



OFFICE OF RAIL AND ROAD



Highways Monitor

Six month review of
Highways England's
performance

April – September 2015

Highways Monitor

Six month review of Highways England's
performance, April – September 2015

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Foreword

April 2015 marked the start of a radical and exciting new landscape for England's strategic roads including the creation of a government-owned company, Highways England. This came together with a six year, major road investment plan and a firm promise from government of the funds needed to deliver it.

The success of this reform is important: most of the public use motorways and main A roads and much of commerce and industry depends on them. A high-performing, safe, network is vital in supporting economic growth.

The independent Office of Rail and Road is now tasked with monitoring Highways England's performance against a number of demanding and wide-ranging indicators. We will provide greater insight to the company's performance and any risks to future delivery.

This is our report to the Secretary of State on the first six months of our role as highways monitor.

Highways England has generally delivered well against its performance requirements and the delivery of its investment programme. It has performed strongly in supporting the smooth flow of traffic and maintaining the condition of the network.

Traffic is at record levels and increasing – a trend which is expected to continue as the economy recovers and the population grows. By 2040, traffic on the network will be between 27% and 57% higher than it was in 2013. This makes it harder to achieve some of the all-important outcomes such as safety and high levels of service expected by users.

Highways England is taking action to do better on these measures and we will hold it to account for doing that. We are particularly encouraged by its determination to listen to the concerns of its users. But this does point up the importance of us all, in partnership with government, delivering increases in road capacity over the long-term.

We will continue to support the new landscape for major road investment and operation. Over the coming months we will focus further on Highways England's plans for improving safety, getting clarity on its capital programme, improving the quality of its data reporting and ensuring that any changes to its plans are transparent.

With our new role on roads, we will help in securing the benefits for road users and the economy. We will publish a more detailed, annual assessment in summer 2016.



Anna Walker

Anna Walker
Chair, Office of Rail and Road



Stephen Glaister

Stephen Glaister
Chair, Highways Committee

Executive Summary

1. The highways sector in England is undergoing significant change. The government has reformed the way in which the motorways and main 'A' roads in England (the strategic road network) are funded and managed. It has established a government-owned company, Highways England (previously the Highways Agency), which operates under a licence¹ and has the powers, duties and increased flexibility needed to operate, maintain and enhance the strategic road network.
2. The government has also published a road investment strategy², in which it has committed to an investment programme of more than £11 billion³ over the five years of the first road period (April 2015 to March 2020) and which sets out the levels of performance that the company must deliver. Highways England has committed to delivering this significantly increased investment whilst delivering a challenging and wide-ranging set of performance targets aimed at improving the outcomes for road users and wider stakeholders. The wider context of increasing traffic will make this all the more challenging.
3. The Office of Rail and Road (ORR) plays a key role in the reformed sector. Because the government has provided Highways England with greater decision-making powers and increased, longer-term funding to manage the strategic road network, it requires independent assurance about the levels of performance and efficiency that Highways England is delivering. Our independent monitoring and enforcement processes provide that assurance.
4. Highways England formally took on its role as highways authority for the strategic road network in April 2015. At the same time, the ORR took on its additional duties, and set up the highways monitor, a directorate of the ORR, to carry them out. A key aspect of our role is to monitor how Highways England is delivering against its performance requirements, its required investment plan and its licence requirements. We advise the secretary of state on Highways England's performance, including efficiency, and publicly report our findings on at least an annual basis.
5. The reforms outlined above should support Highways England in delivering better value for money from its investment in the network and in delivering better outcomes for road users and those affected by the network. But they also require significant change, to the company's status, the way in which it operates and its relationship with its stakeholders and customers. The company is implementing these changes

¹ <https://www.gov.uk/government/publications/strategic-highways-company-licence>

² <https://www.gov.uk/government/collections/road-investment-strategy>

³ This is part of a £15bn investment from 2015-16 to 2020-21.

but they will take time to embed. Its performance early in the road period must be considered in the context of its change programme, and the plans and strategies it is developing to deliver improvements.

6. Because the framework is new we are publishing this report – our first to be produced under our role as highways monitor – after six months, to cover performance from April to September 2015. As this is the first of these reports, it also sets out the background to ORR’s new highways function and explains how we plan to measure and review Highways England’s performance.

The monitoring framework

7. Since the establishment of the highways monitor we have worked closely with stakeholders in the development of our monitoring framework, including through extensive engagement with Highways England, Transport Focus and the Department for Transport (DfT). We consulted on our proposed monitoring framework in early summer 2015 and published our final monitoring framework document in October 2015⁴.
8. Our monitoring during a road period focuses primarily on holding Highways England to account for the outcomes and outputs that it must deliver, as set out in the road investment strategy, and specifically in the performance specification and investment plan. At a high level we monitor:
 - key performance indicators;
 - performance indicators;
 - requirements that help to develop future strategy or performance measures;
 - major scheme delivery;
 - delivery of ring fenced fund improvements;
 - sustainability of approach to maintenance and renewals; and
 - Highways England’s compliance with its licence.
9. This report sets out how Highways England has performed in these areas during the first six months of road period 1.
10. We are developing an ambitious forward programme of work including:
 - ensuring that Highways England sets out a robust capital investment baseline;
 - ensuring that Highways England is delivering on required data improvements;
 - setting out our approach to benchmarking;

⁴ http://orr.gov.uk/data/assets/pdf_file/0006/19590/highways-england-monitoring-framework-october-2015.pdf

- scoping our role in advising on the second road investment strategy, including our approach to efficiency assessment;
 - developing our understanding of the supply chain's capability to deliver the first road investment strategy; and
 - development of our first annual report.
11. We will shortly publish our enforcement policy which sets out how we will escalate and enforce where Highways England is not delivering in line with its performance and delivery requirements.

Embedding road reform

12. Highways England launched in April 2015 and appointed a new CEO, Jim O'Sullivan, in July. The company is making changes to ensure that it is ready to deliver the increased investment and performance requirements set out in the road investment strategy. For example, the company is:
- implementing changes to make it a more customer focused organisation;
 - changing the way it engages with stakeholders;
 - developing its capability to plan and procure for the longer-term;
 - implementing significant changes to its data collection and reporting processes; and
 - developing a suite of plans and strategies to deliver the required changes.
13. Highways England published its delivery plan in March 2015 which set out how it plans to deliver the requirements of the road investment strategy over the first road period. It has recently reviewed its plans and concluded that it is able to deliver the road investment strategy. It is currently setting out clearer capital investment plans for this road period. This is vital to setting clear expectations for delivery for all stakeholders and to set a baseline against which we can monitor.
14. Engagement between Highways England and the ORR (as highways monitor) has been positive and constructive – which is a key requirement for the new governance arrangements in the sector to realise their full potential.
15. Relationships under the new governance arrangements are continuing to mature and all stakeholders are developing their understanding of the scope and nature of their roles. We are therefore adopting a flexible approach to monitoring during the first road period and taking account of Highways England's plans for further development.
16. It is early days for the package of road reform, and it is important that the new industry arrangements are supported by all stakeholders. For example, all parties

need to agree a robust and transparent change control process to reassess and record changes to the agreed outcomes specified in the road investment strategy.

Summary of Highways England's performance

17. We focus our monitoring of Highway England's performance on its delivery of the outcomes and key performance indicators (KPIs) as set out in Table 1. Performance to September 2015 is summarised in the table and below.
18. Highways England has made a positive start in its new role and performance on the network is generally good. It has made progress in setting out its plans and strategies for the next five years. The company has the challenge of delivering its plans and managing its performance in the context of traffic levels which are rising and projected to increase further. Traffic on the network is expected to increase by between 27% and 57% between 2013 and 2040⁵.
19. Over the first six months, Highways England has delivered strongly in supporting the smooth flow of traffic, including maintaining availability and incident clearance metrics above required levels. It has also maintained pavement condition above its targeted level, and further improvements are underway for asset management reporting. In June 2015 the company published a high quality biodiversity plan⁶, thereby delivering against one of its key performance indicators. The plan sets out a clear commitment by Highways England to ensure no net loss to biodiversity by 2020.
20. England's roads are amongst the safest in the world and the number of people killed or seriously injured (KSI) in accidents has fallen by around 40% since 2000. However, in the past two years there has been an increase in the number of KSIs on the strategic road network⁷. The number of KSIs is a key performance indicator and we are proactively engaging Highways England to understand what is causing the recent increase and how its plans can reverse this trend. Highways England has set out its approach to health and safety⁸ and this is supported by more detailed planning of the actions it will take to mitigate safety risks for road users, road workers and employees. Monitoring this will be a key area of focus for us for the remainder of 2015-16 and throughout the road period.
21. Road user satisfaction has declined between 2011 and 2015 to 89.4%. Initial data for 2015-16 suggests a slight reversal of this trend. Highways England has a target of achieving, and then maintaining, a satisfaction score of at least 90% by March 2017

⁵ <https://www.gov.uk/government/publications/national-policy-statement-for-national-networks>

⁶ <https://www.gov.uk/government/publications/biodiversity-plan>

⁷ The number of people killed or seriously injured on all roads in England also increased between 2013 and 2014.

⁸ <https://www.gov.uk/government/news/no-one-should-be-harmed-when-travelling-or-working-on-our-highways>

and we are working with the company to understand its plans to improve user satisfaction. We are encouraged by its renewed focus on listening better to the concerns of its customers. Transport Focus has been working with Highways England, us and other stakeholders to develop a new road user satisfaction survey, also to be implemented in March 2017.

22. Highways England is undertaking further work to improve its data quality and reporting in key areas, including environmental measures, efficiency, helping vulnerable users and asset condition. Highways England's data reporting is improving, but it has more work to do to provide the right quality of information and sufficiently comprehensive reporting to support the new industry framework. For example, it needs to improve the information it collects for reporting performance against a number of KPIs. Highways England has committed to producing a data improvement plan by March 2016 to address data quality issues.
23. Table 1 provides a summary of Highways England's performance against its KPIs using data to the end of September 2015. We have applied a red / amber / green status to each KPI, based on our understanding of performance over the first six months and Highways England's plans for future delivery.

