

Birmingham to Exeter Route Strategy



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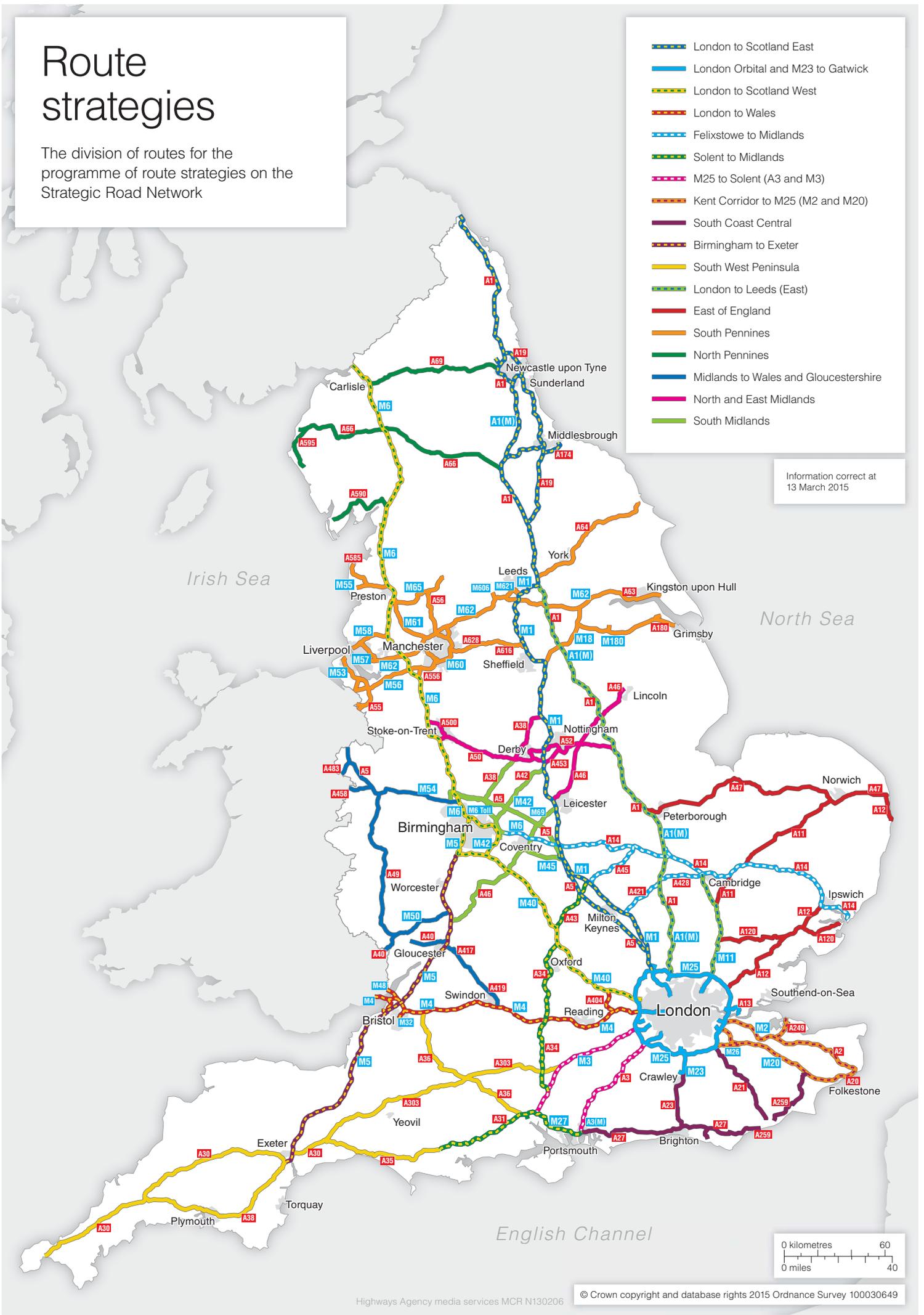
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Route strategies

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

Information correct at 13 March 2015



1. Introduction

Highways England is the new public sector company owned by government and set up to operate and improve the motorways and major A roads in England, otherwise known as the Strategic Road Network (SRN).

The SRN is arguably the biggest and single most important piece of infrastructure in the country. It is at the core of our national transport system. Its many arteries connect our major towns and cities, ensure commuters make it to work every day and help millions of us visit our friends and families.

Our motorways and major A roads are the most heavily used part of the national road network. They carry a third of all traffic and two-thirds of all freight, provide business with the means to get its products and services to their customers, gives access to labour markets and suppliers and encourage trade and new investment. It is essential to the growth, wellbeing and balance of the nation's economy.

Our primary role is to deliver a better service for road users and to support a growing economy. We will work in the interests of taxpayers, road users, and the millions of people who rely on the network every day.

Purpose of route strategies

The route strategies process provides an opportunity for us to be clear about what we intend to do where, why and when. We will operate within five year spending control periods known as a Road Period. The first Road Period has an overall capital investment of £11.3bn from 2015/16 to 2019/20.

Our route strategies will outline our priorities for the Road Period and beyond. These documents also provide a transparent frame of reference for future delivery including details about our proposed investment to improve asset condition; and our vision for the Customer Operations service.

The clarity of route strategies, coupled with the new funding certainties of the Road Investment Strategy (RIS) and the plans set out in our Strategic Business Plan and Delivery Plan, will enable customers, stakeholders, partners and suppliers to engage with Highways England with confidence and reduced risk.

