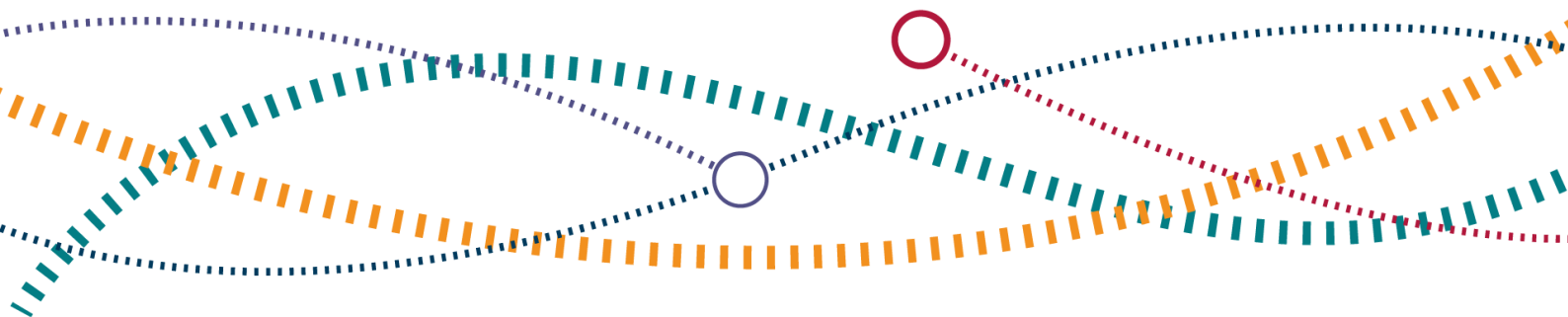




The Third Road Investment Strategy

ORR's advice on National Highways' draft strategic business plan

28 November 2025



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Executive summary

The RIS3 efficiency review

The road investment strategy (RIS) is the government's long-term strategy for the management and improvement of the strategic road network (SRN) – the motorways and major 'A' roads in England.

The third road investment strategy (RIS3) will establish the requirements that National Highways must deliver during the third road period (RP3, April 2026 to March 2031). This includes the investments and projects that the company should deliver and the levels of performance that it should achieve. The Office of Rail and Road's (ORR) role, as set out in National Highways' licence, is to advise the Secretary of State on whether the company's emerging plans and requirements for RIS3 are challenging and deliverable within the available funding including with regard to the levels of efficiency the company proposes to achieve.

The main way in which we do this is by conducting an 'efficiency review' of National Highways' draft strategic business plan (SBP). The draft SBP details the company's plans for delivering the requirements set out by the Secretary of State in the draft RIS, published in August 2025.

This report builds on the findings of our 2024 review of National Highways' emerging RIS3 plans, submitted prior to the then Secretary of State's decision to defer the start of RP3 to April 2026. The 2024 review is published alongside this report.

Our advice on National Highways' draft SBP

In its draft SBP, submitted to us on 1 September 2025, National Highways set out its proposals for operating, maintaining, and renewing the SRN and its plans for delivering major enhancement projects and other investments to meet the Department for Transport's (department) performance expectations and policy objectives.

We have reviewed National Highways' draft SBP and undertaken a programme of workshops with the company to gain an in-depth understanding of the plans. We have considered whether they align with the department's requirements for RIS3, are efficient, and deliver for users, stakeholders and taxpayers.

We recognise that National Highways has prepared its draft SBP during a period of uncertainty. The delay to the start of RP3 and the draft RIS not being published until 26

August 2025 will have made it harder for the company to finalise aligning its plans with the available funding. However, the delays have also given it more time to address issues we identified in our 2024 review.

We have undertaken our review in a compressed time period of three months rather than the five months previously afforded to the efficiency review. This has meant we have had limited opportunities to refine our findings, but we will continue to work closely with the department and National Highways to resolve any uncertainties as plans are finalised.

National Highways' plans (based on its cost estimates) exceed available funding by £1,230m. Therefore, in addition to assessing whether the plans represent a challenging yet deliverable proposition, we have also identified cost reduction options that, while ultimately decisions for the department, could improve affordability without compromising the integrity of the RIS.

Our key findings, consistent with the approach taken in our 2024 review, are organised under three principal themes: cost, efficiency and affordability; performance; and readiness to deliver.

Cost, efficiency and affordability

Key messages:

In several areas, National Highways is proposing to increase expenditure, yet the evidence to support its cost estimates is of variable quality and linkages between investment and performance are not always clear. This makes it more challenging to assess whether the company's plans are efficient. The company needs to prioritise improving its capability in these areas to ensure plans for future road periods are more robust and appropriately evidenced.

We have identified opportunities to improve the efficiency and deliverability of the plan, reducing costs by £1,071m. We have identified additional discretionary options that could reduce costs by a further £170m. While further decisions are needed to align final plans with resources, we consider the emerging requirements for RIS3 to be deliverable within the available funding.

Finalising the RIS and achieving full alignment between requirements, funding and risk allowances will depend on the department's final policy choices and risk appetite. It should also ensure that the broader performance framework contains sufficiently detailed requirements to assure the efficiency of National Highways' delivery.

Overall affordability

The total RIS3 funding envelope for the five-year road period has been set at £24,983m. National Highways has assessed the cost of RIS3 at £26,213m, implying a £1,230m gap between costs and funding.

In this report we make recommendations to improve the efficiency and deliverability of National Highways' plans and to align risk provisions to prudent and proportionate levels. Adopting these recommendations would reduce cost by £1,071m.

We have also identified opportunities to reduce funding for discretionary programmes, such as Designated Funds (ringfenced budgets to fund projects intended to address issues over and above the traditional focus of road investment). Although final decisions rest with the Secretary of State, these options could lower costs by a further £170m while maintaining alignment with the draft RIS requirements. As shown in Table 1, in aggregate, our recommended adjustments, together with other cost-reducing options we have identified, would reduce costs by £1,240m, bringing costs broadly in line with funding.

Table 1. Adjustments to National Highways' cost estimates and overall affordability (£m, nominal)

	RIS3
National Highways' draft SBP	26,213
ORR recommended adjustments to improve efficiency and deliverability	1,071
Further options for reducing the cost of discretionary funds	170
Total cost savings	1,240
Adjusted RIS3 costs	24,972
Statement of Funds Available (SoFA)	24,983
Funding gap (surplus)	(11)

If our proposals are not adopted, and no suitable alternative options are identified, either additional funding will be required, or the department's requirements will need to be adjusted to ensure RIS3 remains affordable.

Overall affordability may change once estimates are updated to reflect the Office for Budget Responsibility's (OBR) latest inflation forecasts which are higher than those currently underpinning the draft SBP. We expect the impact of the updated forecasts to be

sufficient to push costs above the SoFA once again. Should this occur, the department may need to identify further options for reducing cost in some areas or accept a greater level of unfunded risk.

In conclusion, while further decisions are needed by the department to align final plans with resources, we consider the emerging requirements for RIS3 to be deliverable within the available funding.

Renewals

National Highways plans to increase renewals investment to meet the department's requirement to maintain asset performance at least at current levels and to address the long-term challenge of an ageing network. The draft SBP sets out its plans to invest £8,822m, an increase of 55% in real terms on the second road period (RP2, April 2020 to March 2025), excluding funding allocated to the central risk reserve (CRR).

Whilst there is a need for greater investment, National Highways should ramp up its delivery in a realistic and sustainable manner if it is to deliver what is required of it. We recommend the following adjustments to improve affordability and deliverability:

- roadside technology – the draft SBP includes plans to increase spending on roadside technology renewals from around £300m in RP2 to £1,019m in RP3. A substantial increase in investment in these assets is required given their age profile and current issues with performance. However, National Highways has faced challenges accelerating delivery during RP2 and in the interim period (April 2025 to March 2026) and cannot robustly estimate how the proposed increase in spending will impact performance. We recommend a more gradual ramp-up in investment, enabling the company to address performance issues while creating a more realistic investment profile across RP3 and the fourth road period (RP4, April 2031 to March 2036) that aligns with the timing of planned changes in equipment procurement and installation. The effect of this is to reduce costs by £169m.
- structures – the increase in cost in RP3 is largely driven by an expanded programme of higher cost or more complex renewals of bridges and large culverts. Since producing its initial draft SBP in 2024, National Highways has revised the cost of structures renewals upward by around £500m. The basis for this increase is poorly evidenced and cannot be traced back to the cost estimates for individual projects. Whilst there are risks to these projects, experience suggests that projects may also incur delays, shifting cost into RP4.

We have recommended removing part of the increase to maintain a smooth expenditure profile during RP3 thereby reducing cost by £147m.

Since the second road investment strategy (RIS2) development process, National Highways has improved its approach to renewals investment planning. However, there is more work for the company to do to improve its asset knowledge and develop its approach to cost estimation. For most asset types, the company has based its costs on evidence gathered from early in RP2 or, in isolated cases, the first road period (RP1, April 2015 to March 2020). The company has not updated this evidence between the interim and final draft SBPs, with the exception of asphalt pavements. This has increased uncertainty and places greater reliance on the accuracy of inflation adjustments.