Table 1: Summary of performance at September 2015

Outcome	KPI	Target	Summary of six month performance	RAG status
Making the network safer	Killed and seriously injured	40% reduction by end of 2020	Ambitious health & safety plans produced; Data for 2014 (prior to creation of Highways England) shows worsening trend; Validated data for 2015 is not available until mid-2016	Amber
Improving user satisfaction	Road user satisfaction	90% by March 2017	2015 year-to-date: 89.4% (at September 2015)	Amber/Green
Supporting the smooth flow of traffic	Network availability	97% lane availability in any one rolling year	Exceeding target: 97.9% availability (at August 2015)	Green
	Incident clearance	85% of motorway incidents cleared within one hour	Exceeding target: 86.2% cleared within one hour (at September 2015)	Green
	Average delay (seconds per vehicle mile)	No target set	2015 data not yet available 2014 data (prior to creation of Highways England) shows worsening trend	Amber/Green
Encouraging economic growth	Noise important areas mitigated	Mitigate at least 1,150 noise important areas by 2020	Some noise mitigation schemes being taken forward, but clearer plans to be developed by March 2016	Amber
Delivering better environmental outcomes	Improved biodiversity	Publish biodiversity action plan	Target met: action plan published in June 2015	Green
Helping cyclists, walkers and other vulnerable users	Number of new and upgraded crossings	No target set	40+ cycle schemes on course to be delivered in 2015-16 Need clearer plans on delivering longer-term benefits for cyclists, walkers and other vulnerable users	Amber/Green
Achieving real efficiency	Capital expenditure savings	Total savings of at least £1.212 billion on capital expenditure by 2019-20	£14m of efficiencies identified against a £33m internal target for 2015-16. Additional possible efficiencies are being evaluated within HE	Amber/Green
Keeping the network in good condition	Progress of work, relative to delivery plan	No target set	Delivery in 2015-16 on track	Green
	Pavement condition	95% of pavement requiring no further investigation for possible maintenance	Exceeding target: 95.3% requires no further investigation	Green

Highways England's capital programme delivery

24. Highways England has made good progress in delivering against its capital programme commitments for 2015-16 which were set out in its delivery plan⁹. The company has delivered in line with its plans during the first six months, starting works on two schemes, and opening two schemes to traffic.
25. The delivery plan commitments for the remainder of 2015-16, including four schemes to start works and three schemes to open for traffic, are currently forecast to deliver on schedule.
26. Throughout the last six months we have been working with Highways England to develop a robust capital investment programme baseline. The company has conducted a review of its plans to deliver the road investment strategy and has set out a revised profile of capital investment expenditure which it considers will deliver the road investment strategy within the funding available. However, Highways England has further work to do to demonstrate that its revised profile:
 - is supported by clear milestones for major scheme delivery which are aligned with the investment profile;
 - is aligned with a robust programme of renewals which represents an efficient approach to asset management;
 - is optimised for efficient delivery by, for example, smoothing the profile of future work; and
 - has been developed with due consideration of the risk to delivery of the road investment strategy.
27. We are seeking clarity on whether the latest proposed expenditure profile meets expectations set in the delivery plan for the level of investment to be delivered on those schemes that were specified in the autumn statement 2014 and the road investment strategy.
28. We expect Highways England to resolve these issues in time for its update to the delivery plan for the second year of this road period.
29. During its first six months Highways England has been continuing to deliver its pinch point programme of works, aimed at alleviating congestion, improving safety and delivering economic benefits at key locations on the network. The projects included junction improvements and enhancements to technology. They were originally expected to complete by March 2015, but a number remained outstanding at the start

⁹ Highways England's delivery plan sets out how it will meet the requirements of the road investment strategy: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/424467/DSP2036-184_Highways_England_Delivery_Plan_FINAL_low_res_280415.pdf

of this road period. Highways England has now completed the majority of the outstanding projects, delivering real benefits to road users. We reviewed the programme and the unanticipated delay to the delivery of a number of the schemes, and Highways England has committed to develop lessons learned and apply these to the rest of the capital programme where appropriate.

30. One risk to major scheme delivery in the first road period is the impact of air quality thresholds and we are working with Highways England to understand better the issues. Highways England is engaging us in the development of its “air quality action plan” which it will publish in March 2016. We will monitor the delivery of the plan and its implementation.
31. Highways England’s reporting of its renewals programme shows that it is on track to deliver greater volumes in the first year than set out in its delivery plan. It has further work to complete to demonstrate that it is doing the right amount of work in the right places to sustain the asset base. Highways England is currently reviewing its maintenance and renewals programme and is working on its improvement plans.
32. Highways England’s delivery of its capital programme depends on its ability to manage effectively the increased programme of investment and its delivery through the supply chain. Highways England has developed and published its supply chain strategy. We are currently engaging the supply chain to gauge the effectiveness of the supply chain strategy and to understand its readiness and capability to deliver the road investment strategy, ensuring our work complements related work being carried out by other bodies.

Highways England’s financial performance

33. Highways England’s full year forecast for 2015-16 capital expenditure is £123m (7%) higher than its budget of £1,762m. We understand that the forecast overspend mostly relates to £140m of work rolled over from 2014-15 and other outputs which were not included in the road investment strategy funding settlement. Forecast expenditure for other key areas, notably renewals and improvements to the network are lower than budget. This may be positive given that work undertaken has been in line with or ahead of the company’s delivery plan commitments, but we are seeking further assurance on this.
34. Highways England published its efficiency and inflation monitoring manual (EIMM) in September. This document is intended to explain the company’s approach for measuring, recording and monitoring efficiencies. Highways England needs to make sure that it embeds the process of recording efficiency initiatives within the business to maximise value from these initiatives. We consider that the EIMM sets out a sensible approach for collecting evidence of efficiency initiatives within the company. Highways England now needs to develop more detailed guidance including how it will

explain variances in costs, unit costs and outputs to demonstrate efficiency. We will continue to discuss these matters with Highways England over the next few months.

35. The company has set itself a £33m efficiency target for 2015-16. This target represents 3 per cent of the requirement to deliver the £1.2bn by the end of 2019-20 so the company will have to find significantly greater savings later in the funding period as its planned capital programme increases. Highways England has identified around £14m of efficiencies to date and additional efficiencies are currently being evaluated by the company.
36. If Highways England does not achieve its efficiency target, delivery of its capital programme may be at risk of delay into the next road period.

Operational issues

37. Operation stack - a procedure to park lorries on the M20 motorway in Kent when services across the English Channel are disrupted – was implemented during the summer due to industrial action and migrant activity in Calais. The procedure is led by Kent Police, but Highways England is consulted and supports its implementation. Operation stack causes significant disruption to the strategic road network and local roads in Kent, and Highways England has been asked by DfT to consider options to deliver a long-term solution.
38. We are working with Highways England to understand how it manages the impact of such major operational issues on road users and to understand the lessons learned from operation stack. This is to ensure that Highways England is managing the delivery of its required outcomes and licence requirements appropriately.

Other industry developments

39. In his summer budget 2015 speech, the chancellor announced a major change to vehicle excise duty (VED), to take effect from April 2017. The aim of the policy change is to stabilise the amount of revenue collected from vehicle users and to continue to incentivise uptake of low carbon emission vehicles. The changes include the creation of a new roads fund, with all revenue raised from VED in England being invested directly back into the strategic road network from 2020-21.
40. In October 2015, the National Infrastructure Commission was set up. It is an independent body that will offer unbiased analysis to enable long term strategic decision making to build effective and efficient infrastructure for the UK. We will work in collaboration with DfT on how all parties can engage with the commission in the most appropriate way.

1. Monitoring Highways England - Context

This chapter sets out the roles of Highways England and the highways monitor and the context for our monitoring.

- 1.1 This is a time of major change for the highways industry in England. Reforms, implemented through the Infrastructure Act 2015, included transforming the Highways Agency into a government owned company called Highways England. On 1 April 2015 Highways England was launched, with the powers, duties and increased flexibility needed to operate, maintain and enhance the strategic road network. The government has set out a long-term funding settlement – over a five year road period – which should help the company and its supply chain deliver work more efficiently. Through the road investment strategy, it has specified the investments and levels of performance that the company must deliver during the first road period which will make a real difference to road users and those affected by the strategic road network. And it has established two new roles, with ORR taking on responsibility for monitoring and enforcing the performance and efficiency of Highways England, and Transport Focus (previously Passenger Focus) taking on responsibility for protecting and promoting the interests of road users.

Highways England's role

- 1.2 Highways England is the highways authority for the strategic road network which consists of the motorways and major 'A' roads in England. It operates under a licence which includes requirements to ensure the effective operation, maintenance, renewal, resilience and enhancement of the network. The terms of the licence also require the company to protect and improve safety, ensure value for money and minimise its environmental impact.
- 1.3 To satisfactorily meet these and other requirements of the licence, Highways England must deliver the levels of performance set out in the road investment strategy.
- 1.4 In carrying out its role, Highways England must be transparent about its plans and performance and meet the expectations required of greater scrutiny by the highways monitor.
- 1.5 The company is building its capability to deliver the investment programme and meet the requirements of the road investment strategy. It needs a workforce which is appropriate for its new role and good progress is being made on this front.

The highways monitor's role

- 1.6 Because the government is now providing Highways England with greater decision-making powers and increased, longer-term funding to manage the strategic road network, it requires independent assurance about the levels of performance and efficiency that Highways England is delivering. Our independent monitoring and enforcement provides that assurance, and we publish reports on Highways England's performance and efficiency, setting out our findings.
- 1.7 ORR's role is wider than the performance monitoring covered in this report. Other key aspects of our role are:
- if there are problems with delivery, to require improvement and potentially levy a fine. We have developed and consulted on our draft enforcement policy. We will publish the final version in December 2015;
 - to advise the secretary of state on the development of the next road investment strategy including advice on performance metrics and deliverable efficiencies;
 - to advise the secretary of state on any other relevant issues as requested; and
 - to assess the company's continued compliance with the assurance arrangements in the framework document, and advising whether outstanding arrangements have been met.