This will help to generate future efficiencies for our investment plans and performance improvements, improving customer experience, and better inform the strategic investment plans of our public and private sector partners.

This route strategy for Birmingham to Exeter route is a culmination of two years of work listening to our stakeholders, customers, partners and suppliers.

It has informed the Road Investment Strategy – Investment Plan for Road Period 1 (2015/16 to 2019/20) and is our statement of how we will tackle the most important challenges and opportunities for our customers as set out in the route strategy evidence report for this route. This strategy also shows how we will work toward delivering the ambitions set out in our Strategic Business Plan, and the Government's RIS at a route level.

Setting the first Road Investment Strategy

During September and October 2013 we held a series of engagement events across the country to inform the development of the evidence base for route strategies. We invited over 800 stakeholders to provide evidence and contribute to discussions about the current and future performance of the Strategic Road Network, in their local area and to identify local priorities.

In April 2014 we published a set of 18 route evidence reports and technical annexes. The reports established the necessary evidence base to help identify performance issues on routes and to anticipate future challenges.

Following the publication of the evidence reports, during stage two of the route strategies process from May to November 2014, we identified over 200 locations nationwide for further study and over 250 potential investment options and areas for study. These were evaluated and sifted against five themes; network performance and safety, a good neighbour to the environment and communities, customer experience, strategic access and connectivity and helping us grow.

From the sifting process a number of investment options were identified and these were used to inform the Government's RIS, which was published in December 2014.

The RIS sets out the investment plan and performance requirements for the network for the next 5 years, together with a long-term commitment to capital funding totalling more than £11bn with a further £4.2bn for the first year of Road Period 2. This long-term investment will enable us to start work on delivering a modern and sustainable network that will tackle congestion, supports economic growth and provides better connections across the country.

In December 2014, we also published our first Strategic Business Plan (SBP) setting out our main activities over the 5-year Road Period. It describes how

we will go about delivering the investment plan and the requirements of a demanding performance specification. Supporting the SBP will be a five year Delivery Plan which will set out our detailed programme, and how we will go about changing the way we work and delivering the performance specification.

To address the increasing demands from a growing population and to meet and exceed our customer expectations over the next 25 years, we will create a modern, technologically advanced road network that is smoother, smarter and sustainable and continues to enable the nation's economy to grow and remain competitive.

Over the coming decades the SRN must provide significantly higher levels of integration with other transport developments to improve domestic connectivity, encourage trade and investment, and enable British businesses to compete in international markets.

By 2040, we want to have transformed the busiest sections of the SRN to deliver the safer, more stress-free journeys that our customers desire, and the enhanced reliability and predictability that is so important to business users and freight. We see the SRN working more harmoniously with its surroundings, impacting less on local communities and the environment.

We know it will take time to make this vision a reality but we have already started our work and the planned investment during Road Period 1 will take us a step closer to making this vision a reality.

Realising this will require a network that works in a fundamentally more effective way. This means updating infrastructure to make the best use of technology, improving how drivers, vehicles and non-users interact both on and with the network, and placing the customer at the heart of how the network is managed.

What we will do

As described in our Strategic Business Plan, to improve the capacity and performance of the network we will:



Modernise the network

Provide more capacity and better connections by:

- 1 Developing a national spine of Smart Motorways and adding new capacity at key points on the network
- 2 Upgrading key non-motorway routes to the new Expressway standard
- 3 Doing more to ensure the network has a positive impact on the environment and neighbouring communities
- 4 Improving facilities for cyclists, pedestrians and other road users



Maintain the network

Take a longer term and more efficient approach to maintaining our roads by:

- 1 Upgrading some of the busiest junctions and alleviating many of the worst bottlenecks
- 2 Resurfacing much of the network and improving the condition of our other assets
- 3 Designing and packaging our work in a way that improves productivity and minimises the disruption to our customers



Operate the network

Keep traffic moving and better inform our customers by:

- 1 Improving information to help people make better decisions before and during their journeys
- 2 Increasing availability through better planned road works
- 3 Working with others to respond more effectively to incidents that cause the most congestion

What we will deliver

The increased investment in the SRN over the next 5 year road period will deliver substantial benefits for road users, communities and the nation as a whole.

The key strategic outcomes of the planned investment will be:



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.



A safe and serviceable network where no one should be harmed when travelling or working on the network.



A more free-flowing network where routine delays are more infrequent and journeys are safer and more reliable.



An improved environment where the impact of our activities is further reduced ensuring a long-term and sustainable benefit to the environment.



A 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.

As we describe the investment priorities over this Road Period and into the next, we will indicate the primary strategic outcomes of the scheme. In everything we do, we will continue to adhere to the principles of sustainable development and continue to improve links with local transport and strengthen connections with other transport modes.

Figure 1
Birmingham to Exeter
 Route strategy
 overview map



2. The main issues and challenges

Summary of the evidence report

The evidence compiled has shown that the Birmingham to Exeter route is of national importance, connecting Birmingham and the West Midlands with the South West and through its intersections with the M4 and M6 motorways links to London, Wales and the north of the United Kingdom.

The key challenges on the route relate to capacity and operational issues to ensure resilience of the network. Capacity issues were identified on the M5 near the urban areas and challenges exist at nearly all junctions across the entirety of the route.

Stakeholders have highlighted how these will be exacerbated by future development growth. Seasonal tourist traffic also presents a major challenge during the holiday period where traffic flows increase significantly, up to 50% more on some sections, in June, July and August particularly on the southern section of the M5.

