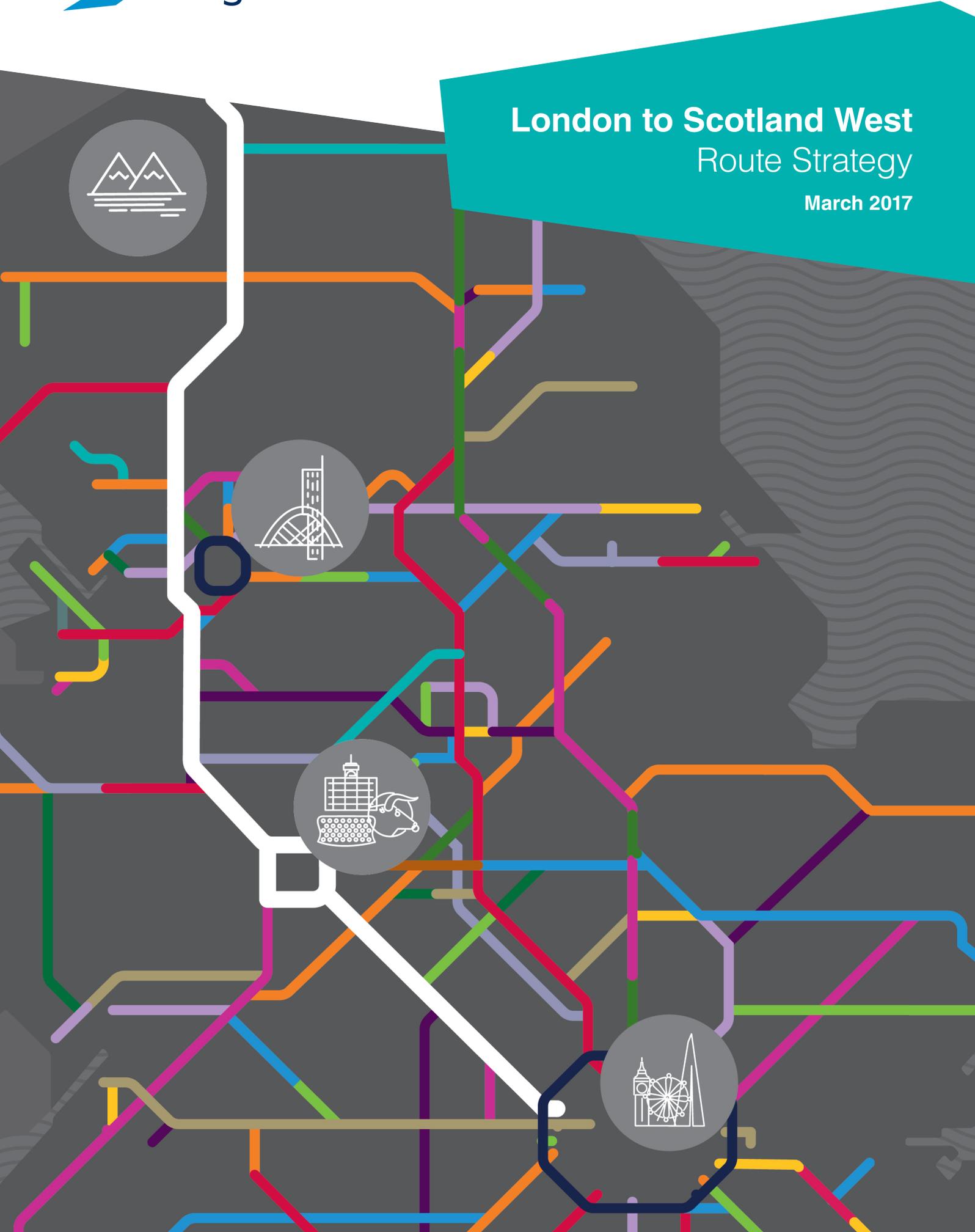


London to Scotland West Route Strategy

March 2017



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Route strategies

The division of routes for the programme of route strategies on the Strategic Road Network

- London to Scotland East
- London Orbital and M23 to Gatwick
- London to Scotland West
- London to Wales
- Felixstowe to Midlands
- Solent to Midlands
- M25 to Solent (A3 and M3)
- Kent Corridor to M25 (M2 and M20)
- South Coast Central
- Birmingham to Exeter
- South West Peninsula
- London to Leeds (East)
- East of England
- South Pennines
- North Pennines
- Midlands to Wales and Gloucestershire
- North and East Midlands
- South Midlands



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1. Introduction

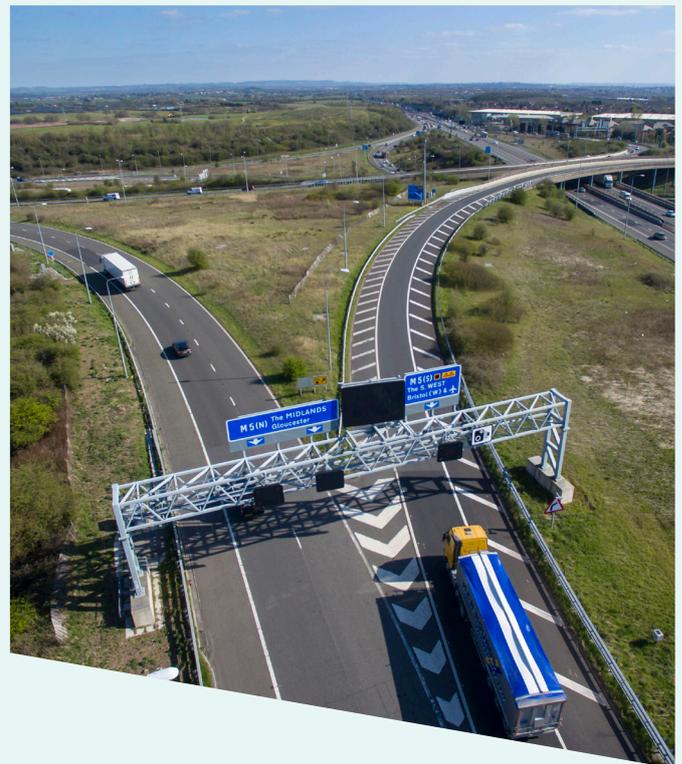
The modernisation of England's motorways and major A roads, also known as the strategic road network (SRN), is making a vital contribution to economic wellbeing and growth. This Route Strategy – one of 18 such reports – provides a statement on the current performance of, and perceived pressures on, the London to Scotland West route to inform the planning of future investment.

The SRN supports national and local economic prosperity by:

- linking together major cities
- connecting with extensive local road networks
- providing links to major ports, airports, and rail terminals
- enabling good access to regions and cross-border routes between the nations of the United Kingdom

The establishment of Highways England through the Infrastructure Act 2015 has changed fundamentally the way we plan investment in the network. Funding is now determined every 5 years, in the [Road Investment Strategy \(RIS\)](#), which is set by Government. We are currently delivering on the commitments that were set out in the first RIS covering 2015 to 2020, which are already making a difference for road users across the network.

At the same time, we are working closely with the other 3 bodies with statutory responsibility for the RIS – Department for Transport, Office of Rail and Road and Transport Focus – on preparing for the next RIS (RIS2) for the period after 2020.





Purpose of Route Strategies

Route Strategies provide a high level view of the current performance of the SRN as well as issues perceived by our stakeholders that affect the network. They are one of the key components of research required for developing the RIS. This suite of Route Strategies builds upon the analysis underpinning the first set of Route Strategies undertaken between 2013 to 2015, which together provided the first comprehensive assessment of the entire network. This time the Route Strategies aim to:

- bring together information from key partners, motorists, local communities, construction partners, environmental groups and across the business
- achieve a better understanding of the condition and performance of our roads, and local and regional aspirations
- shape our investment priorities to improve the service for road users and support a growing economy
- help inform the next RIS¹

Strategic themes

The Government’s vision for transforming the SRN is described in the [Road Investment Strategy post 2020: Planning Ahead](#) document available on www.gov.uk. This vision builds on the 5 broad aims published in the [Road Investment Strategy for 2015-2020](#): economy; network capability; integration; safety; and the environment. It also builds on Highways England’s 5 strategic outcomes (see Figures 1.1 and 1.2). Using the evidence from this and the other 17 Route Strategies, we will develop proposals that can help bring the Government’s vision for roads to life.

RIS1 Strategic Vision as reiterated in “RIS Post 2020: Planning ahead”



Figure 1.1 - RIS1 strategic vision

Highways England Strategic Business Plan’s key outcomes

- Supporting economic growth** through a modernised and reliable network that reduces delays, creates jobs and helps business compete and opens up new areas for development
- More free-flowing network** where routine delays are more infrequent, and where journeys are safer and more reliable
- Safe and serviceable network** where no one should be harmed when travelling or working on the network
- Improved environment** where the impact of our activities is further reduced, ensuring a long-term and sustainable benefit to the environment
- More accessible and integrated network** that gives people the freedom to choose their mode of transport and enable safe movement across and alongside the network

Figure 1.2 - Highways England strategic outcomes

¹See Chapter 6 for more information on the next RIS



Stakeholder engagement

Building on the engagement we started in the first round of Route Strategies, we have continued to work closely with a wide range of stakeholders to enhance our understanding of the strategic road network, and identify where users and other stakeholders feel investment is needed.

We used a number of methods to collate information. For example, we launched an online tool for customers and stakeholders over the summer of 2016 to inform us of the issues and challenges on our roads that affected them. As well as information collated from a range of people within Highways England, more than 300 different stakeholder organisations provided important feedback on the network during the evidence collection period. There were also more than 370 individual members of the public who contributed information. In total, around 2,700 individual points were raised by external stakeholders.

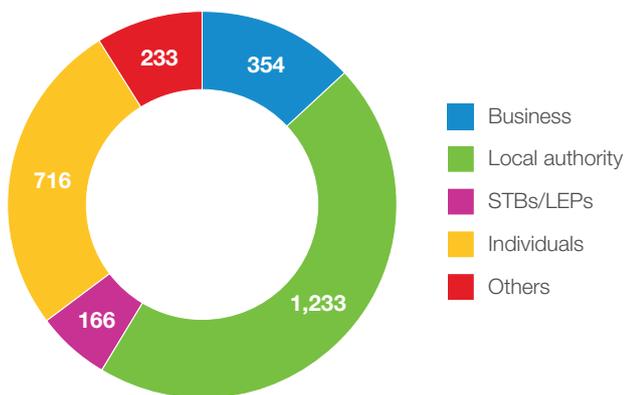


Figure 1.3 - External stakeholder responses

We are increasingly working with subnational transport bodies (STBs), including Midlands Connect, England’s Economic Heartland and Transport for the North, so we can ensure that their developing strategies and planning are integrated into our thinking (and vice versa).

Transport Focus

We commissioned Transport Focus, the road user watchdog, to undertake research on road user priorities. More than 4,400 interviews were undertaken with drivers across the SRN. Figure 1.4 below shows the breakdown by user type and purpose.