How we monitor performance

- 1.8 Our monitoring during a road period focuses primarily on the outcomes and outputs that Highways England must deliver, as set out by DfT in the road investment strategy, and specifically in the performance specification and investment plan. At a high level we monitor:
- Delivery of the performance specification:
 - key performance indicators (KPIs);
 - performance indicators (PIs); and
 - requirements that help to develop future strategy or performance measures.
 - Delivery of the investment plan:
 - delivery of the 112 major schemes listed in the investment plan;
 - delivery of smaller scale improvement schemes funded through five ring-fenced investment funds; and
 - sustainability of approach to maintenance and renewals.
 - Highways England's compliance with its licence.

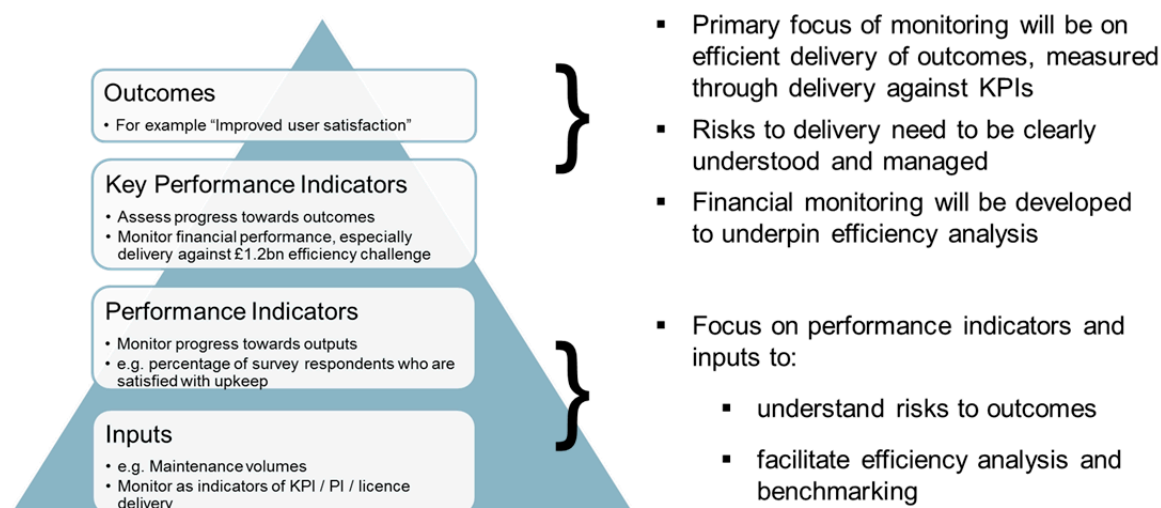
1.9 This report sets out how Highways England has performed in these areas during the first six months. A summary of the outcomes, KPIs and associated targets is given in Table 1. PIs and requirements are listed in annex A.

1.10 We focus our monitoring on delivery of outcomes, KPIs and the investment plan to make sure that we are monitoring performance in the areas which are of most importance to road users and stakeholders. However, the KPIs by themselves do not fully reflect how the company and the network are performing and they are therefore supported by a suite of broader PIs and reporting of inputs where appropriate.

1.11 In addition, there are a number of requirements that have been set out where Highways England is required to develop a strategy or gather information on an issue. In many instances, such as developing environmental outcome based metrics, the requirements will help to inform the setting of KPIs for future road periods.

1.12 Figure 1, below, summarises our approach to monitoring the defined outcomes.

Figure 1 – focusing our monitoring on outcomes



1.13 As well as the outcomes summarised above we also focus on Highways England's delivery of the investment plan, primarily monitoring schemes at a programme level, but complementing this with a more in-depth review of specific projects where appropriate.

What this report covers

1.14 The reforms to the way in which the strategic road network is managed are substantial and Highways England is implementing significant changes which will take time to embed. Since the framework is new, we are publishing our first report after six months. The report is aimed at providing a clear statement of Highways England's delivery of its outcomes, KPIs, requirements and investment plan delivery.

It also sets out how we monitor performance, what data we use and how we measure success. It covers the following areas:

- the highways monitoring framework
- making the network safer
- improving user satisfaction
- supporting the smooth flow of traffic
- encouraging economic growth
- delivering better environmental outcomes
- helping cyclists, walkers and other vulnerable users of the network
- achieving real efficiency
- keeping the network in good condition
- investment plan and delivery plan progress

Developing the highways monitoring framework

- 1.15 Throughout the first six months we have had constructive engagement with Highways England, DfT, Transport Focus and wider stakeholders in developing our monitoring framework, including our data requirements and Highways England's reporting. We consulted on our proposals for monitoring in early summer 2015 and published our final monitoring framework document in October 2015¹⁰.
- 1.16 Highways England's management of its network and our monitoring rely on, amongst other things, having good quality data. Highways England's data is improving, but it has more work to do to provide the right quality of information and sufficiently comprehensive reporting to support the new industry framework. For example, it needs to improve the information it collects for reporting performance against a number of KPIs. Highways England has committed to producing a data improvement plan by March 2016 to improve data quality over the first road period and beyond. We will continue to work with Highways England during the rest of the year to ensure that the company's reporting is as robust as possible and to ensure that the data improvement plan meets Highways England's business needs and our expectations.
- 1.17 The highways monitor team has been working with Highways England to develop a robust methodology for monitoring the company's delivery of the road investment strategy and its compliance with the licence. We have agreed the process for data submission and are developing a suite of data templates (monitoring reporting templates) primarily designed for formal annual reporting. In addition to the

¹⁰ http://orr.gov.uk/_data/assets/pdf_file/0006/19590/highways-england-monitoring-framework-october-2015.pdf

templates, Highways England provides us with its corporate reporting data. We have used this information as the primary source of data for this report.

- 1.18 Since the beginning of this road period we have been building our highways monitoring capability and improving our knowledge and understanding of the roads sector, with the support of Highways England and other stakeholders. We have put in place strong governance arrangements, and held initial meetings of our highways committee (a sub-committee of the ORR board), chaired by a new non-executive director, Stephen Glaister. The membership of the highways committee was finalised in October 2015 and details of each member can be found in Annex B. We have also made appointments to the core team, including bringing in highways engineering skills, and we are drawing on expertise from the wider ORR team.

2. Highways England's performance in the first six months

This chapter describes the key performance indicators¹¹, and summarises Highways England's performance against each of them in the first six months. The key performance indicators are listed in the order in which they appear in the road investment strategy. The chapter also summarises Highways England's delivery against the investment plan.

- 2.1 Roads are a key part of the country's infrastructure. They keep people connected and are vital for supporting economic growth. 90% of passenger journeys and almost 70% of freight movements are made by road¹².
- 2.2 The strategic road network is an important part of the road network. Comprising approximately 4,400 miles, it accounts for just 2% of road length in England but carries 33% of traffic, including 66% of lorry traffic. 95% of English residents and 99% of vehicles use the network at least once a year. In 2014, 86.9 billion vehicle miles were driven on the network, of which 79% were cars and 20% vans and lorries.
- 2.3 Traffic on the strategic road network grew by 16% between 2000 and 2014 with the biggest growth coming from light goods vehicles, which increased by 53% in the same period. DfT's national transport model predicts that, between 2010 and 2040, traffic on the network will increase by between 20% and 60%.
- 2.4 The key performance indicators set out below are designed to focus Highways England's activities on meeting the needs of all road users and the country as a whole, maintaining a reliable and effective strategic road network that supports the economy while also contributing to wider environmental and social aims.
- 2.5 Highways England has made a positive start in its new role and performance on the network is generally good. We recognise that the company is undergoing substantial change, but it has made progress in setting out its plans and strategies for the next five years.
- 2.6 A summary of Highways England's performance in the first six months is given in Table 1 of the executive summary.

¹¹ A detailed description of each indicator can be found in Highways England's Operational Metrics Manual: <https://www.gov.uk/government/publications/highways-england-operational-metrics-manual>

¹² Figures in summary section produced by DfT: <https://www.gov.uk/government/organisations/department-for-transport/about/statistics>

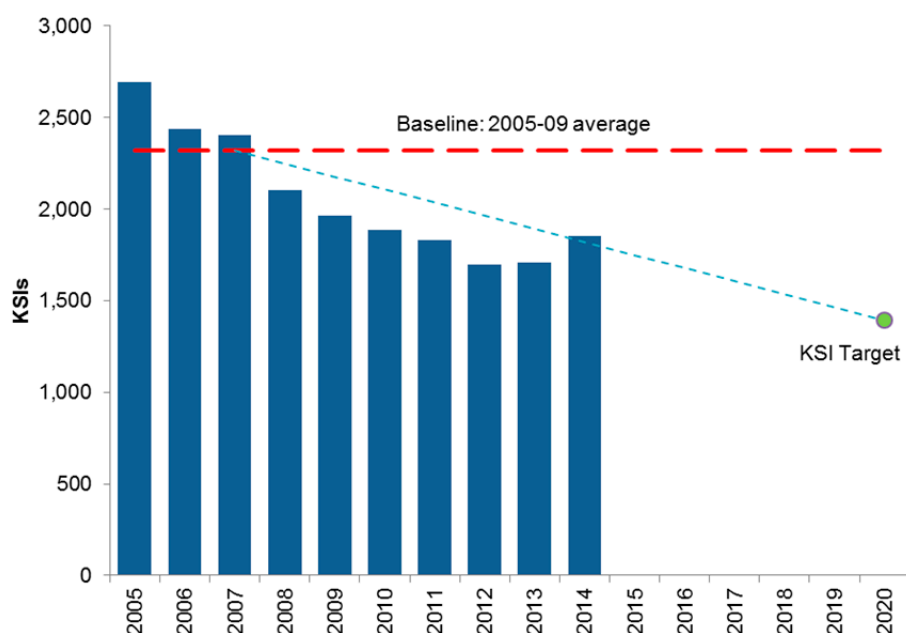
Outcome: Making the network safer

Key performance indicator: The number of killed and seriously injured on the strategic road network

- Highways England must achieve an on-going reduction in network KSI (Killed and Seriously Injured) to support a 40%+ decrease by end 2020 against the 2005–09 average baseline

2.7 England's roads are amongst the safest in the world, and the number of KSIs has fallen by around 40% since 2000. However, as figure 2 shows, there has been an increase in KSIs on the strategic road network in the past two years. We recognise that this is in the context of increased traffic on the network and an increase in the number of KSIs on all roads in England in the past year. Highways England is undertaking analysis of the latest figures and developing its plans to reverse this trend. We are proactively engaging the company to understand its plans and to monitor their delivery.

