- feedback from customers and neighbours outlined in Chapter 3
- opportunities to collaborate with other network operators, outlined in Chapter 4
- constraints and challenges, as highlighted in Chapter 5
- how best to contribute to the DfT's six strategic objectives

Each route strategy includes a series of specific route-based objectives. These objectives, informed by extensive data analysis and engagement with customers and neighbours, set out our ambition for each route. Although route objectives are route-specific, they should also be considered in the context of our commitments and ambitions for the whole network, as per our Licence agreement. This means that, while we may identify certain locations within a route for further consideration, we will seek to address these locations in line with our ongoing commitment to achieving our safety, environmental and technology obligations across the SRN.

It should be noted that there is overlap between the objectives, and we recognise they cannot be considered in isolation from each other. They should be considered alongside our asset plan.

The route objectives, their supporting narratives, and locations for further consideration will together inform the development of the Road investment strategy (RIS). They do not represent a commitment to road-based interventions but are intended to enable multimodal interventions to be explored as part of later study phases. It should be noted that the route objectives do not signify an assurance of investment in a particular route, nor do they remove the need to follow statutory processes.

As these are initial route objectives subject to wider feedback, we have not at this stage set out in detail how we will measure progress against them. Understanding how interventions and initiatives have addressed the challenges identified is a complex and long-term task and the approach to it will need to be devised alongside the wider performance specification for the third road period. We expect to set out our approach to this more clearly in the finalised route strategy overview reports to be published alongside our Strategic business plan and Delivery plan later in this road period.

Route objectives and DfT strategic objectives

In Figure 21 we illustrate the eight route objectives on our route map and, in Table 1, we show how they contribute to the Government's strategic objectives for our network as a whole.

Table 1: How the route objectives map to the DfT's strategic objectives

	Ref.	Route objective
	**A**	**A resilient and consistent route** Promote safe and reliable journeys to improve customer experience through the provision of a resilient and consistent network particularly along the A31/ A35, A38, A30 and on the A36 / A46 and A303.
	**B**	**Resilience and management of seasonal traffic** Improve the resilience to and management of additional seasonal traffic flows to tourism locations such as the New Forest, Dorset, Stonehenge, Bath, Exmoor, Dartmoor and Cornwall to support the route's wider economic function for all users.
	**C**	**Supporting sustainable economic and housing growth** Support regionally significant and sustainable economic and housing growth, particularly in garden communities, enterprise zones and Freeport sites, whilst maintaining the safe and effective operation of the route.
	**D**	**Supporting the needs of the freight sector** Support the needs of the freight sector to achieve the efficient movement of goods on the east-west M3, M27, A303, A35, A30, A38 corridors and north-south on the A46 and A36 corridor.
	**E**	**To be a better neighbour** To be a better neighbour by reducing adverse impacts of air quality, noise and severance on the communities on the A31 in Dorset and Hampshire, A35 in Devon and Dorset, A303 in Somerset and Devon, A36 in Bath and Wiltshire, and the A30 and A38 in Devon and Cornwall.
	**F**	**Support local connections and integration** Support shifts in modes of transport through better integration with public transport and improved active travel options to relieve pressure on the SRN, particularly in urban areas including Southampton, Bournemouth, Salisbury, Exeter, Plymouth and Truro.
	**G**	**North-South Connectivity** Support improved connectivity for the strategic movement of traffic between the M4, Dorset Coast and Southampton through the provision of a resilient and consistent route.
	**H**	**Promoting a key strategic route** Support the role of the A303/A30/A358 corridor as the key strategic route between London and the far South West, to improve long distance connectivity and to support regional economies.

DfT's strategic objectives for our route

Improving safety for all	Network performance	Improved environmental outcomes	Growing the economy	Managing and planning the SRN for the future	A technologyi-enabled network
✓	✓				✓
	✓	✓	✓	✓	✓
✓	✓	✓	✓		
✓	✓	✓	✓	✓	✓
✓	✓	✓			✓
✓		✓			
✓	✓	✓	✓		
✓	✓	✓	✓		✓

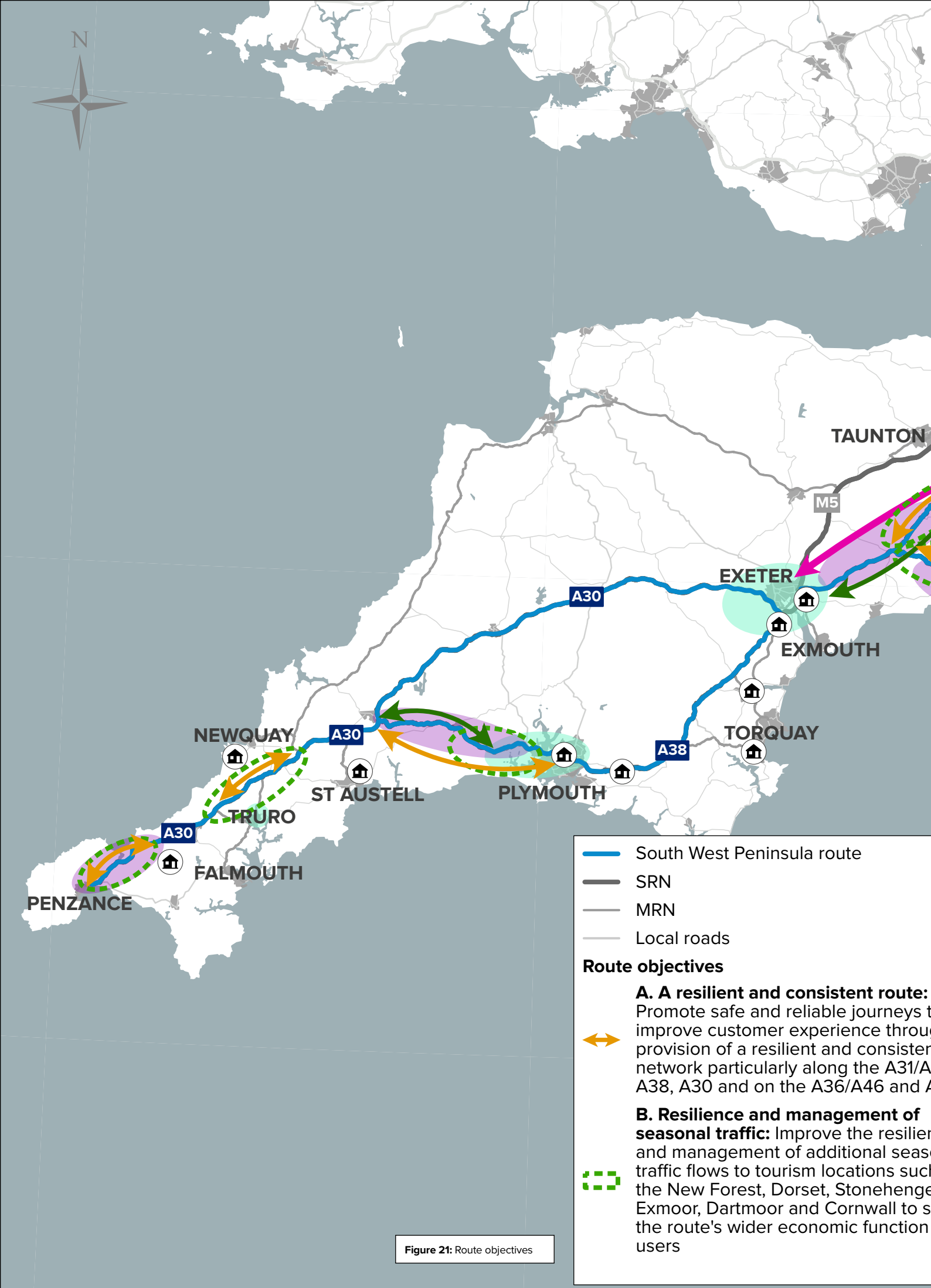
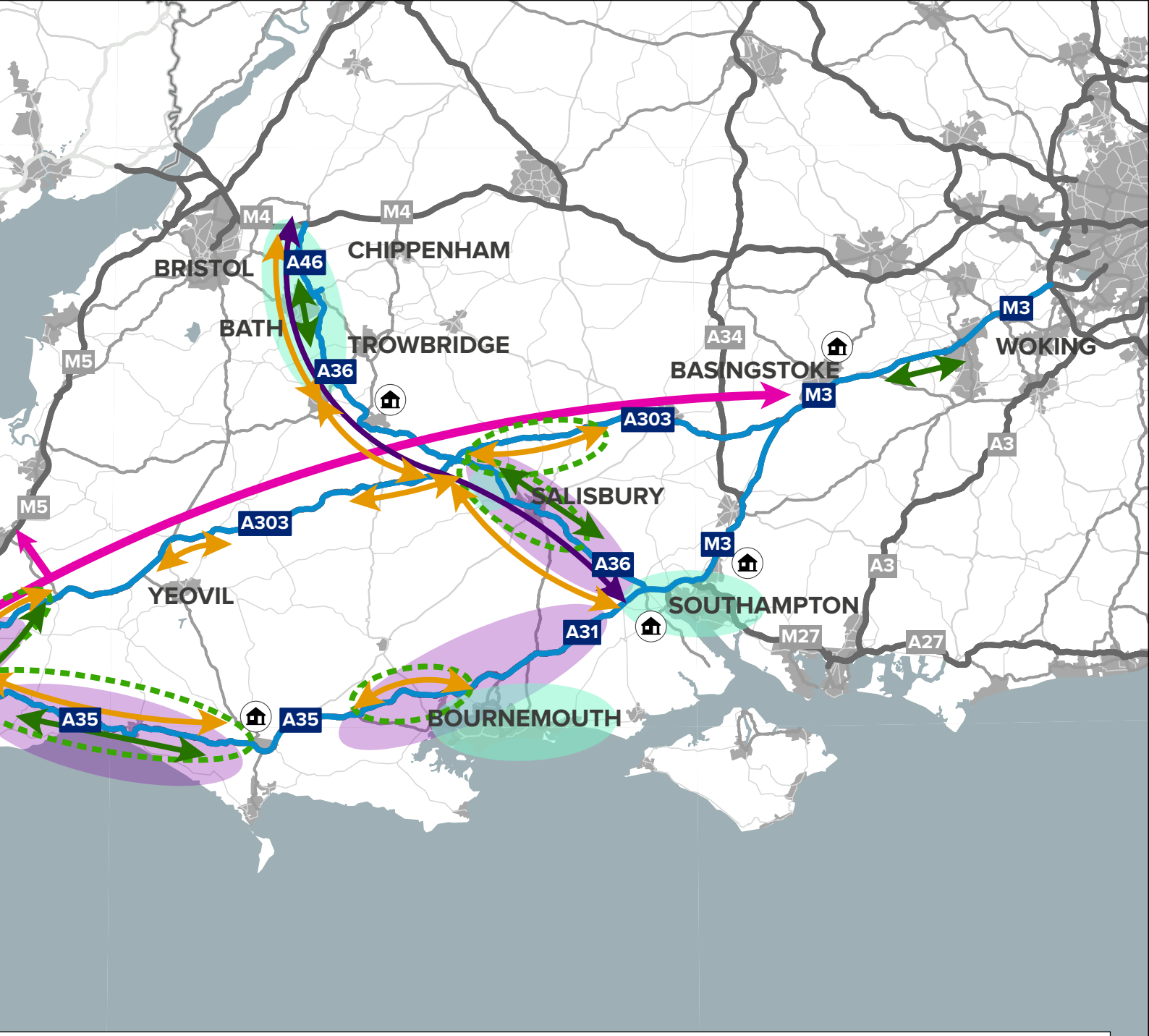


Figure 21: Route objectives



C. Supporting sustainable economic and housing growth: Support regionally significant and sustainable economic and housing growth (particularly in garden communities and enterprise zones) whilst maintaining the safe and effective operation of the route

D. Supporting the needs of the freight sector: Support the needs of the freight sector to achieve the efficient movement of goods on the east-west M3, M27, A303, A35 (West Dorset), A30, A38 corridors and north-south on the A46 (Bath) and A36 corridors

E. To be a better neighbour: To be a better neighbour by reducing adverse impacts (air quality, noise, severance) on the communities on the A31 in Dorset/ Hampshire, A35 in Devon and Dorset, A303 in Somerset and Devon, A36 in Bath and Wiltshire, and the A30/A38 in Devon and Cornwall

F. Support local connections and integration: Support effective local connections and integration with other modes to reduce short and medium distance travel demands, promote modal transfer and support carbon reduction particularly in the Southampton, Bournemouth, Salisbury, Exeter and Plymouth and Truro areas

G. North-South connectivity: Support improved connectivity for strategic movement of traffic between the M4, Dorset Coast and Southampton through the provision of a resilient and consistent route

H. Promoting a key strategic route: Support the role of the A303/A30/A358 corridor as the key strategic route between London and the far South West, to improve long distance connectivity and to support regional economies

A. A resilient and consistent route

Objective

Promote safe and reliable journeys to improve customer experience through the provision of a resilient and consistent network particularly along the A31/ A35, A38, A30 and on the A36 / A46 and A303.

Context

The route has a wide variation in carriageway standards. It includes high standard motorways, dual carriageways and single carriageway roads through villages in West Dorset (A35), South East Cornwall (A38) and West Cornwall (A30). The majority of the route is rated as 3-star or better by the Road safety foundation (RSF). However, there are also significant sections of the route, particularly older single carriageways, that are identified by the RSF as 1-star, which have higher potential safety risks and some sections correlate with occurrences of relatively higher levels of seasonal delay and less reliable journey times. Interested parties have also raised concerns about the safety and reliability of these roads, through for example the A30 Case for Action Document and the local community organisation 'Safe38'.

In many locations, the route is at risk of environmental and adverse weather impacts such as flooding and landslips. On rural sections of the route, there is often a limited choice of high quality formal diversion routes which do not substantially lengthen journey times. As a result, drivers often take shorter undesignated diversion routes on roads that are neither appropriate for the volume or type of traffic using the SRN. A further consideration is the lack of road-side technology such as variable message signage and service areas, issues that will likely become more prevalent with the advancement of in car technology and growth in popularity of electric vehicles.

Our network considerations

The following locations have been identified with significant lengths of 1 or 2-star RSF ratings:

- A46 - M4 to Swainswick
- A36 - Bath to Southampton
- A35 – Dorchester to Honiton
- A31 – Bere Regis to Ferndown
- A303 – Stonehenge; Chicklade; Sparkford to Podimore
- A30 and A303 – Honiton to South Petherton
- A30 –Camborne to Penzance
- A38 – Dobwalls to Bodmin; Saltash to Trerulefoot

Outcomes

- Improved safety and reduced level of incidents on the SRN
- Improved operation of the SRN and improved resilience
- Increased resilience for parts of the route prone to adverse weather and climate change

DfT's Strategic objectives

- Improving safety for all
- Network performance
- A technology enabled network

Timeframe based on the issues and constraints identified

Now

Significant sections of route are 1 and 2 star rated and have higher safety risk for users. Sections, some of which cor-relate with low star rating, experience delays

Future Road Periods

Continuing safety risk on sections with low iRAP star rating, increasing predicted delays and impacts of climate change potentially impacting route resilience


LONGBARROW
Exeter
Warminster
Winterbourne Stoke
A303
Salisbury
Wilton
Woodford
A360
Devizes
Shrewton
A360
Stonehenge

B. Resilience and management of seasonal traffic

Objective

Improve the resilience to and management of additional seasonal traffic flows to tourism locations such as the New Forest, Dorset, Stonehenge, Bath, Exmoor, Dartmoor and Cornwall to support the route's wider economic function for all users.

Context

Across the route, the tourism sector plays a major economic role generating a significant number of additional journeys above the typical level of trips from residents and businesses. In 2019 18.9 million trips were made to the South West of England, the highest of any region in the United Kingdom.[38] The Covid-19 Pandemic further increased the level of staycations and the number of tourist related trips in 2021.

The SRN in this route (and others including Birmingham to Exeter) play a critical role in supporting this demand. Although there have been rail improvements such as increased service frequencies, there are capacity constraints in terms of stations and lines. This means the resilience of the SRN in managing this additional demand is important going forward in not only supporting the tourism sector, but also wider everyday economic and social needs of local residents and businesses who use the route.

Seasonal delay data (2019 pre-pandemic) and evidence from engagement with interested parties highlighted the importance of route resilience to accommodate increased demand during seasonal periods for the benefit of all road users across the network.