Completed interviews		
	3,487	79%
	322	7%
	407	9%
	206	5%
Commuting	501	11%
Business	1,367	31%
Leisure	2,457	56%

Figure 1.4 - Driver sample breakdown

250 fleet managers from a mix of industries, size and regions

The research found that the London to Scotland West route was one of the highest rated of the routes, with 69% of users rating their experience of the route as either extremely good or fairly good. However, as Table 1.1 shows, 37% of users still experienced problems using the route, with congestion and roadworks cited as the two main causes.

The full report has been published on Transport Focus’s website www.transportfocus.org.uk/research-publications/publications/road-to-the-future.

We will continue to work closely with Transport Focus to understand customer priorities to ensure that the next RIS reflects their needs.

Experienced problems %	Route impacted	Largest problem	Second largest problem
61%	M25 to Solent		
58%	London Orbital and M23 to Gatwick		
50%	South Coast Central		
46%	Solent to Midlands		
44%	East of England		
43%	Birmingham to Exeter		
41%	South West Peninsula		
41%	North and East Midlands		
40%	London to Scotland East		
40%	South Pennines		
39%	Kent Corridor to M25		
37%	London to Scotland West		
32%	Midlands to Wales and Gloucestershire		
30%	Felixstowe to Midlands		
30%	South Midlands		
28%	London to Leeds		
27%	London to Wales		
17%	North Pennines		

Congestion/traffic queuing
 Roadworks
 Delays caused by accidents/roads closed
 Roads busy/high volume of traffic

Table 1.1 - Transport Focus summary

2. The route

The London to Scotland West route comprises the whole of the M40 from London to Birmingham where it meets the M42 and from here to the M6 up to the border with Scotland, including the section around Birmingham commonly called the Birmingham Box (formed by sections of the M5 and M42 as well as the M6). This route forms part of the North Sea-Mediterranean corridor, which is part of the Trans-European Network core network.

The route links London to the cities of Birmingham, Stoke-on-Trent, Manchester, Preston and Carlisle as well as key international gateways at Birmingham Airport, Manchester Airport and the Port of Liverpool.

The route is a high-standard network with sections of 3- and 4-lane motorways. Smart motorways are well established on this route, including sections of dynamic hard shoulder, controlled motorway and all lane running.

On an average day more than 10 million vehicle miles are travelled on the route. A high proportion of journeys on the route are long-distance commercial and leisure related trips. In a number of areas, particularly around the major conurbations of Birmingham, Stoke-on-Trent and Manchester, a significant proportion of the traffic is locally based, making short trips. In the North West, the route interconnects with a number of other motorways (M56, M62, M61, M65, M58, M55), and hence there are also a multitude of pan-regional route options which can involve use of the M6.

As a major north-south link, the route plays an important role in supporting the distribution of goods and strategic traffic from London and the southern ports up through the Midlands and the North West to the Scottish border. The route is key to the economic prosperity of the West Midlands and North West of England in particular.

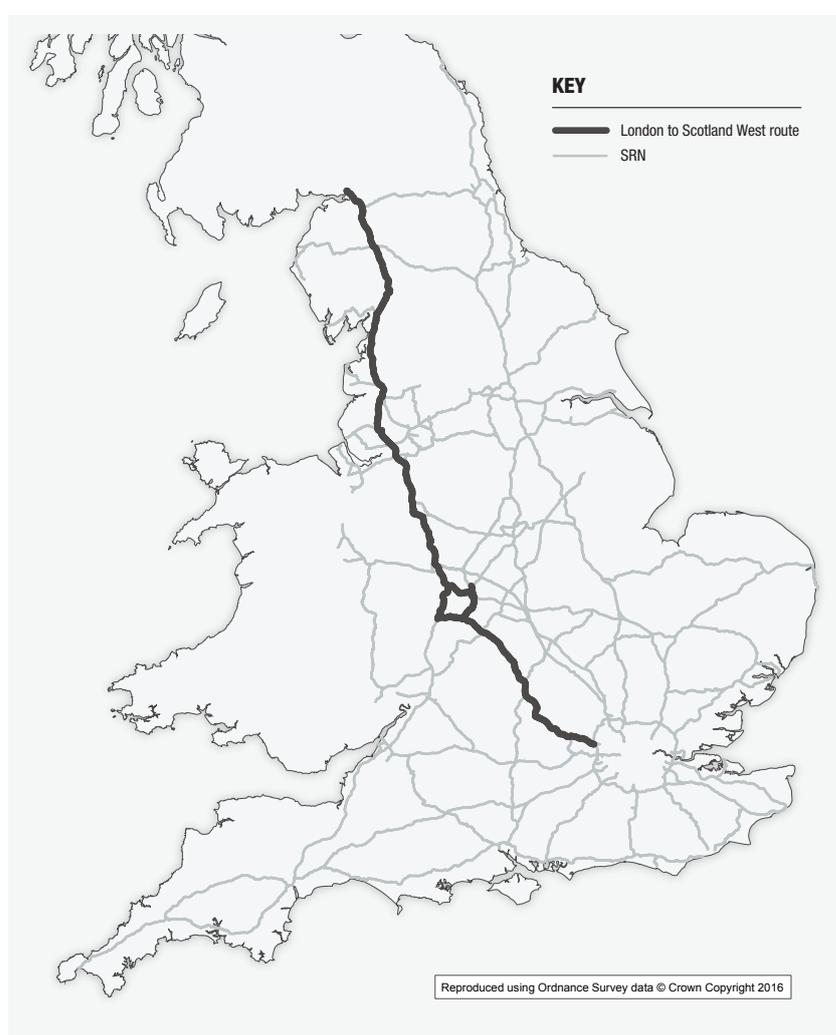


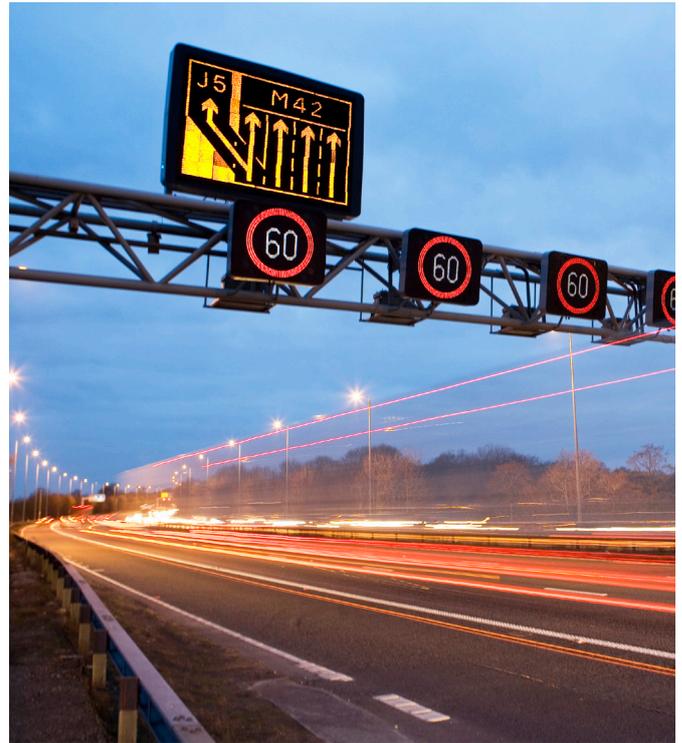
Figure 2.1 - Route overview map

The route also supports the retail, tourism and leisure industries through serving the key cities and major towns along the route. There are major shopping centres and major venues on the route which include the National Exhibition Centre (alongside the UK Central hub near Solihull), Bicester Village shopping centre near M40 junction 9 and Wednesbury Retail Park near M6 junction 9. Major tourist destinations near the route include the national parks of the Peak District, Lake District and Yorkshire Dales as well as coastal tourist destinations such as Blackpool on the Fylde Coast. In 2014, some 5 million overnight visitors and some 33 million day trippers visited Cumbria.

The journeys described above have a seasonal impact on the route. Increased traffic is experienced on parts of the route due to tourism during the summer and the major sporting stadiums along parts of the route in major cities through the year.

There is one section of the route maintained and operated on behalf of Highways England under a private finance initiative by a design, build, finance and operate (DBFO) company. This is a large proportion of the M40 from junction 1 (the junction with A40 at Denham) to junction 15 (the junction with A46 at Warwick).

The M6 Toll connects the M6 junction 3A near Coleshill to junction 11a north of Wolverhampton, providing effectively a bypass of north Birmingham. The toll road construction is funded, operated and maintained by Midland Expressway Limited which has a government commission to do so until 2054.



In 2014, some 5 million overnight visitors and some 33 million day trippers visited Cumbria.



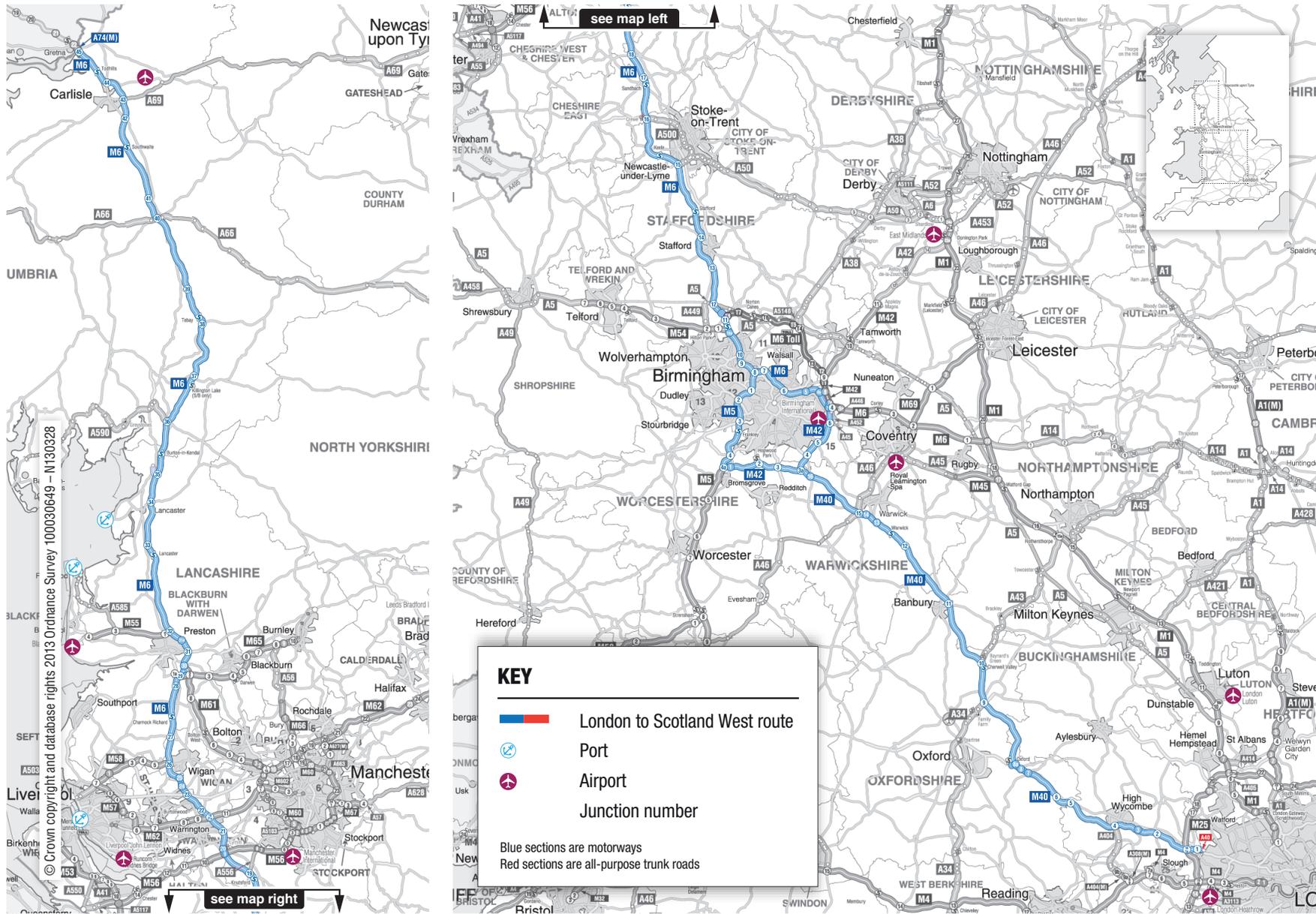


Figure 2.2 - Route Strategy overview map



3. Current constraints and challenges

This chapter outlines the emerging issues raised by stakeholders and is supplemented by Highways England information.