Figure 2: KSIs on the strategic road network, 2005-2014



2.8 This recent increase represents a change from the trend of steady improvement seen prior to 2013. The 2014 figures for safety on the network are above the straight line trajectory required to deliver the 40% reduction by 2020. On the face of it, this represents a risk to delivery of the target.

2.9 In June 2015 DfT published statistics on road casualties in Great Britain for 2014. (Note that this data precedes the establishment of Highways England.) Highways England has carried out analysis of these data to understand performance on its

roads. Table 2 shows that the number of KSIs on Highways England's roads in 2014 was 1,853 – an increase of 8.4% from 2013. Within those, there were 211 fatalities on the network in 2014, which is 13.5% less than in 2013.

Table 2: Road casualties on the strategic road network in 2014

	Motorway	A-road Dual	A-road Single	Total
KSI casualties	720	716	417	1,853
% increase on 2013	5.4%	14.4%	4.5%	8.4%

2.10 We will review causation and contributory factors as they become available to understand whether they are within Highways England's control.

2.11 It is clear that a concerted focus on measures to address safety performance will be required to meet this target. Highways England has published a document setting out its approach to health and safety¹³ and this is supported by more detailed planning of the actions it will take to mitigate safety risks. We have reviewed the detailed plans and consider that they focus on the appropriate areas. Highways England has provided us with assurance that it has the resources and capability to deliver them. Importantly, the plans seek to address health and wellbeing of staff and road workers as well as safety.

2.12 We have had very positive engagement with the company when we requested to see further details of their plans. We have requested to see how the actions described will deliver the performance specification requirement of a 40% reduction in casualties on the network from the 2005-2009 average by 2020. We have also asked that Highways England produces a clear risk and cost-benefit based approach to prioritisation of its actions. We met with Highways England in August 2015 to discuss our comments, with specialist support from our rail safety directorate. The company has responded well to the issues we raised and is committed to engaging further with us on these over the coming months.

2.13 We have received and reviewed evidence of the governance arrangements around the company's plans, showing that the actions are being tracked and that initial actions have been completed. This gives some assurance that the plan is receiving sufficient oversight. Going forward, we will continue to monitor Highways England's delivery of its safety plans closely.

Safety performance indicators

2.14 Performance indicators for casualty numbers and contributory factors on the network are used by Highways England to improve its understanding of where incidents occur and determine how best to prevent them. Highways England is working to understand the causes and how it is mitigating these through its plans – we will

¹³ <https://www.gov.uk/government/publications/highways-england-health-and-safety>

monitor performance against this. Recent performance shows that, in common with the increase in KSIs overall, total casualty numbers on both all purpose trunk roads and motorways increased in 2014.

- 2.15 Highways England is in the early stages of establishing its programme to assess the comparative safety of its roads using a safety star rating system. It has developed an agreement with the Road Safety Foundation to develop and deliver this commitment.
- 2.16 The accident frequency rate for both Highways England and supply chain staff has remained above Highways England's own targets throughout the first six months of this reporting year. Highways England is proactively engaging the supply chain on this issue and is commissioning an independent incident investigation project to understand how and why incidents have occurred and to learn lessons. It is also carrying out an internal audit of traffic officer health and safety. We will review its progress in this area in our annual assessment.

Outcome: Improving user satisfaction

Key performance indicator: National road users' satisfaction survey

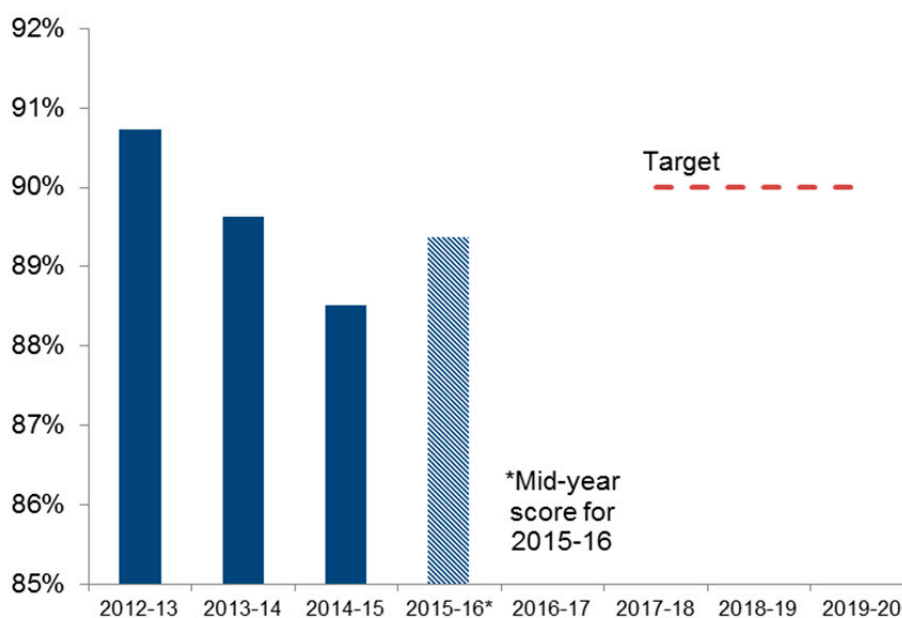
- Highways England must achieve a score of 90% of respondents who are very or fairly satisfied by 31 March 2017 and then maintain or improve it

2.17 The National Road Users' Satisfaction Survey (NRUSS) has been used to collect information about the satisfaction of road users since 2011. In 2014-15, the percentage of respondents to the survey that were very or fairly satisfied was 88.5%. This represents a fourth consecutive year of small declines.

2.18 Year to date figures for 2015-16 (the cumulative data from April to September 2015 inclusive) show overall satisfaction of 89.4%, an increase compared to 2014-15.

2.19 Figure 3 shows the movement in the annual satisfaction indicators, including the 2015-16 year to date.

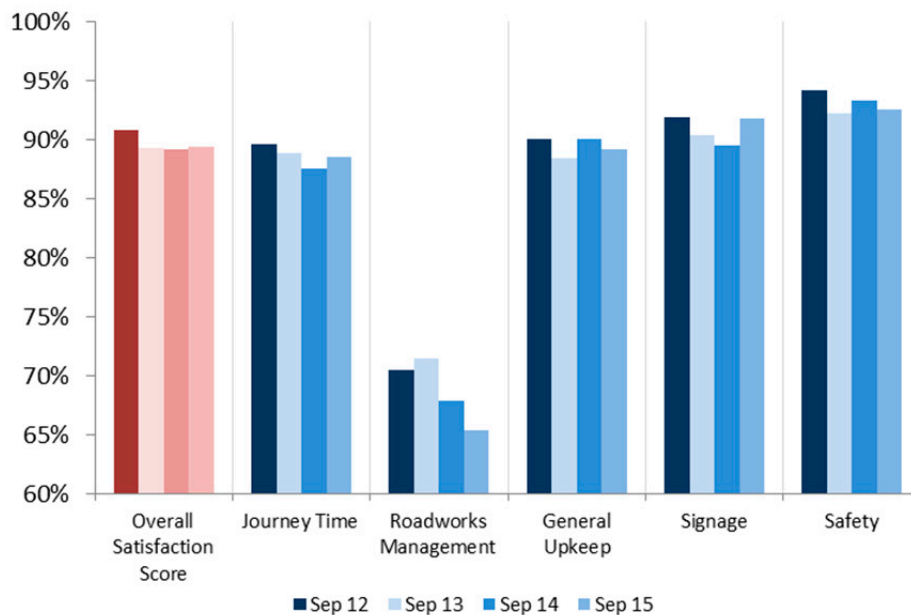
Figure 3: Overall road user satisfaction, 2012-13 to 2015-16



2.20 We receive data on satisfaction on a monthly basis. Comparing the most recent data we have, September 2015, with the same for September 2014, satisfaction with journey time and signage have both improved, with the other indicators getting worse. Overall satisfaction has increased between September 2014 and September 2015 from 89.2% to 89.4%.

2.21 Roadworks management continues to return significantly lower satisfaction than the other indicators and has fallen since September 2013. We will work with Highways England to understand what they are doing to reverse this trend.

Figure 4: Year on year comparison of monthly satisfaction indicators



2.22 In recognition of the fact that customer satisfaction has been reducing over recent years, the performance specification requires Highways England to meet an overall satisfaction target of 90% by March 2017. The company is currently in the process of setting out its plans to deliver this improvement through its customer service strategy and associated plans and we will monitor these closely. We are encouraged by its renewed focus on listening better to the concerns of its customers.

Changes to the methodology

2.23 Whilst the data produced as part of the NRUSS is governed by a detailed methodology, there are significant impacts on the satisfaction ratings depending on the size of the sample. This is most pronounced when moving from March to April as the new reporting year re-sets the sample size from around 2000 to around 200. Therefore, within-year analysis of movements in satisfaction cannot be robust, particularly in the early part of the reporting year.

2.24 Transport Focus is working with stakeholders to develop an updated user satisfaction survey, the new road user satisfaction survey. We are working with stakeholders to understand what impact any change of methodology could have on the KPI target. This will only become fully apparent during a period of dual running. In the event this reveals a significant difference in what constitutes satisfaction, the need to change the user satisfaction KPI target will be considered.

Outcome: Supporting the smooth flow of traffic

2.25 There are two Key Performance Indicators for this outcome: Network availability and time taken to deal with unplanned incidents. This will focus attention on issues which are important to road users and are within Highways England's control.