Three RIS2 funded Major Improvement Schemes are currently under construction and when completed will improve traffic capacity and flow at three of the seasonal peak locations. These are the A31 Ringwood, A303 Sparkford to Ilchester and A30 Chiverton to Carland Cross schemes.

Our network considerations

A range of locations across the route are impacted by additional seasonal demand, and this is compounded in certain areas by variation in route standards and capacities. Key locations affected by seasonal flows:

- M3 – M25 to M3 J3
- A303 – Stonehenge, Chicklade, and Sparkford to Ilchester
- A303/ A30 – South Petherton to Honiton
- A36 – Salisbury
- A35 – Dorchester to Honiton
- A31 – Ringwood and Wimborne
- A30 – at M5 Junctions 29 and 31, Chiverton to Carland Cross (RIS2 funded Major Improvement scheme is under construction); Hayle to Long Rock
- A38 – St.Budeaux to Trerulefoot and Bodmin Parkway to Carminnow Cross.

Outcomes

- Reduction in seasonal delay
- More reliable journeys between the South West peninsula and wider UK

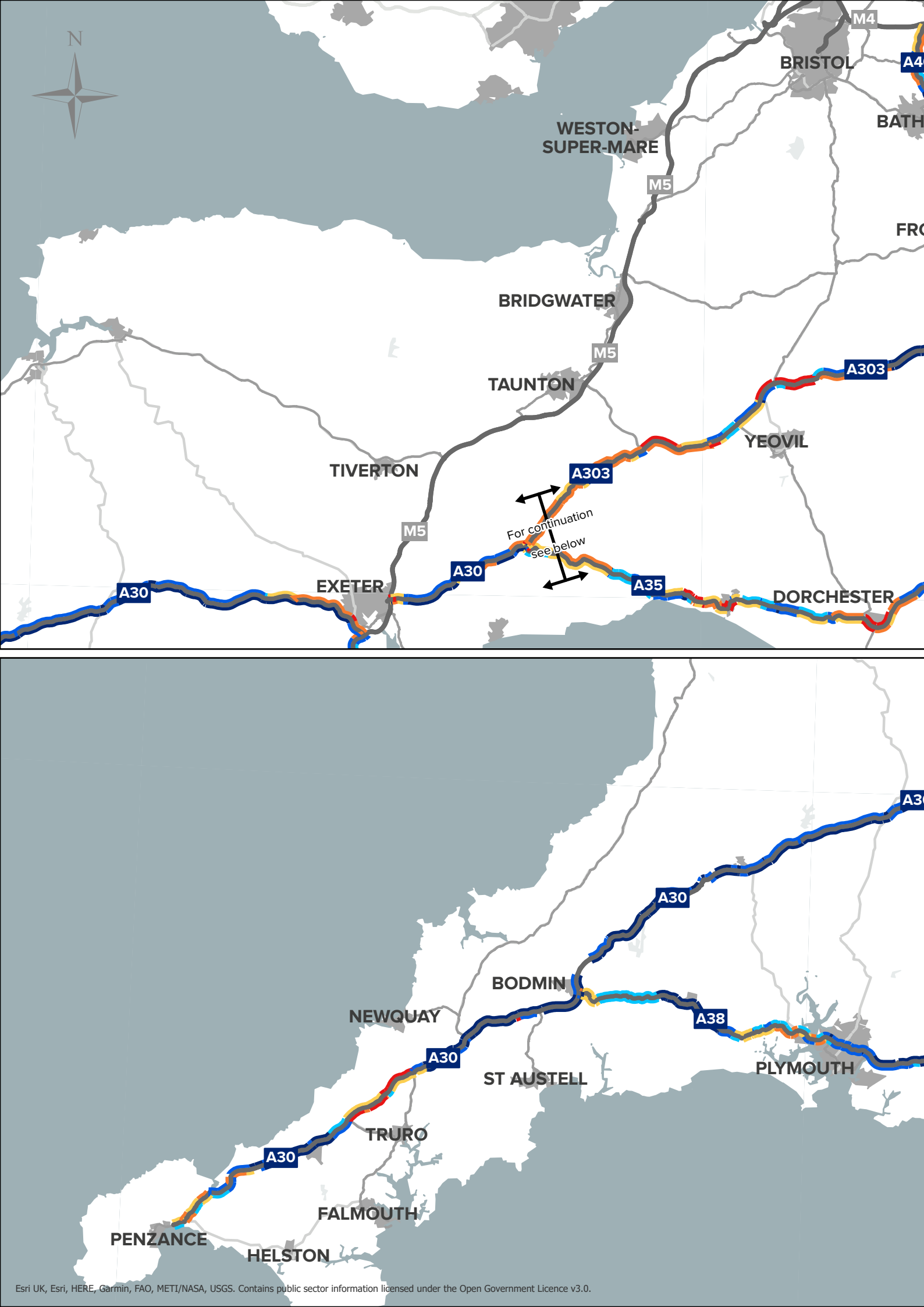
DfT's Strategic objectives

- Network performance
- Improved environmental outcomes
- Growing the economy
- Managing and planning the SRN for the future
- A technology enabled network

Timeframe based on the issues and constraints identified

Now	**Limited connectivity to the South West Peninsula and impact of seasonal delay**
Future Road Periods	**Journey times anticipated to be longer due to traffic growth in the region**

38 Great British Tourism Survey: 2019, *(2020), The GB Tourist Report, KANTAR,* https://gov.wales/sites/default/files/statistics-and-research/2020-08/great-britain-tourist-statistics-2019.pdf


N
M4
BRISTOL
A4
BATH
WESTON-
SUPER-MARE
M5
FRO
BRIDGWATER
M5
A303
TAUNTON
YEOVIL
TIVERTON
A303
For continuation
see below
M5
A30
A30
EXETER
A35
DORCHESTER
A30
BODMIN
NEWQUAY
A38
A30
ST AUSTELL
PLYMOUTH
TRURO
A30
FALMOUTH
PENZANCE
HELSTON
Esri UK, Esri, HERE, Garmin, FAO, METI/NASA, USGS. Contains public sector information licensed under the Open Government Licence v3.0.

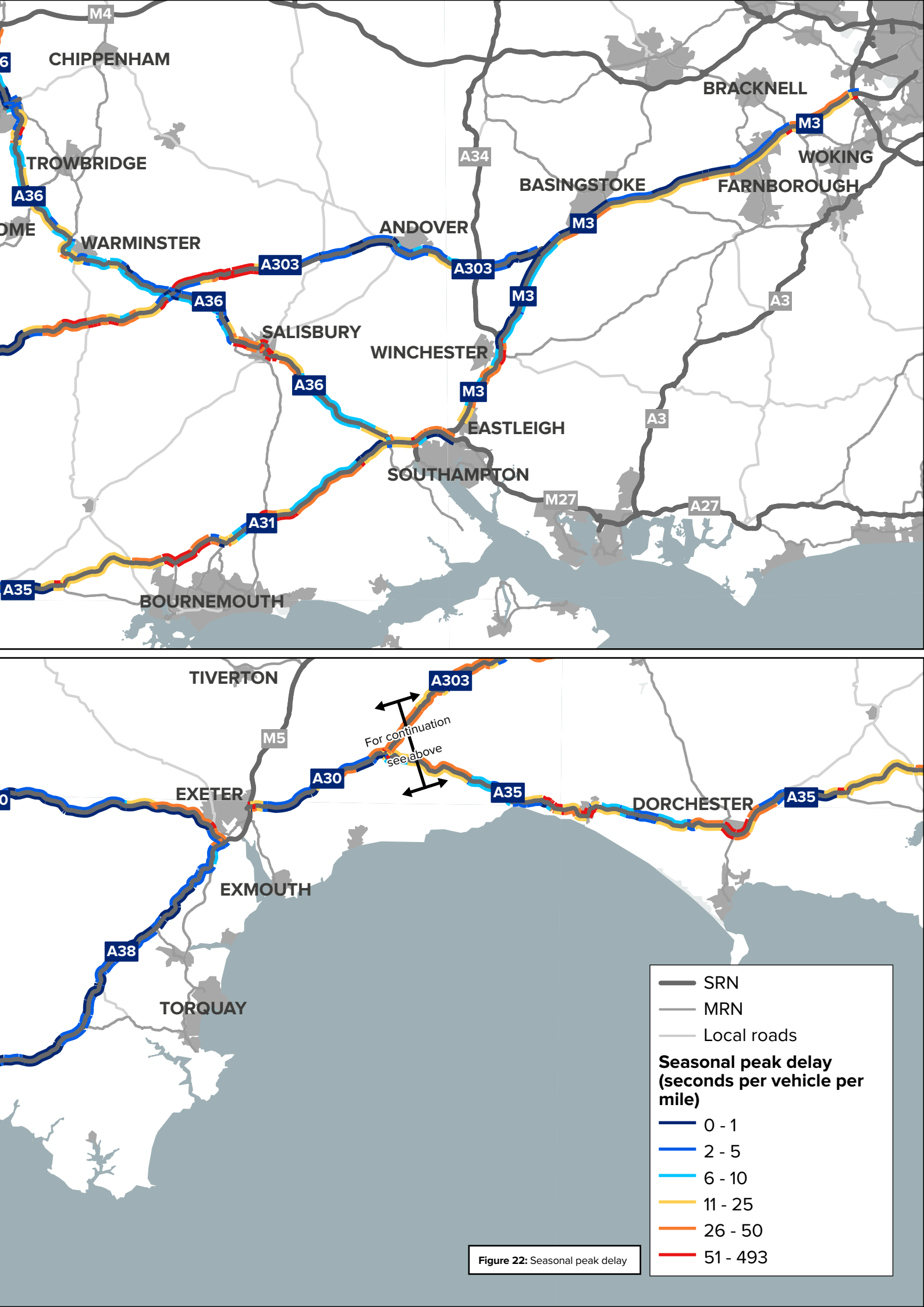


Figure 22: Seasonal peak delay

C. Supporting sustainable economic and housing growth

Objective

Support regionally significant and sustainable economic and housing growth, particularly in garden communities, enterprise zones and Freeport sites, whilst maintaining the safe and effective operation of the route.

Context

As the route covers the South West and parts of South East England, there are wide differences both in the level of economic activity and economic sectors.

Key industries across the South West Peninsula route include agriculture and tourism alongside growth sectors, of advanced manufacturing and marine manufacturing and research[39]. The ongoing development of special economic zones through the Plymouth and South Devon, Southampton and Portsmouth Freeports will help boost international trade and investment and provide further local and regional business, enterprise, logistics, warehousing and manufacturing opportunities. Freeports have the potential to boost economic activity and create new opportunities for people living and working in some of the country's most deprived areas.

In conjunction with other travel modes, the SRN plays a critical role in connecting major population and economic centres on the route with other regions and international gateways to support local economies, boost prosperity and productivity and provide sustainable and efficient access to new development sites. For example, it is noted that the city of Plymouth with a population of 265,000 has limited transport connections as it is only served by the A38 and a single main railway line.

Our network considerations

Our network helps businesses and developments reliably receive supplies and efficiently move goods, people and services to facilitate economic and housing growth. In many cases, the local road network will provide the main links for local growth, development and new homes. We want to manage potential increased traffic on our roads from the key developments on the route through working closely with local highway authorities and Sub-national Transport Bodies at locations including:

- A35 – Dorchester urban extension
- M3 – Basingstoke; Eastleigh; growth at Port of Southampton
- M27 – Southampton including Southampton Airport
- A31 – Housing development and Bournemouth Aviation Business Park
- A30 – Exeter garden communities; Cranbrook new community; East Devon Enterprise Zone; Teignbridge and South West Exeter; Cornwall strategic growth sites; Cornwall Enterprise Zones which include the Marine Enterprise Zone (Hayle, Falmouth, Tolvaddon), Aerohub Enterprise Zone (Newquay Airport); Goonhilly Enterprise Zone
- A38 – Newton Abbot, Torbay, Ivybridge, Oceansgate Enterprise Zone, Plymouth and South Devon Freeport

Outcomes

- Provision of safe and efficient access to strategic development sites
- Contribution to regional and local economic and housing policy priorities
- Greater coordination between local authorities and delivery bodies to integrate sustainable development with a focus on low carbon travel

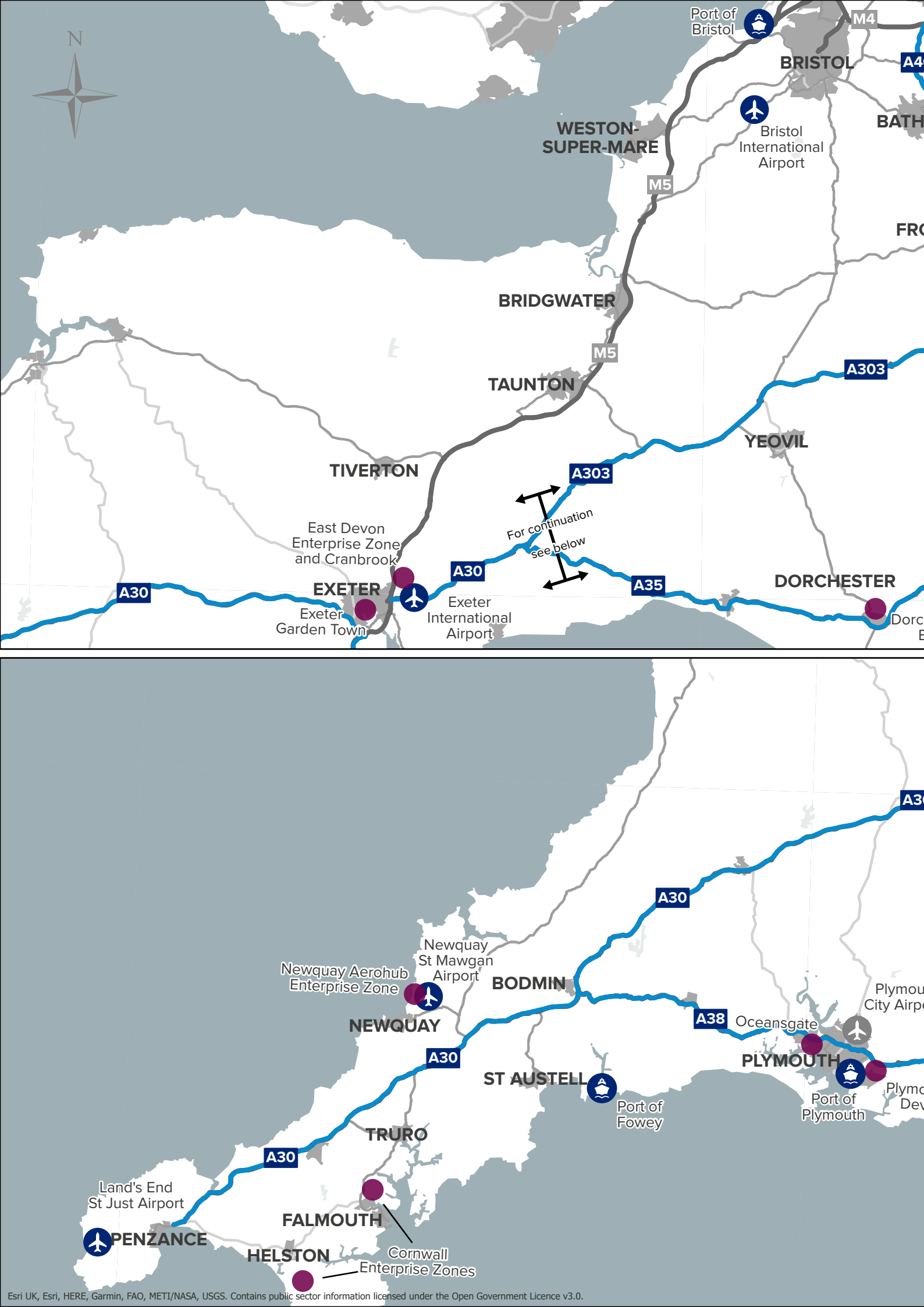
39 Heart of the South West Local Enterprise Partnership, *First Draft: Strategic Economic Plan 2014-2030 (Draft Submission: 19th December 2013),* https://heartofswlep.co.uk/wp-content/uploads/2016/09/HOTSW-SEP-draft-finala.pdf

DfT's Strategic objectives

- Improving safety for all
- Network performance
- Growing the economy
- Improved environmental outcomes

Timeframe based on the issues and constraints identified

Now	**Significant planned development growth along route**
Future Road Periods	**Impacts on development delivery and worsening network performance**


N
Port of Bristol
M4
BRISTOL
A4
BATH
WESTON-SUPER-MARE
Bristol International Airport
M5
FRO
BRIDGWATER
M5
A303
TAUNTON
YEOVIL
TIVERTON
A303
For continuation see below
East Devon Enterprise Zone and Cranbrook
A30
A35
DORCHESTER
A30
EXETER
Exeter Garden Town
Exeter International Airport
A30
A30
Newquay Aerohub Enterprise Zone
Newquay St Mawgan Airport
BODMIN
NEWQUAY
A38
Oceansgate
Plymou City Airp
A30
PLYMOUTH
ST AUSTELL
Port of Fowey
Port of Plymouth
Plymo Dev
TRURO
A30
Land's End St Just Airport
FALMOUTH
PENZANCE
HELSTON
Cornwall Enterprise Zones
Esri UK, Esri, HERE, Garmin, FAO, METI/NASA, USGS. Contains public sector information licensed under the Open Government Licence v3.0.