The following text and figures within this chapter provide a summary of the information collected and applied to our strategic themes.



A safe and serviceable network

There are concentrations of safety issues at various points on the London to Scotland West route, particularly around Birmingham and north-west of Manchester on the M6. As the route is made up entirely of motorway sections, incidents are primarily related to junction layouts (such as M6 junction 15), or locations where incidents occur in congested conditions. There are also a number of locations where junctions are closely spaced together (such as M6 junction 21A–22, M6 junctions 7–9 and M40 junctions 14–15), which can lead to weaving movements.

In northern sections of the route, operational resilience can be an issue where junctions on the M6 become more widely spaced and diversion routes are often unsuitable for high volumes of traffic and HGVs.



More free-flowing network

Congestion is an issue within a number of sections of the route, especially where the M6:

- provides access into major urban areas such as around Birmingham and the Black Country
- interconnects with a number of other motorways
- provides access to many urban centres in Cheshire, Warrington, Merseyside and Greater Manchester

There is a significant amount of smart motorway infrastructure, either in place or committed across the London to Scotland West route. In the southern half and extreme northern sections of the route, smart motorway coverage is less comprehensive.

The congestion issues are most concentrated around those locations near to major urban areas, and where multiple routes combine and interchange.

- In Lancashire the M55, M58, M65 and M61 connect with the M6 spine within close proximity of each other
- Around Warrington the M62 and M56 both link to the M6 at Croft and Lymm interchanges, which are connected by the Thelwall viaduct which is one of few Manchester Ship Canal highway crossings
- Congestion is common at the M5/M6 interchange (M6 junction 8)

North of Preston flows are generally lower and congestion impacts are less common.

There are congestion issues throughout the Birmingham Box network, including on the eastern M42 section where dynamic hard shoulder running was implemented as the first smart motorway scheme in 2006. Congestion is improved by the smart measures, although flow demands continue to increase, propelled by Birmingham Airport and NEC expansion.



Supporting economic growth

The route is a critical strategic link, connecting the South East, Midlands and North West, and hence is vital to a pan-regional economy as well as providing local access to many major urban areas. As a key spine through the country, the route plays a major role in supporting the national economy and it will inevitably remain a key driver in supporting future economic growth. The ambitious economic growth being promoted through the Northern Powerhouse and the Midlands Engine will increase the case for better and more reliable connectivity between regions to help grow economic hubs.

The evidence base identifies a large number of current and proposed development opportunities which should come forward either alongside the route or near to other major highway corridors which take direct access from the route. Along the M40, investment around Oxford and Banbury will drive additional use of the network, as well as the potential expansion of the Jaguar Land Rover site at Gaydon. In Warwickshire, local plans being developed for Warwick and for Stratford-upon-Avon, propose development sites which will increase pressures at the northern end of the M40. In the Midlands, Birmingham has highly ambitious growth aspirations with the Birmingham Box network of motorways playing an essential role in supporting travel to and around the urban centre.

UK Central (an agglomeration of sites including Birmingham Airport, the National Exhibition Centre, Birmingham Business Park and a proposed HS2 station) is also a key centre for growth located alongside the eastern M42 corridor. The M6 section of the route provides key access to Stoke and Stafford, as well as to Crewe, which aims to develop as a larger economic hub boosted by HS2 connectivity. In the North West, Greater Manchester, Lancashire, Cheshire, Warrington, Merseyside and Preston all rely on the M6 to feed strategic trips to and between their economic hubs. Growth within these areas, including the Greater Manchester Spatial Framework, will impact on the M6. North of Preston, Lancaster and the entire Cumbria region is reliant on the strategic highway connectivity provided by the M6.



An improved environment

Running throughout the country, the route passes through a number of different areas experiencing different environmental challenges.

In the north, the route provides good access to the North Pennines Area of Outstanding Natural Beauty (AONB), as well as passing between the Arncliffe and Silverdale AONB and the Forest of Bowland AONB. The topography in the northern sections means the network is generally more exposed to weather impacts and can face instances of flooding during periods of bad weather.

Around the North West, there are noise important areas, particularly close to the M6 near to Lymm interchange, Ashton in Makerfield and Wigan.

In the Midlands, air quality is a key issue with the whole of Birmingham declared an Air Quality Management Area (AQMA), as well as the neighbouring areas of Walsall and Sandwell. There are also noise issues near to Halesowen on the M5. Flooding records suggest this route is not one of the worst affected corridors, although there are some hotspots which suffer from regular incidents. These include sections of the M6 near Birmingham (around junction 4 (M42) and junction 8 (M5) as well as in the north-west at Croft interchange (junction 20) and near Ashton in Makerfield (junctions 24 and 25). There is also an isolated flooding hotspot near to Chorley between M6 junctions 27 and 28.



A more accessible and integrated network

Within the evidence, locations have been identified where walking and cycling can be most affected by the SRN. Severance has been identified as an issue where the M6 passes St Helens.

The evidence review also highlighted locations where local highway authorities see opportunities to open up new routes of access to the SRN, alterations to existing SRN junctions or the need to provide additional junctions. Within the route, these include better connections to the M6 from the southern side of Carlisle.