As a result of how National Highways collects data, we are unable to make like-for-like comparisons against the cost of delivery in RP2 for all asset types. Where such comparisons are possible, the available evidence indicates that the company's renewal cost estimates are likely to be overstated.

For many of its asset types, National Highways' cost estimates are based on evidence from early in RP2, or in some cases RP1, without explicit adjustments to reflect efficiency improvements achieved over the road period. In addition, the company applies "pure" unit rates derived from hypothetical single-asset schemes. This approach does not capture the efficiencies typically realised in practice from shared overheads – such as design, development, project management, and traffic management – when delivering hybrid schemes.

We recommend a further adjustment of £203m to renewal costs to align them with an appropriately efficient level. This includes a correction to asphalt pavement renewal costs to address an error in the application of inflation adjustments.

National Highways is currently developing its renewals reporting systems. This should improve its ability to compare estimated unit costs and funding requirements to outturn costs. It is important that the company continues to improve these systems and input data to strengthen the robustness of its future plans.

Including other recommended adjustments detailed in the main report, our proposals on renewals would reduce overall funding by £601m to £8,221m in RP3, still a real terms increase of 44% on RP2.

Operating and maintaining the network

Maintenance spending has been constrained in recent years due to higher than anticipated inflation during RP2 and constraints on resource funding. National Highways will increase spending on maintenance by 20% in real terms in RP3. Part of this increase reflects the cost of maintaining sections of road that, during RP2, were maintained via design, build, finance and operate arrangements and will be returned to the company in RP3.

Based on the evidence provided by National Highways, we are satisfied that the company's plans are aligned with the aim of maintaining performance and the department's requirement to prioritise funding for the maintenance of the network.

National Highways has applied an efficiency challenge consistent with benchmark evidence. However, this is set against a baseline of increasing costs. Our analysis indicates that the company has overstated its 'pre-efficient' cost estimates. For example, part of the projected increase in operating costs is based on an assumed rise in traffic incidents (such as collisions and breakdowns). Evidence from RP2 does not suggest that the recent rise in incidents has made maintaining performance significantly more challenging and therefore the claimed efficiency savings are likely to be overstated.

In aggregate, our recommended adjustments to National Highways' operations and maintenance plans would reduce costs by £119m. Based on our assessment of the evidence, achieving this saving should not require any reduction in resources (including traffic officer resource) on current levels.

RIS3 enhancement projects

The RIS3 SoFA is based on an assumed funding envelope for enhancements of £3,846m. This excludes the cost of the Lower Thames Crossing (LTC) project, for which the department is exploring alternative funding options. LTC operates largely independently, so progressing the scheme is not expected to have a significant impact on the resources funded via the RIS. Road infrastructure improvements to support third party projects – the Agratas electric car battery factory in Somerset, and the Universal Studios Theme Park in Bedfordshire – form part of wider, cross-government programmes and will also be the subject of separate funding arrangements outside of the RIS. Therefore, the department should ensure that suitable arrangements are in place for the appropriate oversight of these projects.

The RIS3 enhancements portfolio encompasses 16 schemes, 11 of which have already commenced construction. The cost and schedule assumptions for the five development-stage projects remain provisional, as National Highways is still completing the work

required to re-schedule the projects within the available funding envelope. There are options to reduce funding required in RP3 by deferring construction activities for development-stage projects until RP4. However, given further deferrals would likely increase overall project costs we are not recommending any further adjustments to the funding envelope for enhancements.

National Highways is also assessing opportunities to accelerate some projects relative to the draft SBP milestones. However, major adjustments are unlikely to be affordable within current RIS3 funding without a broader realignment of priorities.

National Programmes, Designated Funds and other discretionary programmes

If the department wishes to prioritise funding for the maintenance and renewal of the network while continuing to deliver the enhancements portfolio, the department could consider reducing funding for discretionary programmes to close the funding gap.

Designated Funds are designed to respond to stakeholder priorities in areas not directly covered by operations, maintenance, renewals or enhancements. National Programmes, a new concept for RIS3, are similar but intended to support the company in meeting its licence, regulatory and performance requirements, or support the achievement of government objectives.

The funding allocation for these programmes has been increased from £1,225m in its 2024 interim draft SBP to £1,429m in the final draft SBP. Except for elements within the National Programmes, specific interventions have not yet been identified and costed. Funding allocations therefore represent defined envelopes that National Highways will allocate to specific interventions during the road period. Increasing the funding envelopes in the latest plans seems inconsistent with the overall funding constraints given that it is not clear what the extra funding delivers for users and stakeholders.

Determining how funding is prioritised is ultimately a matter for the department. However, we have provisionally identified options to reduce funding for discretionary programmes by £140m, without materially affecting the department's objectives for RIS3. Options provisionally identified include reductions in funding for Designated Funds (£90m reduction) and aspects of National Highways' plans for corporate carbon initiatives (£50m reduction) that, based on National Highways' own assessment, are unlikely to offer good value for money. Even with these adjustments, more funding would be available for these activities (including investments in safety and the environment) than in RP2.

Managing risks

The CRR was established in RP2 to manage financial pressures. This has improved the transparency of how National Highways identifies and manages risks. We recommend that the CRR be retained for RIS3.

Determining the appropriate level of risk funding is inherently challenging and requires professional judgement informed by experience from RP2 and by the evolving risk profile of the programme. National Highways has allocated £1,033m (6% of estimated capital costs) to the CRR. However, the supporting justification remains high-level. In our view, based on available evidence, a CRR of £750m (around 4% of capital) appears prudent and proportionate. The company utilised £969m of CRR (6% of capital spending) in RP2, the majority of which was used for enhancements projects. Of this, £613m (4% of capital) was drawn down during the road period as £357m was allocated before the start of RP2. Moreover, the RIS3 enhancements portfolio is smaller and more mature than was the case in RP2, with approximately 40% of costs relating to projects already in construction. The experience of RP1 and RP2 has shown that project cost increases tend to be associated with project delays. Allocating more funding to the CRR for enhancements projects may result in including funding for projects that are ultimately delayed until RP4.

National Highways will be undertaking a greater number of large and complex renewals of ageing structures in RP3. Historically the scope of such projects has tended to expand beyond initial expectations and therefore risks associated with renewals are greater than in RP2. However, we also note that the company's plans allow some scope for it to manage risks by varying the volume of renewals it delivers and when.

The more funding assigned to the CRR, the greater the department's confidence that the investment plan will be delivered. Accordingly, when finalising the RIS, it may direct National Highways to adjust CRR funding up or down depending on its risk appetite. It is also important that the company has clear governance procedures around use of the CRR so that it is transparent about whether it has been used to fund risks that have materialised and evidence so, or it is being used for inefficient and unjustified cost increases.

Efficiency

If our recommendations are adopted, an appropriate efficiency target for RP3 would be £1,393m. The efficiency savings identified by National Highways broadly align with our expectations, based on its current capabilities and benchmark evidence for a company entering its third road period. However, as described, there are aspects of the company's

plans where we consider that it has overstated the ‘pre-efficient’ starting point. Our recommendations ensure that the efficiency target is set against an appropriate baseline.

Finalising RIS3

A summary of the recommended financial adjustments is presented in Table 2. Implementing these adjustments leaves a small surplus against funding of £11m. We recommend that the department instruct National Highways to update its financial model prior to the start of RP3, in line with the findings of this review, incorporating the OBR’s latest inflation forecasts. The company’s final SBP and delivery plan should include a clear baseline against which the company will be held to account during RP3 on behalf of road users and stakeholders.

Table 2. Proposed adjustments to RIS3 spending plans (£m, nominal)

	National Highways’ draft SBP	Adjusted for ORR recommendations on efficiency and deliverability	Adjusted for opportunities to reduce costs of discretionary programmes
Operating and maintaining the network	7,587	7,469	7,469
Renewals	8,822	8,221	8,221
Enhancements	3,846	3,846	3,846
National Programmes / Designated Funds	1,429	1,429	1,339
Future RIS and scheme development	403	380	350
Digital and corporate services & protocols	3,092	3,047	2,997
CRR	1,033	750	750
Total	26,213	25,142	24,972
SoFA	24,983	24,983	24,983
Funding Gap	1,230	159	(11)

The department should provide National Highways with clear direction on how it expects the company to align the final plans with available funding. The appropriate approach will depend on whether the department wishes to prioritise funding for discretionary

programmes or for the CRR, to provide greater certainty that the investment plan can be delivered in full. There is also scope to adjust funding for enhancements projects. However, we recommend that this option be pursued only if absolutely necessary, for the reasons set out above.

Challenging and deliverable performance requirements

Key messages:

We have identified options for alternative key performance indicators (KPIs) to ensure the RIS3 Performance Specification reflects the evolving demands on National Highways, thereby reducing potential administrative burden and supporting the company to focus on delivering for users, stakeholders, and taxpayers.