An operational key theme from stakeholder engagement relates to resilience and ensuring the future network is resilient to extreme weather events, including heavy rain, hail and snow conditions, major incidents and potential security threats, high traffic volumes and during holiday periods.

The sections of the route with capacity issues are in proximity to the major conurbations (Bristol, Birmingham and Exeter), where the route is used for both strategic trips and by commuters travelling to work.

These cities are critical to the growth agenda and together with significant growth planned at numerous towns along the route will clearly put bring additional pressures.

The Birmingham to Exeter route faces many maintenance challenges covering all asset types ranging from carriageway resurfacing, the deterioration of structures located either over or below the route, and maintaining an aging drainage infrastructure fit for purpose in the face of more extreme and unpredictable severe weather events.

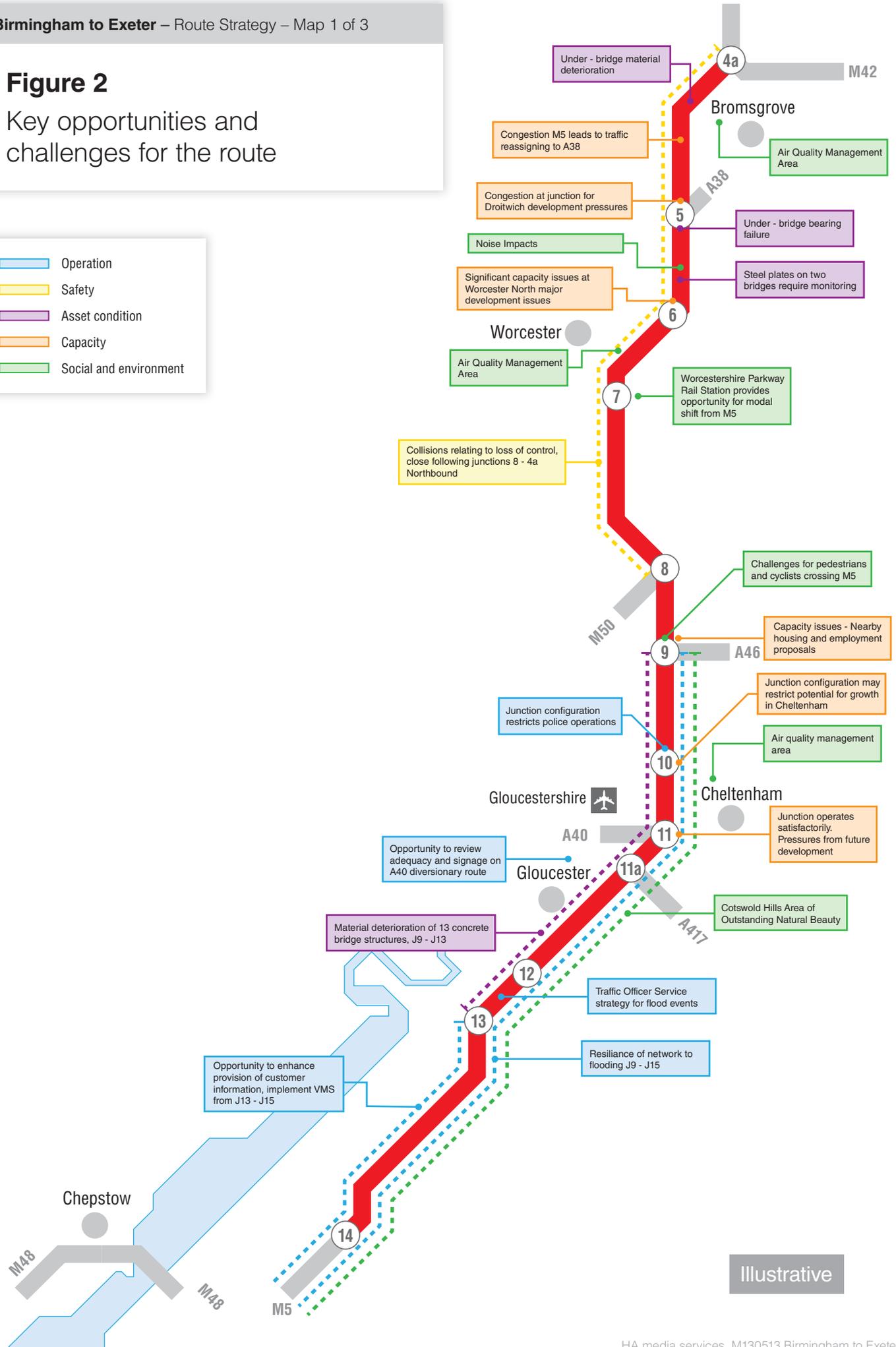
The route also has several identified environmental issues relating to air quality and noise.

Air Quality Management Areas have been identified throughout the length of the route, predominately in urban areas where future development growth allocations are concentrated. There are also a number of designated Noise Important Areas across the entirety of the M5 where noise from the motorway has an impact on neighbouring properties.

Figure 2 summarises some of the key issues and challenges that are likely to be experienced on this route during the 5 years from 2015.