London to Scotland West - Route Strategy: Map 1 of 4

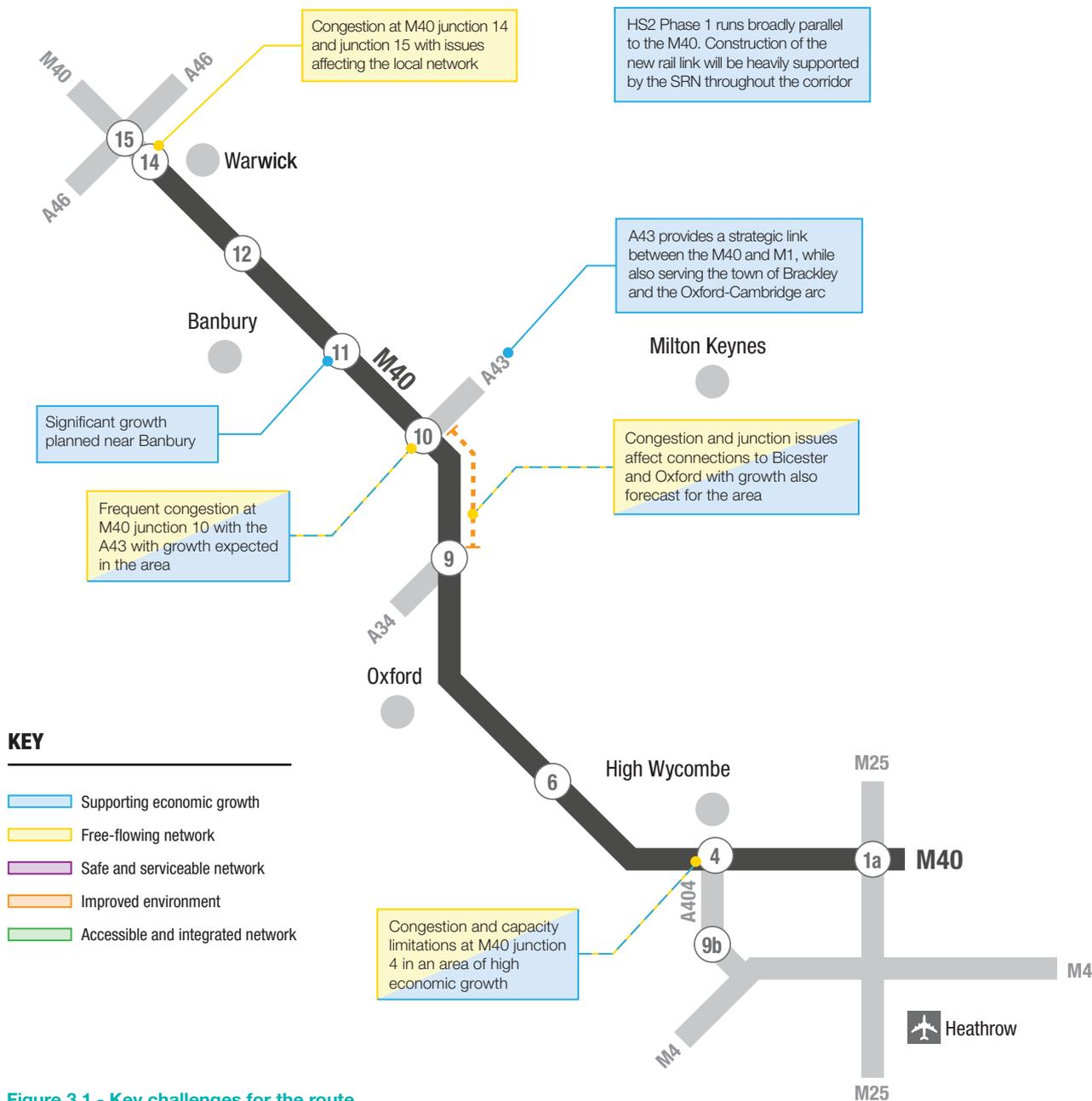


Figure 3.1 - Key challenges for the route

London to Scotland West - Route Strategy: Map 2 of 4

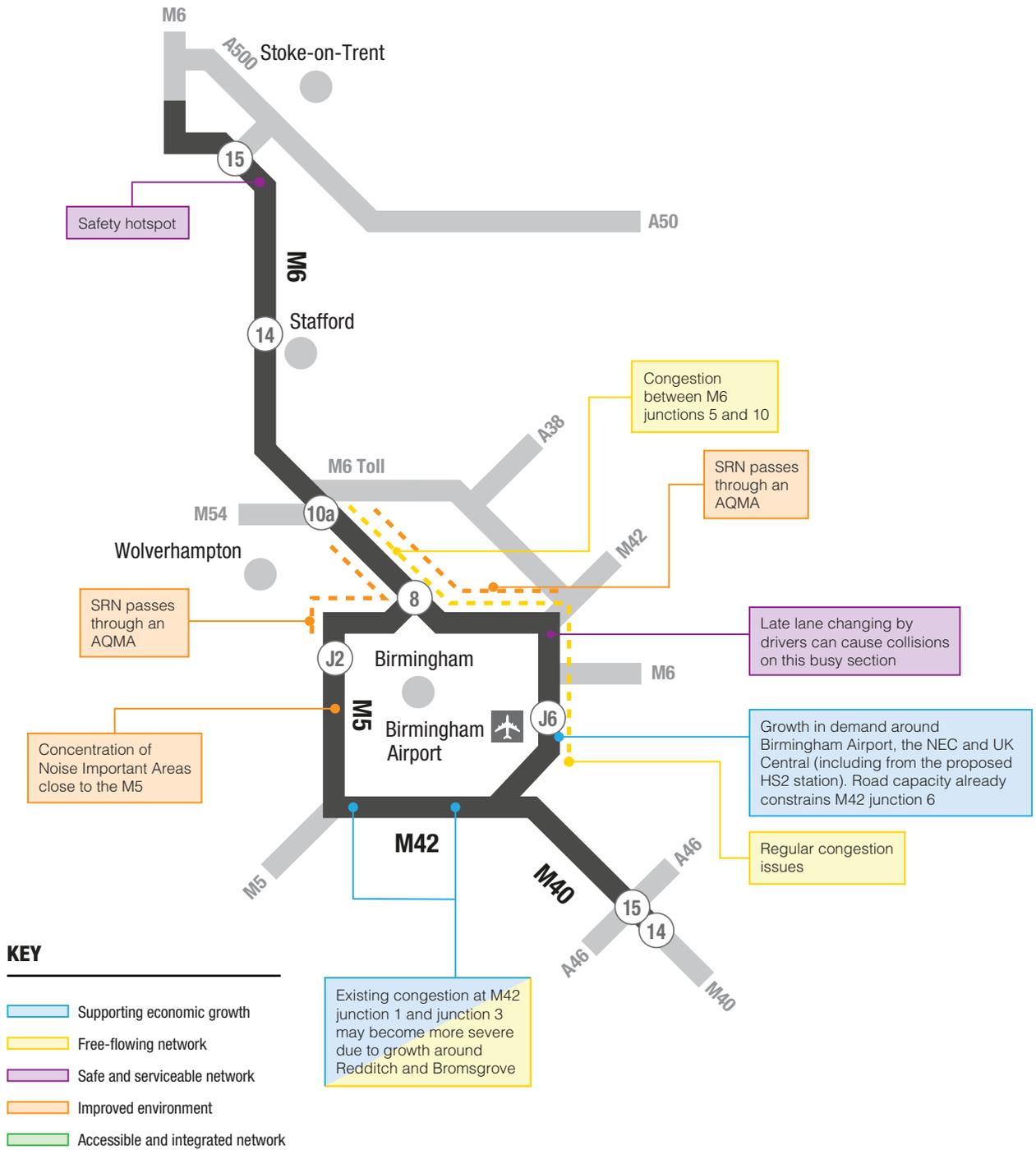


Figure 3.2 - Key challenges for the route

London to Scotland West - Route Strategy: Map 3 of 4

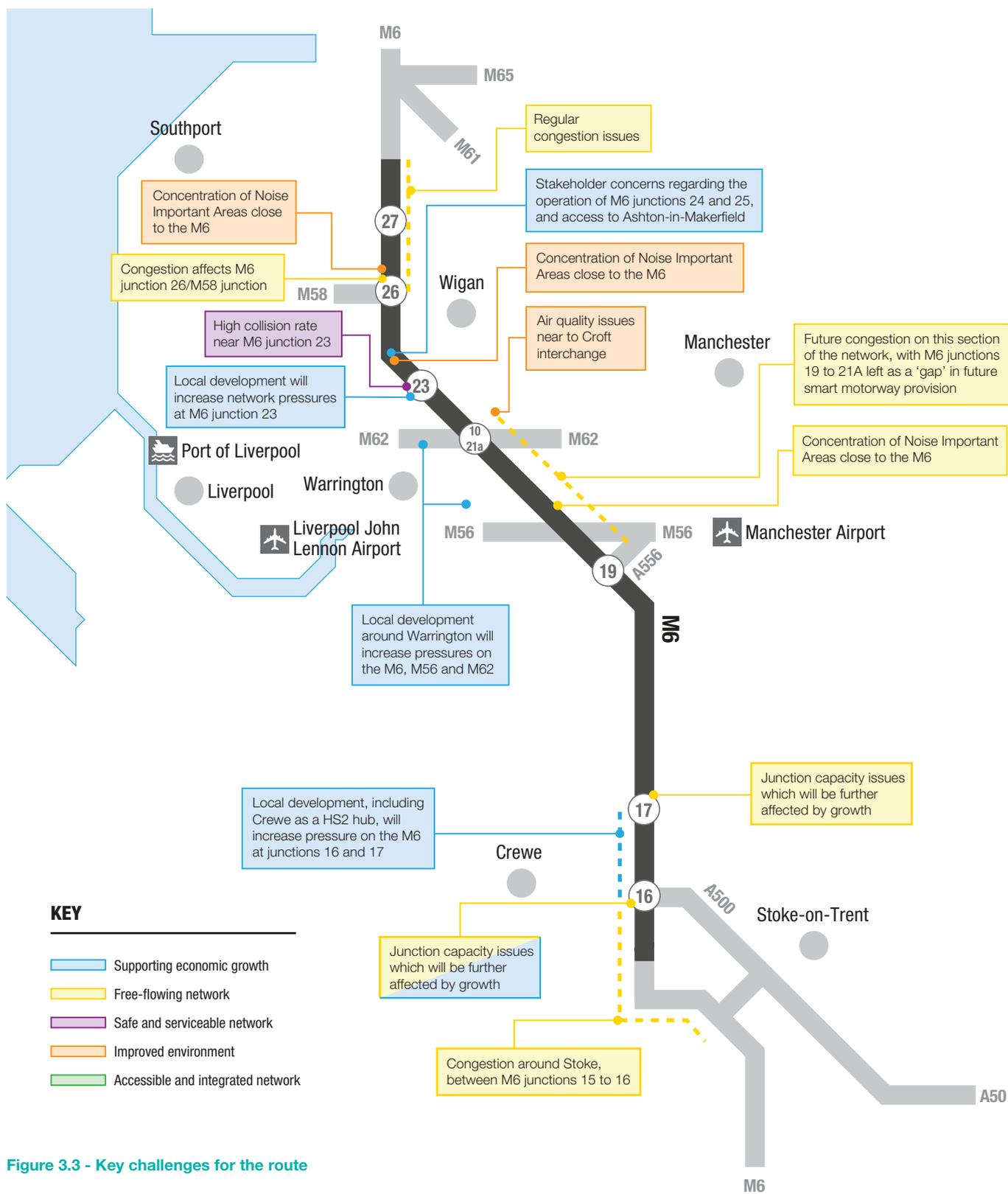


Figure 3.3 - Key challenges for the route

London to Scotland West - Route Strategy: Map 4 of 4

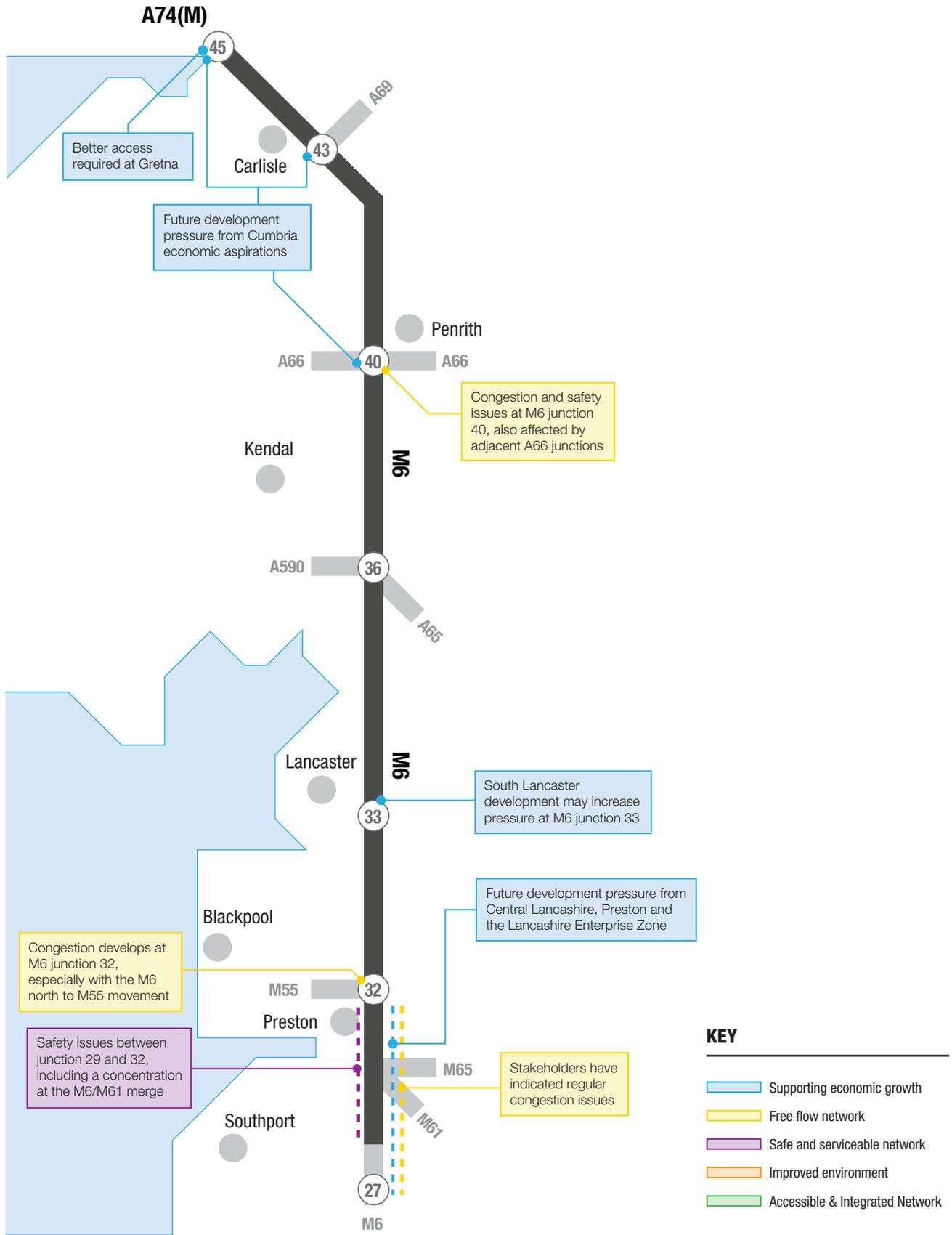


Figure 3.4 - Key challenges for the route



Figure 3.5 - London to Scotland West diversionary routes

Maintaining the strategic road network

We carry out routine maintenance and renewal of roads, structures and technology to keep the network safe, serviceable and reliable. We also ensure that our contractors deliver a high level of service on the SRN to support operational performance and the long-term integrity of the asset.

The heavy year-round use of all our routes means that they require regular maintenance and inspections for repairs to keep them fully operational, in order to support economic growth. Our maintenance regime focuses on 4 key aspects of the routes: road surfaces, bridges and structures, drainage and earthworks. The summary condition of each on this route is set out below:

Road surface

The surface condition across the route is considered to be sound or having some deterioration with less than 0.5% having severe deterioration that would require focused investigation.

