



OFFICE OF RAIL AND ROAD



Monitoring Highways England's network investment

ORR's approach

December 2016



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Executive summary

1. The first Road Investment Strategy (RIS) sets the outcomes, outputs and capital investments that Highways England must deliver over the first road period (April 2015 to March 2020). The Investment Plan, part of the RIS, outlines a five year capital funding package of more than £11 billion for Highways England to invest in maintaining, renewing and improving the strategic road network (the motorways and main A roads in England).
2. The Office of Rail and Road (ORR) has responsibility for monitoring Highways England's delivery of the Road Investment Strategy. This document sets out how the ORR, monitors Highways England's network investment plans and delivery of those plans, against the RIS Investment Plan. It therefore largely focuses on our monitoring of capital investment. It does not set out how we monitor the operational performance of the company, which we have previously set out in detail in our Monitoring Framework document¹.
3. Our independent monitoring and reporting of Highways England's network investment delivery is important in providing transparency about how the company is performing in maintaining, renewing and improving the strategic road network, and about the value for money that it is delivering. Through our monitoring, we aim to focus Highways England's activity on delivering better outcomes for road users – for example, delivering the network improvements needed, whilst also keeping traffic flowing smoothly. We seek to highlight good practice in the company's delivery of its network investment, as well as areas for improvement, in order to incentivise Highways England to deliver better outcomes for road users and the public.
4. The approach to monitoring network investment set out in this document has linkages to our wider role, but we do not cover all aspects of this here. For example, we also provide advice in setting future road investment strategies – and we explain this in separate published documents². We will also publish more information on our approach in this area in the near future.
5. We monitor Highways England's activity, but we are clear that we do not manage the network – that is Highways England's role. And we do not set the performance requirements and funding for the company, which is part of the Department for Transport's (DfT's) role.

¹ <http://orr.gov.uk/highways-monitor/publications>

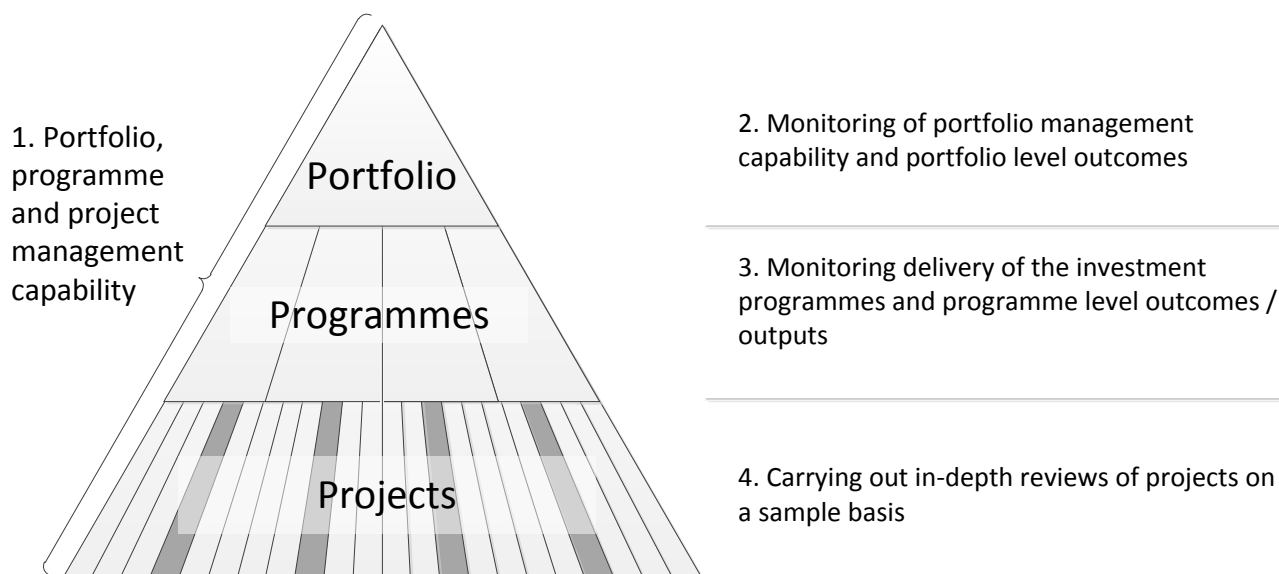
² For example, we published our benchmarking plan here: <http://orr.gov.uk/highways-monitor/publications/benchmarking-highways-englands-performance-and-efficiency>

6. This monitoring approach has been developed following consultation in summer 2016. It is designed to provide an appropriate balance between sufficient scrutiny to safeguard the interests of road users, the public and funders, and the costs of our monitoring, both directly and as imposed on the company. This approach builds on the monitoring that we were already carrying out, complementing it with management capability assessments and in-depth reviews on a sample basis. We will be flexible in our monitoring activity to respond to emerging issues, and we will review the burden we impose on Highways England as we gain greater comfort in the company's ability to manage and deliver its programme.

The investment portfolio and how we monitor it

7. Highways England's investment portfolio comprises four capital investment programmes:
 - a programme of major improvement schemes, of more than £7 billion;
 - a maintenance and renewals programme, of approximately £3.7 billion;
 - a £675m programme of ring-fenced investment funds; and
 - investment associated with strategic studies.
8. We monitor the above investment programmes at four levels illustrated in figure 1 (each of which is explained in more detail below):
 1. monitoring Highways England's portfolio, programme and project management capability;
 2. monitoring portfolio management and portfolio level outcomes;
 3. monitoring delivery of the four investment programmes; and
 4. carrying out in-depth reviews of programmes and projects on a sample basis.

Figure 1: Our approach to monitoring network investment



9. We work with Highways England to understand how its plans for improving its portfolio, programme and project management capability are progressing and to assess its capability.
10. Our monitoring of the network investment portfolio consists of:
 - seeking evidence from Highways England of its capability in managing the network investment portfolio, including ensuring that potential cross-cutting risks and opportunities are identified and managed, realised or mitigated as appropriate;
 - reviewing the contribution of the network investment portfolio to delivery of all Road Investment Strategy outcomes, outputs and network investment delivery in-the-round through comprehensive reporting and monitoring of performance; and
 - monitoring the deliverability and affordability of the portfolio, for example, by seeking evidence of how Highways England is engaging its supply chain.
11. Our monitoring of the major schemes programme consists of:
 - ensuring that a clear baseline of schedule, scope and cost information is set out, and monitoring delivery against it - with any changes to the baseline controlled;
 - reviewing delivery of the programme through programme-level metrics; and
 - carrying out in-depth reviews of programme and project management on a sample basis.
12. Our monitoring of the capital maintenance and renewals programme consists of:

- assessing Highways England's asset management capability;
 - monitoring asset condition and performance metrics;
 - reviewing delivery of the programme in-the-round, for example by reviewing volumes delivered against plan; and
 - carrying out in-depth reviews of the development and delivery of sustainable and efficient asset interventions on a sample basis.
13. Our monitoring of the ring-fenced investment fund programme consists of:
- reviewing the governance of the funds, and processes for identification, prioritisation and delivery of schemes;
 - reviewing delivery of the funds as a programme, for example by reviewing metrics for scheme delivery against plans; and
 - carrying out in-depth reviews of ring-fenced investment fund schemes on a sample basis.
14. Our monitoring of the strategic studies programme consists of:
- monitoring and reporting of study progress, as informed by engagement with both DfT and Highways England.
15. Our approach is proportionate, seeking primarily to identify portfolio and programme-wide strategic risks, to allow Highways England to resolve systemic issues. It recognises other stakeholders' responsibilities. It makes clear that we do not:
- make decisions on which investments are included in a road investment strategy;
 - develop, review or sign-off business cases;
 - review or sign-off estimates, or make investment decisions;
 - have a role in governance of the network investment portfolio;
 - approve changes to the road investment strategies or delivery plans (although we may provide advice on changes);
 - manage the delivery of the portfolio, programmes or projects;
 - comment on spend against budget for individual projects, unless we identify a significant variance which is impacting at a programme level; or
 - review all post-opening project evaluations (but we will monitor their findings in-the-round).

A positive contribution to highways

16. Our monitoring approach is intended to contribute positively to the sector, ensuring value for money and a focus on stakeholder priorities, as set out below.