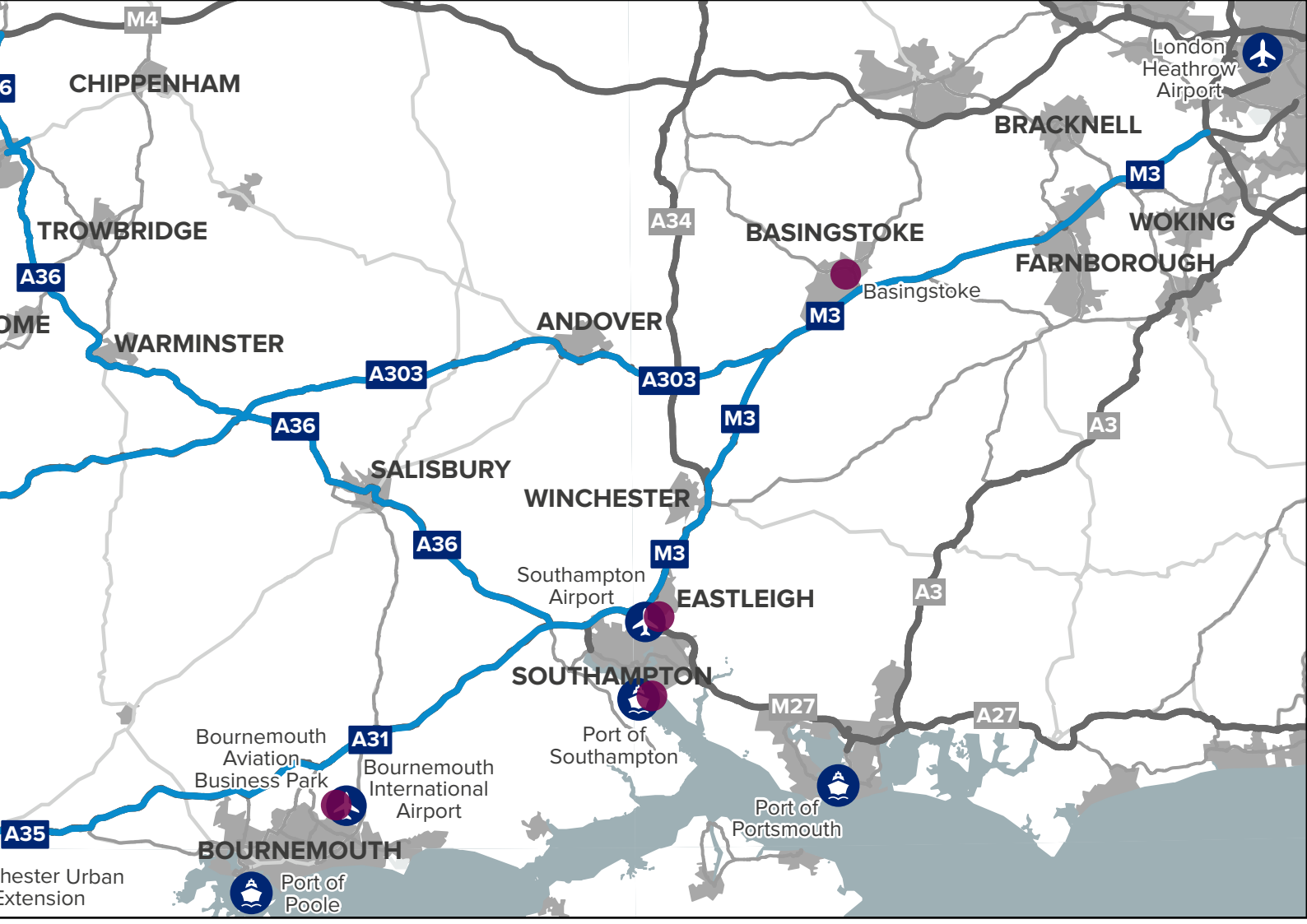


Figure 23: Regionally significant developments

* Plymouth City Airport land safeguarded in the local plan for aviation use

D. Supporting the needs of the freight sector

Objective

Support the needs of the freight sector to achieve the efficient movement of goods east-west on the M3, M27, A303, A35, A30, A38 corridors and north-south on the A46 and A36 corridor.

Context

There are differences in the structures of the local economies across the route, for instance due to the importance of Southampton Port and tourism industry in the far South West. This results in variations in both freight flows and the movement of goods. Consequently, the needs of the freight sector vary across the route. Supporting data for Heavy Goods Vehicles Annual Average Daily Flow (AADF) indicates higher volumes of freight on the M27 and M3 with smaller volumes of freight via the A303 and A35 to the far South West.

Although freight flows as a proportion of total traffic on the South West Peninsula route as whole is lower than other routes, particularly on the A36 (Warminster to Wylye) A35 Bere Regis and A30 (Ottery St Mary to M5; south west of Truro) the SRN is still vitally important for the efficient movement of goods. Much of the Peninsula is reliant on the SRN for the movement of goods and services. Freight journeys are also susceptible to seasonal pressures and there are often less suitable diversion alternatives to the SRN.

The Peninsula and Western Gateway joint *Sub-national Transport Body Freight Strategy*[40] aspires to encourage greater freight movement by rail and shipping, through intermodal sites, to relieve pressure on the SRN. Although Peninsula Transport is keen to explore modal transfer of freight, the types of freight and constraints of the rail network means that many of the journeys west of Exeter will remain by road, which underlines the importance of resilience and reliability of the SRN on the A303 / A30 / A38 corridor. Further east in both the Western Gateway and TfSE areas, freight journeys make up a larger proportion of traffic flows. The eastern part of the route includes the nationally important Port of Southampton and onward connectivity via the M25 to Heathrow Airport.

Our network considerations

Journey time reliability is a major freight consideration for the route. Freight journeys are impacted by seasonal traffic flows and network restrictions. For freight customers the network restrictions can include single carriageway sections of the SRN, low railway bridges and diversion routes that are less suitable to accommodate heavy goods vehicles. Locations with key freight considerations are:

M3 – J9 to J14 and links with A34; J4A Fleet Services

A303 – Broadway Hill to Ham Hill; Stonehenge; A303/ A134 junction; A303/A350 junction

A31/A35 – single carriageway A-roads through villages

A38 – Bodmin, lack of appropriate heavy good vehicle diversion routes; restrictive rail bridges for example at Trerulefoot and Polmarkin

The level of lorry parking and utilisation varies across the route. Some areas particularly Cornwall exhibit lower levels of utilisation, however other areas are at capacity, particularly near the M3, the A36 near Bath and around Exeter. Welfare facilities are also limited for HGV drivers on the A303, in West Dorset and in West Cornwall.

40 Peninsula Transport and Western Gateway STB, *South West Freight Strategy, July 2022*, *Peninsula Transport website:* https://www.peninsulatransport.org.uk/wp-content/uploads/2022/07/Freight-Strategy-for-the-South-West-Full-Report.pdf

Outcomes

- Greater reliability of journey and delivery times for freight
- Increased facilities for heavy goods vehicles
- Increased welfare provision for heavy goods vehicle drivers
- Reduced risk of heavy goods vehicle collisions on the network

DfT's Strategic objectives

- Improving safety for all
- Network performance
- Improved environmental outcomes
- Growing the economy
- Managing and planning the SRN for the future
- A Technology-enabled network

Timeframe based on the issues and constraints identified

Now

Existing seasonal delays on sections of the network and insufficient heavy good vehicle facilities

Future Road Periods

Increased congestion impacting on heavy goods vehicle journeys and increasing pressures on heavy good vehicle facilities

E. To be a better neighbour

Objective

To be a better neighbour by reducing adverse impacts of air quality, noise and severance on the communities on the A31 in Dorset and Hampshire, A35 in Devon and Dorset, A303 in Somerset and Devon, A36 in Bath and Wiltshire, and the A30 and A38 in Devon and Cornwall.

Context

The geographies of the route combined with the variation in highway standards has resulted in differences in the impact of the SRN on local communities.

A key feature of the route is the number of single carriageway A-roads. These not only fulfil a strategic function, but also provide local needs. Parts of the route run through the heart of a number of settlements where housing and businesses are in close proximity and directly accessed from the carriageway. In other locations the route passes through larger towns and cities. There is potential that receptors near the route may be more likely to experience adverse air quality impacts and be more sensitive to high noise levels. Where the route passes through communities it may also cause severance issues for people moving through the area where they need to cross the route.

Our network considerations

The main considerations relate to potential adverse impacts on air quality, noise and community severance. Locations on the route where communities may experience such impacts include:

- M3 – Air quality in Eastleigh
- A35 – Severance in villages between Dorchester and Honiton; severance and air quality in Chideock
- A303 – Severance in Winterbourne Stoke; potential air quality issues at Wincanton and Andover and potential noise issues at Andover
- A30 – Severance and potential air quality issues at Crowlas and Hayle. Severance issues at communities between Hayle and Long Rock and Monkton. AQMA at Cambourne to Redruth. Potential air quality issues at Honiton
- A36 – severance and air quality in Sailsbury
- A38 – Air quality issues at Tideford. Potential air quality issues at Ashburton, Plymouth and Liskeard. Potential noise issues between Bittaford and Ivybridge. Severance issues at Tideford and Landrake
- A36/A46 – Air quality issues and severance at Bath and Salisbury. Severance issues in communities such as Bathampton and Limpley Stoke
- A31 – Potential air quality, noise and severance issues at St. Leonards and Ringwood. Severance at Communities north of Poole and Bournemouth and the New Forest National Park

Outcomes

- Improved air quality
- Reduced severance
- Reduced noise pollution

DfT's Strategic objectives

- Improving safety for all
- Network performance
- Improved environmental outcomes
- A Technology-enabled network

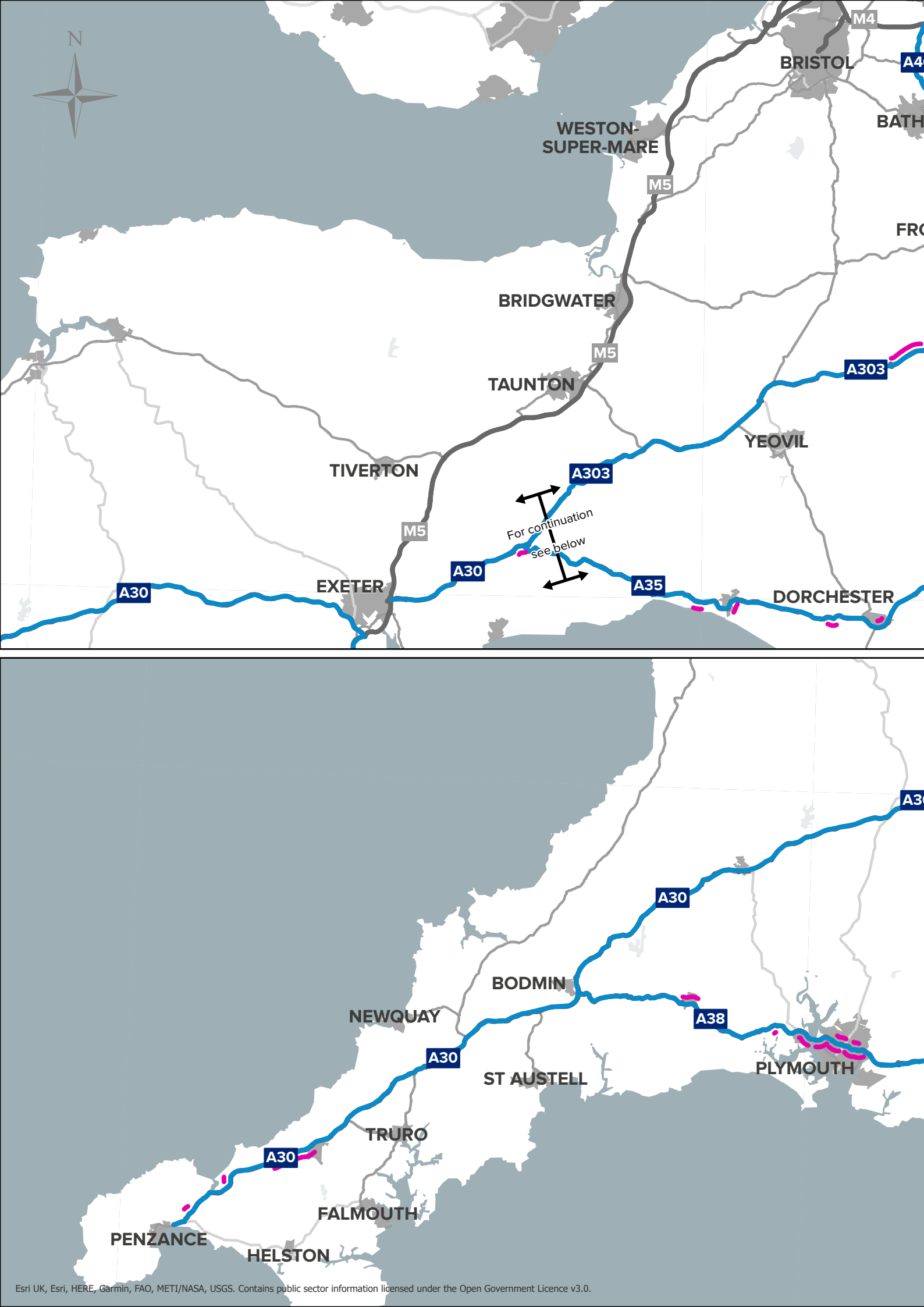
Timeframe based on the issues and constraints identified

Now

Existing noise, air quality and severance issues at locations along the route

Future Road Periods

Potential increasing environmental issues due to traffic growth, heavy good vehicle increases and urban expansion towards the route.