National Highways' proposals to replace outcome based targets in key areas such as safety and delay risk diluting incentives and weakening accountability. While reporting can be improved, we recommend retaining network-wide, outcome-based indicators.

For the most part, National Highways' proposed performance targets for other existing KPIs are aligned with its investment plans and the department's requirements. However, we propose more stretching but achievable targets in some areas, reflective of actual performance.

Safety and average delay

The RIS3 Performance Specification provides a robust basis against which National Highways can be held to account for acting in the interests of users, stakeholders and taxpayers.

In its draft SBP, National Highways set out proposals to change the way its performance is defined in areas where it contends it has more limited control, namely safety and delay.

For safety, National Highways is proposing that the target for the number of people killed or seriously injured on the SRN be removed. In its place, it proposes that it would be held to account for delivering what it describes as a 'flexible five-year safety action plan', updated on an annual basis, and a target based on the reduction in the number of people killed and seriously injured (KSI) from delivering its National Programme and Designated Fund safety initiatives.

The proposed approach is narrowly focused on the potential casualty reduction from a programme of corridor-specific safety upgrades and an as-yet undefined programme

funded via the safety Designated Fund. It would not capture other ways, beyond those funds, in which National Highways can influence safety and deliver improvements such as opportunities to leverage new technology, those delivered via operations and maintenance activities, and working with stakeholders such as the emergency services. Given the lag involved in evaluating safety improvements, it is unclear how performance outcomes could be effectively evidenced during RP3. The company's proposals would dilute incentives to maximise casualty reduction across the network.

We recommend that a network-wide KSI target is retained and we have proposed a casualty reduction target based on the long-term trend in reductions in casualties on the SRN. This would provide a target against which performance improvements can be monitored, alongside which National Highways would demonstrate it has delivered an appropriately ambitious safety action plan and done everything reasonably possible to improve safety performance.

National Highways also proposes removing the SRN-wide average delay target from the Performance Specification, citing its strong correlation with traffic growth, which is largely beyond its control. Instead, it suggests undertaking a set of planned interventions to make journey time savings that could be observed and reported on.

This proposal would enhance the transparency of National Highways' identification and delivery of specific interventions. However, the approach suffers similar drawbacks to the company's safety proposals, including the lag involved in evaluating the impact of its interventions. Beyond major enhancements projects, it has provided limited details of the initiatives it intends to deliver in RP3 and this approach would not incentivise the company to respond to the changing and evolving needs on the wider network through the period.

We recommend that a quantified outcome target is retained and propose replacing the average delay metric with a journey time reliability target that better reflects user priorities. We recommend that the department require National Highways to deliver no deterioration in journey time reliability during RP3.

Alternative KPIs

The existing framework of KPIs and performance indicators (PIs) will form the basis of the RIS3 Performance Specification. However, we have identified options for new indicators to reflect the evolving demands on National Highways and ensure that the Performance Specification is representative of the wide-ranging interests of users, stakeholders and taxpayers.

The introduction of a new **drainage resilience** KPI would align with the increasing focus on maintaining and renewing drainage assets and strengthen National Highways'

accountability for how it responds to the challenges of climate change. It would also incentivise the company to reduce surface flooding on the network that has implications for safety and resilience.

Given the increased investment in these assets and their importance to supporting safe and efficient operation of the network, a further option is to upgrade the existing **technology availability** PI to a targeted KPI. A target could be established for the performance of roadside technology assets on the SRN as a whole, as well as for the subset of assets on all lane running smart motorways.

In addition to its current proposals, the department could also consider including a KPI for **carbon emissions from construction and maintenance activities**. This could serve as an alternative to the existing corporate carbon KPI, as emissions from construction and maintenance activities substantially outweigh those generated through corporate operations. National Highways already reports its construction and maintenance emissions and has a publicly stated ambition to achieve net zero for these emissions by 2040.

To ensure the overall Performance Specification remains proportionate, does not create undue administrative burden and allows National Highways to focus on delivering for users and communities, the department could consider whether a KPI for air quality is retained in RP3 given the relatively limited mitigation measures available to the company in the period. Similarly, it may be more appropriate for noise and biodiversity commitments to form part of the capital specification, rather than being designated as KPIs, as they are output rather than outcome-based measures.

Performance targets

For the most part, the performance targets put forward by National Highways for other KPIs are aligned with the department's expectation that performance is at least maintained, either at the same level as RP2 (for example, the pavement condition KPI) or on the same trajectory to achieve long-term goals (such as the safety KPI). However, we recommend a more appropriate target for incident clearance, better aligned with the requirement to maintain performance, given that the company consistently exceeded the target throughout RP2. In addition, recognising the importance of the user, we recommend a user satisfaction target that reflects past performance but which is also challenging and transparent.

Having the right reporting framework in place

The KPIs and PIs discussed above sit within the Performance Specification that forms part of National Highways' broader performance framework. A significant proportion of funding is allocated to projects and programmes whose benefits may not be immediately apparent

in KPI performance. Therefore, it is important that these investments are appropriately and proportionately reflected in that wider framework. As such, National Highways should:

- ensure its final SBP and delivery plan provide a clear baseline against which the company can evidence its performance and delivery during RP3;
- strengthen the reporting of its progress to provide assurance it is on track to deliver the plans it has been funded for (we will set out further details of our expectations in our RP3 monitoring and reporting guidelines); and
- implement existing plans to improve its capabilities in cost estimation and asset data and prioritise the development of the fourth road period (RIS4) Performance Specification.

National Highways' readiness to deliver RIS3

Key messages:

National Highways has provided more robust and detailed plans for RIS3 than during the RIS2 process. However, further work is required, and greater emphasis should be placed on long-term strategic planning.

National Highways' final RIS3 SBP and delivery plan need to provide a clear baseline against which the company can evidence its performance and delivery during RP3.

In our interim advice on emerging plans for RIS3, we highlighted that, in areas such as National Programmes and Designated Funds, plans were less well specified than we would have expected at that stage in the planning process. National Highways has undertaken further development work and has set out more detailed plans in key areas such as the safety and environment National Programmes.

The updated safety plans set out how the National Programmes funding will be prioritised to improve safety. However, while this reflects a more strategic approach to planning, the plans presented in the draft SBP are narrowly focussed, and further work is needed to ensure planning translates into meaningful and measurable safety outcomes.

Designated Funds are intended to provide National Highways with a degree of flexibility to respond to requirements as they emerge during the road period. However, during RP1 and RP2 it has often been unclear how the company determined which projects would best achieve fund objectives set by the department and deliver value for money. In some instances, the company struggled to allocate funds within originally intended timescales.

RIS3 plans remain high-level with limited evidence of a pipeline of projects. As the department finalises RIS3, we recommend it prioritises funding for activities that are clearly specified.

National Highways has put forward a new set of principles that are intended to provide greater clarity on how Designated Funds projects are prioritised. It is also improving governance of the programmes to provide greater transparency. We recommend that these principles be reflected in the RIS to ensure that funding is allocated to the activities of greatest priority for the department. During RP3, the company should demonstrate how it has implemented these new arrangements to ensure that it continues to improve its evidence showing that it is delivering maximum value for money through its National Programmes and Designated Funds.

The interim period has provided National Highways with an extra year to prepare for RP3. Despite this, there are several examples of programmes, not limited to National Programmes and Designated Funds, where delivery is back-end loaded because further design and development work is required in the early part of the road period, increasing risks to delivery. The company should approach strategic planning as an ongoing process, ensuring that plans are continually refined and updated. During RP3, it should present more detailed proposals at an earlier stage in the RIS4 development process to achieve a smoother delivery profile in each road period, ultimately supporting more efficient outcomes in the longer term and improving programme certainty.

The demands placed upon National Highways are evolving. In our interim advice, we highlighted that the company needed to place considerable focus on how it would align its resources and processes to deliver changing requirements. However, in its draft SBP, it has not set out an organisation-wide plan for how it will do so. This increases the risk that the company is unable to mobilise quickly and effectively in RP3.

For RIS4, it is important that National Highways clearly evidences the relationship between its investment proposals and how the organisation structures and processes are set up for success. We will continue to work closely with the company as it develops and implements plans to improve its capabilities in key areas, such as asset data and cost estimation, building on progress made since we issued our recommendations on the interim draft SBP and thereby improving the robustness of plans for RIS4.

Next steps

The key organisations involved in developing plans for RIS3 – the department, National Highways, Transport Focus and ORR – have worked constructively throughout the

process with the intention to achieve the best possible outcomes for users, stakeholders and taxpayers.

We will continue to work closely with all parties as proposals are finalised, and decisions are taken to align them fully with available funding and the department's priorities. It will be essential that the proposals set out in the RIS are well specified, setting clear expectations to ensure that National Highways can be appropriately held to account for the efficient delivery of the objectives it has been funded to achieve for users and taxpayers.