Key performance indicator: Network availability

- Highways England must maximise lane availability so that it does not fall below 97% in any rolling year

2.26 Road users expect the strategic road network to provide appropriate travel speeds and consistent journeys. Congestion on the network impacts negatively on the economy, on the experience and lives of road users and on the environment. Highways England should work to further tackle congestion that can be predicted, such as during daily rush-hours, at the start or end of holidays, or through planned roadworks.

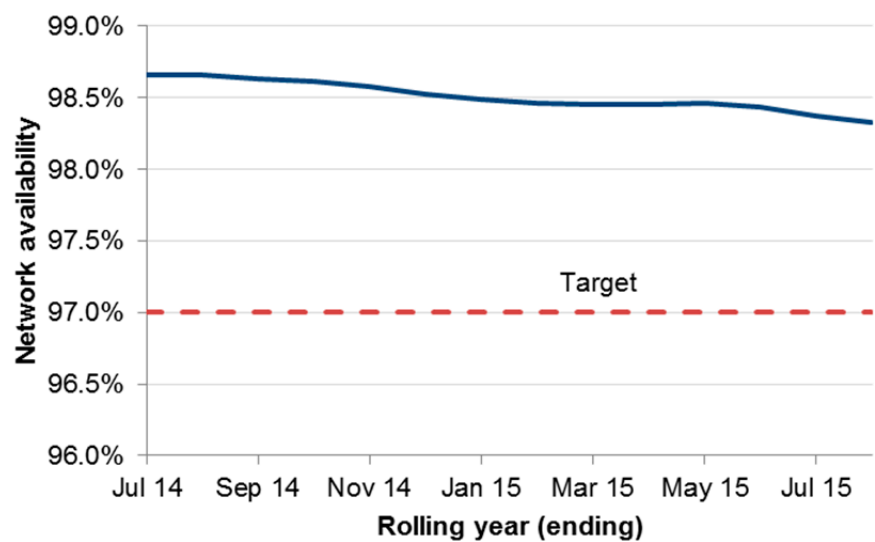
2.27 To ensure that Highways England continues to plan roadworks in a way that minimises driver disruption, we monitor network availability. This is a measure of the percentage of the strategic road network available to traffic in any given rolling year. A lane is considered unavailable if it is closed to traffic because of planned roadworks.

2.28 Since 2010-11, lane availability on the network has varied between 98.5% and 99.1%. However, during road period 1 the Company will be undertaking an increased programme of maintenance, renewals and enhancements. In recognition that this will affect network availability, Highways England has been set a target that lane availability must not fall below 97% in any given rolling year. This target enables Highways England to balance its priorities of delivering the work set out in the investment plan, while at the same time keeping the traffic moving.

2.29 The latest data show that availability, for the rolling year to August 2015¹⁴, was 98.3%. As figure 5 shows, availability has shown a steady decline over the past year, down from a rolling year average of 98.7% in the year to August 2014. Highways England's latest figures show that it forecasts availability of 97.9% for the end of the first road period - above the target of 97%. We are currently working with Highways England to understand the robustness of its forecasting.

¹⁴ The lag time in producing network availability statistics means that data to September 2015 were not available at the time of writing.

Figure 5: Network availability by rolling year



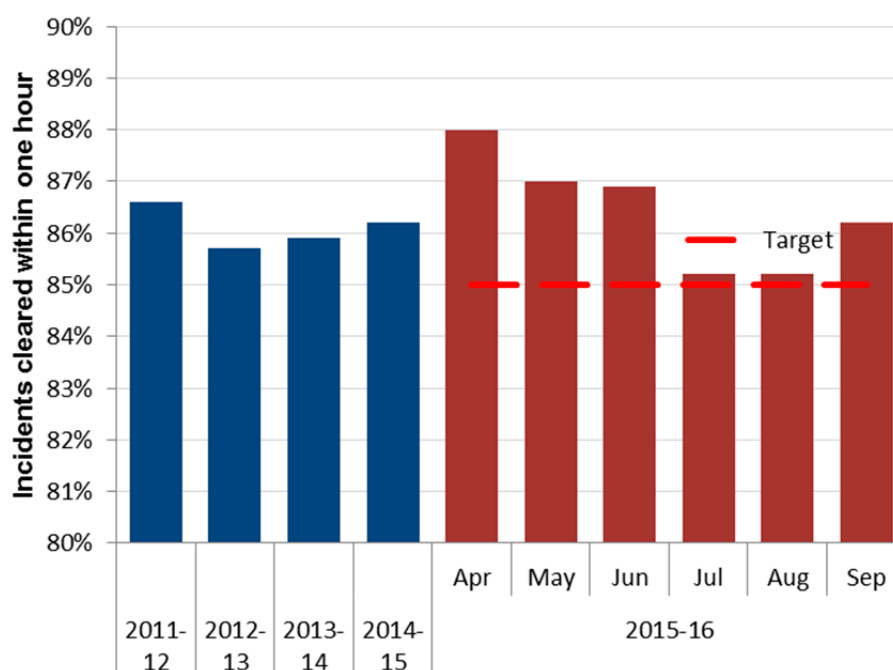
Key performance indicator: Incident management

- Highways England must clear at least 85% of incidents on the motorways within one hour

2.30 Unpredictable congestion caused by, for example, incidents or extreme weather may be more difficult to manage due to its uncertain nature and impact on journey times. While such incidents may be out of the control of the company, how it deals with them can impact on congestion and journey times. The company must demonstrate that it is clearing incidents as quickly as possible by reporting on incident management times. Highways England has been set a target that at least 85% of all motorway incidents should be cleared within one hour.

2.31 Figure 6 shows that Highways England cleared 86.2% of motorway incidents within one hour in September 2015 and has exceeded its target of 85% in all reported months during this reporting year. We are currently reviewing Highways England’s data on incidents greater than an hour to get a deeper understanding of its performance in this area.

Figure 6: Percentage of incidents cleared within one hour



Traffic flow performance indicators

2.32 Highways England expects to start reporting against traffic flow performance indicators later this year. These indicators will use a new data source (TrafficMaster GPS data) to calculate journey time data of traffic on the network to give an indication of average speeds and journey time reliability.

2.33 No targets have been set for these indicators although, using the previous data source, they do show adverse trends over recent years: the planning time index is increasing, the percentage of acceptable journeys is reducing and average speed on the network is reducing. (A description of each of the traffic flow performance indicators can be found in Annex A.) An increase in vehicle miles travelled is a key driver of this. We will engage Highways England to understand better the trends and management actions it is taking to mitigate these effects, and we will report on the initial results for these indicators for the first road period in our annual performance report.

Table 3: Traffic performance indicators, 2010-11 to 2014-15

	2010-11	2011-12	2012-13	2013-14	2014-15
Planning time index	1.51	1.47	1.51	1.54	1.61
Acceptable journeys	89.3%	90.3%	89.8%	88.6%	86.2%
Vehicle miles (billions)	84.5	84.7	85.5	86.9	-
Average speed (mph)	61.0	61.8	61.3	60.7	59.4

Outcome: Encouraging economic growth

Key performance indicator: Average delay

- Highways England must report on average delay – time lost per vehicle mile

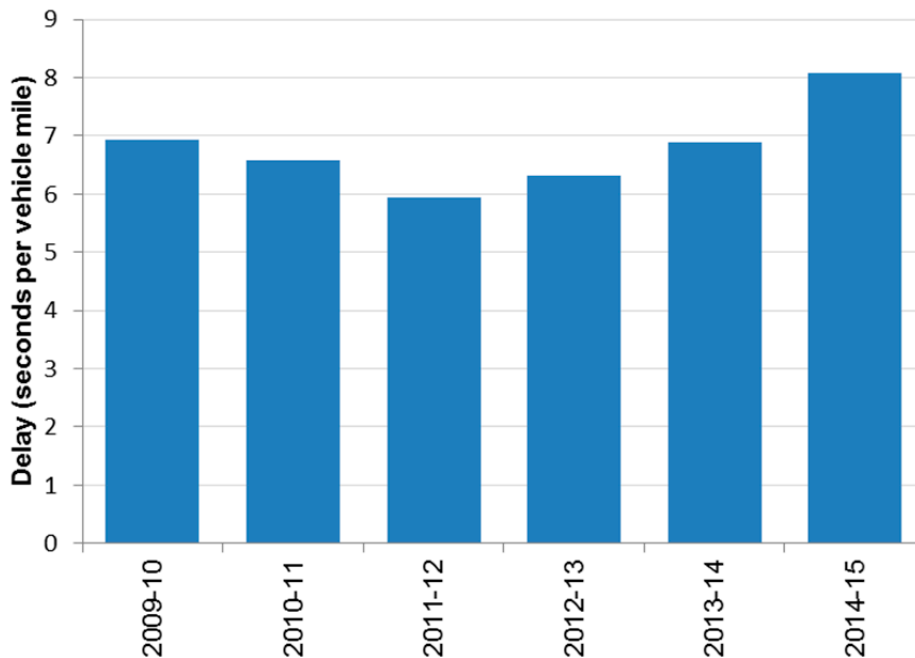
2.34 Many of the effects of a well-functioning transport network are indirect and can be difficult to measure. Highways England's contribution to economic growth is measured using average delay to provide an indication of the drag on the economy that poor performance on the strategic road network brings.

2.35 Average delay is a measure of delay experienced by individual vehicles, expressed in seconds per mile. It is based on the difference between the actual journey time, and the journey time that is expected in free flowing conditions. Highways England is currently transitioning to a new way of collecting traffic flow information (based on TrafficMaster GPS data). Results from this new data source will first be made available later this year and we plan to review performance in our annual performance report.

2.36 Given that there are many factors that influence average delay, some of which are not within Highways England's control, no target has been set for the first road period. However, the KPI is being monitored to understand the trend and Highways England should act in a way that will minimise delay as far as possible. We will ensure that its performance on this measure is tracked and reported transparently.