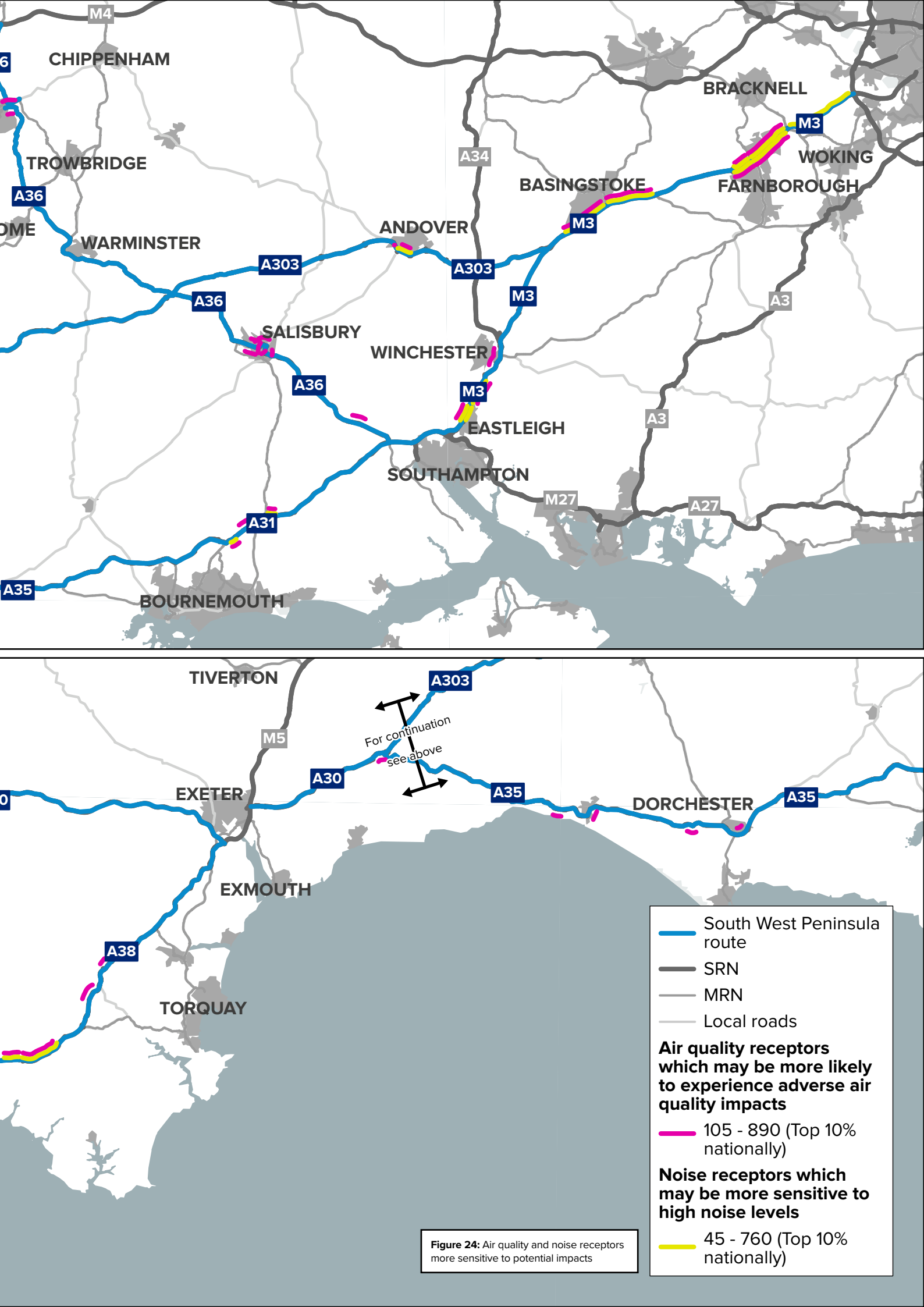


Figure 24: Air quality and noise receptors more sensitive to potential impacts

F. Support local connections and integration

Objective

Support shifts in modes of transport through better integration with public transport and improved active travel options to relieve pressure on the SRN, particularly in urban areas including Southampton, Bournemouth, Salisbury, Exeter, Plymouth and Truro

Context

There are multiple sections of the route that carry both local and strategic traffic. These are particularly pronounced in larger urban areas and in other locations where the SRN is the principal link for local communities.

Interested party engagement as well as a review of emerging STB policy and strategy has highlighted the opportunity for better integration and shift in modes of transport, particularly in areas such as Southampton, Bournemouth, Salisbury, Exeter, Plymouth and Truro.

In order to reduce the volume of short-distance car trips by enhancing sustainable travel options, improved local connections and interchange opportunities with park and ride and rail services are important. This would bring considerable benefits for the SRN as well as realising local policy objectives.

On parts of the route, the rail network does not closely align with the SRN, therefore greater coordination with other travel modes may be required. This can include walking and cycling where short distance journeys are frequent. Many Local Transport Authorities such as Peninsula Transport, Western Gateway and TfSE have developed proposals for cycle schemes adjacent to and / or crossing the SRN to deliver better connected active travel infrastructure and to help encourage modal shift away from the car for short to medium distance trips. In specific areas, this could have some impact on the operation of the SRN.

Our network considerations

In addition to identifying locations where better integration could be achieved, there are also opportunities to coordinate with other planned modal interventions.

- Planned or newly opened rail improvements: Devon Metro including the opening of new stations and improved frequencies; One Cornwall which will include regular services
- Planned park and ride schemes include Southampton, Okehampton, Truro and Newquay
- Opportunities for enhanced connections between the SRN and nearby P&R and rail interchanges, including from the A38 (Coypool P&R), A30 (St Erth P&R and P&R facilities near Truro and Falmouth)
- Opportunities for improved access from the SRN to both park and ride sites and railway stations, such as Bodmin Parkway on A38, that are situated adjacent to the route
- Opportunities for new Active Travel links at locations such as the A30 near Launceston (to connect with NCN 327) and also in communities including Crowlas (A30), Chideock and Wilmington (A35) where severance of the SRN may impact the accessibility of active travel modes

Outcomes

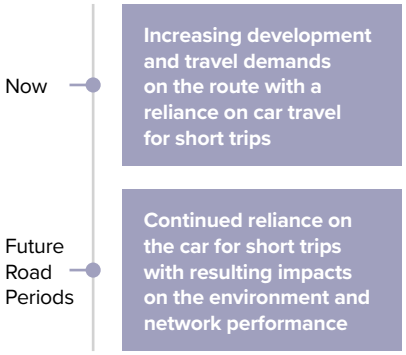
- Reduced short distance journeys on the SRN
- Improved facilities catering for shorter journeys across a range of modes
- Increased transfer of long distance freight demands to alternative modes off the SRN

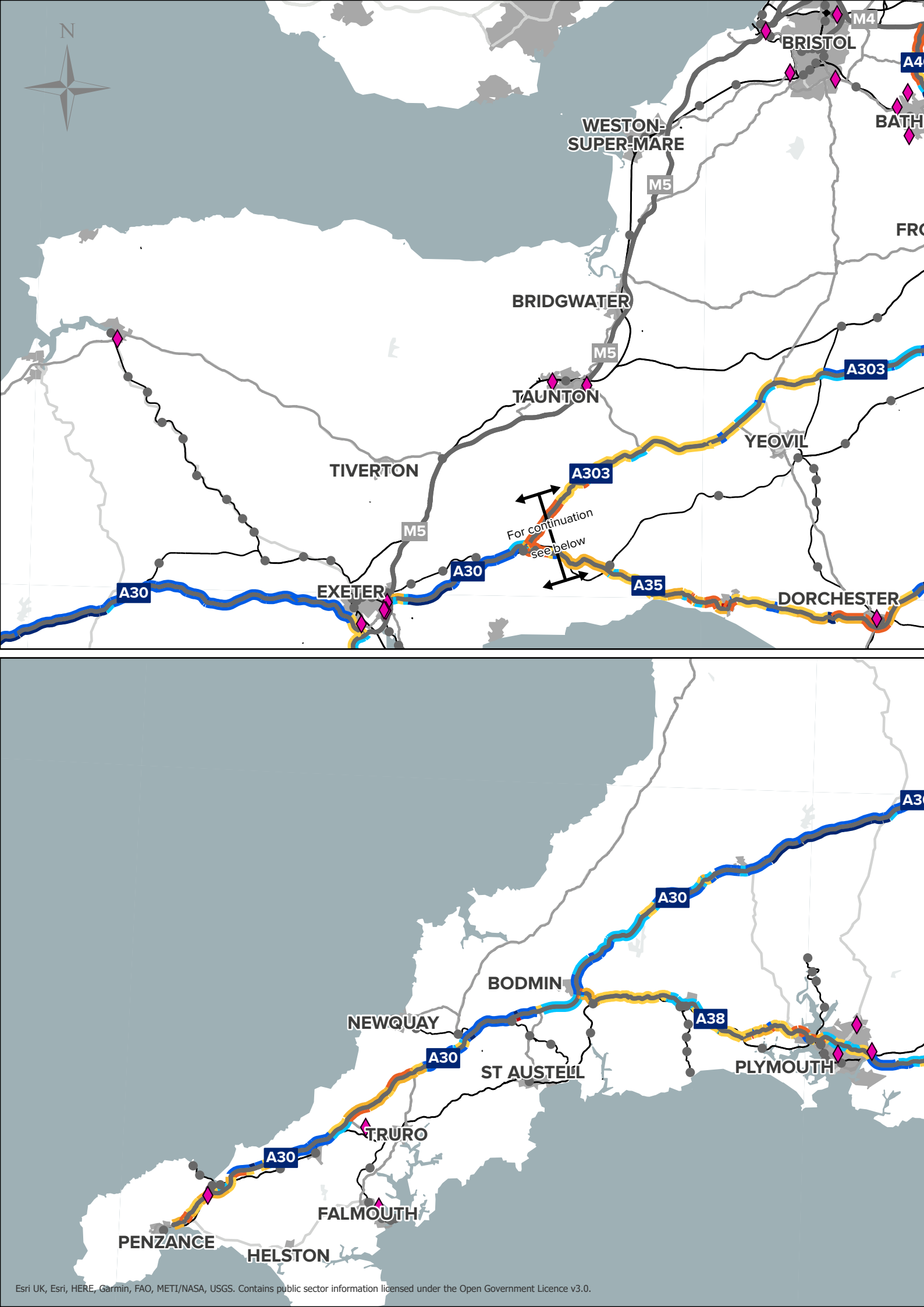
DfT's Strategic objectives

Improving safety for all

Improved environmental outcomes

Timeframe based on the issues and constraints identified





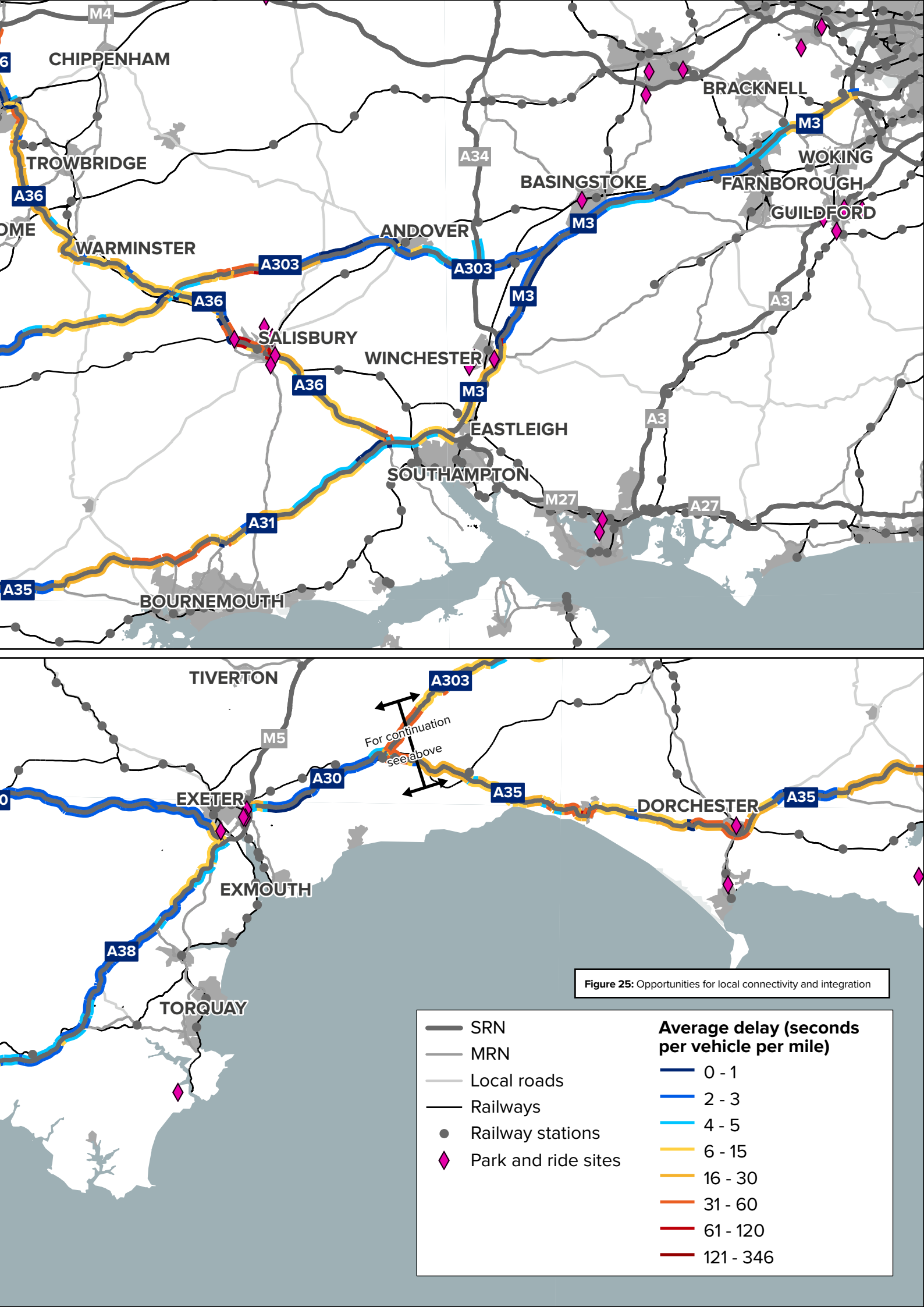


Figure 25: Opportunities for local connectivity and integration

G. North-South Connectivity

Objective

Support improved connectivity for the strategic movement of traffic between the M4, Dorset coast and Southampton through the provision of a resilient and consistent route.

Context

A significant feature of the route is the strategic journeys to and from the M4 towards West and South Wiltshire, Dorset and Southampton. The journeys include important freight flows which not only link major settlements, but also a series of towns and villages. There is also a seasonal demand on the north-south route between the M4 and the Dorset coast from those wishing to access holiday destinations in the South of England and other population locations such as Bath on the A36.

The corridor serves a range of origin and destinations which are further south and west of the main A36 and A46, which do not have a high quality strategic north-south SRN link. This includes connections to and from Poole Harbour and the wider Dorset area, where traffic will use the A338 through Ringwood as well the A350 through Blandford Forum.

A strategic study is currently ongoing focusing on the SRN and other routes between the M4 and the Dorset Coast with the aim of identifying which corridor provides the main strategic route and potentially identify priority investments to improve future connectivity. Local authorities in the area have suggested that there is a strategic case for adopting an alternative north-south corridor as the main strategic route for the area.

Whilst there is a parallel railway line to the A36 and the A46 in the form of the Wessex Main Line, there is no direct north-south line from Bournemouth which places additional strain on the SRN.