1. Introduction

The third road investment strategy (RIS3) efficiency review

- 1.1 The RIS is the government's long-term strategy for the management and improvement of the strategic road network (SRN) – the motorways and major 'A' roads in England. RIS3 will establish the requirements that National Highways – the strategic highways company for the SRN – must deliver during the third road period (RP3, April 2026 to March 2031). This includes the investments and projects that the company should deliver and the levels of performance that it should achieve.
- 1.2 RP3 was originally expected to commence at the end of the second road period (RP2, April 2020 to March 2025) in April 2025. However, in 2024, the then Secretary of State took the decision to defer the start of RP3 to April 2026 to ensure the development of RIS3 would be informed by the outcomes of the government spending review 2025. Arrangements for 2025-26 (termed the 'interim period') are covered by an [Interim Settlement](#).
- 1.3 The Office of Rail and Road's (ORR) role in the RIS setting process, as set out in National Highways' licence, is to advise the Secretary of State on whether the company's emerging plans and requirements for RIS3 are challenging and deliverable within the available funding including with regard to the levels of efficiency that the company proposes to achieve. The main way in which we do this is by conducting an efficiency review of the company's draft strategic business plan (SBP). The draft SBP details its plans for delivering the requirements set out by the Secretary of State in the [draft RIS](#), published on 26 August 2025.
- 1.4 This report sets out the findings of our efficiency review and our advice to the Secretary of State on the emerging plans for RIS3. It builds on and updates the findings of our 2024 review of National Highways' emerging RIS3 plans, submitted prior to the decision to defer the start of RP3 to April 2026. The 2024 review – hereafter referred to as the interim advice – is published alongside this report.

Our approach

- 1.5 In May 2022, following a public consultation, we published our [RIS3 Approach Document](#). This describes our role in the RIS setting process in more detail. It also set out how we intended to conduct our activities and the evidence we intended to

use to inform our assessments. We identified the following key themes for our approach to RIS3:

- a systematic approach to the efficiency review with a focus on ensuring cost estimates are robustly derived;
- a focus on the quality of National Highways' plans in respect of maintenance and renewals;
- using the knowledge gained from the past two road periods to bolster the evidence base for RIS3;
- a stretching but realistic efficiency challenge rooted in National Highways' capabilities;
- an in-depth approach to assessing risks to delivery; and
- ensuring that the plans and performance requirements provide a clear and agreed baseline for future monitoring.

1.6 In 2023, we set out our [expectations of National Highways' draft SBP](#). It provided high-level guidelines to the company on the approach that it should take to prepare its draft SBP and the evidence we expected it to include to allow us to effectively carry out our review.

Preparation for the efficiency review

1.7 We engaged closely with National Highways as it developed its plans for RP3. This particularly focused on the company's approach to renewals planning given that the need for investment in this area is increasing. We undertook assessments of the company's approach in this area at various stages of the process.

1.8 To inform our advice on an appropriately stretching and deliverable efficiency challenge for RP3, we jointly commissioned, with National Highways, two 'capability reviews' in the areas of asset management and project management. These reviews considered the scope for the company to achieve efficiencies during RP3 based on improvements in its capabilities and maturity. Building on these studies, we commissioned research on productivity growth and efficiency in capital intensive sectors with similarities to the roads sector. The outputs of these reviews are published on our [website](#).

Review period

- 1.9 National Highways submitted its draft SBP to us on 1 September 2025. This document updated the company's 2024 'interim' draft SBP. The draft SBP set out the company's proposals for operating, maintaining, and renewing the SRN and its plans for delivering major enhancements projects and other investments to meet the wider performance requirements and policy objectives in the draft RIS.
- 1.10 Following submission, we undertook a programme of engagement with National Highways' delivery teams to support our detailed scrutiny of the company's plans. We have completed an in-depth review of the draft SBP, covering all aspects of the company's plans. We also draw upon the findings of consultant-led reviews of selected aspects of the plans. The reviews are published alongside this report.
- 1.11 Our review has been undertaken in a compressed time period of three months rather than the five months previously afforded to the efficiency review. We have concentrated on identifying practical, evidence-based recommendations with the greatest material impact, using the information made available to us within the time frame provided. We will continue to work closely with the Department for Transport and National Highways to resolve outstanding uncertainties and support evidence-based decisions as plans are finalised.

Acknowledgements

- 1.12 This review required National Highways to deploy significant resources to help manage the process, respond to information requests, and to organise workshops and meetings. We thank the company for its assistance and its positive approach to engaging with us during the process.

Structure of this document

- 1.13 The remainder of this document is structured as follows:
- chapter 2 – National Highways' draft SBP;
 - chapter 3 – Operating and maintaining the SRN;
 - chapter 4 – Renewals;
 - chapter 5 – Enhancements;
 - chapter 6 – Designated Funds and National Programmes;
 - chapter 7 – Digital, corporate services and protocols;

- chapter 8 – Inflation, efficiency and risk;
- chapter 9 – Performance;
- chapter 10 – Summary of our financial proposals; and
- chapter 11 – Next steps.

2. National Highways' draft strategic business plan (SBP)

The third road investment strategy (RIS3) requirements

- 2.1 We have assessed National Highways' plans against the requirements set out by the Secretary of State in the draft RIS and supplementary information provided by the Department for Transport (department) during the RIS3 development process.
- 2.2 The department's overarching objectives for RIS3 are as follows:
- grow the economy;
 - improve safety for all;
 - have a level of network performance that meets customers' needs;
 - be a technology-enabled and enabling network;
 - be a resilient network that is planned and managed for the long-term; and
 - deliver improved environmental outcomes.
- 2.3 The statement of funds available (SoFA) sets funding for the third road period (RP3, April 2026 to March 2031) at £24,983m. Outline funding limits for both capital expenditure (capex) and operational expenditure (opex) of £17,471m and £7,512m respectively have also been set. The SoFA was informed by the outcome of the government spending review 2025 (SR25) completed in June 2025.
- 2.4 RIS3 has a greater focus than the prior two strategies on the maintenance and renewal of the strategic road network (SRN). The department has instructed National Highways to prioritise funding for the operation, maintenance and renewal of the existing SRN. It expects the company to at least maintain current performance of the SRN and to improve the long-term condition of the SRN, to mitigate the risk of slower, less reliable journeys in the longer term.
- 2.5 RIS3 requires National Highways to continue to deliver the portfolio of enhancements schemes currently in construction or development as at the end of SR25. Schemes should be delivered in accordance with current timescales, except for five schemes. The company has been asked to provide updated plans – outside of the draft SBP and efficiency review processes – to deliver the M54/M6

link road, A38 Derby Junctions, M60/M62/M66 Simister Island, A66 Northern Trans-Pennine and A46 Newark projects as efficiently as possible within the funding available.

2.6 In addition to the existing portfolio, National Highways has been asked to progress M42 Junction 6 North West Free Flow Link (NWFFL) and M49 Avonmouth Junction. It has also been asked to progress a ‘pipeline’ of early-stage enhancements schemes with a view to identifying a shortlist of schemes for potential delivery in the fourth road investment strategy (RIS4).

2.7 The Lower Thames Crossing (LTC) project and road infrastructure projects to support third party projects – the Agratas electric car battery factory in Somerset, and the Universal Studios Theme Park in Bedfordshire – are being progressed outside of the RIS3 framework. Therefore, the costs and deliverability of these schemes are not addressed in this report, as they will fall outside our remit.

2.8 The department has outlined that it wishes National Highways to allocate funding across a range of supplementary funds intended to help deliver the departments objectives. These are subdivided into:

- Designated Funds – funds intended to provide National Highways with a degree of flexibility to respond to emerging requirements and opportunities during RP3; and
- National Programmes – newly introduced funds intended to support National Highways in meeting its licence, regulatory and performance requirements.

2.9 The eight funds proposed by the department are shown in Table 2.1:

Table 2.1 National Programmes and Designated Funds breakdown

Designated Funds	National Programmes
Customer and communities	Environment
Environment	Growth and housing
Innovation and research	Safety
Safety	Small schemes

2.10 Further details of the department’s initial proposals for the RIS3 Performance Specification are set out in chapter 9. The department’s expectation is that the performance of National Highways and the SRN is at least maintained either at the

same level as in RIS2 or on the same trajectory to achieve long-term goals (for example, in respect of reducing carbon emissions and improving safety).

National Highways' proposals

Financial proposals

2.11 The financial proposals set out in National Highways' draft SBP, disaggregated by the main expenditure areas, are shown in Table 2.2. National Highways has assessed the cost of RIS3 at £26,213m, implying a £1,230m gap between costs and funding. This funding gap relates mainly to capex. The company's capex cost estimates exceed available funding by £1,160m, while the gap between opex estimates and available funding is just £69m.

2.12 Given this funding gap, we have placed particular emphasis on whether the plans and performance requirements are affordable within available funding.