2.37 Using the previous data sources, average delay for the rolling year ending March 2015 was 8.1 seconds. Figure 7 shows that average delay on the network has increased by 36% since 2011-12. Delays will be heavily influenced by traffic growth and the way Highways England delivers its capital investment programme. We are working with the company to understand the drivers of this increase, its forecast of delay for the first road period, and the measures that it is taking to minimise future levels of delay. We aim to conduct a review of average delay early in the road period to gain a deeper understanding of performance in this area.

Figure 7: Delay, seconds per vehicle mile



Performance indicators

2.38 Performance indicators for encouraging economic growth include average delays on gateway routes¹⁵. This is designed to represent the experience for importers/exporters and international travellers. Average delay on gateway routes also increased in 2014-15, mirroring the trend for delay on the network. Highways England will report average delay on gateway routes starting later this year.

2.39 Highways England has inherited the Highways Agency's status as a major statutory consultee in the planning process. To ensure that the company is playing its role in the planning system, we monitor the percentage of formal planning applications responded to within 21 days of receipt by Highways England. Performance in the rolling year to September 2015 was 99.6% - above Highways England's internal target of 99%.

2.40 We also monitor Highways England's contribution to the government target that 25% of direct and indirect spend should go to small and medium sized enterprises. Highways England estimates that its expenditure on small and medium sized enterprises in the first quarter of 2015-16 was 27%, above the government target of 25%.¹⁶

¹⁵ Gateway routes link major population centres, or business and manufacturing sites, with the most important ports, airports and rail freight interchanges

¹⁶ Due to a time lag, data for the second quarter was not available in reporting to September 2015

Outcome: Delivering better environmental outcomes

Key performance indicator: Number of noise important areas mitigated

- Highways England must mitigate at least 1,150 noise important areas over road period 1

2.41 Noise is one of the biggest areas of complaint by communities, and exposure to elevated noise can adversely impact on people living and working near the strategic road network. It is also an area that is partly under the control of Highways England to address, for example, through measures such as low noise road surfaces and noise barriers. Highways England has a target to mitigate at least 1,150 noise important areas for which it is the 'noise making authority', as identified in the Department for Environment, Food and Rural Affairs' noise action plan. This will help deliver a better quality of life for people affected by exposure to noise.

2.42 Highways England has committed to publishing its programme of measures to tackle the 1,150 sites for 2016 and beyond in its updates to the delivery plan. It expects to have a clear forecast and trajectory for the treatment of noise important areas by March 2016 and we will report on progress in our annual report.

2.43 Whilst further work is underway to clarify the forward programme, Highways England is progressing 15 noise barrier schemes using its ring-fenced investment fund, at locations that would not be addressed by major schemes or its resurfacing programme.

Key performance indicator: Delivery of improved biodiversity

- Highways England must publish a Biodiversity Action Plan by 30 June 2015 and report annually on how it has delivered against the Plan

2.44 Biodiversity is intrinsically valuable. For example, it contributes to our economic and social wellbeing through food, fresh water and clean air. Biodiversity also contributes in other ways such as protection from natural disasters, regulation of our climate and pollination of our crops. Highways England's commitment to maintaining this valuable resource is that the operation, maintenance and enhancement of the strategic road network should move to a position that delivers no net loss of biodiversity. In the long-term, the company has agreed that it should deliver a net gain in biodiversity across its broader range of works.

2.45 Highways England published its biodiversity action plan in June 2015, in line with its KPI target. This was a significant achievement, and the culmination of approximately

18 months' work. We have reviewed the plan and consider that it meets the requirements set out in the performance specification, but we note that it will be supplemented with more detail in additional written technical guidance. The plan sets out a clear commitment by Highways England to ensure no net loss to biodiversity by 2020. It also sets out clear actions to baseline biodiversity on its network, and to report annually on net biodiversity loss going forwards. The plan sets out the actions it will take to develop a new biodiversity metric.

2.46 Highways England closely engaged a range of stakeholders, including the highways monitor, DfT, Natural England and Defra in developing the biodiversity plan. Feedback from stakeholders to us has indicated that it meets, and in some cases goes beyond, their policy objectives.

2.47 We will review progress in delivery of this plan throughout the first road period.

Performance indicator: Number of air quality pilot studies completed

2.48 Air quality is a major issue, with emissions from vehicles such as oxides of nitrogen and particulate matter having potentially harmful effects on human health and the environment. Highways England has committed to working with its partners to make progress on reducing the negative impacts on air quality. Air quality issues also represent a risk to delivery of the investment programme.

2.49 Highways England is reporting the number of air quality pilot studies in progress to identify locations which might benefit from interventions to improve air quality. In the first six months the company has started work on four pilot studies. We are seeking further clarity around Highways England's plans for air quality studies and mitigation actions and will seek to ensure that this forms part of the environment strategy, with further details in its air quality action plan, both of which will be published by March 2016.

2.50 Highways England is currently developing its air quality action plan and has had good early engagement with stakeholders. We have reviewed a draft of the plan and will report further on it in our annual report.

Environmental performance indicators

2.51 The robustness of Highways England's reporting against its environmental performance indicators is varied and we will work with the company to ensure that this is addressed through the data improvement plan. A full list of the indicators is provided in Annex A.

Outcome: Helping cyclists, walkers and other vulnerable users

Key performance indicator: Number of new and upgraded crossings

- Highways England must report on the number of new and upgraded crossings

2.52 The road investment strategy requires Highways England to facilitate safe movement for vulnerable road users alongside and across the strategic road network. The number of new and upgraded crossings provided for cyclists, walkers and other vulnerable users will be measured during this road period.

2.53 Highways England has completed design on three new or upgraded crossings in the first six months. We will expect to see more details from the company demonstrating that it has suitable plans in place to deliver improvements for cyclists, walkers and other vulnerable users over the road period.

Vulnerable users performance indicators

2.54 Identifying and delivering an annual cycling programme which will facilitate the safe movement of vulnerable users across and alongside the strategic road network will enable Highways England to contribute to a government objective of encouraging walking and cycling.

2.55 Highways England set out its annual cycling programme for 2015-16 in its delivery plan. It is planning to deliver approximately 40 schemes during the year and the company reports that the programme is currently on schedule.

2.56 Highways England is in the process of further developing the cycling programme for this year and for this road period. It expects to report some change from the schemes specified in the delivery plan. Highways England has provided further detail on its cycling infrastructure programme and the development of its cycling strategy.

2.57 Highways England also reports on the safety of vulnerable users. These metrics show an increase in killed and seriously injured vulnerable users from 2013 levels, in line with the trend seen for all road users. Highways England has developed a package of measures in its health and safety five year plan to address this adverse trend. As set out previously, we will monitor delivery of this plan closely.

Outcome: Achieving real efficiency

Key performance indicator: capital savings

- Highways England must deliver total savings of at least £1.2 billion over road period 1 on capital expenditure

Measuring efficiency improvements

2.58 Highways England is required to make over £1.2bn of efficiency savings by the end of the road period. The company published its efficiency and inflation monitoring manual (EIMM) in September 2015¹⁷. This document is intended to explain the company's approach for measuring, recording and monitoring efficiencies. Highways England needs to make sure that it embeds the process of recording efficiency initiatives within the business to maximise value from these initiatives. We consider that the EIMM sets out a sensible approach for collecting evidence about the effect of efficiency initiatives. Highways England now needs to develop more detailed guidance including how it will explain variances in costs, unit costs and outputs to demonstrate efficiency. We will continue to discuss these matters with Highways England over the next few months.

Financial performance – year to date and full year forecast

2.59 Highways England has set itself a £33m efficiency target for 2015-16. As this target represents only 3% of the requirement to deliver the £1.2bn by the end of 2019-20, this means that the company will have to find significantly greater savings later in the five year funding period. So far the company claims to have identified around £14m of efficiencies and is currently evaluating additional possible efficiencies.

2.60 Highways England is still developing the detail for reporting efficiencies. Therefore it is difficult for us to form a view at this stage about whether the company has achieved any real savings in the first six months that it has been responsible for managing and developing the strategic road network. Our analysis of the company's management accounts is summarised in the diagram and table below. Our analysis shows that:

- In the six months to September, capital expenditure is £30m (3%) lower than the budget of £941m.
- Highways England's full year forecast for 2015-16 capital expenditure is £123m (7%) higher than its budget of £1,762m. We understand that the forecast overspend mostly relates to £140m of work rolled over from 2014-15 and other

¹⁷ <https://www.gov.uk/government/publications/highways-england-efficiency-and-inflation-monitoring-manual>

outputs which were not included in the first road investment strategy funding settlement.

- Renewals expenditure is forecast to be £59m (8%) lower than budget this year. We have not received a detailed breakdown of this expenditure variance. However, renewals delivery for 2015-16 is forecast to be ahead of Highways England's delivery plan for most categories. Most notably, the company expects to resurface 2,255 lane kilometres of road, 323 lane kilometres (17%) more than was included in its delivery plan for this year. At this early stage if this is delivered in line with the company's full year forecast, the average cost of this work will be £203,000 per lane kilometre, 18% lower than the company's delivery plan. This figure is indicative, covering the first six months. We expect it will vary significantly from this level according to the nature of renewals works.
- Full year forecast expenditure on improvements to the network is £15m (2%) lower than budget largely due to a change in Highways England's planned profile of work across the five year funding period. Delivery to date is largely on track and where delays are forecast Highways England is looking to mitigate these in order to comply with its delivery plan commitments.
- In the six months to September, resource expenditure is £13m (3%) lower than budget and full year forecast resource expenditure (excluding depreciation) is level with budget.