Figure 2

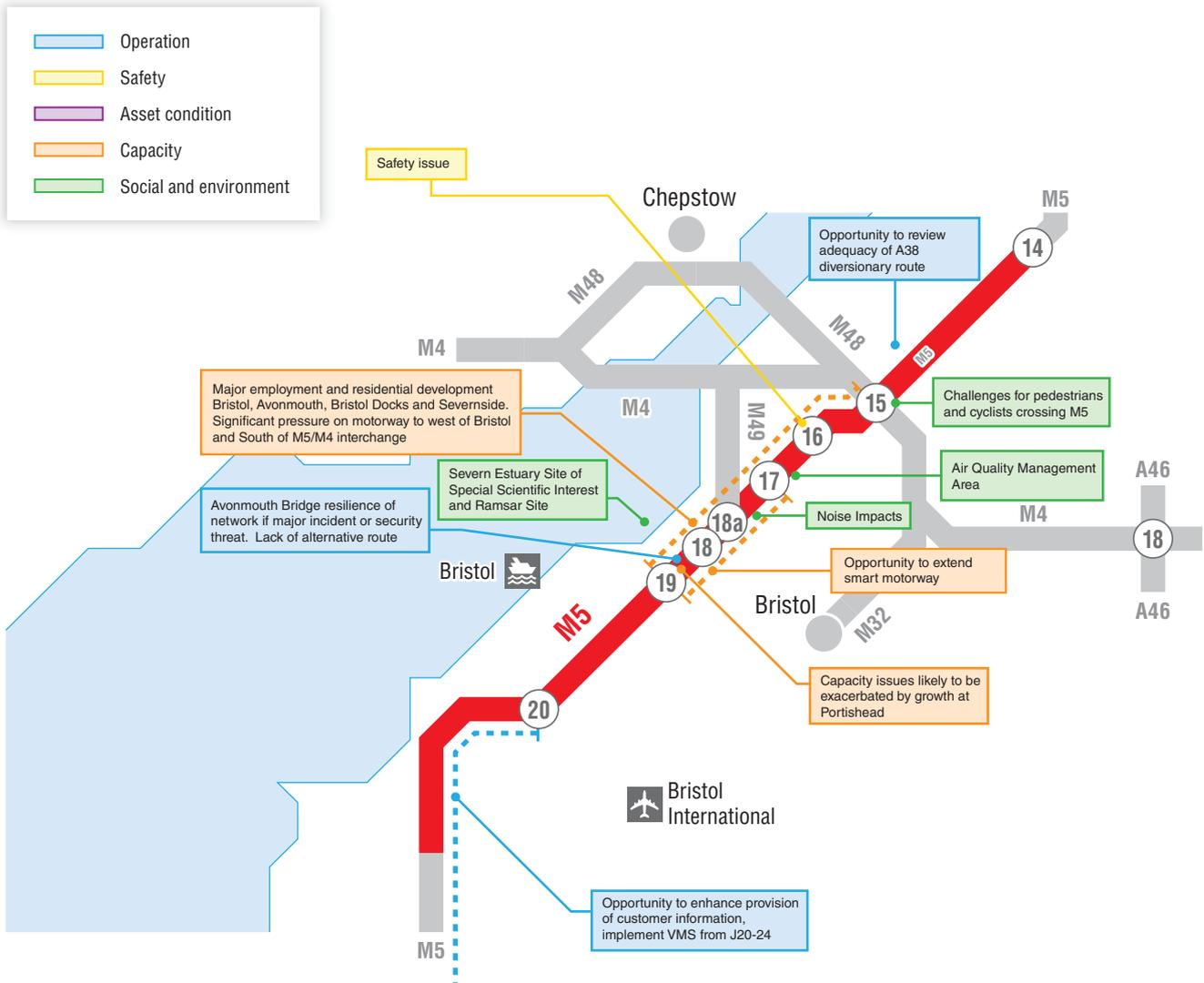
Key opportunities and challenges for the route