Table 2.2 National Highways' financial proposal (£m, nominal)*

Expenditure area	Draft SBP financial estimates
Operating and maintaining the network	7,587
Capital renewals	8,822
Enhancements	3,846
National Programmes and Designated Funds	1,429
Future RIS and scheme development	403
Digital and corporate services	2,671
Protocols	421
Central risk reserve	1,033
Total	26,213
SoFA	24,983
Funding gap	1,230

* figures may not sum due to rounding

Changes since National Highways' interim draft SBP

2.13 As noted in chapter 1, this report builds on the findings of our 2024 review of National Highways' emerging RIS3 plans, submitted prior to the Secretary of

State’s decision to defer the start of RP3 to April 2026. Table 2.3 provides a comparison between the estimated costs set out in the final draft SBP and those included in the interim draft SBP. To aid comparability, the costs associated with the LTC project have been removed from the interim draft SBP estimates.

- 2.14 Care is needed when comparing cost estimates set out in the interim and final draft SBP’s given differences in the time periods covered, changes in the department’s requirements, and differences in available funding (noting that in neither case were National Highways’ cost estimates aligned to funding assumptions). Nevertheless, the analysis in the remainder of this report examines the justification for the changes the company has made to its plans since the interim submission.
- 2.15 The cost of the enhancements portfolio is significantly reduced in National Highways’ updated plans. This reflects differences in the make-up of the portfolio and assumptions regarding project schedules rather than a reduction in the estimated cost of the projects themselves. Set against this, the company has significantly increased its cost estimates for renewals activities. Further details of how plans have evolved between the interim and draft SBPs are set out in the remainder of this report.

Table 2.3 National Highways’ financial proposal (£m, nominal)*

	Interim draft SBP (2024)	Updated draft SBP	Difference
Operating and maintaining the network	7,013	7,587	574
Capital renewals	7,082	8,822	1,740
Enhancements	4,915	3,846	-1,069
National Programmes and Designated Funds	1,225	1,429	204
Future RIS and scheme development	285	403	118
Digital and corporate services	2,906	2,671	-235
Protocols	501	421	-80
Central risk reserve	703	1,033	330
Total	24,630	26,213	1,583

* figures may not sum due to rounding

Overview of primary spending lines

2.16 Starting in chapter 3, we set out in detail the findings of our review of National Highways' plans and cost estimates. The remainder of this chapter provides an overview of the primary expenditure lines included in the company's financial model.

Operating and maintaining the network

2.17 'Operations' comprises National Highways teams responsible for asset management, on-road services and control centres. These form part of the company's 'operations division'. Maintenance works are distinct from renewals and include smaller scale works to keep the network safe and serviceable on an ongoing basis.

2.18 Also captured under 'operating and maintaining the network' are the costs of operational technology (data, digital and technology services to support the operation of the SRN, such as the sharing of data between roadside equipment, control rooms and traffic officers, but excluding roadside equipment itself), network electricity costs, and payments to design build finance and operate (DBFO) companies.

2.19 Private finance initiatives (PFIs) have been used to procure and build new road assets and operate parts of the SRN. Between 1996 and 2009, the then Highways Agency entered into 11 highways PFI contracts. Under these contracts, sections of the network are operated and maintained by DBFO companies. This includes the M25 and connecting routes. Payments to DBFO companies are also captured under operating and maintaining the network.

2.20 During RP3, eight sections of DBFO roads will be handed back to National Highways to directly manage in-house. Following hand back, the company will incur higher direct operating and maintenance costs for these sections but will no longer have to make payments to the respective DBFO companies.

2.21 Overall, based on National Highways' plans and cost estimates, the costs of operating and maintaining the network would remain broadly flat in real terms when comparing the second road period (RP2, April 2020 to March 2025) and RP3.

Renewals

2.22 Renewals refers to the replacement or major refurbishment of existing assets to restore them to their original condition or extend their service life. National Highways plans to increase renewals investment to meet the department's

requirement to maintain network performance at least at current levels and to address the long-term challenge of an ageing asset base. The company has set out plans to spend £8,822m across 11 different asset types. It also includes allowance for the cost of potential renewals requirements for the returning DBFO roads.

Enhancements

2.23 National Highways estimates the total cost of existing enhancements projects to be £3,846m. Most of the cost relates to 16 existing major road improvement projects, of which 11 will already be in construction by the start of RP3. The remaining five are currently in development. The cost and schedule assumptions for the five development-stage projects remain provisional, as the company is still completing the work required to re-schedule the projects within the available funding envelope. The 16 existing projects are shown in Table 2.4 below.

Table 2.4 RIS3 enhancement projects

Scheme	Stage of delivery (at start of RP3)
A417 Air Balloon	Construction
A428 Black Cat to Caxton Gibbet	Construction
A46 Coventry Junctions	Construction
A47 Blofield to North Burlingham	Construction
A47 North Tuddenham to Easton	Construction
A47 Thickthorn Junction	Construction
A52 Nottingham Junctions	Construction
M25 Junction 10	Construction
M3 Junction 9	Construction
M42 Junction 6	Construction
Mottram Moor Link Road & A57 Link Road	Construction
A66 Northern Trans-Pennine	Development
A38 Derby Junctions	Development
A46 Newark Bypass	Development

Scheme	Stage of delivery (at start of RP3)
M54-M6 Link Road	Development
M60/M62/M66 Simister Island Interchange	Development

National Programmes and Designated Funds

- 2.24 Funding allocations for National Programmes and Designated Funds assumed in the draft SBP are shown in Table 2.5. The total cost would be £1,429m.
- 2.25 Subsequent to the development of the interim draft SBP, the department asked National Highways to draw up proposals for a new growth and housing accelerator fund, designed to 'gap-fund' third party transport projects that would support the delivery of housing and employment. A further change is the classification of the proposed small schemes fund as a National Programme whereas for the interim draft SBP it was treated as a sub-set of the enhancements programme.
- 2.26 Consistent with our interim recommendations, the previously proposed operational technology National Programme has been withdrawn. This change does not reduce overall funding for operational technology, as our interim advice highlighted that there was no clear distinction between this and the wider programme of roadside technology renewals.

Table 2.5 National Programmes and Designated Funds allocations (£m, nominal)*

National Programme/Designated Fund	Draft SBP funding assumptions RP3
Safety National Programme	342
Environment National Programme	296
Small schemes National Programme	131
Growth and housing National Programme	165
Safety Designated Fund	122
Environment Designated Fund	164
Customer and communities Designated Fund	122
Innovation and research Designated Fund	86
Total	1,429

* figures may not sum due to rounding

Digital, corporate services and protocols

- 2.27 This expenditure line includes the costs of National Highways' corporate services divisions, comprising the staff and business costs associated with running the company. It includes expenditure on corporate technology, covering IT services that support corporate functions such as staff devices, software, and cyber security services. It also captures the capital and operating costs associated with the company's corporate and operational estate.
- 2.28 This expenditure line includes funding of £155m for initiatives intended to reduce National Highways' corporate carbon emissions in line with the company's [net zero plan](#).
- 2.29 Protocols are activities that are not directly related to National Highways' role as the strategic highways company as provided for under the Infrastructure Act 2015. Protocols are separate from the requirements set out in the RIS. For RP3, the department has proposed that allowance for protocols is made within the SoFA, whereas during RP2 Operation Brock (a traffic management system in Kent used in the event of cross Channel transport disruption) and the Historic Rail Estate were funded separately. There are eight protocols for RP3 although most of the cost relates to four protocols: Dartford Crossing, Severn River Crossings, Operation Brock, and Historic Rail Estate management.
- 2.30 As further described in chapter 7, no allowance has been made for any capital works on the Historic Rail Estate. Therefore, the department will need to make separate provision to avoid facing increased risks relating to the condition of the estate or to prevent National Highways having to divert funds away from the SRN to cover these works.

Central risk reserve

- 2.31 National Highways manages its financial risks, in part, via a central risk reserve (CRR). In line with best practice, this approach was introduced in RP2 to centrally manage and balance risk across the company's enhancements and renewals programmes. We support its continuation in RP3. The company has allocated £1,033m to the CRR in its draft SBP.

Efficiency

- 2.32 For the most part, National Highways' funding is set at a 'post-efficient' level. This means that it builds in an assumed level of efficiency improvement. Its RIS3 financial model sets out cost estimates in:

- ‘pre-efficient’ terms – that is, before adjustment for efficiencies it intends to achieve during RP3; and
- ‘post-efficient’ terms – that is, after adjusting for efficiencies.

2.33 With some exceptions, the cost estimates in Table 2.2 and throughout this report, are set out in post-efficient terms.

2.34 The activities that National Highways is required to deliver change over time, so greater efficiency does not necessarily mean a net reduction in the level of government funding. It is an important principal that efficiency is not achieved at the expense of quality or long-term value for money.

2.35 National Highways is proposing an overall efficiency key performance indicator (KPI) target of £1,435m. One of the core aspects of our review is to ensure that the level of efficiencies that the company is proposing to achieve is challenging and deliverable.