Bridges and structures

The structures across the route are mostly in very good or good condition. According to an analysis of current data, fewer than 2% of our structures are in poor or very poor condition.

Drainage

Drainage assets are represented by both linear assets (for example, pipes, channels, ditches, drains) and non-linear assets (for example, gullies, chambers). Across the route, drainage assets are considered to be in good overall condition for both linear and non-linear assets. Of those assets inspected, just under 50% of linear assets have no defects, while 55% of the non-linear assets have only superficial defects.

Earthworks

The geotechnical earthworks across the Route are considered to be in very good condition, with the total length of earthworks that require further investigation amounting to less than 1%.

New assets have an operational 'life', during which, under normal conditions and maintenance, the risk of failure is expected to be low. Beyond this period, the risk of asset failure is expected to increase, although for many types of asset the risk of failure remains low and we do not routinely replace assets solely because they are older than their expected operational life. We use a combination of more regular maintenance and inspection, along with a risk-based approach to ensure that assets remain safe while achieving value for money from our maintenance and renewal activities.



Future developments

We have taken steps to transform our approach to maintenance by establishing an asset management programme that develops and implements the Asset Management Framework for Highways England.

The framework aligns strategic objectives with regional asset management plans and lifecycle asset management plans. It also includes the analysis required to plan the investment and expenditure on the strategic road network during the next road period, developing the business case options for capital renewals. It will provide a clear articulation of the total value that will be delivered by investment in RIS2, including the costs and benefits of delivering the capital renewals 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 Highways England can benefit road users who plan their journeys beforehand and then while on their journeys

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

4. Current investment plans and growth potential

Investment in the strategic road network can make areas more attractive for inward investment, unlock new sites for employment and housing and facilitate regeneration.

From servicing the UK's logistics needs, linking our manufacturing heartlands and connecting to our international gateways, supporting services-driven activity in high-growth towns and cities, to meeting the needs of our visitor economy, the SRN is critically important to servicing the UK economy.

Economic context

Highways England has been working with a wide range of stakeholders to develop a strategic economic growth plan, which we are calling *The Road to Growth*. This plan explores the economic role of the strategic road network, and aims to explain how we will further increase our contribution to the UK economy. As part of the evidence base for *The Road to Growth*, over 400 economic hotspots – or economic opportunity areas (EOAs) – around the SRN have been identified in consultation with Local Enterprise Partnerships (LEPs). The figures in this chapter highlight the EOAs which most closely align and are supported by the route.

To inform the development of *The Road to Growth* and assess the relationship between the SRN and economic growth, a suite of evidence reports were completed. These reports were published alongside *The Road to Growth* discussion paper and were subject to public consultation from November 2016 to January 2017. Alongside the engagement we have undertaken with all LEPs across England, the following evidence reports have ensured we have a more comprehensive economic evidence base and a better understanding of future challenges and opportunities:

- economic growth and the SRN – an evidence review of the relationship between transport investment and economic growth

- commercial development – an assessment of the relationship between the main property sectors and the SRN
- international gateways – a review of principal international gateways (ports and airports) and their contribution to the economy
- socio-economic analysis and future forecasts – mapping of socio-economic data (population, deprivation and employment) and sectoral forecasts up to 2030. This included identification of the likely growth forecasts for all sectors with a particular focus on those sectors heavily dependent on the SRN

The Road to Growth sets out our evidence findings to date and the steps we will take to enhance our enabling role in supporting economic growth.

Innovation

In April 2016, we published our Innovation, Technology and Research Strategy which set out how Highways England will use pioneering behaviours to help support our strategic objectives and create value for customers and stakeholders.

The £150 million Innovation Designated Fund was established to support innovative capital projects and to support developing the use of emerging technologies, new materials and ways of working.

Investment plans

The following figures show the location of Highways England major improvement projects which have previously been announced to help tackle some of the issues on the network. The Highways England website and delivery plan updates should be consulted for the latest information.

The figures also show strategic studies which have been progressed during RIS1, innovation projects and economic opportunity areas.