Illustrative

Figure 2

Key opportunities and challenges for the route

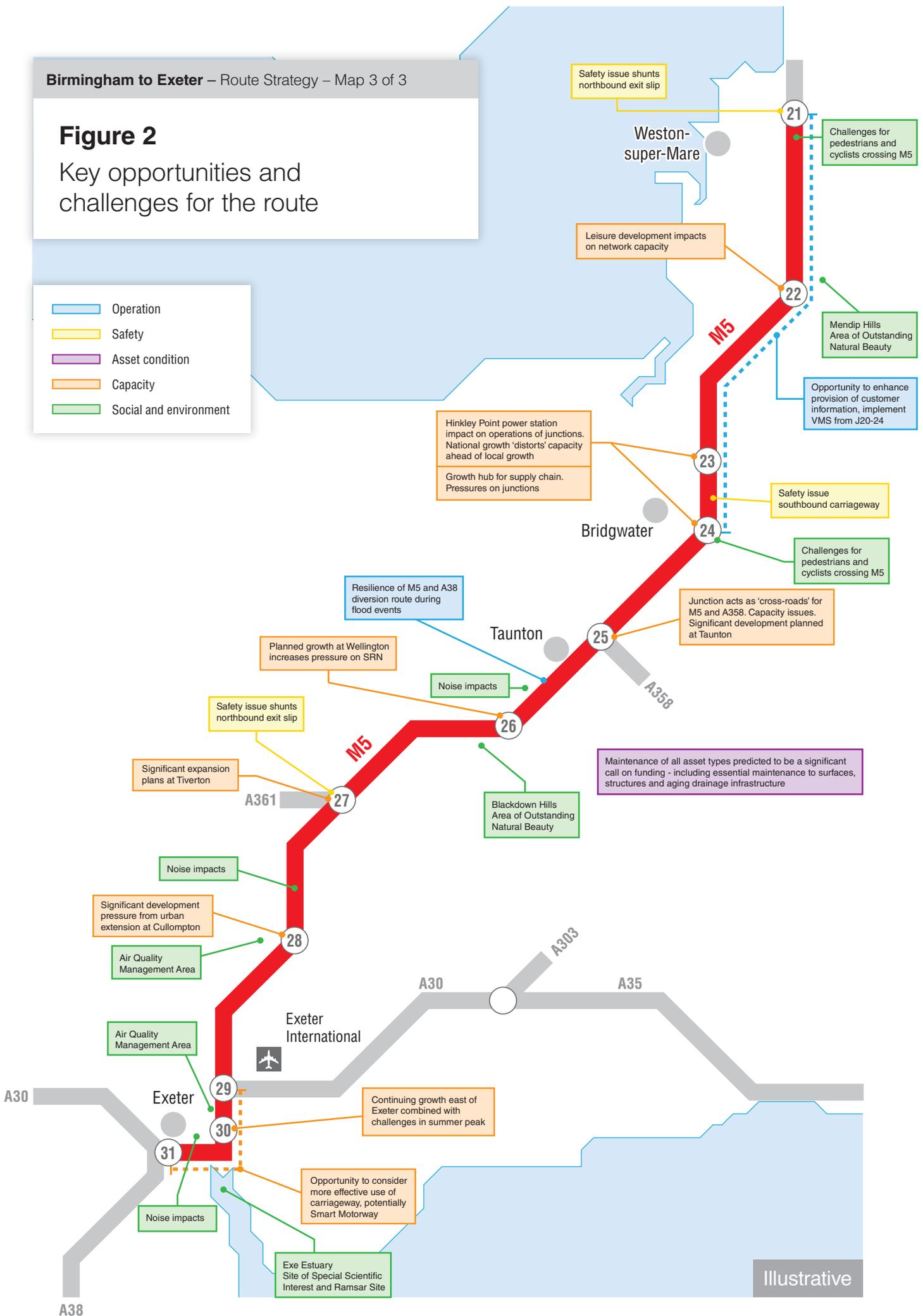


Illustrative

Figure 2

Key opportunities and challenges for the route

- ▬ Operation
- ▬ Safety
- ▬ Asset condition
- ▬ Capacity
- ▬ Social and environment



Illustrative

3. Our Investment Priorities

In this section, we have combined the newly announced schemes in the RIS with existing programmes of work to identify our investment priorities on this route for the period 2015-2020, and an indication of committed priorities beyond this. The investment on this route aims to address some of the main issues and challenges identified in the route strategy evidence reports. The process for planning network investment for future road periods is summarised in Section 4.

A series of dedicated funds were also announced in the RIS, providing the opportunity to deliver enhancements for cycling, safety and better integration as well as environmental improvements and air quality mitigation. A further fund will support growth and housing.

We are currently identifying the primary opportunities we hope to support through these ring-fenced funds, and our plans will be updated annually and on an iterative basis throughout this Road Period, drawing on the priorities identified in our evidence reports.

Figure 3 shows the locations on this route where major roads schemes are currently in construction and where the Department for Transport has announced committed/funded schemes which have either development or full funding and, where relevant, strategic studies.