Expenditure profile

2.36 Available funding is relatively consistent year-on-year, falling slightly in real terms across RP3. The value of the SoFA in each year is a fixed limit, although we have assumed that ‘capital flex’ arrangements remain in place which allows spend to vary from the funded profile by 10% in any given year.

2.37 As shown in Table 2.6, National Highways cost estimates show a rising profile with a more pronounced increase in cost in the final year of RP3. As a result, the funding gap is greater in this year.

Table 2.6 Cost and funding profile (£m, nominal)*

	2026-27	2027-28	2028-29	2029-30	2030-31	RP3 Total
Opex	1,485	1,474	1,495	1,540	1,587	7,581
Capex	3,642	3,637	3,637	3,674	4,041	18,631
Total	5,127	5,111	5,133	5,215	5,627	26,213
SoFA	4,884	4,938	4,908	5,029	5,224	24,983
Funding gap	243	173	225	186	403	1,230

* figures may not sum due to rounding

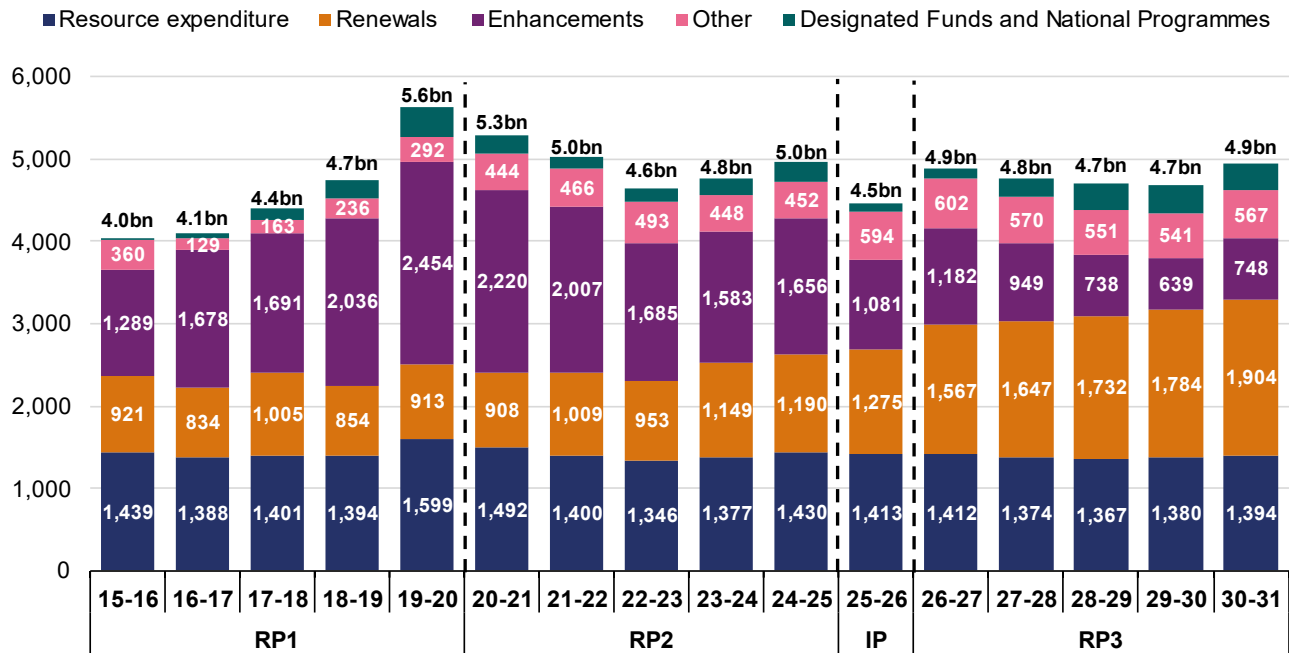
Comparing costs with prior road periods

- 2.38 When comparing between road periods, we express costs in real terms (2024-25 prices), adjusting for the effects of inflation. We adjust for inflation using the consumer prices index (CPI), a measure of general inflation. Forecasts for CPI for RP3 are based on those published by the Office for Budget Responsibility in [March 2025](#).
- 2.39 When comparing National Highways' costs, it is important to consider two factors:
- due to higher-than-anticipated inflation, RP2 funding has declined in real terms; and
 - the inflation adjustments applied in National Highways' cost estimates are different to CPI.
- 2.40 Over the long term, the prices of goods and services (for example, construction materials) purchased by National Highways tend to increase at a faster rate than general inflation. Therefore, in isolation, the effect of the company's inflation assumptions is a slight increase in cost in real terms over time. This is further explained in chapter 8.
- 2.41 Figure 2.1 shows how National Highways' costs have changed since its creation in 2015 and are expected to change in RP3 based on the company's estimates. It should be noted that changes in the way costs have been categorised in different road periods may affect the comparison. To aid comparability, we have notionally apportioned the CRR between renewals and enhancements based on assumptions developed by the company.
- 2.42 Overall spending on the SRN increased significantly between the start of first road period (2015 to 2016) and the start of RP2 (2020 to 2021). Expenditure on renewals has been steadily increasing and will continue to increase during RP3. Resource expenditure, primarily associated with operations, maintenance and corporate services, is expected to remain broadly at current levels. Enhancements expenditure tends to fluctuate more than other expenditure areas and, under current proposals, would be less than spent in RP2 in real terms. However, as noted, RIS3 cost estimates exclude enhancements delivered outside the RIS including LTC.
- 2.43 Overall, based on National Highways' estimate of £26,213m, expenditure would be lower than RP2 in real terms by around 7%. However, this is due to a reduction in planned spending on enhancements. Spending on operating, maintaining and

renewing the SRN is expected to be higher in RP3. Furthermore, if the enhancements projects to be delivered outside the RIS were included, then overall investment in the SRN would be higher in real terms in RP3 than RP2.

Figure 2.1 Annual expenditure across road periods (£m, 2024-25 prices)*

7



*figures atop the stacked chart represent the total spend in each year across all categories

Performance

2.44 The performance framework is a key part of the RIS. It sets out what road users and taxpayers can expect from National Highways. We hold the company to account to deliver the RIS and its associated delivery plan, including annual updates. This includes its performance against targets for the full range of KPIs.

2.45 Although National Highways has proposed some changes there is a significant degree of continuity between the RIS2 and emerging RIS3 Performance Specification. The company has put forward 12 KPIs across the six outcome areas defined by the department (unchanged from RIS2) of:

- improving safety for all;
- fast and reliable journeys;
- a well maintained and resilient network;

- being environmentally responsible;
- meeting the needs of all users; and
- achieving efficient delivery.

2.46 We set our advice on the RIS3 Performance Specification, and the performance targets proposed by National Highways, in chapter 9.

Supporting evidence

2.47 We expect National Highways' plans to provide sufficient detail to enable us to assure the department that the company can deliver RIS3 and do so in an efficient manner. It must also provide a robust basis against which we can hold the company to account for its performance, delivery and efficiency during the road period in the interests of road users and wider stakeholders.

2.48 In our advice on the interim draft SBP we raised concerns that National Highways' plans were less detailed than expected and that the company had not fulfilled all of the requirements set out in our [guidance](#) document. National Highways has responded to these concerns in a number of respects. For example it has:

- provided a more complete set of cost estimates, supporting models and spreadsheets at the outset of the review period;
- set out performance proposals across the full range of KPIs proposed by the department, albeit it lacks robust evidence to support its proposals in some cases; and
- provided more detail on its plans in some areas such as the National Programmes, corporate carbon initiatives, and the business improvement programme.

2.49 Whilst the updated submission is improved, there remain aspects of the draft SBP that fall short of the standard expected of a company entering its third road period.

2.50 We recognise that National Highways has prepared its draft SBP during a period of uncertainty. The delay to the start of RP3 and the draft RIS not being published until after SR25 resulted in the company having to finalise its plans under significant time constraints. However, the delays have also given the company more time to address issues we identified in our 2024 review.