Table 1: Summary of the benefits of our monitoring approach

Benefit	How our monitoring delivers the benefits
Providing independent scrutiny	<ul style="list-style-type: none"> • Providing proportionate scrutiny of Highways England's capital investment delivery and reporting an independent assessment of Highways England's performance
Promoting consideration of strategic risks	<ul style="list-style-type: none"> • Through review of portfolio and programme management capability and taking a forward-looking approach, seeking to identify risks to future delivery
Promoting transparency in performance reporting	<ul style="list-style-type: none"> • Requiring Highways England to publish more information about its capital investment plans, and publishing our annual assessment of the company's capital investment delivery
Facilitating lessons learned from other sectors	<ul style="list-style-type: none"> • Drawing on experience and lessons from rail and other sectors, and benchmarking of capability against other sectors
Promoting multi-modal thinking	<ul style="list-style-type: none"> • Assessing the consideration of other modes and cross-modal options in our review of strategic studies

1. Introduction

Highways England's role

- 1.1 Highways England is responsible for managing our network of motorways and main A roads (the strategic road network). This includes keeping the network in good condition and delivering improvements to it. Over road period 1 (April 2015 to March 2020) Highways England will invest more than £11 billion of public money in maintaining, renewing and improving these roads.
- More than £7.0 billion will be spent on 112 major improvement schemes which will address some of the key issues on the network – for example, by providing additional capacity.
 - Approximately £3.7 billion of capital investment will be spent renewing assets as they reach the end of their useful lives.
 - A further £675m will be spent on smaller scale improvements to address environmental, cycling safety and integration, innovation, growth and housing, and air quality improvements.
 - Highways England will also take forwards strategic studies to investigate options for addressing some of the most fundamental challenges facing the strategic road network.
- 1.2 The details of the network investments that Highways England must deliver are set out in the Investment Plan, which forms part of the Road Investment Strategy³ (RIS)⁴.

Why do we monitor Highways England?

- 1.3 The Office of Rail and Road (ORR) monitors Highways England's performance and efficiency. Our role is set out in law in the Infrastructure Act 2015. Our monitoring is independent of government and provides a transparent assessment of how Highways England is performing. Our monitoring provides all stakeholders with an evidence-based appraisal of whether Highways England is delivering value for money by reporting on what the company has delivered and for what cost.
- 1.4 A key part of our monitoring is understanding Highways England's delivery of the Investment Plan, including its network improvement works, and whether it is adopting a sustainable approach to maintaining and renewing its assets.

³ <https://www.gov.uk/government/publications/road-investment-strategy-for-the-2015-to-2020-road-period>

⁴ The RIS includes £1.5 billion of funding for resource maintenance over the first road period. All other resource funding is agreed with government through the annual estimating process.

- 1.5 We have set out an overview of our role and the principles of how we intend to undertake it in our Monitoring Framework document, published in October 2015⁵.

Purpose of this document

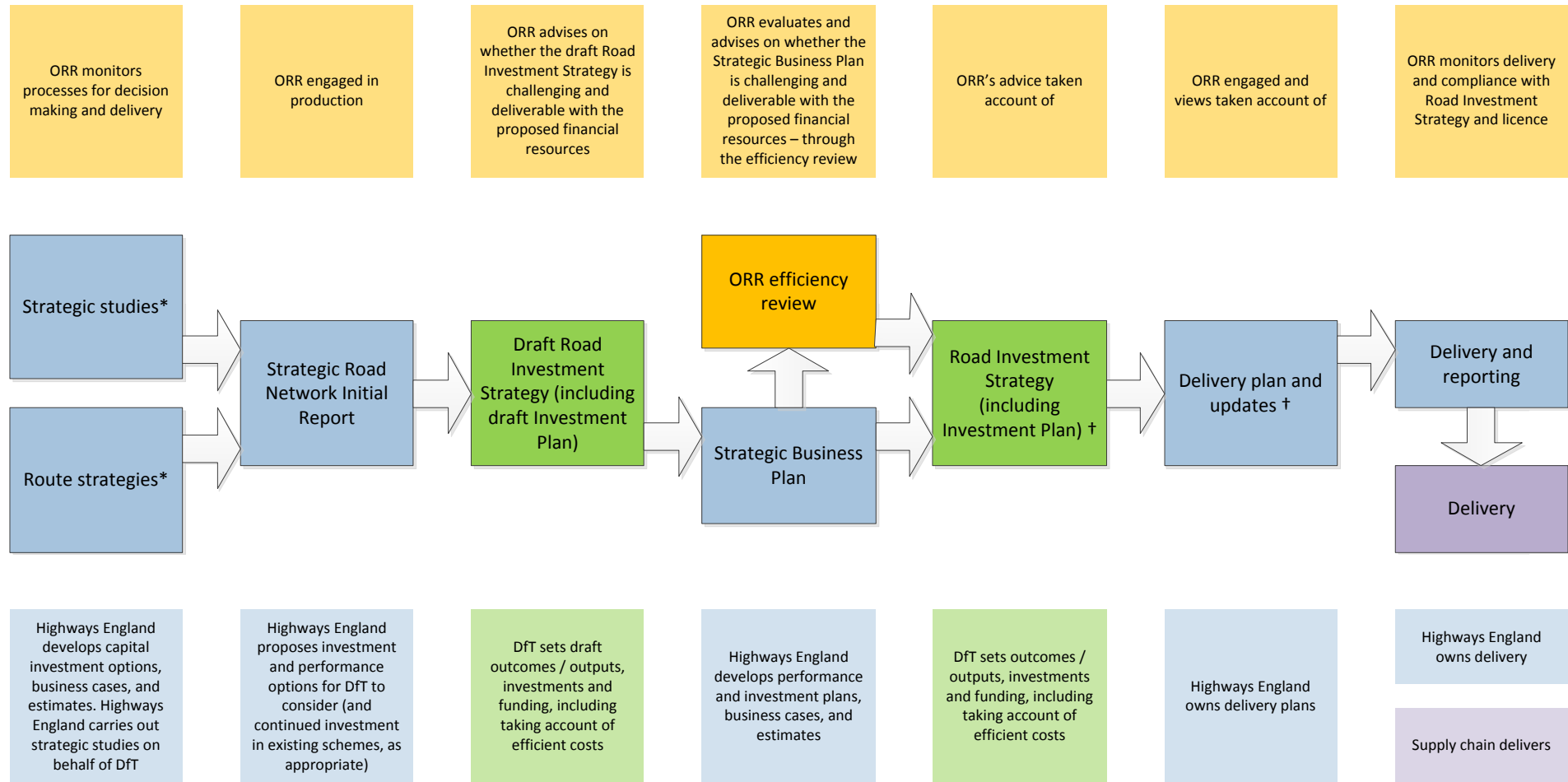
- 1.6 This document builds on the principles of our Monitoring Framework to set out how we monitor Highways England's delivery of the Investment Plan in practice. Since we started our role in April 2015 we have learnt more about Highways England's management, monitoring and reporting of its capital investment plans. Our approach builds on the information that the company uses to manage its delivery.
- 1.7 We consulted on our approach to monitoring Highways England's delivery of its network investment in summer 2016. The approach set out in this document takes account of the responses received, which are summarised in Annex B.

⁵ http://orr.gov.uk/__data/assets/pdf_file/0006/19590/highways-england-monitoring-framework-october-2015.pdf

2. Capital investment – who does what?

- 2.1 Following road reform, the development and delivery of Highways England's network investment portfolio is managed through a process primarily involving Highways England, DfT, ORR and Highways England's supply chain.
- 2.2 In simple terms, Highways England is responsible for proposing a portfolio of works and its associated estimated cost. DfT uses that information to inform the setting of a five year RIS – including the network investments to be delivered and the funds available for their delivery. Highways England must then deliver the RIS, largely through its supply chain, for the funding provided. ORR monitors Highways England's delivery. Any changes to the RIS are managed through a change control process, involving DfT and Highways England, and advised by ORR.
- 2.3 In practice the process is more complicated, and ORR plays a role throughout the process through engagement with Highways England and provision of advice to DfT. Diagram 2.1 summarises the roles of the key participants.
- 2.4 Below the high level process for determining and delivering the RIS, Highways England implements processes for managing its schemes throughout their lifecycle, and for managing investment decisions. Diagram 2.2 summarises how this process works.

Diagram 2.1: Summary of roles through the development and implementation of the Road Investment Strategy



* Informed by government's aims and objectives as well as outputs from the previous RIS. Transport Focus also informs the process by representing the views of road users
 † Changes to the Road Investment Strategy, the Delivery Plan and its updates are managed through a formal change control process

- ORR activity
- Highways England activity
- DfT activity

Diagram 2.2: Summary of roles through the major scheme lifecycle



* ORR holds Highways England to account across all stages, including assessing performance and efficiency and carrying out benchmarking analysis

- ORR activity
- Highways England activity
- DfT activity

What our monitoring includes

- 2.5 As shown in the above diagrams, our monitoring role includes providing advice to DfT throughout the process of setting a RIS. We are separately publishing details of our role in the development of the next road investment strategy⁶.
- 2.6 Our role includes monitoring Highways England's compliance with the statutory directions and guidance issued to it by the Secretary of State in the form of its licence⁷ and with the Investment Plan (as part of the RIS). This includes:
- the requirement for Highways England to prepare and publish route strategies as set out in the licence; and
 - the requirement for Highways England to deliver strategic studies on behalf of DfT as set out in the Investment Plan.
- 2.7 It includes engaging with Highways England in the production of its Strategic Road Network Initial Report and advising DfT on whether the Draft RIS and Highways England's Strategic Business Plan is challenging and deliverable within the funds made available – including providing specific advice on efficiency. We also provide advice on aspects of the RIS, including the Performance Specification and future performance metrics. We advise in the development of the final RIS and Highways England's Delivery Plan.
- 2.8 Once the RIS has been finalised we have a key role in monitoring its delivery and providing transparent advice on the company's performance and other licence conditions⁸ – for example, the requirements for Highways England to ensure effective operation, maintenance, resilience, renewal and improvement of the network. We have set out the scope of our monitoring role in our Monitoring Framework document, and this document provides more detail of our approach to monitoring network investment – that is, major schemes, maintenance and renewals, ring-fenced investment funds and strategic studies.