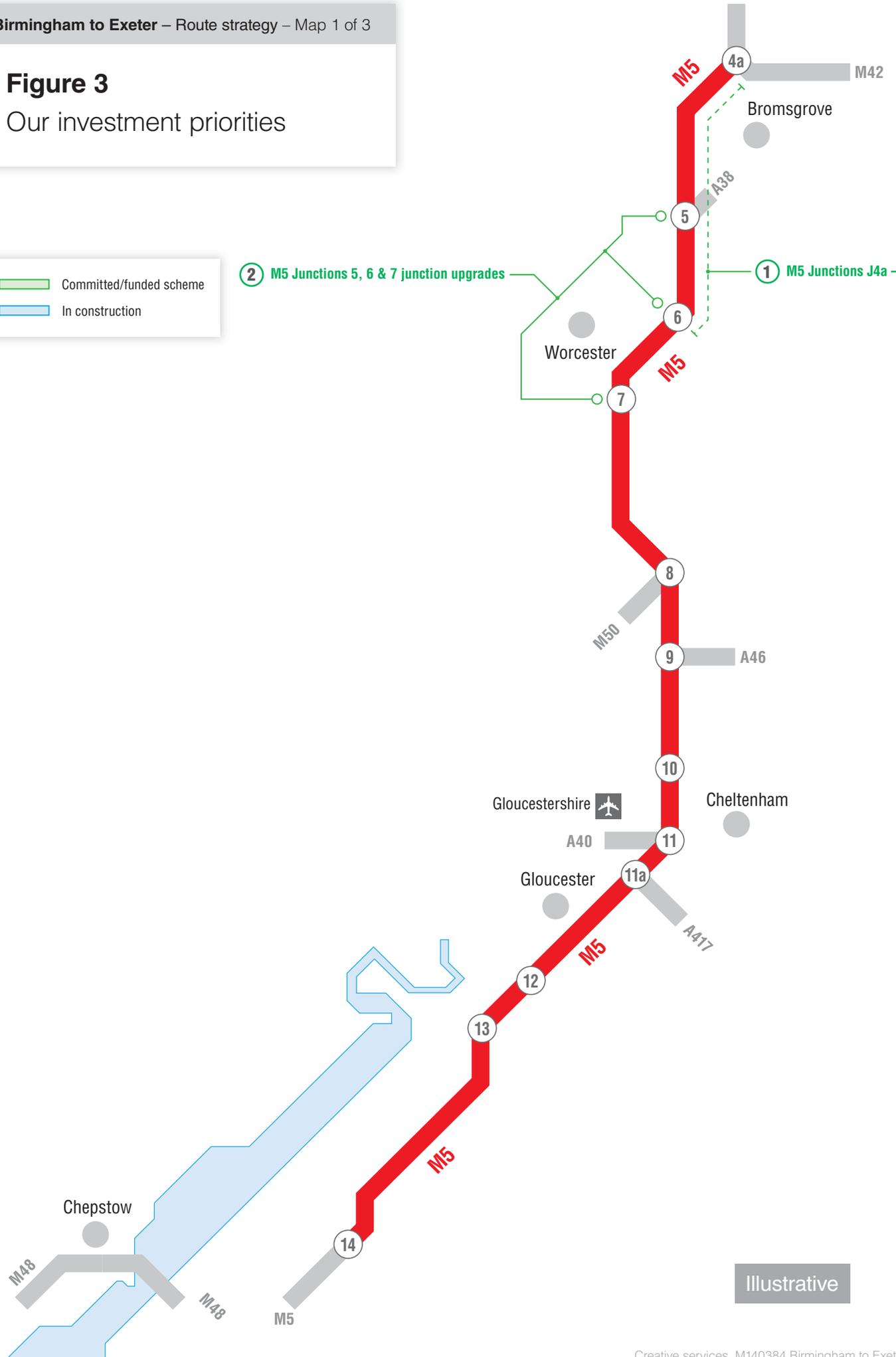
Figure 3

Our investment priorities

- Committed/funded scheme
- In construction

② M5 Junctions 5, 6 & 7 junction upgrades

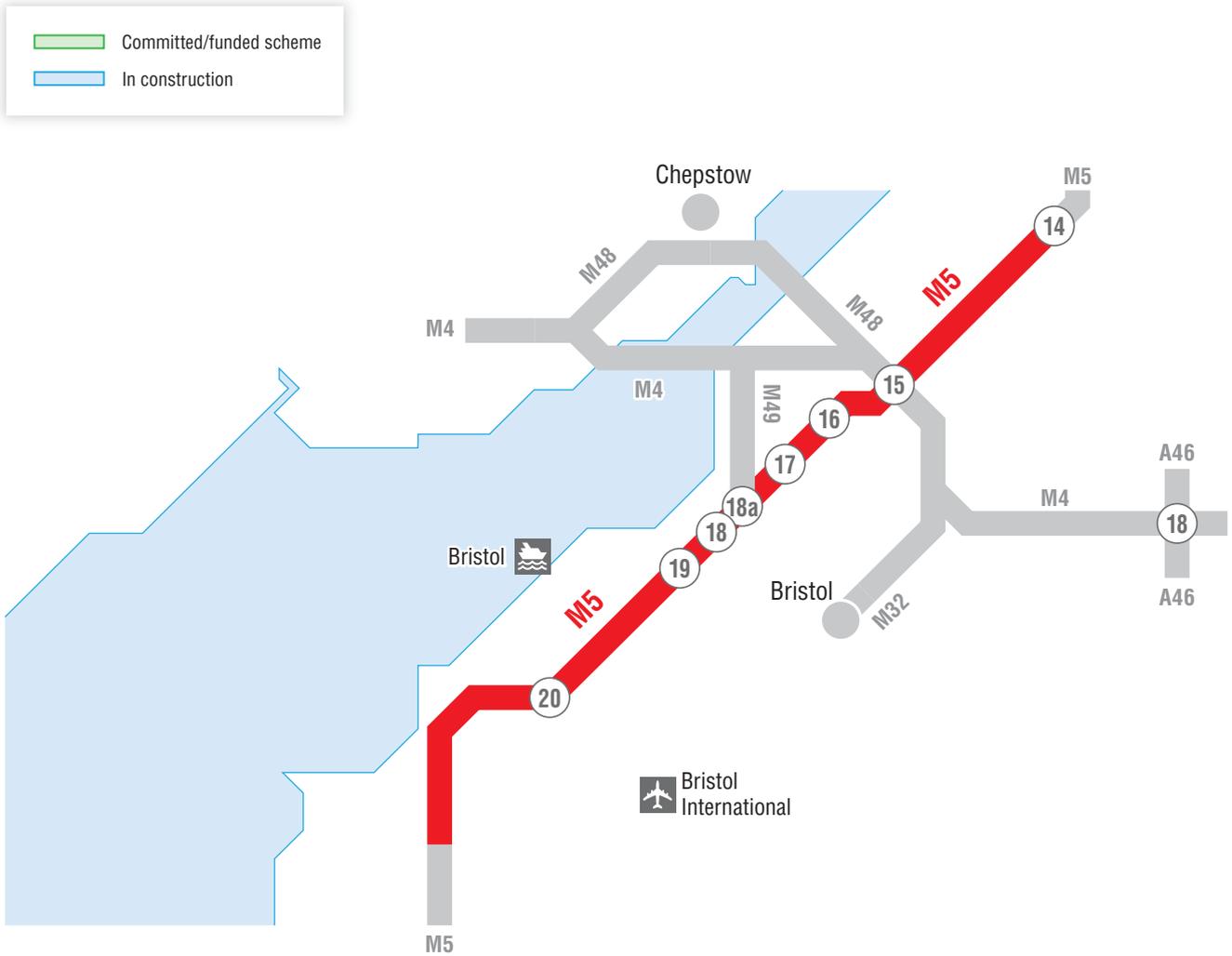
① M5 Junctions J4a – 6



Illustrative

Figure 3

Our investment priorities



Illustrative

Figure 3

Our investment priorities

- Committed/funded scheme
- In construction



Modernising the route

There are three road projects which have committed funding and provided that the necessary statutory approvals are granted and these schemes continue to demonstrate public value for money, these will start construction during Road Period 1. This scheme will help alleviate some of the capacity issues raised in the evidence report.