- 2.51 In several areas, National Highways is proposing to increase expenditure, yet the evidence to support its cost estimates is of variable quality and linkages between investment and performance are not always clear. This makes it more challenging to confirm whether the company's plans are efficient.
- 2.52 In respect of renewals, as further described in chapter 4, National Highways has been unable to disaggregate its RP2 expenditure at a level that is consistent with the breakdown of asset types it uses to develop its plans. Moreover, some of the company's cost estimates are based on relatively dated evidence and, in the case of the significant structures programme, the draft SBP does not appear to have been based on the latest available evidence.
- 2.53 The interim period (April 2025 to March 2026) has provided National Highways with an extra year to prepare for RP3. Despite this, there are several examples of programmes, not limited to National Programmes and Designated Funds, where delivery is back-end loaded because further design and development work is required in the early part of the road period. This increases risks to delivery. The company should approach strategic planning as an ongoing process, ensuring that plans are continually refined and updated. During RP3, it should present more detailed proposals at an earlier stage in the RIS4 development process to help it achieve a smoother delivery profile, ultimately supporting more efficient outcomes in the longer term.
- 2.54 The demands placed upon National Highways are evolving. In our interim advice, we highlighted that the company needed to place considerable focus on how it would align its resources and processes to deliver changing requirements. However, in its draft SBP, it has not set out an organisation-wide plan for how it will do so. This increases the risk that the company is unable to mobilise quickly and effectively in RP3.
- 2.55 For RIS4, it is important that National Highways clearly evidences the relationship between its investment proposals and how the company's structures and processes are set up for success.
- 2.56 We will continue to work closely with National Highways as it develops and implements plans to improve its capabilities in key areas, such as asset data and cost estimation. This will build on progress made since we issued our interim advice and improve the robustness of the company's plans for RIS4.
- 2.57 It is important that National Highways can identify and demonstrate the benefits delivered for users and provide confidence that it is investing funds effectively and

efficiently. During RP2 and the interim period, we advised the company to improve its process for identifying and measuring realised benefits across its whole portfolio. Progress has been slow, and it still lacks a consistent and clear approach to benefit realisation beyond enhancements. National Highways must establish and use a company-wide benefits management process in RP3. This will enable the company to better evidence the need for investment and demonstrate the benefits delivered for road users, stakeholders, and taxpayers across its full investment programme, not just enhancements.

3. Operating and maintaining the strategic road network (SRN)

National Highways' proposals

- 3.1 Trends in the cost of operating and maintaining the network, based on National Highways' forecasts, are illustrated in Table 3.1 and Figure 3.1. Overall, costs are expected to remain broadly flat in real terms between the second road period (RP2, April 2020 to March 2025) and the third road period (RP3, April 2026 to March 2031). However, as described in chapter 2, design, build, finance and operate (DBFO) contracts for eight sections of road will expire in 2026 and 2027. The resulting reduction in payments to DBFO companies will create headroom for increased operational expenditure (opex) on operations and maintenance.
- 3.2 Under National Highways' proposals, spending on operations would be 15% higher in real terms than in RP2, and maintenance 20% higher. The company will incur increased costs for operations and maintenance as it assumes responsibility for DBFO roads when their contracts expire. However, the reduction in DBFO payments is expected to outweigh the increase in operating and maintenance costs when considered in isolation.
- 3.3 National Highways has reduced its planned spending on operational technology since its interim draft strategic business plan (SBP) by identifying opportunities to reduce cost and improve efficiency, without making any major changes to the scope of planned activities. The forecast is now approximately 1 per cent below RP2 levels in real terms.
- 3.4 Notwithstanding the reduction in DBFO payments, these obligations still account for around a third of spending in this area. Payments are tied to pre-existing contracts and National Highways has very limited flexibility to influence their cost. Therefore, pressures on opex funding must be managed through other budgets, specifically those for operations, maintenance and corporate services.

Figure 3.1 Annual operations and maintenance expenditure across road periods (£m, nominal)

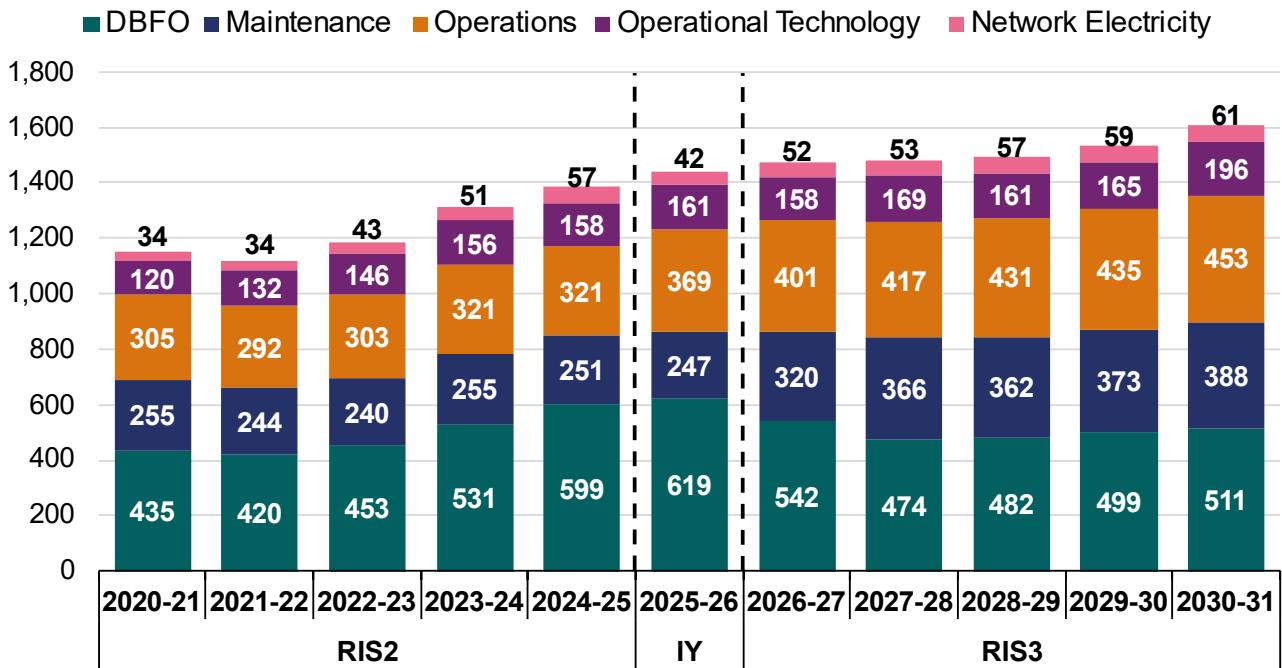


Table 3.1 Operating and maintaining the network (£m)*

	RP3 (Nominal)	RP3 (real - 2024-25 prices)	RP2 (real - 2024-25 prices)	percentage change (real)
DBFO payments	2,509	2,295	2,669	-14%
Maintenance	1,810	1,652	1,377	20%
Operations	2,137	1,952	1,701	15%
Operational Technology	848	774	782	-1%
Network electricity	283	258	237	9%
Total	7,587	6,931	6,766	2.4%

*figures may not sum due to rounding

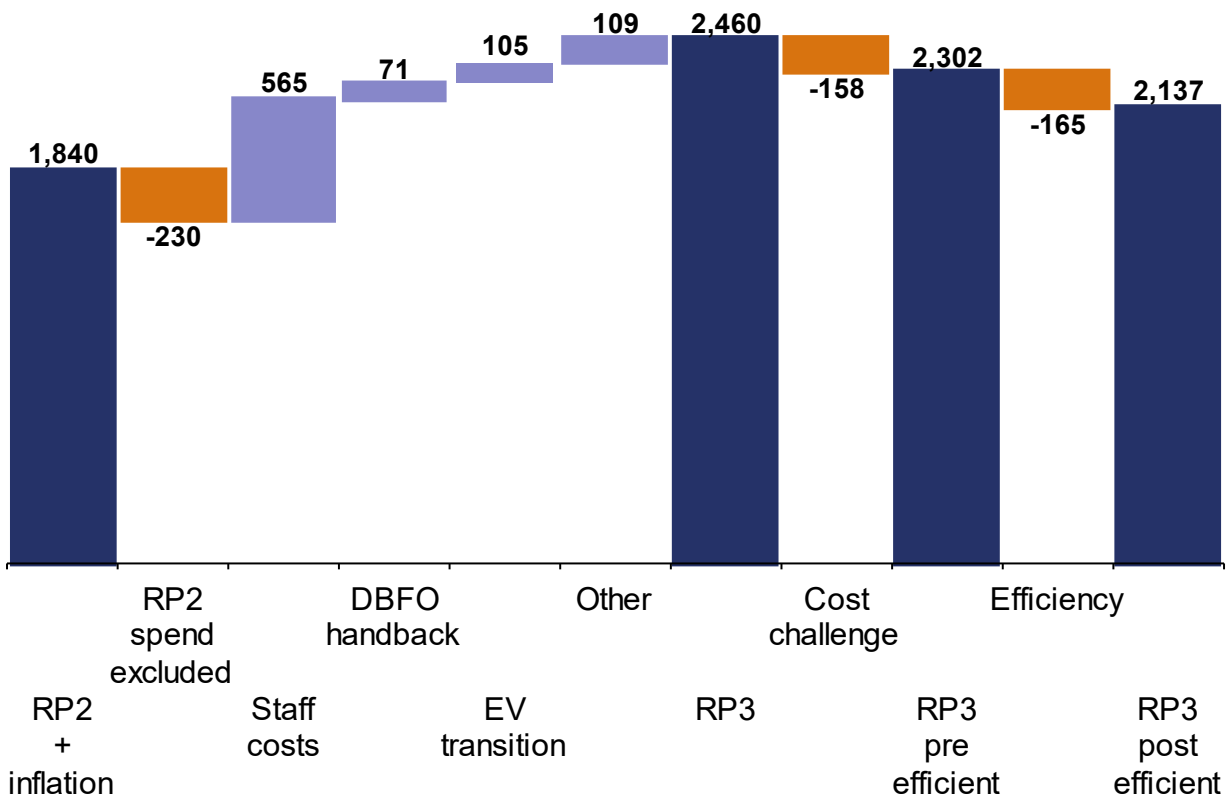
Assessment

Operations

3.5 Operations covers National Highways’ asset management and network management functions, both of which form part of the company’s operations division.