What our monitoring does not include

- 2.9 For clarity, it is also important to note what our role does not include.

⁶ ORR's approach to RIS2 document, to be published December 2016

⁷ Highways England's licence:
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/431389/strategic-highways-licence.pdf

⁸ The ORR also has an enforcement role, as set out in the Infrastructure Act 2015 and as described in our Enforcement Policy for Highways England:
http://orr.gov.uk/_data/assets/pdf_file/0005/20003/enforcement-policy-for-highways-england.pdf

2.10 Whilst we provide advice to inform road investment strategies⁹, we do not set the road investment strategies, assess the techniques used in the strategic studies or take part in the investigation of transport issues. We do not set the required network investments, or the funds available. We do not approve changes to the road investment strategies or delivery plans (although we may provide advice on changes). DfT carries out these roles.

2.11 We do not play any direct role in managing the strategic road network - that is Highways England's role. Therefore, we do not:

- model or forecast network investment needs;
- develop or propose network investment options;
- have a role in the governance of the network investment portfolio;
- manage the delivery of the portfolio, programmes or projects;
- develop, review or sign-off business cases; or
- review or sign-off estimates, or make investment decisions.

2.12 Rather than playing a role in managing the strategic road network, we remain independent, and provide proportionate and targeted scrutiny of how Highways England is performing.

⁹ We did not provide formal advice to inform the first Road Investment Strategy as our highways monitoring role had not been established through the Infrastructure Act 2015 at the time it was produced.

3. Overarching approach to monitoring network investment

3.1 We adopt a common overarching approach to monitoring all aspects of network investment and we set it out in this chapter. In subsequent chapters we explain in detail how we apply this approach to monitoring the network investment portfolio, major schemes, maintenance and renewals, ring-fenced investment funds and strategic studies.

Principles

3.2 In our monitoring we adopt certain best-practice principles, as set out in our Monitoring Framework document, aiming to be: transparent, accountable, proportionate, consistent, targeted, and independent. These principles are all relevant to our monitoring of network investment delivery.

3.3 The approach set out in this document is designed to provide an appropriate balance between:

- sufficient scrutiny to safeguard the interests of road users, the public and funders; and
- the costs of our monitoring, both directly and as imposed on the company.

Reflecting road user views in our monitoring

3.4 As with our wider programme of monitoring, we seek to reflect road user views in our monitoring of network investment. We review whether the company is delivering its investment portfolio in a way which is contributing to better outcomes for road users. For example, we review whether it is delivering the network improvements needed, whilst maintaining user satisfaction, and keeping traffic flowing smoothly. To inform this, we review the overall benefits being delivered by investment schemes post-opening - for example by reviewing meta-reports on post-opening project evaluations¹⁰.

3.5 We monitor Highways England's delivery of its transparency obligations. We encourage it to improve the transparency of its network investment plans and make more information publicly available to road users – such as details of planned roadworks, what these comprise and duration on the network.

¹⁰ Highways England produces Post Opening Project Evaluation (POPE) reports '1 year after' and '5 years after' the opening of a major scheme. A 'meta report' is published at 2 year intervals, taking an overview of all the evaluations to date.

- 3.6 We also monitor whether the company is investing to keep the network in a safe and serviceable condition – which directly affects the experience of road users.
- 3.7 In fulfilling our role, we work closely with Transport Focus to identify road user priorities and ensure that we reflect these in the way that we monitor.

Monitoring portfolio, programme and project management capability

- 3.8 As the manager of vital national infrastructure it is important that Highways England has the right skills and capability to manage the planning and delivery of its capital investment works effectively. The company recognises that it can improve in this area and is implementing plans to do so.
- 3.9 We will work with Highways England to understand how its plans for improving its portfolio, programme and project management capability are progressing, and will seek to work collaboratively to assess its capability. This will include understanding how the company's portfolio, programme and project management compares to best practice, and understanding its plans to deliver improvement.

Establishing and monitoring against a clear baseline

- 3.10 Highways England has agreed to deliver a clear set of performance outputs and network investments, using a five year funding package. It is important that the company owns the plans to deliver these outcomes and outputs, and is sufficiently transparent about those plans. Highways England published its Delivery Plan in March 2015 and will update it on a yearly basis¹¹. The Delivery Plan and its updates set out how Highways England will deliver over the five year period. We use Highways England's plans for the costs and timescales for delivery as a baseline against which to assess its performance.
- 3.11 We set out our first assessment of the robustness of Highways England's baseline information, and commented on the further work required to improve it, in our report "Annual Assessment of Highways England's Performance, April 2015 - March 2016"¹².

¹¹ Highways England published its first update to the Delivery Plan in July 2016:
<https://www.gov.uk/government/publications/highways-england-delivery-plan-2016-to-2017>

¹² ORR's Annual Assessment of Highways England's Performance:
<http://orr.gov.uk/publications/reports/highways-monitor-annual-assessment-of-highways-englands-performance>

Highways England's internal assurance and reporting processes

3.12 As a well-managed company Highways England should be carrying out its own monitoring and reporting activities to assure that it is delivering. Our monitoring mainly focuses on testing Highways England's own assurance processes rather than carrying out parallel, additional audits and assurance activities. For example, we test whether the company has robust processes in place for monitoring risks to delivery, and is applying them consistently. We carry out in-depth reviews on a sample basis to understand how processes are being applied and to identify any potential concerns.

Monitoring delivery in-the-round

3.13 In monitoring Highways England's delivery we primarily monitor whether the portfolio and programmes of network investment works are being delivered in-the-round. We do not monitor delivery of each individual scheme in detail because to do so would not be proportionate, and we do not have the resources to do this. We explain how we will carry out monitoring at a programme level in the subsequent chapters of this document.

3.14 Monitoring at a portfolio and programme level means that we take a more holistic view of Highways England's delivery and focus on any systemic issues rather than individual or specific issues. For example, it should be expected that within any programme of work some schemes will outturn at higher cost than original estimates, and some will outturn at lower cost. Our monitoring will focus on identifying trends to scheme costs overall.

3.15 To complement our portfolio and programme-based monitoring we carry out in-depth reviews on a sample basis, or where specific issues are identified.

Identifying future risks as well as monitoring past performance

3.16 We monitor Highways England's past performance, but we also aim to monitor the company's identification and management of risk. This includes risks to future delivery of the network investment portfolio and its programmes. We therefore carry out monitoring that is both:

- backwards looking – understanding how network investment has been delivered and emerging trends; and
- forwards looking – seeking to identify risks to delivery of the network investment portfolio in the future.

3.17 This means that we collect information about plans, forecasts and identification and management of risk. We assess whether Highways England's internal assurance processes are fit for purpose, and whether potential risks are being identified and mitigated, where possible, before they affect performance or incur costs.

3.18 This approach makes a positive difference by seeking to identify strategic risks early so that Highways England can respond to, and manage them.

Adopting a flexible approach to monitoring network investment

17. Our monitoring needs to retain some flexibility so that it can respond to specific issues and identified risks. It also needs to respond to Highways England's capability and performance in delivering network investment. For example, we may choose to flex (either up or down) the number and frequency of in-depth reviews based on Highways England's performance and our assessment of investment delivery. We expect that our approach will evolve with time as our understanding of the company's ability to manage and deliver its programme matures.

Benchmarking performance and delivery

3.19 A key aspect of our role is to benchmark Highways England's performance and efficiency against comparable organisations, including in other countries or other sectors. Our benchmarking work will help to identify improvements in performance and efficiency that Highways England can deliver both in this road period and beyond. It will highlight both good and bad areas of performance and will identify where efforts would be best focused to improve outcomes for road users.

3.20 Our planned benchmarking programme prioritises areas where the analysis is most likely to identify improvements in the current road period and inform the next road investment strategy – for example, internal benchmarking of Highways England's regions and areas.

3.21 We have detailed our work in this area in our plan for benchmarking Highways England's performance and efficiency¹³ and we will publish an initial progress report on our benchmarking work before the end of 2016.