Our network considerations

There are limited strategic road connections between the M4 and the Dorset Coast. Strategic traffic journeys, including freight, therefore use a mixture of the A36 and A46, the MRN and the local highway network. The A36 and A46 corridor is mainly single carriageway with numerous junctions. The main network considerations are:

- The corridor is an important freight route to and from Southampton, with the M4/A34/M3 corridor alternatives
- An existing gap in SRN provision between the A36 and A46 around Bath results in traffic using the Cleveland Bridge in the city or the A363 in Wiltshire
- Much of the A36/A46 is rated by the RSF as 1 or 2-star and such roads have a higher safety risk and potential for reduced reliability
- Congestion on the A46 Bath
- Congestion on the A36 around Salisbury; Beckington and Shawford
- High vehicle volumes both from strategic and local traffic has resulted in localised adverse impacts

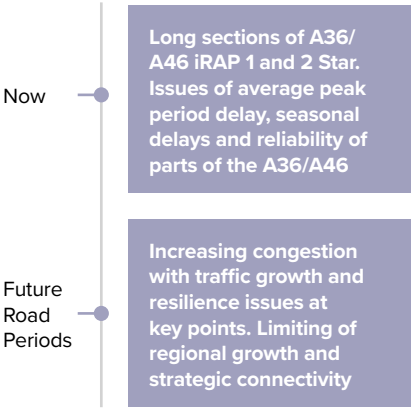
Outcomes

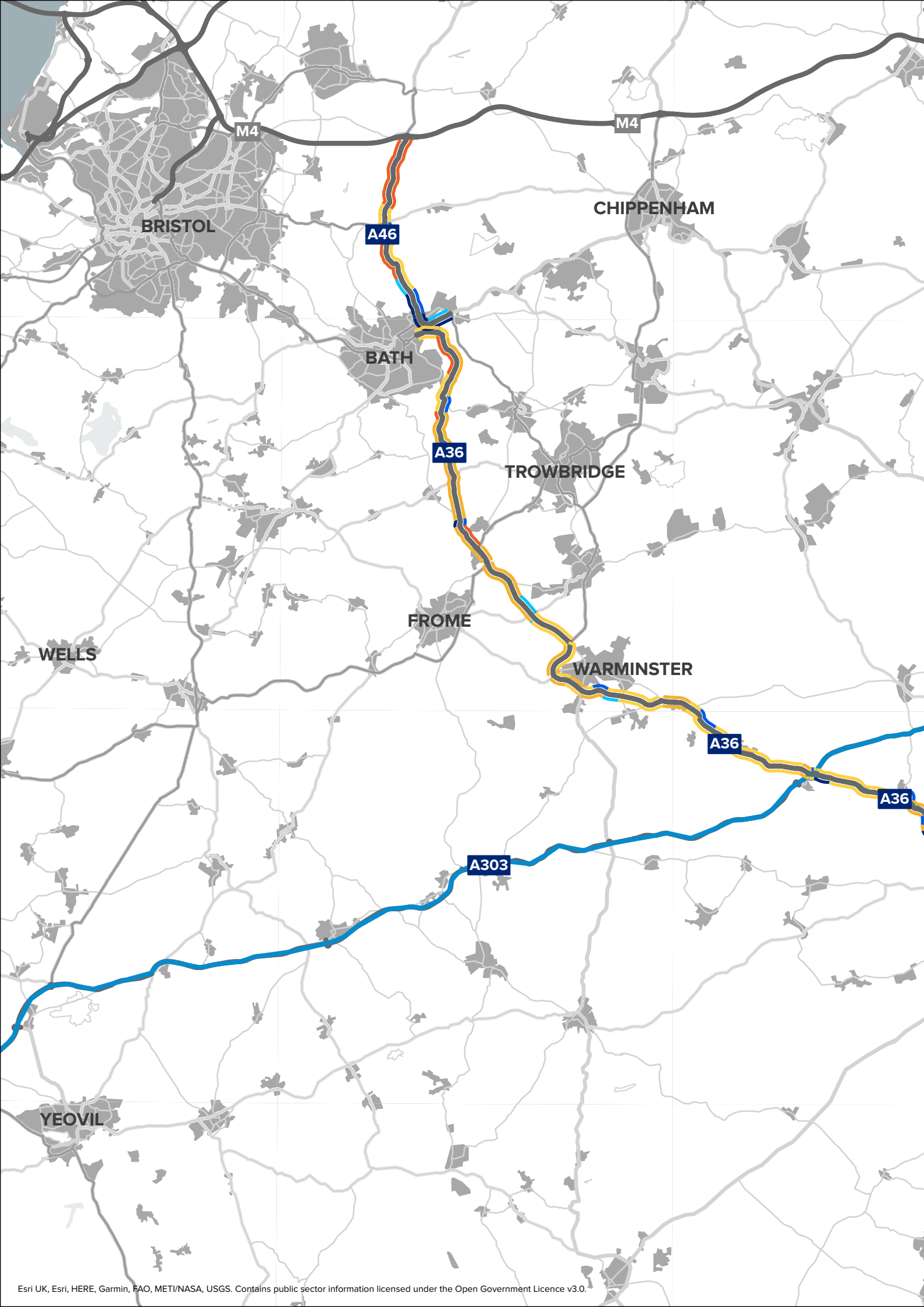
- Reduced delays and improved safety on the A36 and A46
- Improved resilience of the A36 and A46 to incidents and increases in traffic demand
- Better able to meet the demands of the freight sector

DfT's Strategic objectives

- Improving safety for all
- Network performance
- Improved environmental outcomes
- Growing the economy

Timeframe based on the issues and constraints identified




M4
M4
BRISTOL
CHIPPENHAM
A46
BATH
A36
TROWBRIDGE
FROME
WELLS
WARMINSTER
A36
A36
A303
YEOVIL
Esri UK, Esri, HERE, Garmin, FAO, METI/NASA, USGS. Contains public sector information licensed under the Open Government Licence v3.0.

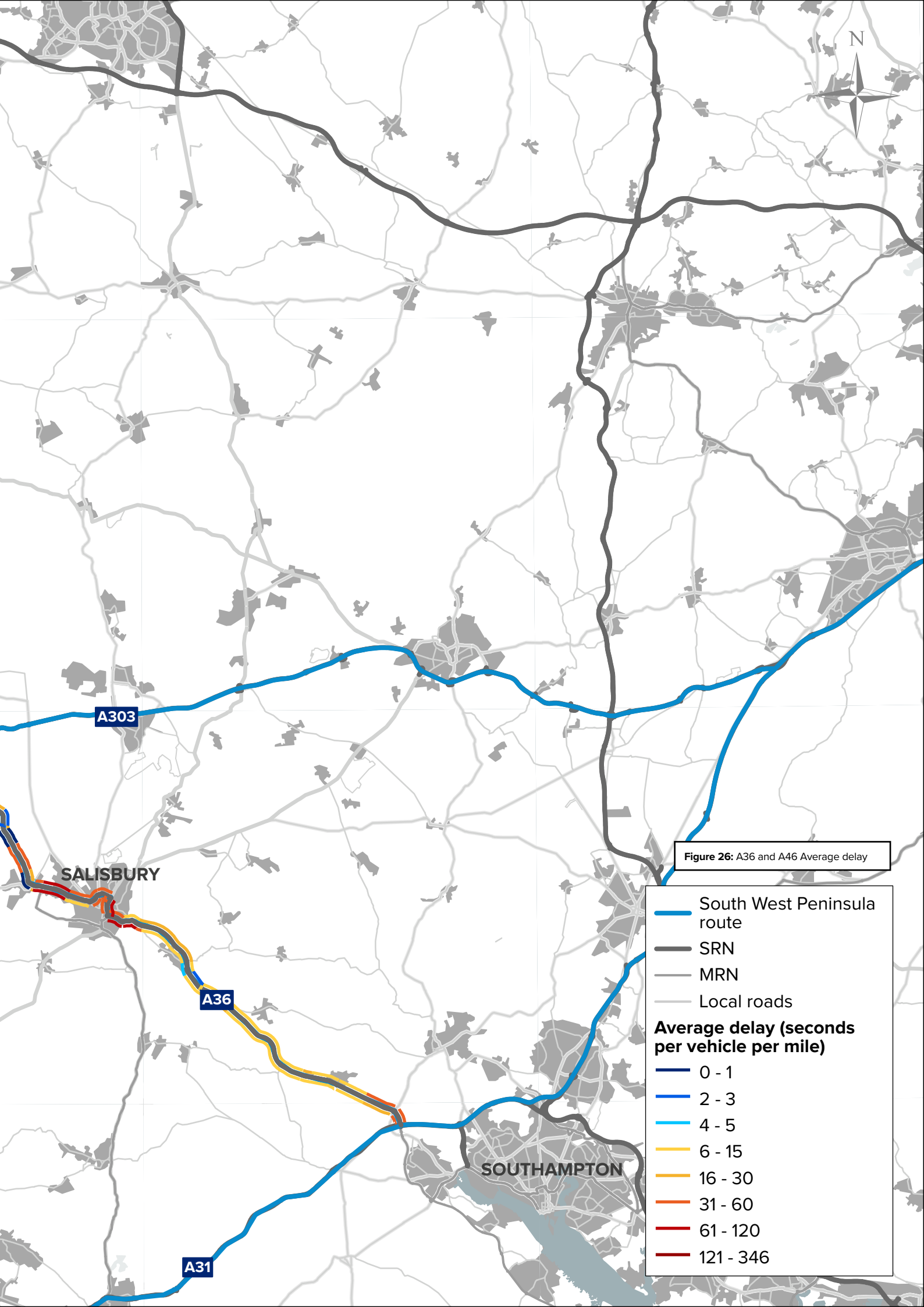


Figure 26: A36 and A46 Average delay

H. Promoting a key strategic route

Objective

Support the role of the A303/A30/A358 corridor as the key strategic route between London and the far South West, to improve long distance connectivity and to support the regional economies.

Context

The current SRN links in this route to and from the South West are characterised by a range of road standards from motorway, to dual carriageway to single carriageway roads. The alternative high standard link is the M4 and M5, which involves a greater travel distance and does not directly serve the main settlements along this route.

A second strategic route between London and the South West has been a long standing aspiration in the first and second Road investment strategy (RIS) periods, particularly to support tourism and economic growth. The A303/A30/A358 corridor has seen and is still subject to a number of RIS funded improvements. The upgrade of the A303 between Sparkford and Ilchester to dual carriageway is under construction and the planning for major improvements at Stonehenge and on the A358 are well advanced. RIS2 sets out that research and development of the options and priorities for potential second phase of improvements to the A303 will be considered during the second and third road period.

The A303 / A30 / A358 corridor provides a number of strategic and localised connections. The corridor is important in helping to unlock further economic growth in the South West Peninsula, particularly in larger settlements such as Exeter, Salisbury, Basingstoke, North Surrey and London. The STBs support the improvement of the A303 corridor as vital element to supporting economic growth in the region.

In terms of other strategic connections, the West of England railway line runs in parallel to the road and serves the same large settlements. However, the line has many single line sections which limit capacity.

Our network considerations

- Existing safety issues and average peak period delay and seasonal delays on sections the A303/A30 corridor
- Safety and journey reliability of the A30 through the environmentally sensitive Blackdown Hills

Outcomes

- Improved journey times on the A303/A30/A358 corridor
- Reduction in seasonal delay on the A303/A30/A358 corridor
- Enhanced regional connectivity supporting economic activity along the corridor and between the South West peninsula and the wider UK through more reliable journey

DfT's Strategic objectives

- Improving safety for all
- Network performance
- Improved environmental outcomes
- Growing the economy
- A Technology-enabled network

Timeframe based on the issues and constraints identified

Now	**Delays on the route and inconsistent route standards and low iRAP star rating**
Future Road Periods	**Limiting regional growth and strategic connectivity**

Table 2: Evidence used to inform objectives

Objective		Extent	Chapter 3 Views raised by our customers and neighbours	Chapter 4 Integration with our partners' strategies and priorities	Chapter 5 Challenges and issues identified
A	**A resilient and consistent route** Promote safe and reliable journeys to improve customer experience through the provision of a resilient and consistent network particularly along the A31/ A35, A38, A30 and on the A36 / A46 and A303.	A30, A31, A35, A36, A46, A303	Interested Parties noted the inconsistent standard of some roads, particularly sections that had a lot of variation between older and improved single carriageway and dual carriageway. This presents challenges for drivers.	Transport for the South East (TfSE) priorities are for more reliable journeys for people and goods on a more resilient transport network. Peninsula Transport goals include enhancing the resilience of the transport network and improving connections between people, business and places. It is also noted they have a desire for consistent corridor standards for road and rail.	Single carriageway sections of the following roads which suffer from congestion and a low iRAP rating: • A35 - Dorchester to Honiton • A31 - Colehill and Stapehill; Wimborne to Bere Regis; Ameysford to Canford Bottom • A30 - Upottery Marsh to Honiton; Bolventor; Carland Cross to Chiverton; Roseworthy to Connor Downs; Whitecross to Long Rock • A38 - Carkeel to Liskeard, Doublebois to Turfdown Road • A303 - Winterbourne Stoke; near Stockton Wood; Hindon to Mere; South Petherton to Newtown; Marsh to Upottery • A36 - Bathampton to Fisherton de la Mere; Stapleford to Stoford; Petersfinger; Alderbury to Landford • A46 - Upper Swainswick to M4 J18
B	**Resilience and management of seasonal traffic** Improve the resilience to and management of additional seasonal traffic flows to tourism locations such as the New Forest, Dorset, Stonehenge, Bath, Exmoor, Dartmoor and Cornwall to support the route's wider economic function for all users.	A30, A31, A35, A36, A303	Interested Parties highlighted congestion and journey time reliability issues during peak times and during school holidays where there are heightened traffic flows. The route needs to better accommodate increased demand during seasonal periods and ensure that sufficient network resilience and connections are in place to accommodate travel to/ from the whole network.	TfSE priorities are for more reliable journeys for people and goods and a more resilient transport network. Peninsula Transport goals include enhancing the resilience of the transport network and improving connections between people, business and places.	Sections of route which are particularly sensitive to seasonal flows include: • A303 – Stonehenge, Winterbourne Stoke, Podimore to Sparkford, Chicklade • A36 – Salisbury, Monkton Coombe, Beckington • A35 – Dorchester, Bridport, Chideock • A30 – Honiton to Uppotery, Exeter, Zelah to Carland Cross, Crowlas to Long Rock, North of Truro • A31 - Ringwood and Ferndown to Canford • M3 - Junction 3 • M27 - Junction 3/ M271

Objective		Extent	Chapter 3 Views raised by our customers and neighbours	Chapter 4 Integration with our partners' strategies and priorities	Chapter 5 Challenges and issues identified
C	**Supporting sustainable economic and housing growth** Support regionally significant and sustainable economic and housing growth, particularly in garden communities, enterprise zones and Freeport sites, whilst maintaining the safe and effective operation of the route.	A30, A31, A35, M3, M27	Interested Parties noted potential significant residential developments within and around Exeter including Liveable Exeter Garden Communities and at Cranbrook. Also a number of Enterprise Zones in Cornwall including the Newquay Growth Area, Goonhilly, and Langarth.	TfSE priorities are for a more integrated approach to land use and transport planning. Key objectives from the Western Gateway Strategic Transport Plan (STP) include ensuring effective access to labour markets and greater integration of employment clusters. One of the main goals of the Peninsula Transport Vision is for 'improving connections between people, business and places.'	Manage potential increased traffic from future developments on the route, notably: • A35 – Dorchester urban extension • M3 – Basingstoke; Eastleigh; growth at Port of Southampton; residential developments in Winchester • M27 – Southampton including Southampton Airport • A31 – housing development and Bournemouth Aviation Business Park • A30 – Exeter garden communities and Cranbrook new community • A30 – Marine, Aerohub and Goonhilly Enterprise Zones
D	**Supporting the needs of the freight sector** Support the needs of the freight sector to achieve the efficient movement of goods on the east-west M3, M27, A303, A35, A30, A38 corridors and north- south on the A46 and A36 corridor.	A31, A35, A38, A303, M3	Interested Parties raised concerns about the reliability and difficulty of planning freight jourenys due to congestion and lack of journey time reliability. Notable areas of concern included the Port of Southampton.	The Western Gateway STP includes an objective for greater integration of employment clusters and also to enhance business connectivity to international markets. One of the five main goals of the Peninsula Transport Vision is to improve connections between people, business and places. Network Rail have noted freight and passenger line capacity constraints between Basingstoke and Southampton. It is also noted there are limited rail freight opportunities in the South West.	Locations that have key freight considerations are: • M3 – J9 to J14 and links with A34; J4A Fleet Services • A303 – Broadway Hill to Ham Hill; Stonehenge; Intersection A303/ A134; A303/A350 junction • A31/A35 – single carriageway A-roads through villages • A38 – Bodmin, lack of suitable HGV diversion routes; restrictive rail bridges such as Trerulefoot/Polmarkin

Objective		Extent	Chapter 3 Views raised by our customers and neighbours	Chapter 4 Integration with our partners' strategies and priorities	Chapter 5 Challenges and issues identified
E	**To be a better neighbour** To be a better neighbour by reducing adverse impacts of air quality, noise and severance on the communities on the A31 in Dorset / Hampshire, A35 in Devon and Dorset, A303 in Somerset and Devon, A36 in Bath and Wiltshire, and the A30 / A38 in Devon and Cornwall.	A30, A31, A35, A36, A46, A303, M3	Interested Parties noted that A-roads at points throughout the route cause severance to communities and Public Rights of Way (PROW) where the roads travel through villages. Interested Parties also raised air quality and noise issues at Chideock (A35) and Tideford (A38).	Decarbonisation of the strategic transport network and to improve air quality are objectives within Western Gateway's STB. Improving the health and wellbeing of communities is one of the five main goals of the Peninsula Transport Vision.	Potential adverse impacts on communities along the route include: • M3 Eastleigh (air quality) • A35 Dorchester to Honiton; (severance), Chideock (severance and air quality) • A303 Winterbourne Stoke (severance), Wincanton and Andover (noise and air quality) • A30 Crowlas and Hayle (severance and air quality); communities between Hayle and Long Rock and Monkton (severance), Cambourne to Redruth and Honiton (air quality) • A36 Sailsbury (severance and air quality) • A38 Tideford (air quality), Ashburton, Plymouth and Liskeard (air quality), Bittaford and Ivybridge (noise),Tideford and Landrake (severance) • A36/A46 Bath and Salisbury (air quality and severance), Bathampton and Limpley Stoke (severance) • A31 St. Leonards and Ringwood (air quality, noise and severance), communities north of Poole and Bournemouth and the New Forest National Park (severance)
F	**Support local connections and integration** Support modal shift through better integration with public transport and improved active travel options to relieve pressure on the SRN, particularly in urban areas including Southampton, Bournemouth, Salisbury, Exeter, Plymouth and Truro.	A30, A35, A38, A303 at specific locations	Interested Parties identified poor rail connectivity between Devon/Cornwall and the wider UK with which often leads to dependency. They also noted opportunities across the route to improve connections between the SRN and nearby transport interchanges such as P&R facilities and railway stations.	One of the priorities of the TfSE Transport Strategy is for a network that promotes active travel and active lifestyles. Peninsula Transport goals include improving the health and wellbeing of communities in the peninsula.	Opportunities to coordinate with other planned modal interventions include: • planned park and ride schemes such as Southampton, Okehampton, Truro and Newquay • planned or newly opened rail improvements: Devon Metro including the opening of new stations and improved frequencies; One Cornwall which will include regular services • opportunities for enhanced connections between the SRN and nearby P&R and rail interchanges., including from the A38 (Coypool P&R), A30 (St Erth P&R and P&R facilities near Truro and Falmouth) • new active travel links at locations such as A30 near Launceston (to connect with NCN 327) and also in communities including Crowlas (A30), Chideock and Wilmington (A35)