London to Scotland West - Route Strategy: Map 1 of 4

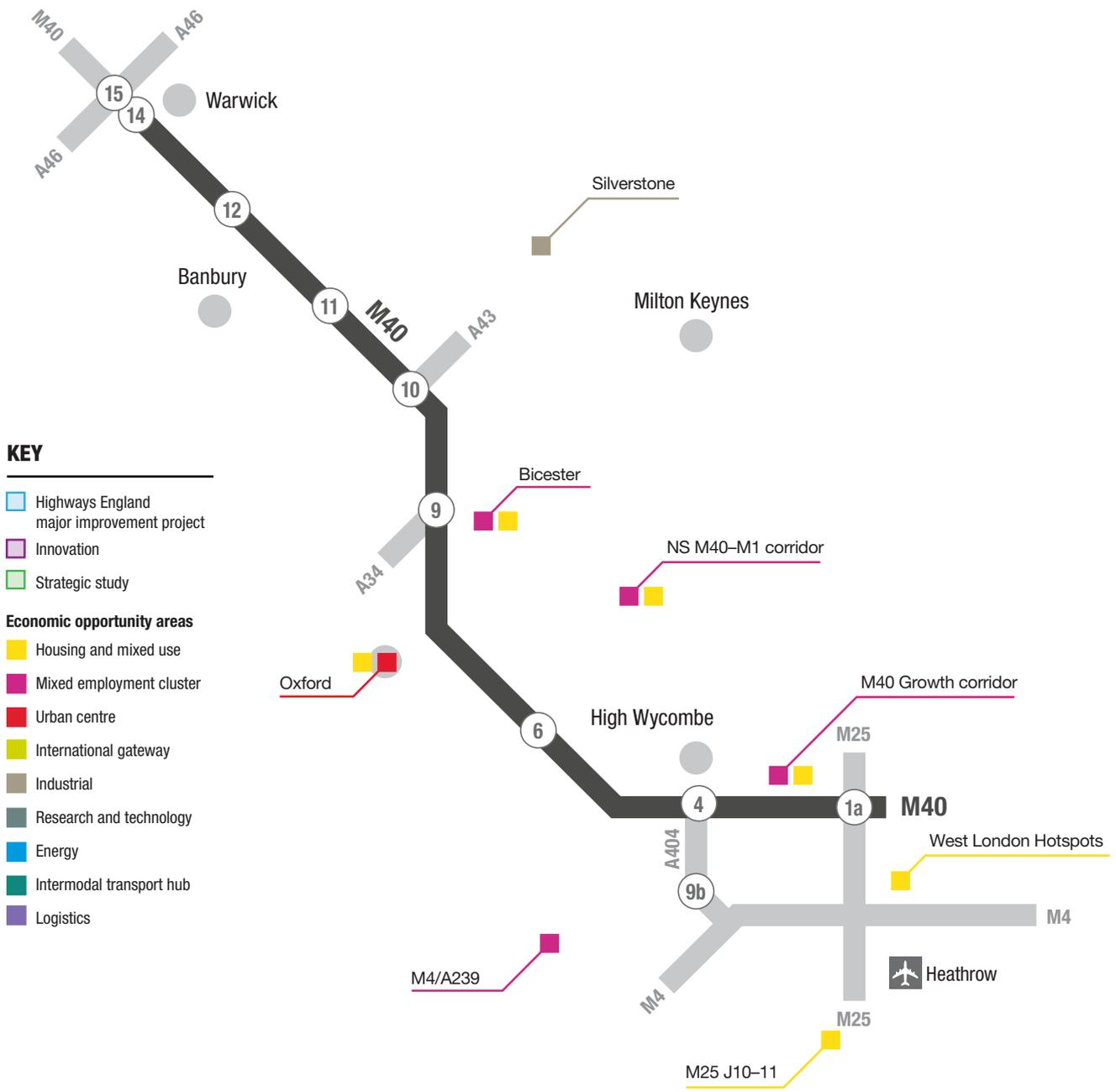


Figure 4.1 - Investment plans and economic opportunity areas

London to Scotland West - Route Strategy: Map 2 of 4

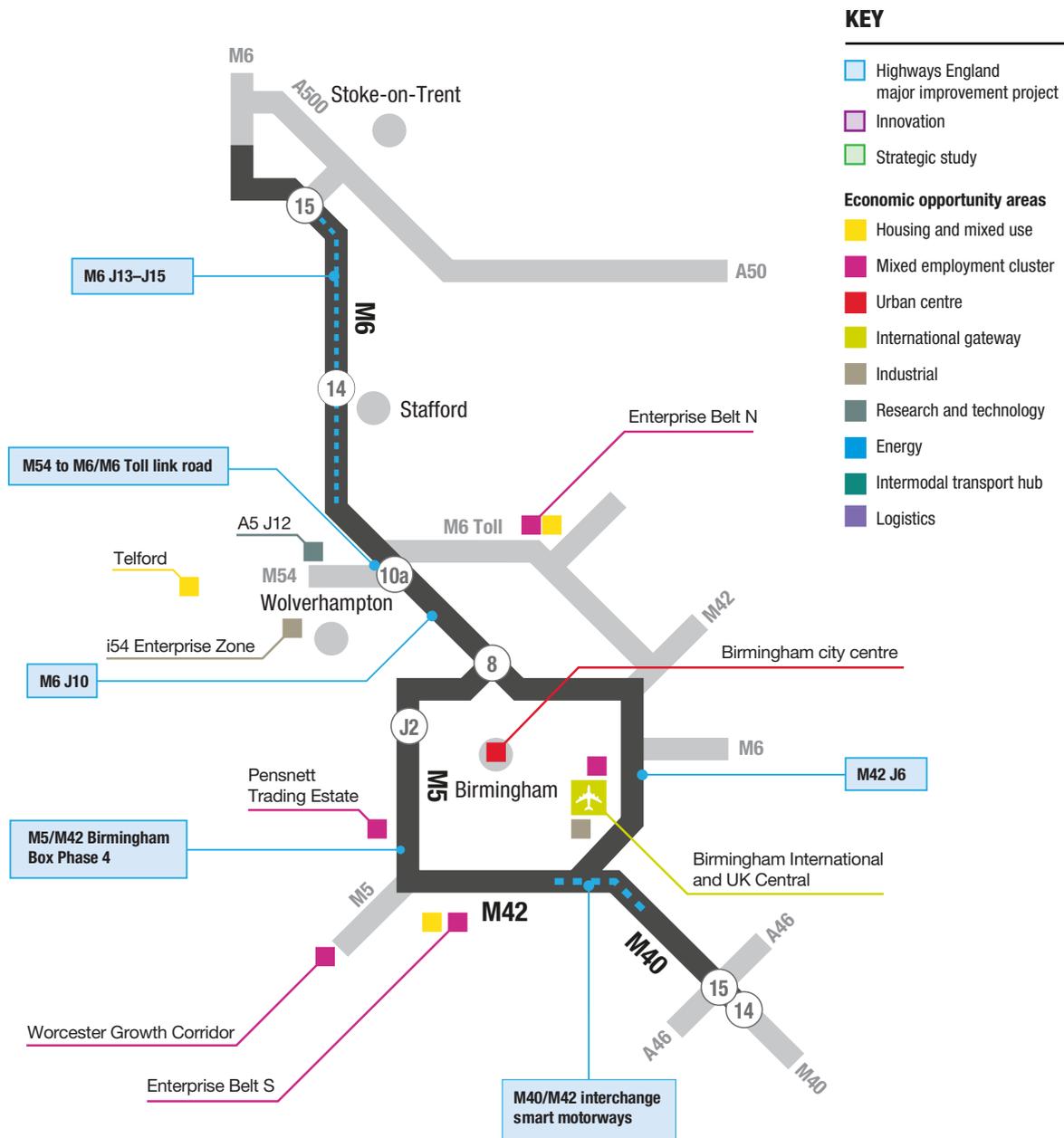


Figure 4.2 - Investment plans and economic opportunity areas

London to Scotland West - Route Strategy: Map 3 of 4

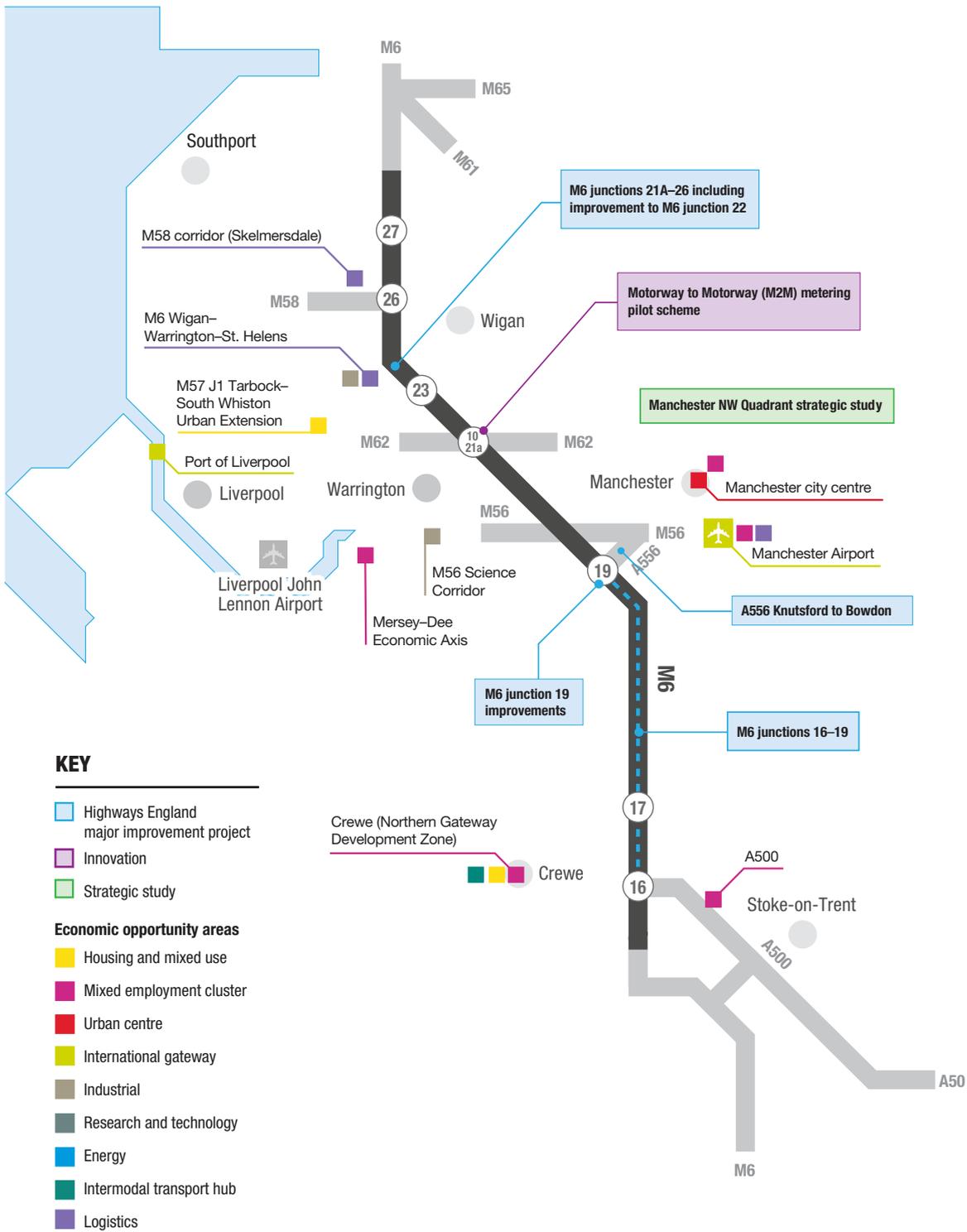


Figure 4.3 - Investment plans and economic opportunity areas

London to Scotland West - Route Strategy: Map 4 of 4

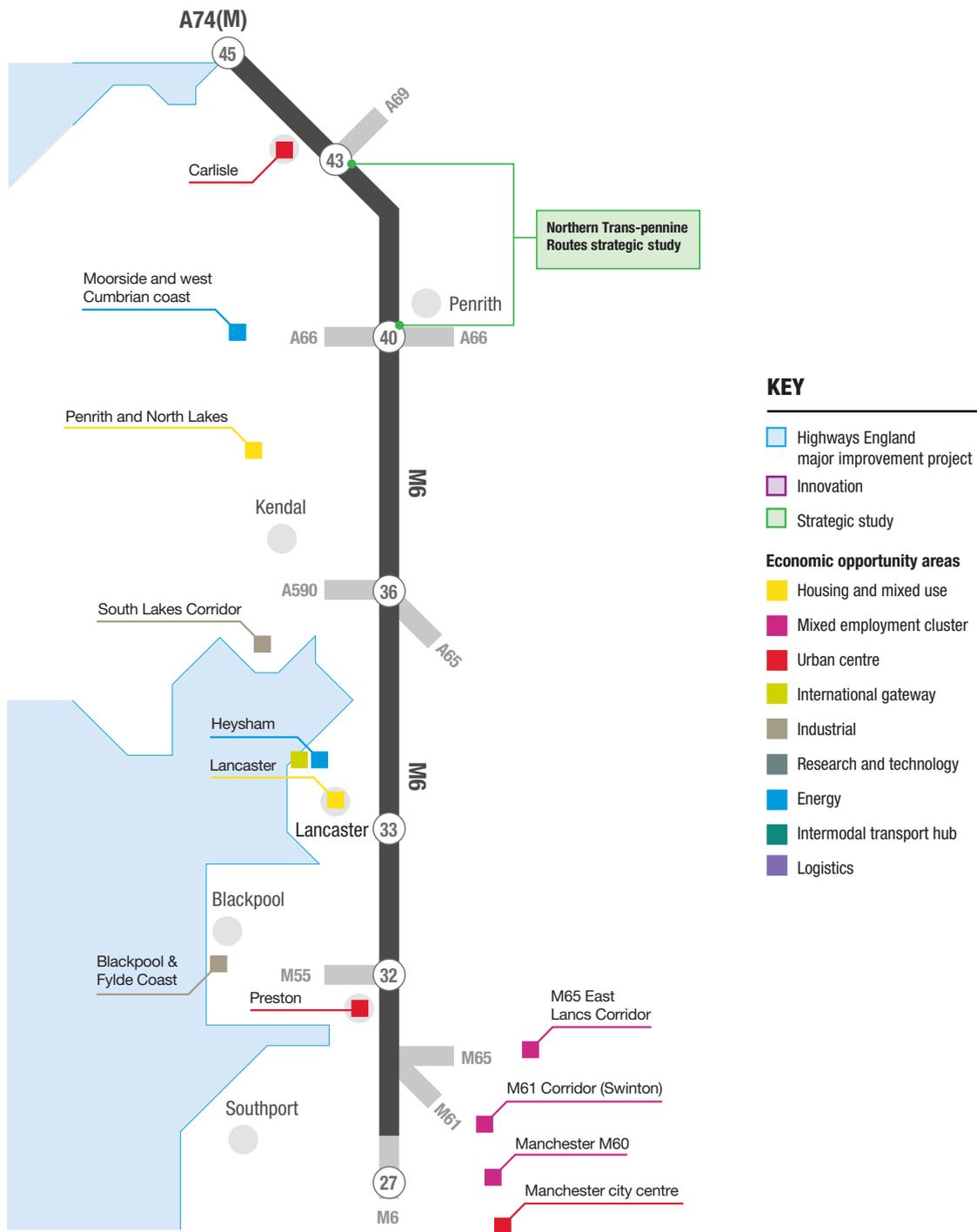


Figure 4.4 - Investment plans and economic opportunity areas



5. Future challenges and opportunities

Route Strategies have identified study areas on the strategic road network which require further investigation of the issues raised by stakeholders and identified through Highways England intelligence. These study areas will now be assessed further as part of our development for RIS2.