A coherent package of monitoring

3.22 The monitoring approach set out in this document forms part of a wider, coherent package of monitoring. This includes our monitoring of the RIS Performance

¹³ ORR's plan for benchmarking Highways England's performance and efficiency:
<http://orr.gov.uk/highways-monitor/publications/benchmarking-highways-englands-performance-and-efficiency>

Specification and the licence, and our contribution to developing future road investment strategies. There are many linkages, for example:

- the portfolio of investment works contributes to the delivery of performance outcomes and outputs – such as maintaining availability¹⁴ or mitigating noise important areas;
- benchmarking of investment works (e.g. unit costs) informs our understanding of efficiency, both in this road period and opportunities for the future;
- our approach to undertaking the RIS2 efficiency review will include an assessment of Highways England’s capability in portfolio and programme management, asset management, and procurement and contract management. These reviews will inform both current capability and the potential for future improvements, including the efficiency that Highways England could be expected to deliver from these improvements. We expect the findings of these reviews to also underpin Highways England’s strategic business plan for RIS2;
- our approach to monitoring network investment will help to inform our work on RIS2 – including identifying opportunities for more robust specification and baselining of investment requirements; and
- many aspects of Highways England’s licence relate to network investment – for example, we review the effectiveness of the company’s design panel in informing investment decisions.

3.23 Whilst this document is not intended to cover all aspects of our performance monitoring, licence monitoring and advice on future road investment strategies, we are mindful of the many linkages and do not monitor investment delivery in isolation.

Reporting our assessment of network investment delivery

3.24 Another way in which we seek to make a positive contribution to the sector is by improving transparency – making more information publicly available.

3.25 We report our assessment of Highways England’s performance through an annual published report, the “Annual Assessment of Highways England’s Performance” and may report more frequently than this if appropriate. Our assessment of network investment delivery is an important part of our reporting.

3.26 During the first year of the road period we carried out a six month review of Highways England performance from April to September 2015, and published a report in December 2015¹⁵.

¹⁴ As described in Highways England’s Operational Metrics Manual, the network availability metric takes into account disruption to traffic due to planned roadworks

3.27 In addition to the regular reporting outlined above, we undertake and report on ad-hoc investigations as required to address emerging issues and concerns. For example, in early 2016 we carried out a review of Highways England's supply chain's capability¹⁶ and we will return to this, to assess the company's progress against our recommendations.

¹⁵ Six month review of Highways England's performance: <http://orr.gov.uk/highways-monitor/publications/highways-monitor-six-month-review-of-highways-englands-performance>

¹⁶ Review of Highways England's supply chain's capability: <http://orr.gov.uk/highways-monitor/publications/highways-englands-supply-chain-capability>

4. Monitoring the network investment portfolio

4.1 This chapter sets out our overarching approach to monitoring the Investment Plan at portfolio level.

What is the network investment portfolio?

4.2 Highways England's network investment portfolio comprises four investment programmes and includes:

- major improvement schemes;
- capital maintenance and renewals;
- schemes delivered through ring-fenced investment funds; and
- investment associated with strategic studies.

Why we monitor the network investment portfolio

4.3 Highways England is required to deliver the Investment Plan as a package. Planning, delivering and monitoring the delivery of the individual programmes is important, but if the interactions between the programmes are not understood then there is the potential that cross-cutting risks and opportunities are not identified, managed, realised and mitigated. For example, Highways England needs to manage the portfolio to:

- identify where renewals activity and improvement works can be carried out together, to procure and deliver work more efficiently;
- identify where smaller scale improvements funded through ring-fenced investment funds can be delivered as part of major schemes to provide additional benefit, beyond business-as-usual;
- prioritise interventions and expenditure (where it is not ring-fenced) across programmes;
- understand how the portfolio of capital investment works is contributing to the delivery of performance outcomes and outputs – such as improving safety, maintaining availability, minimising delay, or mitigating noise important areas; and
- identify cross-cutting risks such as commodity price rises, or insufficient supply of skilled labour to meet the portfolio demand.

4.4 We aim to monitor Highways England to ensure that it is considering opportunities and risks across its portfolio.

How we monitor the network investment portfolio

4.5 The ways in which we monitor the capital investment portfolio are set out below.

Seeking evidence from Highways England of its portfolio management capability

4.6 Highways England owns the management of its network investment portfolio and should have robust processes for demonstrating how it is identifying risks and opportunities across programmes. It should also have robust reporting to understand whether the portfolio of investment is being delivered efficiently.

4.7 Our approach is to require evidence from Highways England that it is:

- developing the right capabilities throughout the organisation to manage the portfolio of investment works;
- assessing deliverability through ongoing monitoring of the portfolio, the supply chain and through regular review of potential delivery and affordability risks and constraints;
- applying a robust process to identify and manage opportunities (such as efficiencies) and risks (such as resource constraints) that cut across its investment programmes;
- applying a robust process to manage changes to plans which have implications across the portfolio; and
- assessing and managing the impact of its investment portfolio on its Performance Specification and Investment Plan outcomes and outputs.

4.8 We will work with Highways England to understand how its plans for improving its portfolio management capability are progressing, and will seek to work collaboratively to assess its capability.

Monitoring portfolio delivery in-the-round

4.9 We will complement the evidence gathered about Highways England's portfolio management with portfolio-level review of whether Highways England is delivering the outcomes, outputs and investments specified in the RIS efficiently, and managing delivery within the constraints of its available funding. This means taking a holistic view of:

- performance against the requirements of the RIS Performance Specification;
- delivery of the Investment Plan;
- efficiency of delivery; and
- licence compliance.

4.10 In the delivery of any large portfolio of investment work some risks are likely to be realised and it is likely that some reprogramming of work or reprioritisation may be required. We will therefore seek to identify whether the company has delivered in-the-round. We will monitor the portfolio to identify systemic risks and how they are being managed. We will also consider how financial reserves for risk and contingency are managed.

Monitoring Highways England's engagement with its supply chain

4.11 Highways England delivers the majority of its network investment through its supply chain. To inform our understanding of the deliverability and affordability of the investment portfolio we seek evidence from the company about how it is monitoring risks to delivery in its supply chain. Highways England needs to have the right capabilities to procure and manage contracts to deliver the greatest benefits. We therefore also monitor the company's capability in supply chain management.

4.12 Building on this, we will also engage industry stakeholders to understand their perspectives on key issues impacting on Highways England's delivery. For example, in early 2016 we carried out a review of Highways England's supply chain's capability. The study focused on resource and skills in the supply chain, availability of labour, plant and materials and whether the supply chain can deliver the increased investment. This work has helped to inform us and the company about some of the potential constraints to delivery of the RIS – such as the availability of skilled labour – and has resulted in Highways England setting out its plans to mitigate some of these risks.

4.13 We are working with Highways England to develop appropriate metrics for giving early indication of deliverability risks, and these will form part of our monitoring.

Reporting our assessment of portfolio management

4.14 Our annual assessment of Highways England's performance will include reporting of:

- Highways England's portfolio management capability;
- the sufficiency of evidence provided that portfolio level risks and opportunities are being managed;
- Highways England's delivery of the portfolio of investment in-the-round; and
- Highways England's capability in managing its supply chain.

5. Monitoring delivery of major schemes

5.1 Highways England has an agreed programme of major improvements to be taken forward over the first road period (April 2015 to March 2020) that totals around £7.0 billion of capital expenditure and comprises 112 major improvement schemes to address some of the key performance issues and constraints on the network. The programme of major improvements includes schemes at varying stages of development – from those which are newly identified through feasibility studies to those already in construction.

What are major schemes?

5.2 Major schemes are large-scale improvement projects that upgrade the strategic road network to provide more capacity and better connections, whilst maintaining the safety and performance of the network.

5.3 There are a number of solutions for major enhancement schemes that can be adopted when seeking to address the key issues on the network. These include junction improvements, widening sections of the road network and upgrading poorer quality single carriageway trunk roads to dual carriageway standard. Other schemes may be adopted to increase motorway capacity and reduce congestion, by implementing active traffic management - such as variable speed limits and hard shoulder running.

What should our monitoring achieve?

5.4 Our monitoring should provide an independent and transparent assessment of Highways England's delivery of its major scheme programme so that stakeholders understand whether the company is delivering the major improvements to the network within committed timescales and the funding available. It should seek to highlight good practice, as well as areas for improvement, in order to incentivise Highways England to deliver better outcomes for road users and the public.

Monitoring the programme of major schemes

5.5 Our approach to monitoring the major schemes programme consists of:

- monitoring delivery against a clear baseline of schedule, scope and cost information, with any changes to the baseline controlled;
- reviewing delivery of the programme in-the-round;

- carrying out in-depth reviews of programme and project management on a sample basis.