Figure 8: Financial expenditure by category to end September 2015

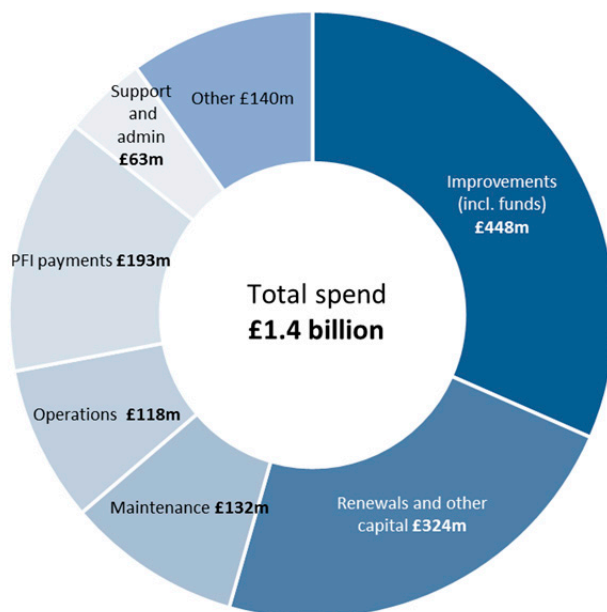


Table 4: Expenditure breakdown by major activity

£m	Year to date			Full year forecast			
	Budget	Actual	Var	Budget	Actual	Var	
Capital							
Renewals	389	324	65	706	648	59	<div><div>Actual - Year to date</div><div>Actual - Full year forecast</div><div>Budget - Year to date</div><div>Budget - Full year forecast</div></div>
Improvements	510	442	68	977	963	15	
Ring-fenced investment funds	13	5	8	21	27	-6	
Other	28	140	-112	58	248	-190	
	941	911	30	1,762	1,885	-123	
Resource							
Maintenance & renewals	114	132	-18	235	270	-35	
Operations	137	118	20	284	261	23	
General support	63	63	0	139	149	-10	
PFI payments	205	193	11	415	394	22	
	519	506	13	1,073	1,073	-0	
	1,459	1,417	42	2,836	2,958	-123	

2.61 Based on our analysis and discussions with Highways England it appears that the greater certainty of its five year capital funding has enabled the company to identify opportunities to progress capital works more efficiently. The quality of Highways England's monthly reporting of financial information has improved in its latest management report which is a positive step. Over the next few months we consider that Highways England needs to:

- provide greater clarity about what work was included in its capital budget;
- explain expenditure variances due to re-phasing of work (both acceleration and deferral of renewals and improvements to the network) and cost over/under spends; and
- quantify and explain movements in scheme and renewals unit costs.

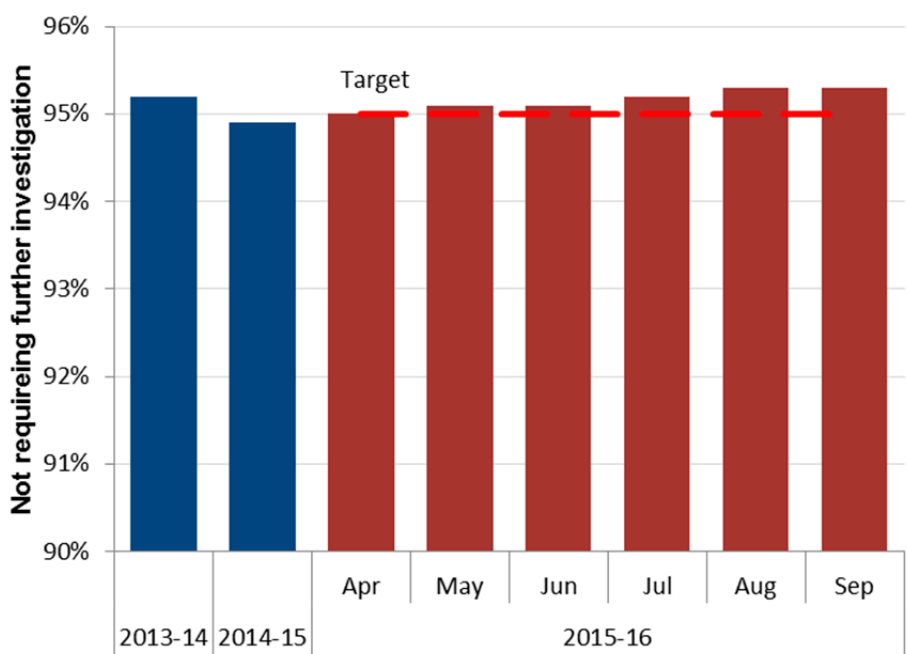
Outcome: Keeping the network in good condition

Key performance indicator: percentage of pavement asset that does not require further investigation for possible maintenance

- Highways England must maintain the percentage of pavement asset that does not require further investigation for possible maintenance at 95% or above

- 2.62 It is important that the condition of the strategic road network is managed appropriately to support a safe, high performing network which delivers a better road user experience and supports the delivery of other outcomes in the performance specification.
- 2.63 A good condition pavement asset (the carriageway) contributes to safer, smoother journeys. During the first six months, Highways England has consistently maintained its pavement condition at or above 95%, outperforming its target.
- 2.64 At the end of September 2015, pavement condition was 95.3% which shows an improvement from the score of 94.9% reported for 2014-15. Figure 9 shows annual performance since 2013-14 and monthly figures for 2015-16.

Figure 9: Pavement condition



Wider network condition

- 2.65 Highways England is working to improve inventory and condition data for its other asset types. In particular, the company is currently developing improved condition measures for its structures (such as bridges). The percentage of Highways England's

drainage asset for which it has inventory data has shown marginal improvement over the past six months to 85%, but condition data is currently held for less than 25% of the asset. Consequently, this is an area for specific focus.

- 2.66 Highways England is required to produce an asset information implementation plan in March 2016, setting out the improvements it will make to asset inventory and condition information. A good understanding of asset data is essential to running an infrastructure business and we will engage closely with Highways England in the production of the plan.

Asset management capability

- 2.67 We have received and reviewed Highways England's draft asset management principles document. It is a very high level document which sets out overarching principles which are consistent with the international asset management standard ISO55000. Highways England has informed us that the principles have been endorsed by its senior leadership team, but it now needs to embed its commitment to an asset management systems approach throughout the organisation.
- 2.68 We are engaging Highways England with a view to making sure it has a clear roadmap for asset management capability improvement over the first road period.

Capital investment delivery

Major scheme delivery

2.69 Highways England has made good progress in delivering against the capital programme commitments for 2015-16, as shown in Table 5. The company has delivered in line with its plans during the first six months. It has started works on two schemes and opened two schemes to traffic – one of these, the A453 widening, was opened two months early.

2.70 The delivery plan commitments for the remainder of 2015-16, including four schemes to start works and three schemes to open for traffic, are currently forecast to deliver on schedule.

Table 5: Major scheme delivery in 2015-16

2015-16 commitments	Progress	Details
Two schemes to start works by end Sept 2015	Commitment delivered	A160/A180 Immingham A21 Tonbridge to Pembury
Four further schemes to start works by March 2016	On schedule, may exceed commitment	M1 J13 – J19 M5 J4a – J6 M6 J16 – J19 A50 Uttoxeter
Two schemes to open for traffic by end Sept 2015	Commitment delivered	A14 Kettering bypass widening A453 widening
Three further schemes to open for traffic by March 2016	On schedule	M1 J28 – J31 M6 J10a – J13 M1 J39 – J42

2.71 Throughout the last six months we have been working with Highways England to develop a robust capital investment programme baseline for the remainder of the road period. The company has conducted a review of its plans to deliver the road investment strategy and has set out a revised profile of capital investment expenditure which it considers will deliver the road investment strategy within the funding available. However, Highways England has further work to do to demonstrate that its revised profile:

- is supported by clear milestones for major scheme delivery which are aligned with the investment profile;
- is aligned with a robust programme of renewals which represents an efficient approach to asset management;
- is optimised for efficient delivery by, for example, smoothing the profile of future work; and
- has been developed with due consideration of the risk to delivery of the road investment strategy.

2.72 We are seeking clarity on whether the latest proposed expenditure profile meets expectations set in the delivery plan for the level of investment to be delivered on those schemes that were specified in the Autumn Statement 2014 and the road investment strategy, and we are discussing this with DfT and Highways England.

2.73 We expect Highways England to resolve these issues in time for its delivery plan update for the second year of the road period.

2.74 We summarise our forward look at risks to the major scheme programme in Table 6.

Table 6: Major scheme delivery in the road period

Capital investment category	Commentary
SR10 and SR13 schemes	- Largely on schedule. Some risk to schedule for a small number of projects.
RIS schemes	- We are seeking clarity on whether the proposed baseline is in line with delivery plan commitments. - We are seeking assurance on the management of risks presented by scheduled start of works late in road period. - Some risk to schedule for a small number of projects.
Feasibility schemes	- We are seeking clarity on whether the proposed baseline is in line with stakeholder expectations. - Projects are at an early stage of development. - Some risk to schedule for a small number of schemes.

2.75 One potential risk to major scheme delivery in the first road period is the impact of air quality thresholds and we are working with Highways England to understand better the issues. Highways England is engaging us in the development of its air quality action plan which it will publish in March 2016. We will monitor the delivery of the plan and its implementation.

2.76 Highways England's delivery of its capital programme depends on its ability to manage effectively the increased programme of investment and its delivery through the supply chain. Highways England has developed and published its supply chain strategy.

2.77 We are currently engaging the supply chain to gauge the effectiveness of the supply chain strategy and to understand its readiness and capability to deliver the road investment strategy.

Ring-fenced investment funds

2.78 Highways England has been provided with ring-fenced funding to address a range of specific issues over and above the traditional focus of road investment. The ring-fenced investment funds total £675m for the first road period and cover five areas: environment; cycling, safety and integration; innovation; air quality; and growth and housing.

2.79 During its first six months Highways England has focused on work to develop its strategies and plans in these areas, and to set out its governance processes for allocating funding. Highways England has planned only modest expenditure for most of these funds in 2015-16, except for cycling, safety and integration for which it plans to spend approximately £20m. The company's plan for taking forward its programme of cycling schemes is currently on schedule, with expenditure to September 2015 of approximately £5m.

Maintenance and renewals

2.80 In the six months to September 2015 Highways England has delivered greater volumes of asset renewals than it planned, whilst spending below its budget. This appears to be strong performance, but we are seeking further assurance that the company's plans were robust and that the volumes being delivered represent an efficient approach to asset management.

2.81 By the end of September Highways England had started work on-site for 46% of the renewals schemes which are scheduled to start in 2015-16, and completed construction on 38% of the renewals schemes scheduled for completion. We are seeking further clarity from Highways England on whether this profile of work is optimal.