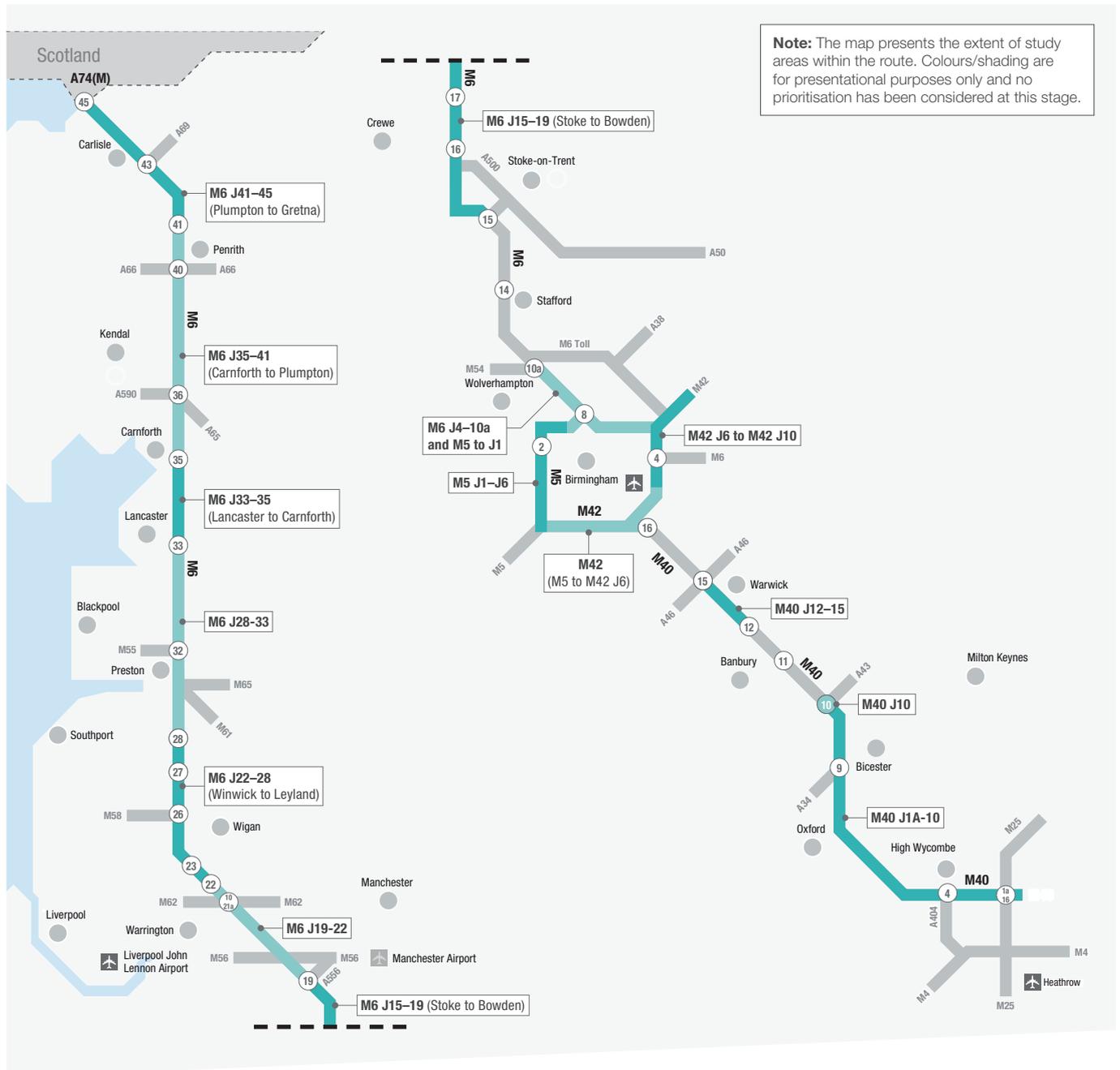


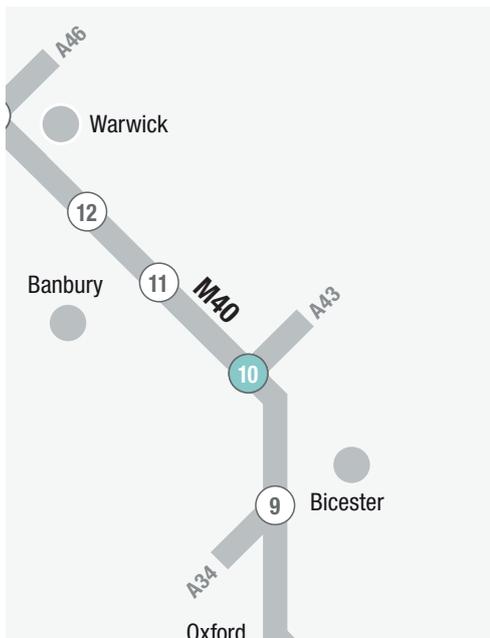
Figure 5.1 - Map of all study areas

M40 junctions 1A to 10



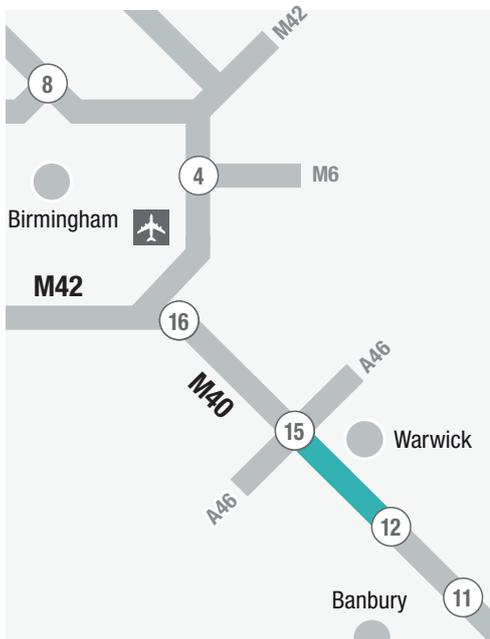
- The level of congestion, particularly at junctions 4, 8, 9 and 10, is anticipated to continue to increase.
- Areas of potential economic growth, such as High Wycombe, may be constrained.
- Junction congestion may lead to an increase in incidents.
- Congestion on the SRN may lead to increased use of local roads which could cause more localised congestion and environmental issues.

M40 junction 10



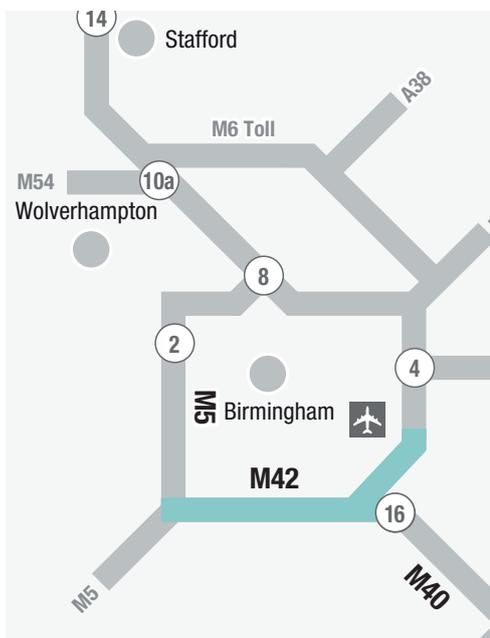
- Strategic growth sites in North Oxfordshire and the Motorsport Valley will add to existing congestion at M40 junction 10 and could be a constraint on planned growth.

M40 junctions 12 to 15



- Growth projections around M40 junctions 12 and 13 are likely to create greater congestion problems at these junctions.
- Junction 12 is the main access to the Jaguar Land Rover site at Gaydon which is a key employer in the region. There are existing issues with peak hour congestion at M40 junction 12. Ongoing congestion could inhibit adjacent growth aspirations.
- There are safety issues around M40 junction 15 which could be exacerbated by future growth.

M42 between M5 interchange and M42 junction 6



- Network demand will increase from Birmingham Airport and UK Central which has been identified as a key economic growth area, and an international gateway for both passengers and freight.
- Existing congestion will worsen in areas where there is likely to be future development. This will impact access junctions throughout this section of the M42: junction 1 (Bromsgrove), junctions 2 and 3 (Redditch) and junctions 4 to 6 (Solihull).
- Although a scheme to relieve capacity at junction 6 is due to start work in 2020, additional traffic demand in this area may be generated from HS2, UK Central, NEC and Birmingham Airport expansion.
- M42 junction 1 is currently located in an AQMA.

M5 junctions 1 to 6



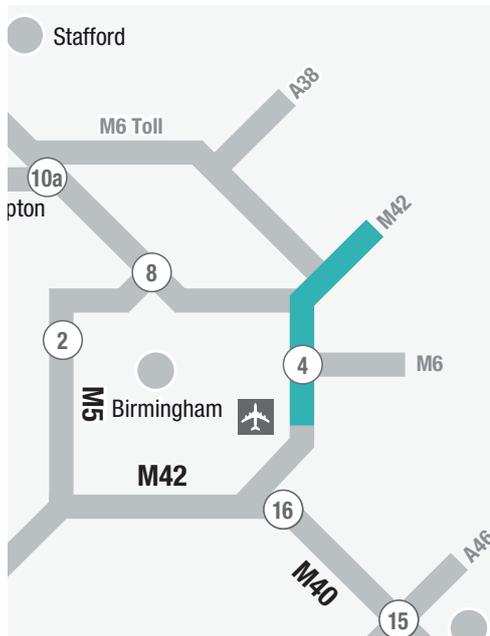
- Future growth in Bromsgrove, Worcester and the Black Country will exacerbate congestion on the SRN.
- Oldbury viaduct, which carries the M5 between junction 1 and 2, has substantial maintenance requirements which Highways England is prioritising.
- Large amounts of local traffic mix with long distance traffic on this section of the network.
- Congestion and poor journey time reliability, particularly between junctions 1 and 5, is affecting the customer experience on this section of the network.

M6 junctions 4 to 10A and M5 to junction 1



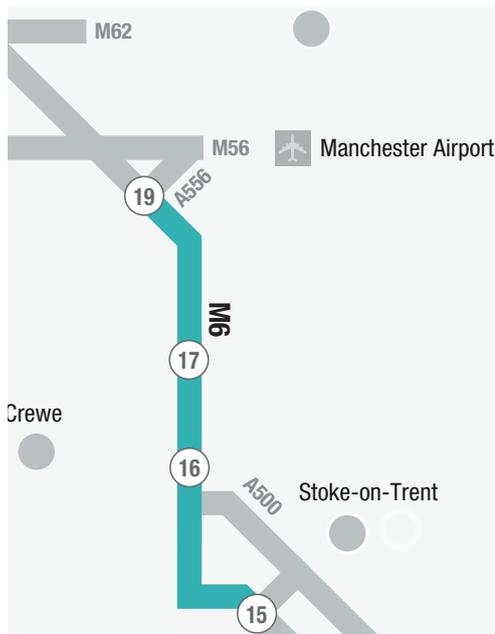
- M6 junction 6 is the main access from the SRN into Birmingham city centre with existing high levels of congestion.
- Large sections of this route run on elevated carriageway with implications for maintenance and potential expansion.
- The M5/M6 interchange is a key junction on the Birmingham Box which currently suffers with severe congestion and weaving issues due to the proximity of M6 junction 7 and M6 junction 9.
- Large amounts of local traffic mix with long-distance traffic on this section of the network.

M42 junction 6 to M42 junction 10



- This section of the M42 suffers frequent congestion but needs to operate efficiently to support the growth of Birmingham Airport, NEC and the planned HS2 station and associated development at UK Central.
- An AQMA has been declared between junction 7 and junction 7a of the M42 and further congestion is likely to exacerbate the issue and/or extend the boundary.

M6 junctions 15 to 19



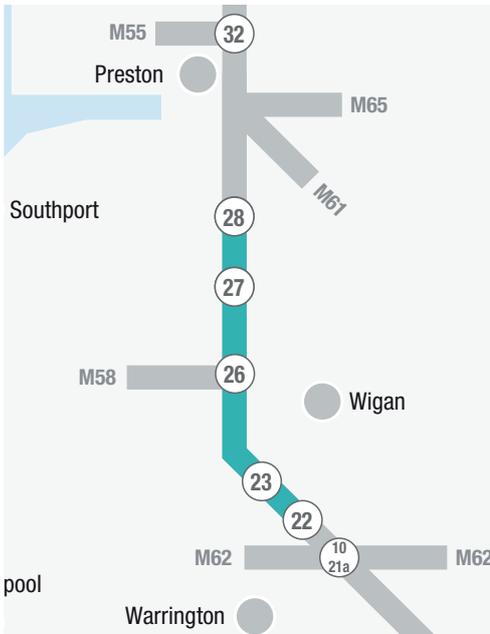
- While RIS1 improvements will deliver smart motorways between junction 16 and 19, there will be a gap in smart motorway provision between junctions 15 and 16.
- RIS1 improvements on the A556 and at M6 junction 19 could attract additional demand onto this section of the network.
- Proposed widening of sections of the A500 at Stoke, as well as the future growth around Crewe and in Cheshire East, mean that M6 junction 16 and junction 17 will face increasing pressures. Safety issues at M6 junction 15 will also continue to cause disruption to the network.
- The M6 will be required to support the growth of Crewe as a key HS2 hub.