The major scheme baseline

- 5.6 Highways England sets out how it will meet its Investment Plan major scheme commitments in its Delivery Plan and its updates to the plan. We have worked with the company to make sure that it improves the transparency and detail of its baseline information for major schemes. This baseline information includes:
- dates for the key delivery milestones, to include, as a minimum, when schemes will start works and when schemes will open for traffic within the road period;
 - the high level profile of expenditure for delivering the key capital investment programmes; and
 - the scope of the schemes specified in the Investment Plan, and as agreed through the change control process.
- 5.7 Highways England has published updated information about its major scheme baseline in its Delivery Plan update for 2016-17.
- 5.8 We complement this baseline by monitoring against more disaggregated cost and schedule assumptions, to understand performance and future risk. These include:
- estimated outturn costs for each major scheme, both over the lifetime of the scheme and split by year for the road period; and
 - three pre-construction milestones: start of pre-options, start of options and start of development.
- 5.9 Monitoring Highways England against its baseline plan and disaggregated cost and schedule assumptions allows us to identify where costs and schedule are outturning differently to Highways England's plans. Where there are large deviations from plan we will carry out more detailed reviews (see below) to understand the causes, Highways England's actions, and potential lessons. We are also able to identify potential future issues by understanding pre-construction progress and monitoring Highways England's latest forecasts for milestone delivery and cost. The level of acceptable variation from plan will be established based on a combination of factors such as the actual variation to baseline costs, stages of development of the schemes and nature of risks to delivery.
- 5.10 In addition to progress against the milestones committed in the Delivery Plan and capital expenditure profile, we also monitor the scope of schemes, including some high level volumes of new infrastructure delivered by the major schemes, for example, number of lane kilometres delivered. This will provide transparency of what Highways England is delivering.

5.11 Any updates to the Delivery Plan or milestones are separately agreed between DfT and Highways England, with advice from ORR, through the formal change control process¹⁷.

Monitoring major scheme delivery in-the-round

5.12 Whilst we monitor some metrics for individual major schemes we do not primarily hold Highways England to account for delivery on a scheme-by-scheme basis. This is because in any large portfolio of capital investment it should be expected that:

- some schemes will cost more than originally estimated and some will cost less; and
- some schemes will be delivered earlier than planned and some will be delivered later.

5.13 A proportionate approach is therefore to focus on systemic issues by monitoring trends in the delivery of the major scheme programme of work. However, we recognise that the major schemes have the potential to have a material impact on road user experience and that there should be scrutiny of significant cost or schedule changes.

5.14 We therefore propose to review with Highways England and report publicly on:

- reasons for major scheme programme costs outturning differently to the baseline and any systemic issues – including monitoring the Cost Performance Indicator, which is the relationship between target and actual cost for work completed;
- the trends in milestone delivery for the major scheme programme and any systemic issues – including monitoring the Schedule Performance Indicator, which is the relationship between work planned and actually completed;
- the reasons for costs for an individual scheme outturning significantly more than published estimates;
- the reasons for an individual scheme missing its published start of works or open for traffic milestone;
- material impacts of major scheme delivery on road users and how Highways England is managing these; and
- post-opening project evaluation findings in-the-round.

¹⁷ Under the terms of Highways England's licence the Secretary of State can formally request the company to consider changes to the RIS. Likewise where Highways England wishes to make changes, the proposal can be considered under the formal change control process and determined by the Secretary of State.

5.15 For all of the above we will review with Highways England the lessons learned and management actions taken.

In-depth reviews of major schemes

5.16 To complement our monitoring of the major scheme programme we carry out in-depth reviews on a sample basis, or where specific issues are identified, for example through Highways England's exception reporting. These reviews will assess Highways England's own process for monitoring and reporting risks to delivery, and identify any potential concerns. The selection of schemes will consider an appropriate mix of scheme types and stages of delivery.

5.17 For completed schemes in the sample, our in-depth reviews cover post-opening project evaluation findings, understanding how the schemes have impacted on network performance and delivered better outcomes for road users - such as safety, user satisfaction or environmental outcomes. We review how lessons from completed schemes feed into the appraisal, development and delivery of future schemes.

The major scheme data we collect

5.18 Highways England submits high level summaries of capital expenditure and baseline milestones on a monthly basis. We use this to identify any significant emerging risks.

5.19 The company submits summaries of its internal reporting of major scheme progress to us on a quarterly basis. This includes reporting on:

- the latest understanding of value-for-money for each scheme (measured by the Benefit Cost Ratio);
- the latest actual and / or forecast milestone delivery dates;
- the latest actual and / or forecast scheme costs; and
- the reasons for variances from baselines.

5.20 We have separately agreed the more formal annual data submissions that Highways England will provide. This is set out in our Monitoring Reporting Templates and Guidelines¹⁸. This reporting includes:

- actual progress against baseline milestones;
- actual major scheme expenditure by scheme;
- explanations of variances to baselines;
- Cost Performance Indicator and Schedule Performance Indicator; and

¹⁸ Monitoring reporting guidelines and templates: <http://orr.gov.uk/publications/guidance/monitoring-reporting-guidelines-for-highways-england>

- reporting of major scheme efficiencies.

5.21 We have regular engagement with Highways England to understand the data that we receive, including formally meeting to discuss capital delivery reporting on a quarterly basis.

Our reporting on major scheme delivery

5.22 Our annual assessment of Highways England's performance includes reporting of:

- delivery of the major scheme programme to date, including actual costs against plan and trends / systemic issues in schedule delivery;
- major scheme progress against key milestones in the road period to date, including the reasons for an individual scheme missing its published start of works or open for traffic milestone;
- the reasons for actual costs for an individual scheme being significantly above or below published estimates;
- any impact on targets set out in the performance specification and associated performance metrics;
- risks to delivery of the major schemes programme in the remainder of the road period; and
- the findings of our in-depth reviews¹⁹.

¹⁹ We will report on in-depth reviews of major schemes from 2016-17 onwards

6. Monitoring maintenance and renewals

- 6.1 The strategic road network is vital national infrastructure. Highways England must carry out maintenance and renewal works to make sure that the network delivers the required levels of safety and performance. Highways England has been allowed funding of £3.7 billion to deliver its programme of capital maintenance and asset renewals, over the first road period. “Keeping the network in good condition” is one of the eight outcomes required by the RIS Performance Specification.
- 6.2 Highways England has been provided with a further £1.5 billion for resource maintenance activities over the first road period. The baseline for the remaining areas of resource funding (i.e. operations, support activities and payments to Private Finance Initiative contractors) is announced annually at spending reviews and published in Highways England’s delivery plan.

What are maintenance and renewals?

- 6.3 Maintenance and renewals works are carried out to maintain the condition of network assets, or replace those assets which have reached the end of their useful lives with a modern equivalent. Strategic road network assets fall into five main categories: pavement (for example the road surface), structures (such as bridges and tunnels), geotechnical assets (including embankments), drainage (for example drains and gullies), and technology (including variable message signs). The programme of maintenance and renewals should be prioritised based on the needs of the assets to ensure the network is maintained in a safe and serviceable condition, whilst minimising costs over the life of the assets.

What should our monitoring achieve?

- 6.4 Our monitoring should provide transparency about Highways England’s delivery of its capital maintenance and renewals programme so that stakeholders understand whether the company is keeping the network in a safe and serviceable condition. It should seek to highlight good and poor practice in order to drive improved outcomes for road users and the public, including more efficient delivery.

Monitoring the programme of maintenance and renewals

- 6.5 We monitor Highways England’s maintenance and renewals programme using four approaches, each of which is described below:
- assessing Highways England’s asset management capability;

- monitoring asset condition and performance metrics;
- carrying out in-depth reviews of the development and delivery of sustainable and efficient asset interventions on a sample basis; and
- reviewing delivery of the programme in-the-round, for example by reviewing volumes delivered against plan and monitoring capital and resource expenditure.

6.6 The combination of these approaches should give broad evidence about whether Highways England is managing its assets effectively.

Assessing asset management capability

6.7 Highways England is currently implementing plans to improve its asset management capability. We work collaboratively with the company to understand its current asset management capability and its plans for improvement. This involves reaching a shared understanding of the company's compliance and consistency with international asset management standards.

Monitoring asset condition and performance metrics

6.8 Monitoring asset condition and performance metrics is a useful way of understanding whether Highways England is doing enough to maintain the condition of the network. The Performance Specification has set a measure of pavement condition as a key performance indicator with a target of 95%, and has established measures of condition for other asset groups (structures, geotechnical, drainage and technology assets) as performance indicators²⁰.

6.9 We monitor the condition of pavement assets against the Performance Specification target of 95%, and the outturn of the other asset condition metrics, seeking to understand trends and the outputs of the maintenance and renewals programme.

6.10 Highways England should be seeking to understand risks to the future condition and serviceability of the network. We will seek evidence from the company about how it is doing this, including:

- whether it understands the current condition of its assets and their likely degradation; and
- whether it understands the impact of its proposed interventions on future condition and wider performance.

²⁰ Highways England's Operational Metrics Manual defines the key performance indicators and performance indicators: <https://www.gov.uk/government/publications/highways-england-operational-metrics-manual>

6.11 Whilst asset condition and performance metrics are useful, they can be slow to respond to actual asset management interventions. We therefore also monitor asset management processes and delivery as set out below.

Reviewing delivery of the programme in-the-round

6.12 Highways England set out its high level plans for the volumes and costs of maintenance and renewals works in its Delivery Plan and will update this on a yearly basis.