2.82 Highways England is currently reviewing its maintenance and renewals programme. We expect the company to set out a revised baseline for the programme over the first road period by the end of 2015-16.

Schemes rolled over from 2014-15

2.83 During its first six months Highways England has been continuing to deliver its pinch point programme of works, aimed at alleviating congestion, improving safety and delivering economic benefit at key parts of the network. The programme of 121 schemes, including junction improvements and enhancements to technology, was originally expected to complete by March 2015, but a number remained outstanding at the start of the first road period. Highways England has now completed all but two of the outstanding projects, delivering real benefits to road users.

2.84 Because these schemes rolled over from 2014-15, they have impacted the first road period delivery and financial performance. We reviewed the programme and the unanticipated delay to the delivery of a number of the schemes, and Highways England has committed to develop lessons learned and apply these to the rest of the capital programme.

2.85 It is currently not clear whether Highways England is expected to manage this programme within the funding agreed for the first road period, and must therefore realise additional efficiencies to compensate.

Highways monitor escalation of concerns

2.86 As part of our monitoring, compliance and enforcement activities, we have developed a process – the roads escalator – to allow us to identify and resolve potential threats to Highways England’s compliance with the road investment strategy and the licence.

2.87 We use the roads escalator to capture:

- the nature of the issue, the relevant duty or obligation on Highways England that is at risk;
- the likelihood of the relevant issue occurring and its possible impact without intervention; and
- the actions required to resolve the issue and/or remove it from the escalator.

2.88 The roads escalator allows us to be transparent with Highways England on the areas where we may focus our monitoring and investigation efforts. It is reviewed on a regular basis by the highways monitor and discussed monthly with Highways England. We want it to provide a common understanding of our key issues and concerns - and for it to be used by Highways England’s senior management.

3. Work that we are taking forward over the next six months

3.1 There are a number of workstreams currently underway which are vital to supporting our role throughout the remainder of road period 1 and beyond. In particular, during the second half of 2015-16, we will progress work on:

- our enforcement policy, with a view to publishing it before the end of 2015;
- ensuring that Highways England sets out a robust capital investment baseline which supports our monitoring for the remainder of road period 1;
- ensuring that Highways England is delivering on required data improvements through its data improvement plan;
- reviewing the strategies and plans which Highways England has committed to producing during the year;
- developing our understanding of Highways England's winter resilience and contingency planning, including how it is coordinating its plans with other stakeholders, such as local authorities;
- scoping our role in advising on the second road investment strategy, including our approach to efficiency assessment;
- developing our approach to, and plans for, benchmarking – including publishing our plans in March 2016;
- producing our first annual report, in which we will give our assessment of how Highways England has performed during the first year of road period 1. This will be published in summer 2016;
- developing our understanding of the supply chain's capability to deliver the first road investment strategy;
- developing our understanding of the detail supporting the key performance indicators and performance indicators in the performance specification; and
- continuing our programme of engagement with stakeholders, including establishing a survey to seek views on our progress.

Annex A – List of performance indicators

This table shows the full list of performance indicators for each outcome area. There are used to support and inform the associated KPIs. A fuller description of each indicator can be found in the operational metrics manual¹⁸.

Outcome	Performance Indicator
Making the network safer	Incident numbers and contributory factors for motorways
	Casualty numbers and contributory factors for all-purpose trunk roads
	International Road Assessment Programme based road safety investigations, developed in conjunction with the Department to feed into subsequent route strategies
	Accident frequency rate for construction and maintenance workers, and for Customer Operations
Supporting the smooth flow of traffic	Planning time index (a measure of how much additional time road users need to allow to ensure they arrive on time)
	Traffic (vehicle miles travelled) on the strategic road network
	Acceptable journeys (the proportion of journeys faster than 4/3 of the 'free flow' journey time, calculated as a percentage)
	Average speed of car journeys on the strategic road network
Encouraging economic growth	Percentage of formal planning applications responded to within 21 days of receipt by Highways England
	Average delay (time lost per vehicle mile on gateway routes)
	Meet the government target of 25% small and medium sized enterprise direct and indirect spend
Delivering better environmental outcomes	Number of air quality pilot studies completed
	Carbon dioxide equivalents in tonnes associated with Highways England's activities
	Supply chain carbon dioxide (measure of carbon dioxide and other greenhouse gas emissions for Highways England and its supply chain as it operates, maintains and improves the network)
	The number of flooding hotspots and culverts (high risk and very high risk) mitigated
	The number of outfalls and soakaways (high risk and very high risk) mitigated
Helping cyclists, walkers and other vulnerable users of the network	Number of vulnerable user casualties (broken down by cyclists, pedestrians, motorcyclists and equestrians)
	Identification and delivery of the annual cycling programme
Achieving real efficiency	Cost performance indicator and schedule performance indicator for schemes at Project Control Framework stage 5 and beyond (demonstrates that the portfolio is being developed and the investment plan delivered in a timely and efficient manner)

¹⁸ <https://www.gov.uk/government/publications/highways-england-operational-metrics-manual>

Keeping the network in good condition	Geotechnical asset inventory and geotechnical asset risk level (the length of the strategic road network for which a geotechnical inventory survey has been completed)
	Drainage asset (inventory and condition data on Highways England's drainage assets)
	Technology asset availability (the percentage of Highways England's technology, used for management and operation, which is functioning correctly)
	Structure asset – inventory and condition (the percentage of structures that have basic inventory information)

Annex B – Membership of the highways committee

The highways committee is a sub-committee established by the ORR Board which oversees the work of the highways monitor team. The highways committee advises the ORR Board and acts as a forum for policy development with senior staff. The committee members are listed below.

Non-executive members:

- **Stephen Glaister - chair**

Stephen Glaister is chair of the highways committee and is a non-executive member of the ORR Board. Stephen is Emeritus Professor of Transport and Infrastructure at the Department of Civil & Environmental Engineering, Imperial College London. He was previously the director of the RAC Foundation and has served as a member of a number of high-level transport boards including the board of Transport for London and advised government and the Transport Select Committees.

- **Tracey Barlow**

Tracey Barlow is a non-executive member of the ORR Board and a member of ORR's remuneration committee. She is an independent consultant specialising in business development and capital programme management. Previously, Tracey was responsible for the delivery of Scotland's £2.3bn water and wastewater capital infrastructure programmes. She has also served as a non-executive director at the Highways Agency.

- **Mark Fairbairn**

Mark is a non-executive member of ORR's Board and a member of the health and safety regulation committee. Mark has experience of running gas and electricity networks in the UK and USA, where he had input into the price control process as well as leading on safety issues. He worked for National Grid plc from 1987-2011 including as a board member.

Independent members:

■ **Garrett Emmerson**

Garrett Emmerson is chief operating officer for surface transport at Transport for London. Garrett was previously TfL's director of strategy and, before that, a director of transport consultancy Steer Davies Gleave. He is currently a member of the Government's Motorists' Forum advisory body on national roads policy.

■ **Terry Hill**

Terry Hill is a Trustee of the Arup Group, a non-executive director of Crossrail Ltd and of the Transport Systems Catapult innovation centre. Terry was president of the International Organisation for Standardisation for two years, 2013-2014, and also a founder member of the IUK Advisory Council, and led its infrastructure cost review.

Executive members:

■ **Richard Price**

Richard Price is the chief executive of ORR and a member of the ORR board. He has responsibility for the delivery by the office of the strategy set by the ORR board to deliver the duties assigned to ORR under statute. He also ensures the office operates efficiently, with integrity and probity; and works closely with the ORR chair, to engage with external stakeholders at all levels.

■ **Peter Antolik**

Peter Antolik is the director of the highways monitor, primarily responsible for delivering ORR's role as the independent monitor of Highways England and its management of the strategic road network. Peter has over 15 years' experience as an investor in infrastructure companies and regulated utilities, as well as previously being the director of strategy and regulation at Thames Water.

■ **John Larkinson**

John Larkinson is the director for economic regulation and consumers. John is responsible for monitoring Network Rail against the requirements set out in ORR's 2013 periodic review, including financial monitoring and overseeing the delivery of ORR's role as the consumer authority for the rail industry. John played a key role in the establishment of the highways monitor within the ORR in 2014 and early 2015.

Annex C – Glossary of terms

Delivery plan – Highways England’s plan which sets out in detail how it will deliver its strategic outcomes and measure success.

Highways England – The government owned company with responsibility for operating, maintaining and enhancing the strategic road network. Launched on 1 April 2015, it replaces the Highways Agency.

Highways monitor – The directorate within the Office of Rail and Road with responsibility for monitoring the performance of Highways England.

Investment plan – The part of the road investment strategy which sets out the planned investments and the funds available for the first road period.

Key performance indicators (KPI) – The performance specification sets out 11 key performance indicators which are used to measure Highways England’s performance. Full details of each indicator can be found in the operational metrics manual (referenced on page 16 of the report).

Killed or seriously injured (KSI) – A person killed or seriously injured in an accident.

Office of Rail and Road (ORR) – The independent safety and economic regulator for Britain’s railways and monitor of Highways England. Formerly the Office of Rail Regulation.

Performance indicators (PI) – Indicators which sit below, and give context to, the key performance indicators. Full details of each indicator can be found in the operational metrics manual (referenced on page 16 of the report).

Performance specification – The part of the road investment strategy which sets out the level of performance that Highways England must deliver in the first road period.

Road investment strategy – This document sets out a long-term vision for England’s motorways and major roads, including a multi-year investment plan for improving the network and high-level objectives for the first roads period.

Road period – The period that the road investment strategy covers. The first road period covers the years 2015 to 2020.

Road reform – The package of reforms implemented by government in the Infrastructure Act 2015 which included the creation of Highways England.

Strategic road network – The road network which Highways England is responsible for managing, comprising the motorways and main ‘A’ roads in England (also ‘the network’).

Transport Focus – The independent transport user watchdog which represents users of the strategic road network and is responsible for developing the new road user satisfaction survey. Formerly Passenger Focus.

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