M6 junction 19 to 22



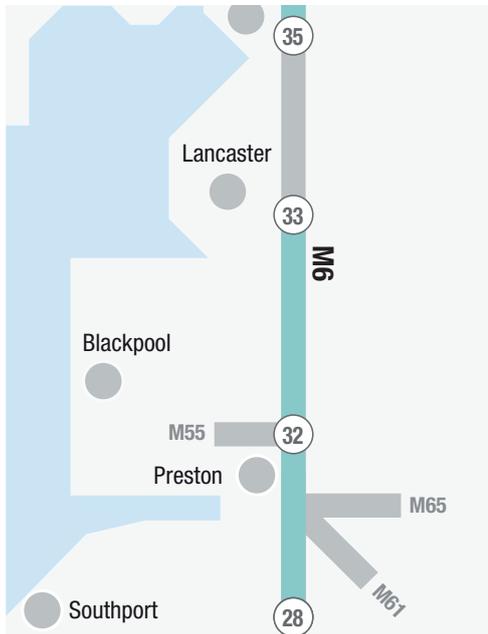
- This section includes key interchanges from the M6 to the M56 and M62. Congestion at both Croft interchange and Lymm interchange are key constraints within the section with high flows and complex vehicle movements.
- RIS1 smart motorways improvements will add capacity north of junction 21A, although there will be a gap in smart motorway provision between junction 19 and junction 21A.
- Development proposals close to this section of the M6 – including across Warrington and at Omega and Birchwood Park – will drive additional demand pressures.

M6 junctions 22 to 28



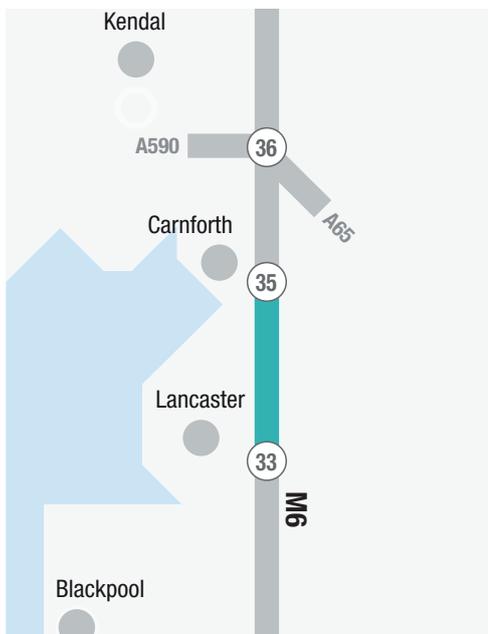
- RIS1 smart motorways improvements will help to address congestion issues between junction 21A and junction 26.
- The M6 junctions with the M58 (junction 26) and the A580 (junction 23) are both identified as potential future pinch points where congestion could inhibit future economic growth.
- Congestion will increase around M6 junction 24 and junction 25 (Ashton in Makerfield) and the network may not be able to adequately accommodate future growth pressures.

M6 junctions 28 to 33



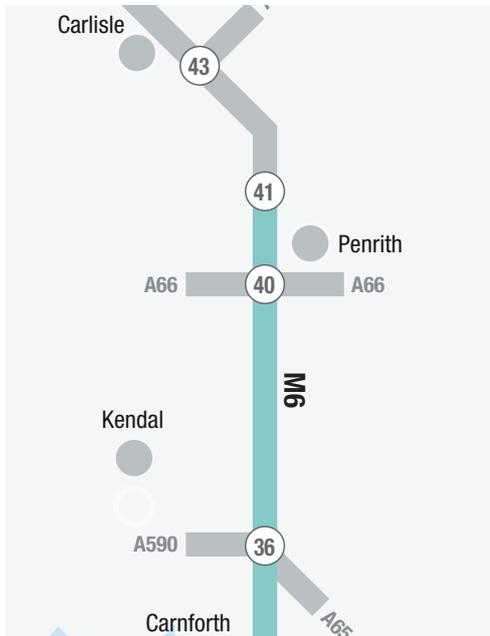
- This section of the M6 will be required to accommodate additional growth from adjacent Enterprise Zones and the Preston City Deal.
- Link capacity issues are experienced within this section of the M6, especially between junction 30 and junction 32 where multiple motorways interchange.
- There are safety issues where the M6 and M61 merge.
- Local highway authority schemes around Preston will offer some relief to the M6 for a period, although not across a long-term horizon. M6 junction 32 (as well as adjoining M55 junction 1) will continue to face demand pressures.

M6 junctions 33 to 35



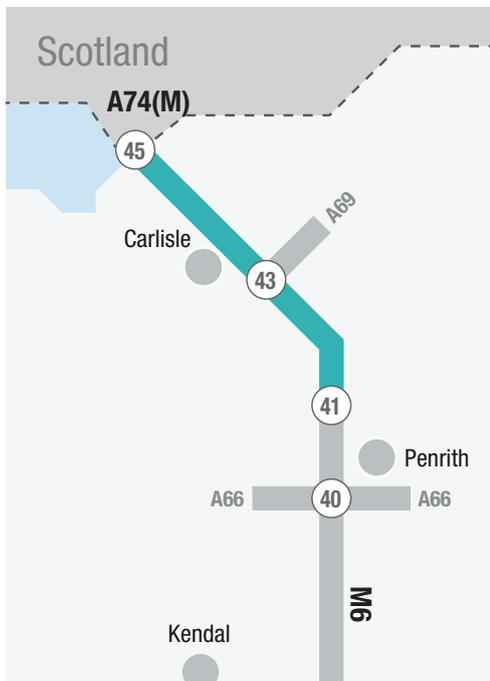
- The growth plans for the area, including the development of Lancaster University may affect the operation of M6 junction 33.
- The local network adjacent to M6 junction 33 faces pressures, including the A6 passing through Galgate.
- There are opportunities to improve the network operations with improved technology to assist with weather monitoring and incident detection.

M6 junctions 35 to 41 (Carnforth to Plumpton)



- Existing pressures create congestion and safety issues at M6 junction 40. Issues are created by both the existing motorway junction and the adjacent SRN junctions (A66/A592 Rheged and A66 Kemplay).
- Growth aspirations around Penrith will increase demand for M6 junction 40 and junction 41.

M6 junctions 41 to 45 (Plumpton to Gretna)



- As well as contributing to a north–south spine through the western side of England, this section will need to sustain the growth aspirations of Carlisle. There are plans for housing growth on the southern side of the city, and employment sites to the north.
- Access arrangements for Gretna (M6 junction 45 and the A74(M)), could justify further consideration to support the Borderlands growth aspirations.

6. Next steps

Our findings from this and other Route Strategies, as well as other research, will inform our first Strategic Road Network Initial Report which is to be published later this year. This will form the basis of a public consultation, which in turn will feed into decision-making on the next Road Investment Strategy (RIS2).

We are looking ahead to the next RIS and how we can support the Secretary of State in ensuring that value for money investments are made in the road network. The process for developing RIS2 is set out in our licence, and is in 3 phases: research, decision and mobilisation.

We are currently in the first phase – **research phase** – where we are gathering wide-ranging evidence on the state of the network and how we can ensure that improvements have maximum impact. The series of Route Strategies, of which this is one, is an important part of this phase alongside the outcomes of strategic studies which looked at particularly complicated problems on parts of the network and how to tackle them. Another key source of evidence is the Strategic Economic Growth Plan (*The Road to Growth*), which examines where and how the SRN can help support economic growth. This will emphasise that sectors dependent on the road network employ 7.4 million people, that we are already doing a great deal to support growth and that we want to do even more.

Now that this series of Route Strategies is published, we will continue our engagement with stakeholders, including other transport providers and authorities, on how best to address problems and maximise opportunities. For example, in working towards seamless end-to-end journeys for our customers, we will be focussing on how the strategic road network links with local roads and other modes of transport.

Findings from the research phase will feed into Highways England's Strategic Road Network Initial Report, expected to be published later this year, which will outline Highways England's ambitions for the network across 2020–2025 and beyond. The Initial Report will be the subject of public consultation.

In the **decision phase**, the consultation feedback will assist the Department for Transport in developing RIS2. In turn we will develop a Strategic Business Plan (SBP) setting out how we will deliver RIS2 as a business. Both the RIS and SBP will be reviewed by the regulator of roads, the Office of Rail and Road, to ensure that we have made the most efficient decisions. The final documents are to be published in 2019.



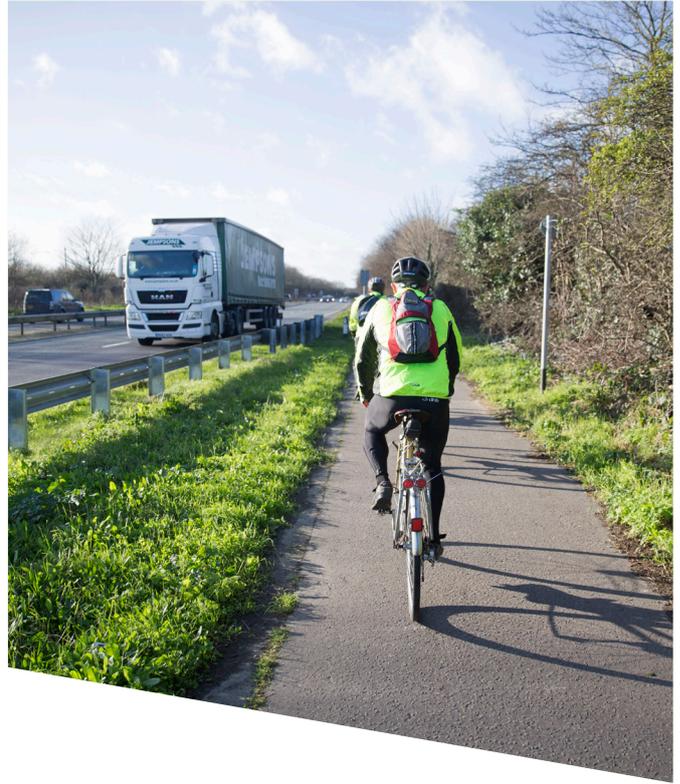
Figure 6.1 - RIS2 high-level process

In the final **mobilisation phase**, we will set out a Delivery Plan with a detailed programme of investment to be carried out in 2020 to 2025 on the basis of the commitments in RIS2.

Continued investment in modernisation, maintenance and operation will further improve the road network on top of the measures and schemes currently being undertaken, and will allow us to further support users of the strategic road network and the UK's economy. The rigorous process of developing RIS2 should ensure that the best use is made of taxpayers' money and that investments have the maximum impact.

The views and perspectives of different stakeholders, including motorists, are important to us. Stakeholders may also wish to contact one of the partner organisations. For example, stakeholders can keep up to date with Transport Focus' work, by signing up to their monthly electronic newsletter *Road User Voice*. Alternatively, stakeholders may prefer to make their views known through one of the many organisations involved in RIS2. They include the AA, RAC, RAC Foundation, Road Haulage Association, Freight Transport Association, Campaign for Better Transport, Confederation of British Industry and many others.

We will provide information about the process and emerging findings at events for representative organisations in spring 2017. At the same time, we are developing the dialogue with emerging STBs, local government, LEPs, business groups and environmental organisations. We want to align our analysis, and eventually our decision-making, with that of other organisations, so that we can maximise the benefit of investment, for example focusing on improving the interconnectivity between different modes and between the strategic and local road networks. This should lead to a richer discussion during public consultation on the Strategic Road Network Initial Report.





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