6.13 We will monitor the company's delivery of actual volumes and its outturn expenditure to understand whether it is delivering its plans. In particular, we will review the reasons for variances from the plan to understand:

- whether Highways England's maintenance and renewals planning is robust;
- whether, and why, Highways England is deferring or bringing forwards works;
- whether it is delivering more or less efficiently compared to previous years, and compared to its plans; and
- whether it is updating its plans as new and / or better information about the state of its assets as this information becomes available.

Carrying out in-depth reviews of asset management practice

6.14 Highways England should be implementing a robust process for developing and delivering asset maintenance and renewals plans. We propose to carry out in-depth reviews of Highways England's asset management processes on a sample basis to understand:

- the quality of Highways England's asset management information;
- its asset management strategies, policies and standards, and the extent to which they are seeking to minimise costs over the life of the assets (delivering minimum whole life cost);
- how the strategies, policies and standards are developed into robust, prioritised asset management plans;
- how the asset management plans are delivered and their impact reviewed; and
- how asset management plans are coordinated with other capital programmes.

The maintenance and renewals data we collect

- 6.15 Highways England provides, on a monthly basis, a high level report of maintenance and renewals delivery, including a summary of expenditure against budget (resource and capital), renewals volumes and asset inventory and condition metrics. This information enables identification of emerging risks.
- 6.16 As set out in our Monitoring Reporting Guidelines, Highways England submits formal annual data and reporting including:
- actual progress against planned output;
 - actual expenditure profile per year;
 - explanations of variances in terms of outputs and expenditure;
 - reporting of maintenance and renewals efficiencies; and
 - asset inventory and condition metrics.
- 6.17 This reporting is complemented by ongoing engagement with Highways England to discuss risks to delivery of maintenance and renewals programme and associated mitigation actions.

Our reporting of maintenance and renewals delivery

- 6.18 In our annual assessment of Highways England's performance we will report on:
- Highways England's asset management capability;
 - the robustness of Highways England's planning of its maintenance and renewals programme;
 - the delivery of the maintenance and renewals programme to date, including actual volumes and outturn expenditure against plans;
 - identification of trends / systemic issues in schedule delivery;
 - reasons for deferring or bringing forward works and impact on efficiencies;
 - the impact on targets set out in the performance specification and associated performance metrics;
 - performance against asset condition metrics; and
 - the findings from our in-depth reviews²¹.

²¹ We will report on our in-depth reviews of asset management practice from 2016-17 onwards

7. Monitoring ring-fenced investment funds

7.1 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; air quality; cycling, safety and integration; innovation; and growth and housing.

What are the ring-fenced investment funds?

7.2 The ring-fenced funds as set out in the Investment Plan will allow Highways England to carry out improvement works beyond their business-as-usual activities. These will include retrofitting measures to improve the existing road network as well as maximising the opportunities offered by new road schemes to deliver additional improvements at the same time. Table 7.1 provides further details of the ring-fenced investment funds.

Table 7.1: Summary description of ring-fenced investment funds

Fund Name	Fund Budget (RP1)	Description
Environment	£225m	Improve environmental performance across carbon, noise, water, biodiversity, landscape and cultural heritage. The funding aims to deliver additional environmental benefits for new schemes, and will also allow for measures to retrofit the existing network to tackle current problems.
Air quality	£75m	Target improvements in air quality, making real reductions in air pollution. Highways England will be developing in a range of projects to reduce pollution and ensure the air around the network is clean and healthy for our customers and neighbours.
Cycling, safety, and integration	£175m	Improve safety, increase provision for cyclists on and near the strategic road network, and enhance access for a variety of users, including pedestrians, horse riders and the disabled. This will involve both bespoke interventions and enhancements to new and existing schemes.
Innovation	£120m	Fund created to allow the company to place a greater emphasis on the future technologies that will positively impact users and the network. It will involve a range of research, development, demonstration, and deployment activities.
Growth and housing	£80m	Fund established to ensure that the company is sufficiently equipped and flexible to respond to future development opportunities, including those relating to new housing and enterprise zones. This fund will be used to match-fund infrastructure to enable new developments.

What should our monitoring achieve?

7.3 Our monitoring should provide stakeholders with transparency about how Highways England is prioritising use of these funds and the benefits being delivered. It should assess whether the company is delivering value for money from the funds.

Monitoring the ring-fenced funds

7.4 We propose to monitor Highways England's ring-fenced investment fund delivery using three approaches:

- reviewing the governance of the funds;
- reviewing delivery of the programme in-the-round, for example reviewing delivery against committed plans; and
- carrying out in-depth reviews of a sample of schemes.

Reviewing the governance of the funds

7.5 Highways England has been given ring-fenced investment funding to deliver targeted improvements and has discretion about what improvements are delivered and how they are prioritised. It is therefore important that the company has robust processes in place to develop programmes of work which deliver stakeholder priorities. It should be implementing a robust process for selecting, developing and delivering projects that meet the strategic objectives of each designated fund. Our monitoring will assess:

- the governance structure and processes in place;
- the robustness of the scheme selection and prioritisation process, for example how value for money is assessed;
- the robustness of programme management and investment controls in place, including the processes for risk identification and mitigation; and
- the processes for engaging stakeholders.

Reviewing delivery of the ring-fenced funds in-the-round

7.6 Highways England sets out its high-level expenditure plans for each ring-fenced fund in its Delivery Plan and its updates. It also, to varying degrees, sets out plans for specific deliverables (for example named schemes being progressed) through these plans. We monitor the programme and high-level indicators of its delivery, including:

- clarity and robustness of plans;
- expenditure against plans;

- delivery against commitments in the company's strategies and plans (such as named schemes);
- number of schemes in development, delivered and reviewed; and
- quality and effectiveness of Highways England's stakeholder engagement.

Carrying out in-depth reviews of ring-fenced funds

7.7 We propose to carry out in-depth reviews of the management of the ring-fenced investment funds on a sample basis. This will include reviewing specific funds in greater detail where the review of governance and processes highlights concerns.

7.8 It will also include reviewing sample schemes within programmes to understand:

- the process for taking the schemes from inception to completion;
- how they have been identified and prioritised;
- how stakeholder contributions have been considered, including coordination with local and regional stakeholders;
- scheme costs and benefits;
- how they have been project managed;
- whether the output is aligned with the company's strategies, fund objectives and the initial scope, for example seeking evidence that the funds have delivered genuine additional work; and
- how fund schemes have been aligned with other capital programmes.

The data we collect on ring-fenced funds

7.9 Highways England submits high-level summaries of ring-fenced fund expenditure and delivery to us on a monthly basis. It also submits more detailed summary reports of its internal reporting of funds on a quarterly basis. This includes reporting of:

- actual expenditure; and
- actual progress of fund scheme delivery, through the number of schemes that have been developed, delivered and reviewed.

7.10 As set out in our Monitoring Reporting Templates and Guidelines, Highways England formally submits data and reports on an annual basis, including:

- actual progress of fund scheme delivery for the year (as above, through the number of schemes that have been developed, delivered and reviewed);
- annual actual expenditure; and
- written explanations of the progress of fund delivery in the year.

7.11 This reporting is complemented by ongoing engagement with Highways England to discuss progress, risks to delivery and associated mitigation actions Our ring-fenced investment funds reporting

7.12 Our annual assessment of Highways England's performance will include reporting of:

- delivery against committed fund plans and their strategic objectives, including actual annual expenditure;
- scheme progress against schedule (number of schemes in development, delivered and reviewed) including reasons for variances from the committed plans;
- the impact on targets set out in the performance specification and associated performance metrics;
- the robustness of Highways England's management of each fund including stakeholder engagement; and
- the findings of our in-depth reviews.

8. Monitoring strategic studies

8.1 The Investment Plan requires Highways England to deliver a set of strategic studies to investigate measures to address some of the biggest challenges on the strategic road network.

What are the strategic studies?

8.2 The strategic studies are required to investigate options on six key sections of the network:

- Northern Trans-Pennine routes;
- Trans-Pennine Tunnel;
- Manchester North-West Quadrant;
- A1 East of England;
- Oxford to Cambridge Expressway; and
- M25 South-West Quadrant.

What should our monitoring achieve?

8.3 Our monitoring should provide transparency about how the strategic studies are being progressed, how their outcomes are influencing the second road investment strategy and whether alternative options, including other transport modes, are being adequately considered.

Monitoring delivery of the strategic studies

8.4 The six strategic studies named above are being taken forward through a collaborative arrangement between DfT and Highways England. The studies have been commissioned by DfT and are subject to programme and project oversight by the department. Highways England has appointed, and is project managing, consultants to deliver the studies.

8.5 Because DfT has significant oversight of these studies, we focus on high level monitoring and reporting of study progress, as informed by engagement with both DfT and Highways England

Reporting delivery of the strategic studies

8.6 Our reporting of the delivery of the strategic studies will include:

- reporting on governance and management of the studies;
- reporting on high-level progress and milestone delivery;
- reporting on whether there has been appropriate consideration of other modes and cross-modal options; and
- reporting on emerging findings and outcomes.