Further details on all of these schemes can be found in Appendix A.

In considering the delivery of our major road schemes we have identified indicative start dates, to give an indication of when work is likely to commence on site. These dates will be subject to continuous review during the Road Period and updates will be provided in our Delivery Plan.

Maintaining the route

As part of maintaining this route, we plan to upgrade some of the busiest junctions and alleviate many of the worst bottlenecks.

As we take a longer term and more efficient approach to maintaining our roads, we will look for opportunities to programme these improvements alongside other modernisation or renewal activities.

Many of our routes carry a combination of strategic, freight and commuter traffic with hundreds of thousands of vehicles travelling on our roads daily. Our challenge is maintaining a network that is in demand 24 hours a day, 7 days a week, all year round and is also key to supporting the nation's economy. This heavy use of the network combined with its complexity means the network requires maintenance more often and at a higher standard than less busy roads.

Maintaining the SRN is important to keeping it functioning and available to our customers. In July 2013, Government committed additional funding to the renewal of the strategic and local road network. On the strategic road network, this allowed for the renewal of up to 80% of roads.

At present, renewals are planned on an annual basis. As we enter this new system of funding over the longer, 5- year periods, we will work to deliver efficiencies in how we plan for and undertake renewal activity. The annual cycle of funding has often resulted in planning work in the spring and summer before carrying it out in the autumn and winter when the weather is poor. A longer-term and more integrated view of maintenance and modernisation, based on better asset knowledge, will offer greater benefits in terms of minimising disruption to our customers and ensuring best value whole-life cost from the asset.

Our programme of renewals for 2015/16 is well understood and by December 2015, we plan to have our programme for renewal and small- scale improvement programme defined for 2016/17. At the same time, we will develop a methodology for getting inputs for regional delivery plans that will adopt a longer term view (3-5 years or beyond) and will be updated annually and on an iterative basis throughout Road Period 1.

295
miles

5%
of national traffic in
2014

6.7
billion vehicle kilometres
travelled on this route in 2014

The development of our plans will be controlled by regional programme boards and coordinated through an integrated portfolio management approach that packages together all our renewals, major schemes, and routine maintenance activities for both now and in the future. This will mean we can carry out all necessary works in one go, working towards an aspiration of not having to go back and carry out further work on any given part of the network for at least five years.

In 2014 across the whole of the SRN total traffic was recorded at 137.4 billion vehicle kilometres (bvkm). The Birmingham to Exeter route accounted for 5% of this (6.7 bvkm).

Over the course of the 5 years to 2020, our current understanding is that we might need to resurface up to 45% of the roads on this route and we plan to spend approximately £63.2m in doing so. This will include an initial budget of £12.4m during financial year 2015/16. As we develop our longer term programme of renewals and assumptions are refined, we expect this will change. We will report on and refresh our Delivery Plan annually.

The indicative 5 year funding on renewal of roads for this route is shown below in Table 1, however this is subject to change and will be updated annually in the Delivery Plan.

Table 1 - Provisional five year funding for renewals of roads

2015/16	2016/17	2017/18	2018/19	2019/20	TOTAL
£12.4m	£12.5m	£12.6m	£12.7m	£12.8m	£63.2m

We are also working towards the renewal of some key structures on this route and have allocated an initial budget of £22.4m for the renewal of structures during financial year 2015/16.

Technology is already performing an increasingly important role in ensuring the safety and reliability of the network. We are continuing to use more technology to help us collect data and disseminate key information that informs road users and our staff about incidents and congestion ensuring network users are well-informed and supporting traffic operations.

Operating the route

We want to operate our network in such a way that we can keep traffic moving and better inform our customers. A key part of that is improving the information we provide to people before and during their journeys to help them make better decisions. There are a range of activities we will undertake in this Road Period to improve how we operate our roads. We are currently planning our programmes of works, and we will update this annually and on an iterative basis throughout Road Period 1.

Operational capability and response to congestion

We will continue to upgrade our Regional Control Centres systems through joint strategic initiatives which will interlink all key command and control systems into a single more efficient operating system, enabling remote operation and response from any control centre. This will improve our effectiveness, resilience and our ability to flex operational capability at particularly busy times or during emergency incidents.

Improving the data and information gathering from Regional Control Centres and the National Traffic Operation Centre, will help us to develop our website, mobile applications and social media sites to become the trusted source of information on live road conditions. This will help our customers make informed decisions about their journeys.

Incident prevention measures and better management of incidents

Through our Traffic Officer Service we work hard to deliver a reliable service to customers through effective traffic management and the provision of accurate and timely information. While we already do this well, we understand the importance of continually improving this service to our customers with the aim of achieving 90% customer satisfaction.

We will develop and deliver an incident prevention strategy to identify gaps in our current approach and to identify and develop interventions to address these. We will also deploy on-road operational resource to some of the busiest A-roads.