Objective		Extent	Chapter 3 Views raised by our customers and neighbours	Chapter 4 Integration with our partners' strategies and priorities	Chapter 5 Challenges and issues identified
G	**North-South Connectivity** Support improved connectivity for the strategic movement of traffic between the M4, Dorset Coast and Southampton through the provision of a resilient and consistent route.	A36 and A46	Interested Parties commented on the A36 between Alderbury Bypass and Churchill Way which suffers from congestion. This road is only single lane each way and serves multiple purposes including a retail park. It was also noted the A36 through Salisbury is congested and [causes] air quality issues in the city.	Western Gateway STB long term strategic plan sets out that one of their key objectives is to improve north-south connectivity,	Key challenges and issues on the A36 and A46 for access to and from the M4 include: • the A36/A46 corridor is mainly single carriageway with numerous junctions • Safety issues, in particular north of Salisbury with low iRAP ratings. • indirect connectivity between the A36 and A46 in Bath, resulting in traffic using Cleveland Bridge in the city or the A363 in Wiltshire • congestion on the A46 in Bath and the A36 at Salisbury, Beckington and Shawford
H	**Promoting a key strategic route** Support the role of the A303/A30/A358 corridor as the key strategic route between London and the far South West, to improve long distance connectivity and to support regional economies.	A30, A303 and A358	Interested Parties noted congestion [on the A303] past Stonehenge, in both directions. It was also identified the A30 west of Cambourne is often congested, with long traffic jams. The small villages [on the A30] experience constant flows of traffic often travelling slowly [which causes environmental impacts].'	A TfSE priority is for better connectivity between major economic hubs and international gateways and for more reliable journeys for people and goods. Part of the Peninsula Transport Vision includes a desire for consistent corridor standards for road and rail and to improve connections between people, business and places.	Key challenges and issues on the A303, A30 and A358 include: • A30 – Honiton to Yeovil • A30 – North of Truro • A303 – Stonehenge, north of Ilminster, Chicklade and Ilchester to Sparkford

Unlocking regional potential

07 Locational areas for consideration and potential collaboration

We know the importance that investment in our network can make locally, regionally and nationally. It can make areas more attractive for inward investment, unlock new sites for employment and housing and facilitate regeneration. It can also ease congestion, improve our customers' journeys and support environmental improvements.

In this chapter, we outline our proposed locational areas for further consideration, which will be explored in future RIS periods to achieve the South West Peninsula route objectives and six strategic government objectives. These do not represent a commitment as funding will be considered as part of the RIS and other investment processes.

Furthermore, they do not represent a final list of our potential investment locations and they will be refined in our final *Route strategy overview report*, published alongside our RIS3 Strategic *business plan* and *Delivery plan for 2025-2030*.

Alignment with government objectives

Route strategies are aligned to the DfT's six strategic objectives and will also contribute to the RIS3 performance metrics set as part of the RIS-setting process.

Improving safety for all

Safety is our top priority and we are committed in the second road period (2020-2025) to reducing the number of road users killed or seriously injured on the strategic road network (SRN), by 50% (from the 2005-2009 baseline) by the end of 2025, with a long-term vision of zero harm. This includes our contractors adopting a safe system approach to ensure roadworker safety. Our operational and strategic planning teams continue to work to prevent incidents from occurring and are focussed on reducing incident severity through a package of activities to promote safer roads, safer people, safer vehicles and coordinated collision response. We are also learning from other organisations and interested parties about what works best and collaborate with them to improve safety for all. Safety is embedded in our study programme to inform future investment priorities for RIS3 and beyond.

Network performance

Our operational and strategic planning teams continue to explore what steps can be taken to make journeys more reliable and not subject to delay, as well as safer, while protecting and respecting the environment. This involves working with our partners such as Sub-national Transport Bodies and other operators such as Network Rail to consider interventions to improve network performance as we recognise the SRN does not stand alone from other transport infrastructure, in particular local roads, and users expect journeys to be seamless regardless of transport mode or ownership. Through our study programme we will identify appropriate types of intervention recognising the need for integration, environmental and digital consideration balanced against costs.

Improved environmental outcomes

We are continuously working to ensure our roads work more harmoniously with the communities that live alongside them and the environments that surround them. We embed environmental considerations into all our activities, ranging from infrastructure design to scheme delivery and ensuring we meet our statutory obligations, and the way we manage and operate our network. In developing our intervention programmes, we will consider a broad range of interventions including technology enabled solutions and integration with other operators' networks as we understand the gravity of the climate situation and are committed to playing its part in reducing carbon emissions. Our carbon policy commitments are:

- as a net zero Britain will still travel by road in 2050, we will ensure we can support a properly maintained, future-ready road network that is fitted to support the transition to electric vehicles, and is key to reducing emissions from transport
- this programmatic coordinated delivery approach will act as a catalyst for: production management, off-site construction, reducing network disruptions, unlocking economies of scale, and supporting delivery of net zero targets
- it will also help us understand how interventions should be delivered, either through grouping or as stand-alone projects
- we expect this approach will create opportunities for increased efficiency, and enable us to deliver more within our funding. We also expect this approach to help us support the Government's long-term aims for the nation, such as contributing to net zero carbon, and social values

Growing the economy

We recognise that the strategic road network (SRN) is a significant economic asset for the UK and is essential for people to access jobs, and for businesses and logistics firms moving goods around the country. Our regional planning teams continue to work closely with local planning authorities to support sustainable growth and development aspirations, including integration with other modes. We also continue to work with businesses to understand their needs such as quality lorry parking facilities and ensuring reliable and resilient integration with ports, airports and rail terminals through which we access global markets. The SRN also has a role in achieving the Government's moral, social and economic programme of levelling up the United Kingdom. Our forward intervention programme will seek to support the growth agenda where possible and appropriate.

Managing and planning the SRN for the future

We recognise that our network is complex and varied and requires careful stewardship to keep it in good condition. Our ongoing maintenance programme is essential to safety and keeping our roads open, while our renewals activity allows us to maintain, safeguard and modernise all our assets, and provide increased resilience in relation to extreme weather. Research and data help us to understand what our network needs over the short and long term and to inform our planning. We continue to be committed to delivering our work in a way that minimises disruption to our customers and maximises value to taxpayers.

A technology-enabled network

In designing our intervention programmes, we will consider our *Digital roads* vision for how we harness data, technology, and connectivity to improve the way the SRN is designed, built, operated and used for the future. This will enable safer journeys, faster delivery and an enhanced customer experience for all. The vision is structured around three themes: Design & Construction; Operations; Customers. The approach embeds digital, data and technology across the intervention programmes, providing the building blocks for a digital future for roads.

Programmatic approach to investment

As part of our new route strategies process, we are developing a more programmatic approach to how we develop our investment plans. This will help us determine the complexity of potential investments and which high value interventions are more deliverable.

This programmatic coordinated delivery approach will act as a catalyst for; production management, off-site construction, reducing network disruptions, unlocking economies of scale and supporting delivery of Net Zero targets.

It will also help us understand how interventions should be delivered, either through grouping or as standalone projects.

We expect this approach will create opportunities for increased efficiencies, enable us to deliver more within our funding and/or in collaboration with other investment programmes. We also expect this approach to help us support the Government's long-term aims for the nation, such as contributing to net zero carbon.

Figure 27 shows how the route objectives defined in the route strategies, along with the associated cluster analysis of performance metrics, help to refine an initial set of locations for future investigation. Further iterations of sifting as information and analysis evolves will help to inform the Government's setting of RIS3 (2025-2030) and beyond. The input from route strategies early on in this process will ensure that all schemes which are ultimately taken forward align with the route objectives.

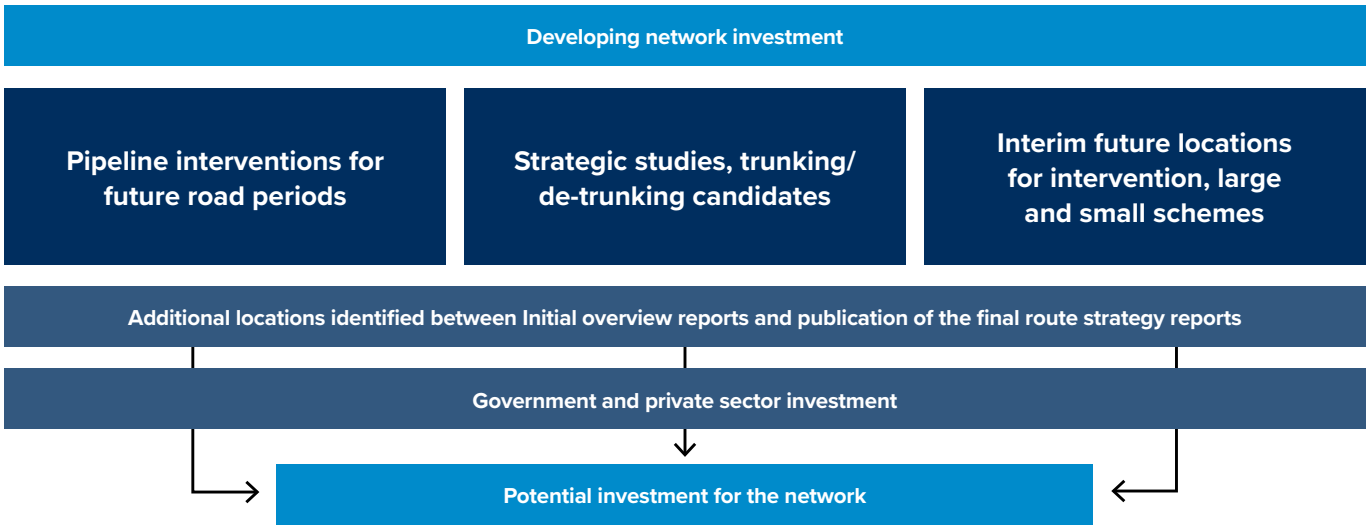


Figure 27: Process to identify potential investment on the network

Types of investment and funding sources

There are a variety of funding streams which enable us to invest in our network and which form part of our investment planning. These are summarised in the following section, along with the current committed schemes associated with each funding source for the South West Peninsula route. Key funding sources could include:

- RIS Funding – a funding stream administered by National Highways, set by the Government's publication of the RIS
  - RIS2 Committed Schemes, as outlined in the following RIS2 table, are committed by DfT to be delivered over the *Road investment strategy*. The statement of funding confirmed that £24 billion will be provided over the 5-year period (2015-2020) to deliver this work, noting that some RIS2 commitments will continue into the third road period; and
  - RIS4 (2030-2035) pipeline schemes, previously earmarked for RIS3 (2025-2030), will continue to be developed in line with our statutory processes and considered for inclusion within RIS4. These are potential future schemes originally identified by National Highways and set as part of RIS2 by DfT. These schemes are not currently committed for construction.
- maintenance funding and asset renewal – within National Highways there is funding set aside for network maintenance and renewing ageing assets across the network, the budget for these is included in the RIS settlement
- potential targeted funding streams that may be made available to National Highways during the third road period as part of the wider RIS settlement, focused on making improvements that will make the biggest difference and deliver lasting benefits
- other external sources of funding delivering infrastructure enhancements on, or close to, the SRN including Central Government third parties, private sector developments, and inward investment

RIS2

The following schemes are committed for the second road period (2020-2025) on or connecting to the South West Peninsula route:

Scheme number	Scheme	Description	Start of works	Open for traffic
Committed for the second road period (2020-2025)				
1	A358 Taunton to Southfields	Proposed upgrading of the A358 to dual carriageway from the A303 Southfields roundabout to M5 J25.	2024/25 Q4	Third road period (2025-2030)
2	A303 Amesbury to Berwick Down	Committed for RP2 and includes the construction of eight miles of new and improved dual carriageway.	2024/25[41]	Third road period (2025-2030)
3	A303 Sparkford to Ilchester	Committed for RP2 and involves the construction of a new 3-mile section of dual carriageway.	Started	2023/24 Q4
4	M3 Junction 9	Committed for RP2 and involves changing the layout of junction 9.	2023-2024	Third road period (2025-2030)
5	M3 Junctions 9-14	Involves the upgrade of M3 between junctions 9 to 14 to an all lane running smart motorway.	Cancelled[42]	Cancelled
6	A31 Ringwood	Committed for RP2 and involves widening the A31 to three lanes at Ringwood, between the A31 junction for Ringwood town centre, the B3347 Mansfield Road and the B3081 Verwood Underpass.	Started	2022/23 Q4
7	A30 Chiverton to Carland Cross	Committed for RP2 and involves the construction of a new 8.7 mile section of dual carriageway. The scheme connects into both the Chiverton Cross and Carland Cross roundabouts.	Started	2023-2024 Q4

RIS4 pipeline

The following uncommitted schemes are in the pipeline for consideration for inclusion in the fourth road period (2030-2035) on the South West Peninsula route:

Scheme number	Scheme	Description
1	A303 Phase 2	Phase 2 of upgrades to A303 corridor
2	M27 Southampton Access	Involves upgrading junctions 2 and 3 of the M27
3	A38 Trerulefoot to Carkeel Safety Package	Aims to address existing safety concerns on the A38

41 Date revised due to planning constraints and stakeholder input
42 Plans for new smart motorways have now been cancelled and previously paused smart motorways will now not go ahead.

Other notable schemes

In addition to the above RIS schemes for the South West Peninsula route, across the three STBs (Peninsula Transport, Western Gateway and Transport for the South East) there are other notable schemes such as Major Road schemes and Large Local Majors that interact with the SRN. These include:

Scheme number	Scheme	Description	Start of works	Open for traffic
Peninsula Transport				
1	A382 Drumbridges to Newton Abbot	Major Road scheme put forward by Peninsula Transport for 2020-2024 funding. Key improvements include widening the dual carriageway and upgrading junctions. Outline Business Case approved in May 2021. It is anticipated the Full Business Case will be submitted in 2023 to allow construction to start in 2024.	2024	TBC
2	Forder Valley Link Road and A38 Interchange	New road link under construction between the A38 and the north of Plymouth. The road will include a new bridge across Bircham Valley, with an upgraded junction at the Forder Valley Road/Novorossiysk Road intersection to increase capacity and reduce delays.	2020	February 2023
Western Gateway				
No Western Gateway Large Local Major schemes were relevant to the South West Peninsula route				
Transport for the South East (TfSE)				
No TfSE Major Road schemes were relevant to the South West Peninsula route				
Other schemes				
3	St Austell to A30 Link	Large Local Major scheme promoted by Cornwall Council which will deliver a new 3.85 mile (6.2 kilometre) road linking St Austell to the A30. Project under construction as full business case was approved in June 2022.	July 2022	Spring 2025

Strategic studies, trunking and de-trunking

National Highways undertakes strategic studies to analyse complex problems that may need to be addressed over multiple road periods. Strategic studies can involve close working with key partners including Sub-national Transport Bodies and DfT, the consideration of options for improvements, and can be used to help to decide on whether to fund any proposed improvements in the future.

RIS2 includes a Strategic study for the M4 to Dorset Coast. We expect that this study will identify which corridor provides the main strategic route for the area; may recommend the trunking and detrunking of key routes; and may identify priority investments in the area that can be taken forward after the dualling of the A303/A358 is complete.