9. The benefits of our approach

9.1 Our approach contributes positively to the sector, ensuring value for money and a focus on stakeholder priorities, as set out below.

Table 9.1: How our monitoring positively contributes to the highways sector

Benefit	How our monitoring approach delivers the benefits
Providing independent scrutiny	<ul style="list-style-type: none"> • Our approach provides proportionate scrutiny of Highways England's capital investment delivery • Our reporting provides, for the first time, an independent assessment of Highways England's performance
Encouraging Highways England to consider risk at a strategic level	<ul style="list-style-type: none"> • Our approach reviews portfolio management, including management of risks and opportunities that cut across programmes of work • We take a forward-looking approach – seeking to identify risks to future delivery of the capital portfolio and its programmes
Promoting transparency in performance reporting	<ul style="list-style-type: none"> • Our approach requires Highways England to publish more information about its capital investment plans – including clearer scheme baseline information • We make clear that we will publish an annual report on Highways England's capital investment delivery
Facilitating lessons learned from other sectors	<ul style="list-style-type: none"> • Our approach is based on our experience in monitoring rail capital investment and approaches adopted in other sectors. But it also seeks to learn lessons – for example from the rail Bowe Review²² • Our approach includes benchmarking of capability to identify maturity compared to other sectors
Promoting multi-modal policy thinking	<ul style="list-style-type: none"> • Multi-modal thinking has the potential to improve future capital investment programmes. We assess whether there has been appropriate consideration of other modes and cross-modal options in our review of strategic studies

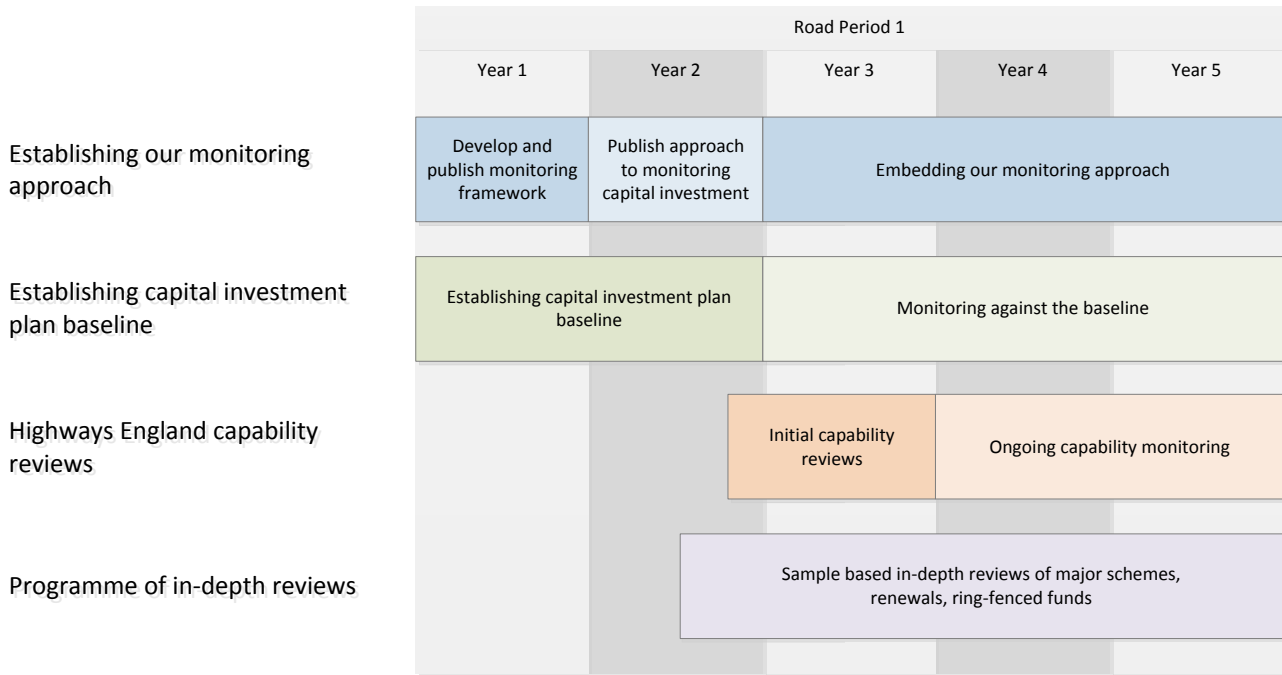
9.2 We also expect our approach to incentivise better value for money by applying greater scrutiny and transparency to efficient delivery.

²² Dame Colette Bowe's review of the planning of Network Rail's enhancements programme: <https://www.gov.uk/government/publications/bowe-review-into-the-planning-of-network-rails-enhancements-programme-2014-to-2019>

10. Delivering our approach

10.1 A high-level summary of how our monitoring will progress during the road period is provided in figure 10.1.

Figure 10.1: Summary of our monitoring timeline in the first road period



10.2 We are now implementing the approach set out in this document. We are progressing with our reviews of Highways England’s capability – for example, we are currently conducting work to establish Highways England’s portfolio and programme management capability and plans. We are also progressing our programme of in-depth reviews, reviewing a sample of Highways England’s major schemes and its maintenance and renewals delivery by asset.

10.3 We will continue to embed our approach over the remainder of this road period, flexing it as we learn more about Highways England’s capability and delivery.

Annex A – List of ORR’s highways directorate publications

- Highways Monitor publications: <http://orr.gov.uk/highways-monitor/publications>
- Monitoring Highways England the monitoring framework: http://orr.gov.uk/_data/assets/pdf_file/0006/19590/highways-england-monitoring-framework-october-2015.pdf
- Monitoring Reporting Guidelines for Highways England and template statements: <http://orr.gov.uk/highways-monitor/publications/monitoring-reporting-guidelines-for-highways-england>
- Six month review of Highways England’s performance: <http://orr.gov.uk/highways-monitor/publications/highways-monitor-six-month-review-of-highways-englands-performance>
- Annual assessment of Highways England’s performance: <http://orr.gov.uk/highways-monitor/publications/highways-monitor-annual-assessment-of-highways-englands-performance>
- Review of Highways England’s delegated expenditure controls: http://orr.gov.uk/_data/assets/pdf_file/0017/22526/review-of-highways-england-delegated-expenditure-controls-2016-07-27.pdf
- Review of Outcome Frameworks in other Regulated Sectors: http://orr.gov.uk/_data/assets/pdf_file/0015/22326/a-cross-sector-review-of-outcomes-frameworks.pdf
- ORR’s enforcement policy for Highways England: http://orr.gov.uk/_data/assets/pdf_file/0005/20003/enforcement-policy-for-highways-england.pdf
- Review of Highways England's supply chain capability: <http://orr.gov.uk/publications/research-and-studies/highways-englands-supply-chain-capability>
- Benchmarking Highways England’s performance and efficiency: <http://orr.gov.uk/publications/reports/benchmarking-highways-englands-performance-and-efficiency>
- Monitoring Highways England’s network investment, consultation: http://orr.gov.uk/_data/assets/pdf_file/0003/22494/monitoring-network-investment-consultation.pdf

Annex B – Summary of responses to our consultation document

Question 1 - Do you understand and agree with the scope of our role with respect to monitoring Highways England's network investment, as set out in this consultation?

Responses

1. Respondents were generally clear about our role with respect to monitoring Highways England's network investment and welcomed the level of engagement. Two stakeholders explicitly recognised the benefits from adopting a flexible approach that can respond to specific issues and identified risks.
2. Two stakeholders requested further engagement as we put the approach into practice.
3. Some stakeholders commented on our wider monitoring activity, outside the focus of this consultation, for example our monitoring of the RIS Performance Specification and the licence. They made suggestions for greater emphasis on specific areas such as monitoring the company performance in terms of environmental and landscape enhancements impacts, protection of historic environment, keeping the network clear of litter, benefits to road users, efficiencies and benchmarking analysis.
4. One respondent commented that minor improvement schemes (those falling below the £10m threshold for Major Projects schemes) appear to be overlooked and suggested that the scope of our monitoring approach for 'major schemes' should be extended to include these schemes.

Our Conclusion

5. We will continue to engage stakeholders as we implement the monitoring approach.
6. We have set out more clearly that this document focuses on monitoring Highways England's delivery of the Investment Plan, as set out in the RIS. We have made it clear that we have a wider role in monitoring Highways England's performance and delivery against the RIS Performance Specification and its licence conditions, which are not addressed in this document. We have also included a summary list of our publications to date in Annex A of the document.
7. Our monitoring of Highways England's network investment covers all capital investment schemes as set out in the Investment Plan, including the major schemes programme, the maintenance and renewals programme and the smaller scale improvement schemes, such as those delivered through ring-fenced investment funds. We have clarified the definition of major schemes in the document.

Question 2 - Does our proposed approach for monitoring Highways England's network investment fulfil our role in a way which meets your requirements as a stakeholder?