Throughout Road Period 1, we will continue to work with our partners to refine and improve strategic development of the initiatives and protocols aligned to the Collision, Lead, Evaluate, Act, Re- open (CLEAR) initiative and the Joint Emergency Services Interoperability Programme. This includes close liaison with other roads responders, such as emergency services or other government vehicle enforcement agencies to reopen the network quickly after major incidents. Strengthening collaborative partner relationships like these will also assist us to operate the strategic and local road networks more effectively around planned events.

Managing network capacity effectively

We will deliver better planning, scheduling and management of road works to ensure that we do not occupy road space for longer than necessary. This will include carrying out multiple improvements and/or maintenance schemes at the same time, with the intention of not returning to the same area within any five year period.

Actively listening to our customers and seeking their feedback

Our customer panel is in place and is made up of around 1,000 customers representing our full range of customers and neighbours that use or are directly affected by our network. The panel is representative of each of our regions, with known demographics, user type and network usage. We will further develop this panel to ensure we are able to capture a reliable insight about our customers' opinions.

This panel will help us to better understand where and how we need to improve or develop new services and also test concepts and ideas before full development.

Transport Focus has been appointed as a watchdog for our company and will represent the voice of motorists and other road-users. We will develop a positive and constructive working relationship with them to better understand the needs and views our customers in order to continuously improve the services we provide.

It is also our intention to develop and publish a Customer Service Strategy by December 2015. This will explore how we need to adapt and improve our customer satisfaction research, to enable us to gain a better understanding of what our customers want. We will improve the way our customers interact and communicate with us through the Customer Contact Centre.

4. Planning for future investment

The investment planning cycle

Roads Reform paved the way for longer term funding for the SRN, and now through The Infrastructure Act funding will be allocated for 5-year Road Periods.

So that we spend this money wisely, Highways England and the Department for Transport will implement a planning cycle for future investment. This is outlined in Part 6 of our Licence to operate.

Route Strategies

Highways England is required by the Infrastructure Act and our Licence to prepare and publish route strategies covering the whole of the SRN. These will continue to involve our stakeholders in identifying evidence-led investment priorities.

Strategic Road Network Initial Report

Building on the investment priorities identified through route strategies and advice from the monitor and watchdog, this will be Highways England's proposition on investment on the strategic road network over the next Road Period.

Draft Road Investment Strategy

Informed by the SRN Initial Report, Government will produce a draft RIS containing a strategic vision, statement of funds available, investment plan and performance specification.

Draft Strategic Business Plan

Highways England's draft SBP will outline all activities and deliverables for the next Road Period, and based on route strategies, advise the Secretary of State on how best to deliver the strategic vision and performance specification, outlining where when and how best to intervene on the SRN.

Efficiency Review

The Secretary of State may ask the independent monitor to carry out an efficiency review to help determine whether the draft SBP will deliver an appropriate level of performance for the funds invested, and if the programme offers value for the taxpayer.

Finalise RIS and SBP

The Secretary of State will confirm and issue the final RIS together with Highways England issuing the final SBP. The SBP will include a Delivery Plan describing the activities, deliverables and funding on a year by year basis. The Delivery Plan will be reported on and refreshed annually.

Mobilise

Highways England will then undertake a period of mobilisation, including discussions with the supply chain and other preparations ahead of the SBP coming into force at the beginning of the next Road Period.

Preparing for the next round of route strategies

Route strategies will continue to play an essential role in setting the government's RIS. In future, route strategies will be the main mechanism through which future investment priorities including improvements, maintenance and customer operations will be identified.

These route strategies are the culmination of the work done in our first investment planning cycle, and they have provided useful inputs to the first RIS, but we are looking to review and improve upon this platform.

We welcome views from all of our stakeholders on what worked well, and where we could make improvements and would encourage you to let us know so that we can consider this as we prepare for the next round of route strategies.

As we develop our approach, we will seek advice from the independent monitor and watchdog, and once agreed with the Secretary of State, we will publish our approach.

However, we continue to believe that route strategies should be based on robust evidence and input from a broad range of stakeholders.

Throughout the first round of route strategies intelligence gathering, the input of our customers and stakeholders was vital to the development of the evidence reports. We are committed to this approach and we will continue to listen and act on what you say to us. We understand that our stakeholders and customers have local knowledge and experience of using and living alongside our routes. We need to ensure that we capture this knowledge as best we can, while still taking account of our wider Government commitments and responsibilities.

We will review progress and update these route strategies by the end of 2016/17, in time to feed into our first SRN Initial Report. If you were involved, or kept informed, in this round of route strategies, we will be in touch later this year with our plans.

If you are new to route strategies, but would like to become involved, please do let us know by contacting our Customer Contact Centre by telephone 0300 123 5000.

Annex A

No.	Schemes Overview	Scheme Type	Construction Starts	Open to Traffic	Strategic Outcomes
1.	<p>M5 Junctions J4a – 6</p> <p>Upgrading the M5 to Smart Motorway including hard shoulder running between junction 4A (M42 interchange) and junction 6 (Worcester).</p>	Upgrade to Smart Motorway	2015/16	2017/18	
2.	<p>M5 Junctions 5, 6 & 7 junction upgrades</p> <p>M5: J5 (Droitwich north) to J7 (Worcester South): Significant expansion of junction 6 near Worcester, with improvements to approach roads, plus additional measures to improve capacity on junctions 5 and 7.</p>	Junction upgrades	2015	To be confirmed when construction programme is known.	
3.	<p>M5 Junction 23</p> <p>Improvement of Bridgwater junction through enhanced slip roads.</p>	Junction upgrade	2016	To be confirmed when construction programme is known.	

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