For RIS2, National Highways were asked to explore changes to the SRN to ensure the network aligns with RIS2 strategic priorities reflected in the *National Highways Strategic business plan*[43]. This plan relates to improving connections between main urban centres, to international gateways, to peripheral regions (for levelling up) and strategic cross-border routes (to strengthen union connectivity). It included a commitment to explore potential asset ownership changes between ourselves and local highway authorities that could be implemented no earlier than the start of RIS3. The DfT has produced a shortlist of eighteen trunking and two de-trunking candidates, identified following the draft RIS2 public consultation in 2018, for us to assess desirability and viability of asset transfer. De-trunking is the process of returning a National Highways road to the local highway authority control and visa versa for trunking. These candidates were put forward by a range of external stakeholders including local authorities, Local Enterprise Partnerships and Chambers of Commerce, then shortlisted by DfT. There is ongoing work to review the assessment evidence and recommendations. By autumn 2022, government ministers are expected to announce which candidates will progress to the detailed development stage, which will be led by National Highways and incorporated in the forward study programme and wider RIS 3 process.

Locations identified through route strategies for future investigation

National Highways undertakes route studies to investigate locations across the network. In addition, locations of interest have been raised by Interested Parties through the route strategy engagement process.

To supplement this, as part of the route strategies process outlined in this document, National Highways has used cluster analysis to identify further locations for future investigation and undertaken an exercise to align these locations to the route objectives for the South West Peninsula route.

The cluster analysis allows decision makers to easily identify which sections of roads should be prioritised for further investigation. The assessment is a two-part process. In the first part, for each route strategy route, the objectives are defined geospatially. This allows us to identify which sections of the SRN the objectives converge, therefore quickly identifying the links that help us to achieve the maximum number of objectives. The second part of the assessment uses our understanding of the network to allow a further filter to remove links that are already performing well. This results in a filtered shortlist of SRN links or sections of roads that should be prioritised for further investigation. These have been grouped into areas of interest where they are in close proximity geographically. Should a location not be identified for further investigation as part of this initial sift, this does not preclude it from being added to the list of areas of interest in the future.

The use of regional traffic models for the 2031 scenario has enabled the identification of locations for further investigation based on the forecast network operation in the future, to plan the future of the network beyond the current RIS3 cycle. Typically, this has resulted in the extension of some areas of interest, as shown in the table of locations overleaf. In the final publication version of the route strategy overview reports, additional data from the regional traffic models will also be considered, to enable the identification of locations for further investigation in future roads periods.

There will be further development of any proposed mitigation at each location in line with National Highways' internal processes. In order to fund any proposed improvements National Highways will draw upon the funding streams as previously identified.

43 Highways England, *Strategic business plan: 2020-2025*, https://nationalhighways.co.uk/strategic-business-plan/

Route strategies and regional traffic models

The route strategies have utilised the National Highways regional traffic models (RTMs) to identify future performance and delay on the network, which is the best data currently available.

Working with key stakeholders and interested parties, we have set out a number of potential candidate intervention locations which may require further development upon validation to check their alignment with the route strategy objectives.

New national traffic growth forecasts have now been released by the Department for Transport and as we carry out this exercise, we will consider how updated growth forecasts will impact on the identified areas for further investigation.

Alongside these more traditional road improvement schemes we will also need to support and encourage modal shift through transport integration and embrace emerging technologies to improve the performance of the network.

The impact on carbon and the environment will be central to all our thinking on which interventions are proposed to be taken forward.

Identified locations for future investigation and collaboration

Our analysis has set out the potential constraints and opportunities across the network and, in parallel, we are developing a RIS programme that is resilient to changing priorities, the carbon and environment agenda.

We have a wide range of potential intervention types within our toolkit, such as both non-roads and road-based solutions, to help us achieve our objectives. These could include:

Potential non-road interventions:

- We have a role in supporting wider network initiatives to improve the customer experience such as provision and enhancements of: facilities for the freight industry; and electric vehicle charging
- Exploiting technology to improve safety and network operation, including roll out of connected corridors
- We will also deliver a portfolio of measures to encourage active travel
- Environmental enhancements to minimise the impact of the SRN on surrounding communities
- Support all opportunities to encourage modal integration and influence demand for vehicles, particularly at interfaces with urban centres

Potential roads interventions:

- In addition to Lower Thames Crossing, we will continue to progress those remaining schemes in RIS1 and RIS2[44] that will not be in construction at the end of RP2, as well as the RIS4 pipeline, in line with government aspirations
- The pipeline schemes announced in RIS2 is the most developed portfolio of potential interventions and we propose a renewed focus to ensure schemes: are resilient with an acceptable Value for Money; consider the Carbon Management in Infrastructure standard; are affordable, with lower cost options being developed; are environmentally responsible; are deliverable; and, have strong stakeholder support and / or are a good strategic fit (e.g. ports, levelling up)

We will also develop a significant portfolio of smaller safety and congestion interventions that improve localised issues as well as route treatments that address comparably poor safety performance (International Road Assessment Programme 1-star and 2-star roads) along selected all-purpose trunk road corridors.

44 Plans for new smart motorways have now been cancelled and previously paused smart motorways will now not go ahead.

Table 3 and Figure 28 show the areas identified for further investigation, where interventions have the potential to help us achieve the majority of route objectives.

In line with National Highways' internal processes, we will draw upon a wide range of funding streams, further developing any proposed mitigation to the issues identified, exploring:

- collaboration and integration opportunities
- synergies with existing planned schemes
- opportunities with asset and maintenance priorities as set out in chapter 5.5

As part of the ongoing evolution of the route strategies toward final publication we will further strengthen its role in being a strategic planning tool for interested parties who have a stake in the SRN and its future.

Table 3: Areas of interest for further investigation

Area location	Area of interest	Area issues	Now	Future road periods
		M3		
M3 Junction 2 to Junction 13	**A**	Relatively high number of KSIs on the M3 between junctions 2-3 and 8-9. Relatively high density of fatal and serious motorcycle **collisions** between Winchester and the M27. **Seasonal delay** between M25 and junction 3 (Lightwater); **Potential air quality** issues Lightwater to Farnborough; Basingstoke; Winchester to Eastleigh **Potential noise** issues Virginia Water to Windlesha, Lightwater to Farnborough, Basingstoke, Winchester, Shawford to Eastleigh M3 has higher volumes of **freight** due to Southampton Port than other roads comprising the South West Peninsula route. **Freight** concerns on M3 between Junctions 9 and 14, and at Junction 4A Fleet Services.	✓	✓
		M27		
M27 Junction 2 to Junction 4	**B**	**Seasonal delay** on the M27 between Junctions 3 and 4 connecting Southampton will see **future delay** increases. Elevated incidences of **flooding** in the vicinity of Nursling. **Potential air quality** issues at Southampton in particular at Nursling where the SRN passes near to receptors. M27 features higher volumes of **HGVs** reflecting proximity to Southampton Port than other roads on the route.	✓	✓

Area location	Area of interest	Area issues	Now	Future road periods
		A31		
A31 from Cadnam to A350 Roundhouse	**C**	Sections have **1 or 2 star iRAP safety rating** at Colehill and Stapehill; Wimborne to Bere Regis, Ameysford to Canford Bottom. Relatively high number of total **KSIs** in the New Forest; on the A31 M27 Junction 1 to Picket Post; Merely to Bere Regis. Relatively **high percentage of WCH** have been killed or seriously injured on the A31 Bere Regis to M27 Junction 1 Relatively high density of fatal and serious motorcycle **collisions** between Cadnam and Ringwood. **Average delay** on A31 between Ferndown and Wimborne Minister, and at junction with A350. **Seasonal delay** at Ringwood and between Ferndown to Wimbourne Minister. **Unexpected delay (reliability)** north of Poole and Bournemouth Risk of surface water **flooding** on A31 south of Wimborne Minister and Ringwood **Potential air quality and noise** issues Ringwood to Poulner; St Ives to St Leonards Single carriageway A roads through villages **Severance** north of Poole and Bournemouth; New Forest National Park Sporadic electric charging infrastructure	✓	✓
		A46		
A46 from M4 to Bath	**D**	**Connectivity** issues on A46, especially near Bath between Upper Swainswick and M4 junction 18. **Average delay** between Tadwick and M4 **Potential air quality and noise** issues in Bath Sporadic electric charging infrastructure	✓	✓
		A36		
A36 from Bath to A303	**E**	Sections have **1 or 2 star iRAP safety rating** at Bathampton to Fisherton de la Mere (excluding Upton Lovell); Relatively **high percentage of WCH** have been killed or seriously injured on the A36 between M27 and A303 **Seasonal delay** in Monkton Combe (B3108 junction), Beckington, Bathampton **Severance** in Bathampton Sporadic electric charging infrastructure	✓	✓
A36 from A303 to M27	**F**	Risk of surface **flooding** west of Salisbury Salisbury suffers from **Average delay, unexpected delay (reliability) and seasonal delay.** Also will see f**uture delay increases** **Potential noise** issues in Salisbury **Potential air quality** issues in Salisbury, West Wellow to Plaitford **Severance** due to the SRN at Salisbury between Stapleford to Stoford; Petersfinger, Alderbury to Landford; A36 / A3090 junction to A36 / M27 junction.	✓	✓
		A303		
A303 from Amesbury to Andover	**G**	**Seasonal delay** at Stonehenge **Potential noise and air quality** issues in Andover **Unexpected delay (reliability)** at Stonehenge **Average delay** between Winterbourne Stoke and Amesbury at Winterbourne Stoke	✓	✓

Area location	Area of interest	Area issues	Now	Future road periods
A303 from A36 to Wincanton	**H**	**Seasonal delay** West Knoyle to Chicklade **Severance** and potential **air quality** issues in Chicklade **Potential air quality** issues, Wincanton to Leigh Common, High number of total **KSIs** between Mere and A350 Hindon to Mere and near Stockton Wood. **Freight** concerns at A303/A350 junction.	✓	✓
A303 from Ilchester to Upottery	**I**	Sections have **1 or 2 star iRAP** safety rating on the A303 South Petherton to Newtown; Marsh to Upottery **Seasonal delay** at Ilchester to Sparkford, and north of Ilminster **Unexpected delay (reliability)** at Sparkford (subject to a major improvement scheme either in construction or planned) Risk of surface **flooding** on A303 north of Yeovil **Freight** concerns at Broadway Hill to Ham Hill	✓	✓
		A35		
A35 from Dorchester to Honiton	**J**	Sections have **1 or 2 star iRAP safety rating** between Dorchester and Honiton (except some shorter sections of by-passes and dual carriageways). Relatively high number of **total KSIs** between Axminster and Wilmington Relatively **high percentage of WCH** have been killed or seriously injured between Dorchester to Penn Relatively high density of fatal and serious motorcycle **collisions** between Bere Regis and Dorchester. **Average delay** between Bridport and Dorchester **Seasonal delay** in Dorchester to Honiton, Bridport and Chideock **Unexpected delay (reliability)** between Dorchester and Bridport Risk of **surface flooding** on A35 at Dorchester, west of Axminster and Winterbourne Abbas **Air quality** issue in Chideock (AQMA), Potential air quality issue at Dorchester, Winterbourne Abbas, Bridport **Severance** in villages between Dorchester and Honiton **Resilience** issues, due to single carriageway A roads through villages Sporadic electric charging infrastructure	✓	✓
A38 from Exeter to Heath-field	**K**	**Average morning peak period delays** on the A38 on the southern approach to Exeter as it serves as a confluence of routes. **Morning peak delay** forecast to increase on approach to Exeter. **Future development** growth pressures at Exeter, Newton Abbott and Torbay.	✓	✓

Area location	Area of interest	Area issues	Now	Future road periods
		A38		
A38 from South Brent to Bodmin	**L**	Sections have **1 or 2 star iRAP safety rating** at Carkeel to start of dual carriageway to Liskeard, Doublebois to Turfdown Road (Glynn Valley) High total of **KSIs** between Bodmin and Dobwalls High density of fatal and serious motorcycle **collisions** between Carkeel and Plympton, Carkeel to Bodmin **Seasonal delay** St Budeaux to Carkeel **Unexpected delay (reliability)** Plymouth to Saltash There will be **future delay increases** around Saltash and between Bodmin and Dobwalls **Air quality** issue at Tideford(AQMA). Potential air quality issues at Wrangaton to Lee Mill, Plymouth (Eggbuckland, Honicknowle, St Budeaux), Saltash, Landrake, Liskeard **Potential noise** issues Wrangaton to Lee Mill, Manadon (Plymouth), Saltash **Severance** caused by SRN Tideford Inconsistent electric charging provision Less appropriate HGV **diversion routes**. **Freight** issues at Bodmin and Trerulefoot (restrictive rail bridge)	✓	✓
		A30		
A30 from Upottery to Exeter	**M**	Sections have **1 or 2 star iRAP safety rating** between Upottery to Honiton, High total **KSIs** at Upottery (A303) to Honiton Relatively higher numbers of **people killed or seriously injured** at Upottery to Exeter **Seasonal delay** at Exeter, With potential for **future delay increases** **Potential air quality** issues at Honiton, **Potential noise** issues at Honiton	✓	✓
A30 from Exeter to Sourton Down	**N**	**Average delay** on the approach to Exeter **Seasonal delay** on the approach to Exeter Electric charging points are limited between Bodmin and Exeter	✓	✓
A30 from Launceston to Bodmin	**O**	Relatively higher numbers of **people killed or seriously injured** on this section of the route around Bolventor **Average morning peak period delay** between Bolventor and Bodmin **Severance** Launceston impacting the NCN **Air quality issue at Launceston (AQMA)**	✓	✓
A30 from Bodmin to Carland Cross	**P**	Seasonal delay around Truro (subject to A30 Chiverton to Carland Cross RIS2 upgrade scheme) Relatively **high percentage of WCH** have been killed or seriously injured on this section of the route Higher levels of KSI collisions	✓	✓
A30 from Chiverton Cross to Penzance	**Q**	Sections have **1 or 2 star iRAP safety** ratin at Roseworthy to Connor Downs and Hayle to Longrock Risk of surface water **flooding** at Penzance. **Noise** issues at Crowlas, Canon's Town, St Erth, Whitecross and Redruth to Cambourne **Potential air quality** issues at Hayle, Crowlas and **air quality** issue between Cambourne and Redruth (AQMA). **Seasonal delay** around Truro and between Hayle and Penzance **Average delay** between Hayle to Longrock	✓	✓

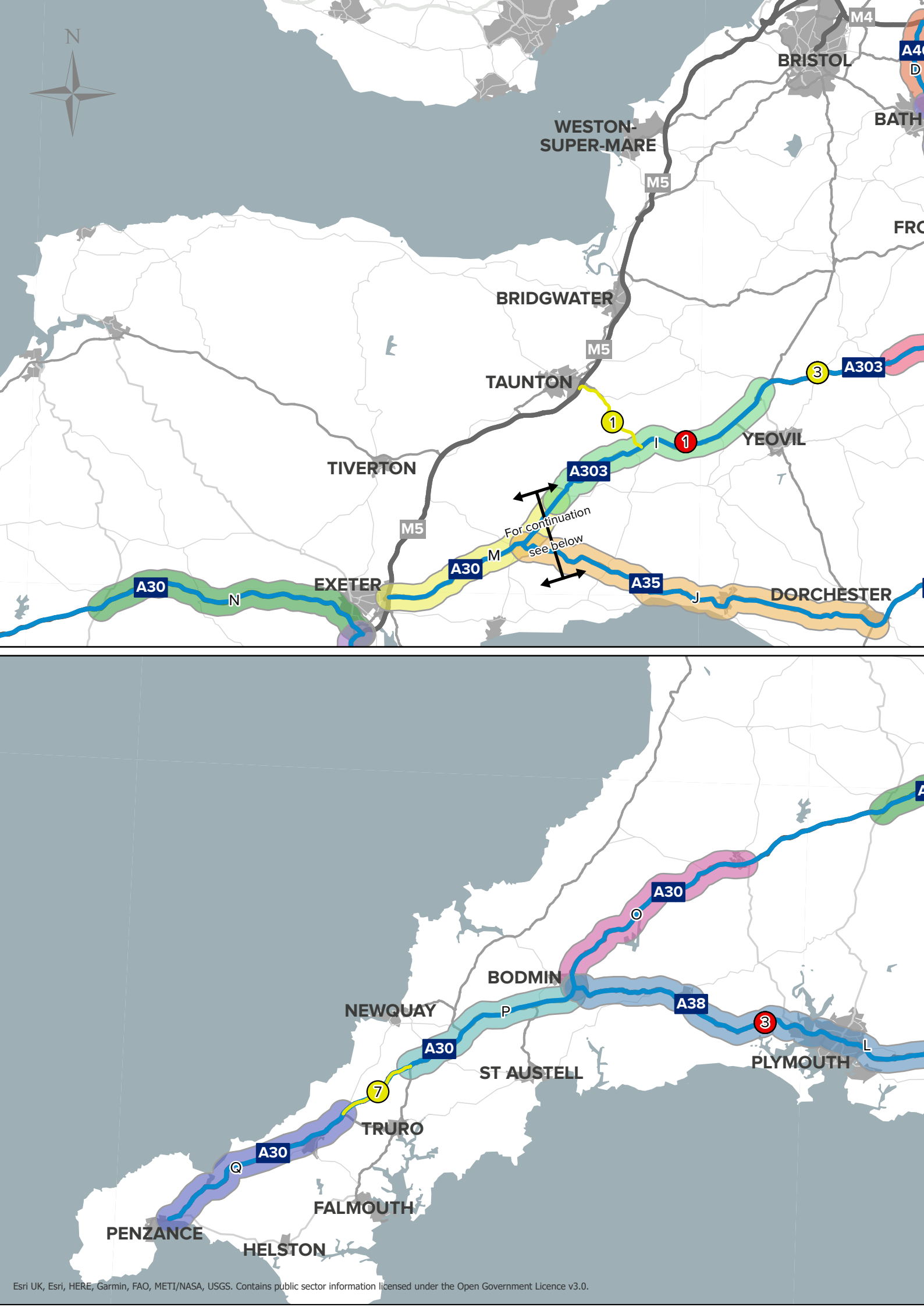


Figure 28: Areas of Interest for further investigation

What happens next

08 Next steps

Our route strategies allow informed decisions to be made about our network. They have informed our *Strategic Road Network* (SRN) *Initial report*, which sets our vision and priorities for the third road period (2025–2030) and beyond (from 2030). They are a forward planning tool for National Highways and our interested parties in their decision making, helping identify locations on our network for further consideration to inform investment opportunities, as well as to support decisions in prioritising potential solutions to enable us to continue to operate and maintain our network.