Responses

8. Our approach to monitoring Highways England's investment portfolio and its investment programmes at four levels was supported by the majority of stakeholders. Respondents generally agreed that this approach meets their requirements as stakeholders and welcomed our proactive approach in identifying, assessing and taking early action in monitoring the delivery of Highways England's network investment.
9. Some stakeholders commented that the road users' interests should be more prominent in our monitoring approach. In particular, one suggested that road users' views should be taken into account when considering the options for major schemes.
10. Two stakeholders suggested that our approach should evolve with time as the road reform model becomes fully established and our understanding of Highways England's Delivery Plan and operational activities matures.
11. Some respondents requested more visibility and certainty of Highways England's forward works programme and supported increased transparency of the company's plans for delivering its network investment. One respondent proposed that we should monitor capability of the supply chain.
12. Some stakeholders suggested that our monitoring should scrutinise Highways England's procurement models and commented on the lack of consistency of Highways England's procurement and contracting approach across the portfolio.
13. One stakeholder requested a reduced burden around reporting, which may be passed down the supply chain, whilst one respondent suggested that our monitoring should review projects on the ground.
14. Three respondents considered that our approach to monitoring Highways England's delivery should include the strategic road network's interaction and interface with the Local Highways Authorities.
15. Two respondents suggested that our approach should include benchmarking analysis and commented that the consultation document provides limited information on the use of benchmarking.
16. One respondent commented that there is limited definition on the efficiencies that Highways England needs to deliver. Two respondents requested further clarity on the effective means of assessing efficiency gains.
17. One stakeholder commented that our approach places too much emphasis on obtaining data from Highways England and questioned the independency of ORR by prioritising monitoring of RIS objectives that were set by DfT.
18. One respondent requested further clarification on how we will achieve the benefits of our proposed approach, as set out in the document.

Our Conclusion

19. We have added further clarifications to this document to address stakeholders comments, but have retained our overall approach as set out in the consultation document.
20. We have retained the sections of our consultation document which set out what our role is, and those activities that we do and do not undertake. Some of the specific suggestions raised by stakeholders are referenced as examples of areas that we will look at as part of our approach. Suggestions not within the remit of our role or the scope of this document are explained in the summary of responses to question 3, below.
21. The conclusions document includes a new section providing more clarity on how our monitoring and reporting of Highways England's network investment delivers benefits to road users.
22. We have explained that we expect our approach to evolve with time as our understanding of the company's ability to manage and deliver its programme matures.
23. We have emphasised that our monitoring approach has a strong focus on transparency, including Highways England improving its transparency. We have stated that our monitoring will include consideration of how the company is bringing the views of all relevant stakeholders into its plans, how it is coordinating with other highways authorities and local / regional stakeholders, and interfacing with its supply chain.
24. We have clarified the linkages to other workstreams of our role and provided references to our publications and planned activities. These include our work on Highways England's supply chain capability, and our benchmarking and efficiency reviews. We have added supporting text to clarify that, as part of our efficiency review for RIS2, we will review Highways England's current capability, and potential for future improvements, in areas such as portfolio and programme management, asset management, and procurement and contract management capability.
25. The conclusions document includes a new section providing details of our work to benchmark Highways England's performance and efficiency. It also includes a new section addressing our approach to monitoring Highways England's supply chain management.
26. In the conclusion document we have retained our focus on Highways England owning the data and its assurance, as we consider this to be a key network management function and a proportionate approach to monitoring.

Question 3 - Are there aspects of our monitoring of Highways England's network investment that you think require more or less emphasis?

Responses

27. Stakeholders suggested various aspects of our monitoring approach for greater emphasis, such as monitoring benefits to road users, Highways England's supply chain's engagement, assessment of Highways England's asset management capability, programme and contract management, interface between resource and

capital works, greater detail on the proposed reviews of post opening project evaluation reports, including monitoring safety against projections.

28. Some respondents considered that Highways England needs to improve its continuous engagement with stakeholders, in particular with respect to the delivery of the ring-fenced funds. They requested further visibility that Highways England is effectively considering their contributions. One stakeholder suggested that our approach should monitor the effectiveness of Highways England's design panel and the company's level of responsiveness to stakeholder contributions.
29. Some stakeholders raised concerns over Highways England's ability to meet some of its licence requirements, for example with regards to environmental impacts, historic estate, impacts on landscape, and Highways England's compliance with its duty to keep the network clear of litter.
30. Some stakeholders commented that the current performance indicators and metrics, as set out in the RIS Performance Specification, should be developed to deliver further reasonable performance challenges to Highways England. It was suggested that these should consider other areas such as historic estate, landscape and cultural heritage, measuring the performance of non-pavement assets and improved air quality metrics.
31. One respondent requested further clarity on our approach to monitoring delivery in the round, for example the acceptable level of variance to plan and the criteria against which we will question Highways England's controls and ability to manage risks.
32. One respondent suggested that our monitoring should focus on the extent to which ring-fenced investment fund expenditure delivers against Highways England's strategies, and whether the funds have been spent on genuinely additional work.
33. One respondent proposed that we should monitor the value of Highways England's assets noting that internationally asset value plays an important part in investment decision and financial planning.
34. One stakeholder suggested monitoring the standards adopted by Highways England and whether they provide efficient engineering and asset management solutions.
35. A number of respondents offered suggestions on specific areas, such as reviewing the techniques used in the strategic studies and the range of options considered, reviewing Highways England's assessment of non-road alternatives and multi-modal solutions, monitoring the accuracy and currency of Highways England's traffic modelling, adequacy and accuracy of air pollution monitoring and carbon impact assessments.

Our Conclusion

36. Whilst we received many suggestions for areas of increased focus, there was no common theme. We agree that our approach should place strong emphasis on management capability and on the company's interactions with its supply chain - and we have updated our approach to reflect this.
37. We have clarified our approach to reviewing user benefits, including through review of post-opening project evaluation findings. We have included reference to the RIS

funding allowance for resource maintenance and clarified that our approach includes monitoring both capital and resource expenditure.

38. We have emphasised the importance of Highways England's stakeholder engagement throughout this document. We have made it clear that our review of the ring-fenced investment funds will include the quality and effectiveness of stakeholder engagement.
39. We actively review effectiveness of Highways England's design panel through our monitoring of its licence. We have updated this document to reference this explicitly.
40. As previously stated, we have made clear in our conclusions document that we have a wider role in monitoring Highways England's performance and delivery against its licence, which is not addressed in this document. Suggestions for greater emphasis in areas such as monitoring the company's performance in terms of environmental impacts, protection of historic estate, impacts on landscape and keeping the network clear of litter are not within the scope of this document but we recognise that these are important and we consider these through our wider monitoring.
41. Our conclusions document explains that we provide advice on key features of the RIS including Performance Specification and future performance metrics.
42. We have clarified that our approach to monitoring delivery in the round considers a number of factors to determine the acceptable level of variance to plan, such as the actual variation to baseline costs, stages of development of the schemes and nature of risks to delivery. Rather than establishing specific criteria, we consider that our monitoring needs to remain flexible to respond to specific issues and identified risks.
43. We have updated this document to make it clear that our in-depth reviews of ring-fenced investment funds includes consideration of whether outputs align with Highways England's strategies.
44. Highways England undertakes its own asset valuation and reports this to us on a yearly basis. We are considering how this data could inform our work on benchmarking and efficiency reviews for RIS2. We are also considering reviewing Highways England's plans to improve the company's current standards as part of our assessment of Highways England's asset management capability.
45. We have reviewed our proposed approach to monitoring the strategic studies and consider it appropriate in light of DfT's direct and involved role. We will review whether these studies have considered alternative options (including other transport modes) and are appropriately evidenced.
46. Our wider performance monitoring includes consideration of data quality – including with respect to environmental performance. As part of this we seek assurance from the company over its processes and governance.

Respondents

47. The respondents to our consultation and workshops held are as listed below:

Organisation / individual

1 David Linnell

2 Campaign for National Parks

3 Transport Focus Group Chairman: Dorset CPRE -
Campaign to Protect Rural England

4 RAC Public Affairs

5 Chartered Institute of Logistics and Transport

6 University College London

7 Historic England

8 CECA – Civil Engineering Contractors Association

9 Transport Focus

10 HTMA – Highways Term Maintenance Association

11 Clean Highways

12 Interserve

13 ICE – Institution of Civil Engineers

14 MPA - Mineral Products Association, Asphalt²³

15 Campaign for Better Transport

16 Highways England

17 CIHT - Chartered Institution of Highways & Transportation

18 Campaign to Protect Rural England

19 Costain

20 Department for Transport

²³ In addition to MPA's response, we met MPA members shortly after the consultation ended to provide further detail to their response.

Organisation / individual

Workshops:

Organisation

- 1 Supply chain trade associations and professional institutions
 - 2 ICE - Institution of Civil Engineers
 - 3 LGA - Local Government Association
 - 4 CECA - Civil Engineering Contractors Association – Roads forum
 - 5 ACE - Association of Consulting Engineers
 - 6 Civil Aviation Authority
Ofgem
Ofwat
ORR - Rail Planning and Performance Directorate
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