Alignment

They also align with National Highways *Connecting the country: Our long-term strategic plan to 2050*[45] which sets out our 2050 vision for the SRN to be part of a seamlessly integrated transport system that meets our customers' needs by connecting the country safely and reliably, delivering economic prosperity, social value and a thriving environment. *Our long-term strategic plan to 2050* describes the short, medium and long-term steps to 2050 we believe are needed to make our vision a reality over successive road periods and has been informed by extensive horizon scanning, foresight analysis and engagement with key stakeholders across 9 focus areas. The route objectives identified in the route strategies, which also respond to the needs of stakeholders, road users and communities, and the locations for further consideration to achieve these objectives are aligned with the 2050 vision.

Informing the next stage of planning

The route objectives and locations for further consideration will be used to inform our study programmes and consider opportunities for developing integrated and collaborative solutions with our interested parties.

The extensive engagement we have undertaken ensures feedback from our customers and neighbours is used to inform investment decisions. They will help us consider the interaction of our SRN with other transport networks, including the Major Road Network and local roads. We also expect interested parties will use our route strategies to inform their wider investment programmes, supporting collaborative decision making.

For both the Route strategy initial overview reports and *Our long-term strategic plan to 2050*, there will be an opportunity for stakeholders, road users and communities to provide their feedback. This will be alongside DfT's separate consultation on the *SRN Initial Report* published at the same time.

The 20 finalised Route strategy reports and *Our long-term strategic plan to 2050* will be published by 2025, the end of the current road period (2020-2025), informing the *Strategic business plan and Delivery plan*.

Provide your feedback

To find out more about our route strategies and the development process, please visit our website: nationalhighways.co.uk/our-roads/our-route-strategies/

45 National Highways (2022) *Connecting the country: Our long-term strategic plan to 2050*. https://nationalhighways.co.uk/delivery-plan/

Glossary of terms

Term	Acronym	Description
Active users and active modes of transport		Active users and active modes of transport refers to walkers, cyclists and horse riders.
Air quality management area	AQMA	If a local authority identifies any locations within its boundaries where the Air Quality Objectives are not likely to be achieved, it must declare the area as an Air Quality Management Area (AQMA). The area may encompass just one or two streets, or it could be much bigger. The local authority is subsequently required to put together a plan to improve air quality in that area - a Local Air Quality Action Plan.
Area of Outstanding Natural Beauty	AONB	An area of outstanding natural beauty (AONB) is one of the classes of land protected by the Countryside and Rights of Way Act 2000 (CROW Act). It protects the land to conserve and enhance its natural beauty.
All Lane Running	ALR	All Lane Running (ALR) motorways apply controlled motorway technology, permanently converting the hard shoulder as a running lane, and feature emergency areas.
A-roads		Major roads intended to provide large-scale transport links between regional towns and cities.
Assets		National Highways assets include our infrastructure such as pavements, structures and tunnels
At-Grade Junction		An at-grade junction is a junction where two or more roads converge, diverge, meet or cross at the same height, as opposed to an interchange, which uses bridges or tunnels to separate different roads.
Clean Air Zone	CAZ	A clean air zone (CAZ) defines an area where targeted action is taken to improve air quality, and resources are prioritised and co-ordinated to deliver improved health benefits and support economic growth.
Collisions		The severity of a collision is based on the severity of the most severely injured casualty and is broken down into: • Slight collision: One in which at least one person is slightly injured but no person is killed or seriously injured • Serious collision: One in which at least one person is seriously injured but no person (other than a confirmed suicide) is killed • Fatal collision: A collision in which at least one person is killed

Term	Acronym	Description
Department for Transport	DfT	Department for Transport (DfT) plan and invest in transport infrastructure to keep the UK on the move. DfT work with agencies and partners to support the transport network that helps the UK's businesses and gets people and goods travelling around the country.
Design-Build-Finance-Operate arrangements	DBFO	With a design-build-finance-operate arrangement, the private party provides financing and design, then builds and operates the facility. The public partner provides funding while the project is being used or is active.
Diversionary Routes		National Highways agreed diversion routes represent the recommended routes for road users when a section of road has been closed.
Dynamic Hard Shoulder	DHS	Dynamic Hard Shoulder Running (DHS) motorways apply the controlled motorway technology and temporarily increase capacity by utilising the hard shoulder, and feature emergency areas. The hard shoulder is some of the time, but not always, used as a live running lane, with electronic signs to guide drivers when it is safe to use for live running.
Economic opportunity areas	EOAs	EOAs were developed to give us a more refined understanding of the types of priority economic growth opportunities that exist around the SRN and around the wider road and broader transport network. They are defined in terms of their common economic function and the spatial features of the location. These key growth areas are grouped by broad 'theme' (such as international gateways, multi-modal transport hubs, tourism destinations and housing locations) and their relative reliance on the SRN.
Freeport		Freeports are special areas within the UK's borders where different economic regulations apply. Freeports in England are centred around one or more air, rail, or seaport, but can extend up to 45 kilometres beyond the port(s)
Heavy Goods Vehicle	HGV	A heavy goods vehicle (HGV) is a large vehicle intended for the transportation of heavy loads.
Growth Boards		Growth Boards have been established by some counties as a joined-up way of managing local future growth and supporting economic recovery.
International connectivity		Transport connectivity of the United Kingdom with Europe and the rest of the world.
In-vehicle Technology		This can be in-car systems that typically take the form of a touchscreen or display that is mounted on the dashboard. It can be a collection of hardware and software, which can provide information, data and connectivity to infrastructure to support the customer experience. It can also be the data and technology capability to enable the operation of the car (this might be connected services, autonomous capability, parking sensors, cameras etc.). It can be any technology within a vehicle.

Glossary of terms

Term	Acronym	Description
Levelling up		Levelling up is a moral, social and economic programme for the whole of government. It places emphasis on ensuring no community is left behind.
Local Road Network		England's road network consists of motorways, major 'A' roads, and local classified and unclassified roads. The vast majority of motorways and major 'A' roads for the strategic road network (SRN) and are managed by National Highways. All other roads are managed by local authorities and make up the local road network (LRN)
Major Road Network	MRN	The major road network (MRN) is the middle tier of England's road network, comprising the busiest and most economically important local authority A-roads.
National Traffic Information Service	NTIS	The National Traffic Information Service (NTIS) is provided by National Highways. The Traffic England website provides a range of services to help you avoid delays and plan your journeys but NTIS also makes data available to subscribers for research purposes or for developers to include it in their own applications.
Noise Action Plans		Noise action plans provide a framework to manage environmental noise and its effects. They also aim to protect quiet areas in agglomerations (large urban areas) where the noise quality is good. Noise Action Plans provide a framework for the local management of the Important Areas.
Noise Important Areas		Noise Important Areas (NIAs) for roads and railways are based upon the strategic noise maps results and are produced in line with the requirements set out in the noise action plans.
Office of Rail and Road	ORR	The Office of Rail and Road (ORR) is the independent safety and economic regulator for Britain's railways and monitor of National Highways
Park and ride		A park and ride offers parking with public transport connections that allows commuters and other people heading to city centres to leave their vehicles and transfer to bus, rail or car share for the remainder of the journey.
Platooning		Heavy Goods Vehicle (HGV) platooning is the use of technology to allow HGVs to travel safely in close proximity at speed with the driver of the lead vehicle controlling the speed, acceleration and braking of the whole 'platoon'.
Receptor (Air quality and Noise)		Location which is sensitive to noise/air quality issues
Regional Traffic Model	RTM	National Highways has a suite of five regional traffic models (RTMs) covering England's SRN. The models allow us to identify future performance and delay on the network, assisting with the development of the route strategies

Term	Acronym	Description
Reliability		Reliability is the difference between the typical travel time, allowing for recurring delays, and the observed travel time. This measures the amount of variation due to unexpected variations or unplanned events. Like delay, it is measured in seconds per vehicle per mile. It is a concern for most drivers, but particularly affects just-in-time freight traffic and other strategic journeys.
Road investment strategy	RIS	A Road investment strategy (RIS) is a strategy that outlines a long-term programme for National Highways' motorways and major A-roads with the stable funding needed to plan ahead.
Road period		The defined period of time over which the Government gives a funding commitment. The length of a road period will be specified at the beginning of the RIS development process. Road periods will be multi-year in order to provide the supply chain with increased certainty of investment and intent. Based on current practice within the other infrastructure sectors, it is expected that road periods will continue to be five years in length, though the actual length will be decided by the Government of the day.
Route objectives		Objectives for each route, informed by engagement and analysis, to support the current and future needs of customers and neighbours.
Safe System approach		The Safe System is the current best practice safety culture in road safety, developed over many years and derived most notably from the Swedish Vision Zero and Dutch Sustainable Safety strategies. A best practice road safety culture approach based on the principles that humans make mistakes which could lead to serious injury or death for which it is a shared responsibility of the road user, road managers, vehicle manufacturers, etc. to take appropriate actions to ensure road collisions do not lead to serious or fatal injuries.
Seasonal delay		Seasonal delay refers to the difference between the average afternoon peak delay for Fridays in August 2019 (high demand in summer holidays) and the average delay during very low demand periods (in this case, Christmas day is used). This measure is designed to reflect the parts of the network that do not appear to have a problem on average over the year but have seasonal peaks. Seasonal delay is of interest to tourist traffic, particularly people travelling to airports, or other destinations where arriving later than intended could have significant implications.
Severance		Severance is where transport infrastructure or motorised traffic passes through settlements and acts as a physical or psychological barrier, limiting people's ability or desire to move through that area. This can reduce accessibility to key services, and damage local social networks and community cohesion.
Sites of Special Scientific Interest	SSSIs	A Site of Special Scientific Interest (SSSI) is the land notified as an SSSI under the Wildlife and Countryside Act (1981), as amended. SSSI are the finest sites for wildlife and natural features in England, supporting many characteristic, rare and endangered species, habitats and natural features.

Glossary of terms

Term	Acronym	Description
Smart motorway		A smart motorway is a section of motorway that employs active traffic management (ATM) techniques to increase capacity through the use of technology including variable speed limits. There are three types of smart motorway: 1. Controlled Motorway: variable speed limits with the hard shoulder operating as it would on a conventional motorway. 2. Dynamic Hard Shoulder (DHS) Running: Variable speed limits with the hard shoulder selectively opened as a running lane during periods where traffic levels are too high for only three lanes of running traffic. When activated, vehicles can use the hard shoulder as a running lane. 3. All Lane Running (ALR): variable speed limits with the hard shoulder removed and converted to a permanent running lane. Smart motorways have a whole system of inter-related safety features, not present on conventional motorways, working together to help keep drivers and their passengers moving safely. The system includes: • variable speed limits to help keep traffic moving, reducing frustrating stop-start traffic and making journeys quicker • clearly signed and orange-coloured emergency areas set back from the road and with telephones linking directly to our control rooms • detection systems to monitor traffic for changes in flows • CCTV cameras that our operators are able to move and zoom to monitor and manage congestion and incidents, where notified. The system has the ability to see 100% of the carriageway • signs and signals to provide better information to drivers which can alert drivers to hazards ahead and display Red X signs to close lanes to other traffic when a stopped vehicle is identified • enforcement cameras to deter the minority who break speed limits and ignore Red X signs • radar stopped vehicle detection
Spatial planning		Spatial planning decides how land should be used or protected. It also organises, designs and makes decisions on where new homes, roads and other infrastructure should be built. Spatial planning aims to make places attractive, safe and environmentally friendly. National Highways is a statutory consultee in the planning system and we encouraged others to seek early advice from us if their development proposal is likely to impact the strategic road network.
Special Areas of Conservation	SACs	A Special Area of Conservation (SAC) is the land designated under Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora.
STATS19		Data on road traffic casualties on the roads in Great Britain are collected via the STATS19 process. These statistics are collected by police forces, either through officers attending the scene of incidents, from members of the public reporting the incident in police stations after the incident, or more recently online and then validated and published annually by DfT. STATS19 road traffic collision and casualty data is published annually by DfT in the Autumn and provides details of the previous calendar year. These reports have used the data available at the time of analysis, 2015-2018.
Statutory consultee		Statutory consultees are those organisations and bodies, defined by statute, which local planning authorities are legally required to consult before reaching a decision on relevant planning applications.
Strategic Rail Freight Interchange		A large multi-purpose rail freight interchange and distribution centre linked into both the rail and road system.

Term	Acronym	Description
Strategic Road Network	SRN	The strategic road network (SRN) covers more than 4,500 miles of motorways and major A-roads.
Strategic Traffic / Strategic journeys		Long distance traffic / journeys
Sub-national Transport Bodies	STBs	Sub-national Transport Bodies (STBs) have a key role in formulating transport strategy and identifying investment priorities at the sub-national level, including for highways. There are seven STBs in England, which are tasked with developing transport strategies and studies for their region. Through the development of their evidence bases with their constituent local authorities and Local Enterprise Partnerships, their work highlights multi-modal issues, need and opportunities, with investment priorities provided to the Secretary of State for Transport.
Transport-related social exclusion		Where limited access to transport or other issues with the transport system means that people cannot fully participate in society in the way they would like
Trunking / De-trunking		De-trunking is the process of returning a National Highways road to the local highway authority control and vice versa for trunking
UNESCO World Heritage Site		Inscription as a UNESCO World Heritage Site is an acknowledgement of the global significance of such places.
Union connectivity		Transport connectivity between the nations of the United Kingdom.
Variable Messaging Signs		The Traffic Signs Regulations and General Directions 2016 (TSRGD) define a variable message sign as a device "...capable of displaying, at different times, two or more aspects...". These aspects may take the form of a sign prescribed by the TSRGD, a legend in accordance with Schedule 16 to TSRGD, a non-prescribed temporary sign or a blank grey or blank black face. Thus, the expression "variable message sign" (VMS) encompasses all types of variable sign from simple flap-type signs to complex light-emitting panels
Vulnerable Road User		Walkers, cyclists and horse riders

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Registered office Bridge House, 1 Walnut Tree Close, Guildford GU1 4LZ

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