- 3.6 National Highways plans to maintain current performance levels while ensuring sufficient resources for an expanded maintenance and renewals programme. The company does not plan any significant operational changes during RP3 but has identified a range of headwinds and tailwinds that will impact its costs.
- 3.7 When compared with the final year of RP2, National Highways’ spending on operations is expected to increase by 15% in nominal terms in the interim period and then by a further 9% in the first year of RP3. Thereafter, spending is expected to rise broadly in line with inflation. The main factors driving the change in costs between RP2 and RP3 are illustrated in Figure 3.2. This figure, provided by National Highways, uses different inflation assumptions from those applied in Table 3.1. Consequently, the percentage changes in costs quoted in Table 3.1 differ slightly from those that can be inferred from Figure 3.2.
- 3.8 Since its interim draft SBP, National Highways has increased its operations cost estimates for RP3 by over £500m. Our recent analysis has focused on the main drivers of the planned increase in spending on RP2 levels and the justification for the changes to cost estimates that the company included in the interim draft SBP.

Figure 3.2 Operations expenditure across road periods (£m, nominal)



DBFO handback

- 3.9 DBFO companies inspect assets, plan and manage renewals, maintain the asset, operate depots, maintain fleets, and provide winter service response. National Highways will need to deliver these functions directly once the DBFO contracts end. The company estimates the cost of taking on full responsibility for the operation of the returning DBFO roads in RP3 to be £71m. The majority of this relates to an increase in asset management staff with 125 people employed by the DBFO companies being transferred to the company via Transfer of Undertakings: Protection of Employment arrangements. The remainder relates to vehicle purchase and running costs, and winter maintenance vehicle purchase.
- 3.10 We challenged National Highways to identify potential economies of scale from incorporating DBFO roads into its wider network operation. Although the company has not identified specific opportunities, it has applied an efficiency challenge of £13m to its initial cost estimates, reducing costs to £58m. This would be achieved by absorbing costs associated with winter maintenance depot upgrades, spatial planning, and diversion routes. While we would have expected the company to provide a more detailed consideration of its intended approach to incorporating the returning roads, on balance we consider that the funding has been set at a challenging and deliverable level.

Electric vehicle (EV) roll-out

- 3.11 The government is seeking, where feasible, to decarbonise the vehicle fleet operated by central government departments and their arm's length bodies. This applies to National Highways' 'light vehicle fleet' of traffic officer and other operational vehicles.
- 3.12 The [government fleet commitment](#) is to achieve 100% zero-emission vehicles by the end of 2027. However, National Highways' plans set out in its draft SBP align with a 2030 milestone. This means that the company will have to obtain a three-year derogation from the target. One reason for the delays relates to complications regarding the suitability of EVs for the operational functions required for traffic officer vehicles. Nonetheless, the extended timescale appears to be partly attributed to delays in planning by the company.
- 3.13 National Highways has allocated around £93m for the installation of EV chargers and associated works at its outstations and depots. These costs are based on reasonable assumptions regarding the likely average cost of each charging station. However, the estimate carries a high degree of uncertainty as the company is still developing a network-wide charging strategy to support EV roll-

out. This is not expected to be completed until March 2026. The timing of this strategy does not appear to align with the company's plans to purchase over 200 EVs in the first year of RP3 (2026-27), in addition to approximately 340 expected by the end of the interim period (2025-26). In the meantime, it is relying on the public charging network to support the EV transition. This will result in higher operating costs.

- 3.14 Vehicle purchase costs are estimated at approximately £80m for 1,031 vehicles and associated fit-out costs. The total vehicle and charger expenditure in RP3 is higher than the net change in cost between RP2 and RP3 shown in Figure 3.2, because vehicles were also purchased during RP2. National Highways has not provided clarity as to how the assumed number of vehicles it plans to purchase and the resulting expenditure profile during RP3 align with the planned timescale for full roll-out. Given this, we are unable to say whether this cost is accurate.
- 3.15 On balance, the evidence indicates that costs National Highways has allocated to vehicle purchase are likely to be overstated for two reasons:
- National Highways' estimates are based on an average of the cost of a range of possible models at varying prices. This includes some models that are significantly more expensive than others, skewing the assumed average price. There is no strong evidence to suggest that purchasing more vehicles at the lower end of the price range would be impractical given that the total number required in any given year (around 200) is relatively modest; and
 - National Highways has not accounted for the income from resale of vehicles when they reach the end of their serviceable life.
- 3.16 National Highways should adjust its plans to take both factors into account. In the interim, and in the absence of a fully worked-up plan, it is reasonable to assume that the company should be able to achieve, approximately, a 10% reduction in cost on its current plans. This is a conservative assumption based on the potential savings in vehicle purchase costs and the income from resale that is yet to be accounted for.
- 3.17 National Highways has accounted for the additional electricity costs it will incur but it has not considered the corresponding reduction in petrol or diesel or other running costs. The net saving is likely modest but should nonetheless be included in the final SBP. However, because the company has applied a modest but as yet unallocated cost challenge of £2m per annum to its opex costs, to improve

affordability we have not at this stage adjusted its cost estimates to reflect the reduction in petrol and diesel costs.

- 3.18 National Highways should revise its financial assumptions for EV rollout before finalising its SBP. EV rollout is a stated requirement in the draft RIS. Therefore, the company should provide details of plans for charger installation and vehicle replacement in its road period delivery plan and annual updates and report its progress at the end of each year to provide assurance that it remains on track to deliver this commitment to government and will do so in a cost-effective manner.

Staff costs: asset management function

- 3.19 Most of the cost of the asset management function within National Highways' operations division relates to the cost of staff responsible for managing the maintenance and renewal of the network. As further detailed in chapter 4, the company will need to manage and deliver an expanding renewals programme in RP3.
- 3.20 National Highways' plans in its interim draft SBP were based on continuing with its current level of staffing, except for 125 additional staff associated with DBFO handback. It has subsequently changed its position and now considers that it will need to significantly increase staffing levels to successfully deliver the planned increase in renewals delivery. The company is no longer proposing to achieve any efficiencies in respect of the asset management function within the operations division itself.
- 3.21 Excluding DBFO handback, National Highways plans to recruit an additional 367 asset management staff. The scale of the increase is largely based on an assumed relationship between staffing levels and renewals expenditure. Following this, the company undertook a detailed capacity and capability review ("Delivery to Plan") to identify the specific roles it would require.
- 3.22 Recruitment commenced during the interim period, with National Highways aiming to fill 200 posts by year-end, approximately half of which have already been filled. Plans for the remaining 167 staff are less certain, both in respect of quantum and the roles required and are pending an internal business case to be developed in 2025 but was not complete at the time of this review.
- 3.23 National Highways' proposed increase in staff must be considered in the wider organisational context, including corporate services functions. For example, the company expects its major projects division, within corporate services, to play a key role in delivering strategic large renewals during RP3 alongside the operations

division. In our interim advice, we recommended that the company develop detailed proposals for aligning resources and capabilities to the department's evolving requirements. However, this has not been addressed in the final draft SBP.

- 3.24 While National Highways' renewals programme is expanding, as outlined in chapter 2, overall funding for capital investment in RP3 remains broadly in line with RP2. This comparison excludes projects outside the RIS. However, the most significant of these – Lower Thames Crossing – operates largely independently and therefore places minimal demand on the company's resources. Consequently, there is a risk that the draft SBP allocates additional resources to areas of growing investment without offsetting savings in areas where investment is declining. The company has indicated that growth in its operations division may be balanced by savings elsewhere, although detailed proposals have yet to be developed.
- 3.25 National Highways requires sufficient internal capacity to deliver the RIS3 investment programme. In theory, increasing the company's resources can be more cost-effective than relying on consultants. However, it has provided neither robust evidence to support the scale of the proposed increase nor demonstrated how its staffing plans support its efficiency proposals.
- 3.26 We recommend that National Highways review its proposals as part of organisation-wide planning to ensure its cost estimates are appropriate and efficient. Where it has identified plans to offset the increase in operations costs via savings elsewhere this should be built into its plans. In the absence of this, it is reasonable to assume a modest £17m reduction to the proposed increase in cost of the asset management function within the operations division. A further reduction has been applied to the company's corporate services funding as described in chapter 7. We have employed relatively conservative assumptions and, in practice, there may be the potential for the company to identify further savings.
- 3.27 Our calculation of the proposed adjustment to asset management costs applies the same method used by National Highways, linking staffing to the cost of its capital renewals programme. As set out in chapter 4, we recommend a series of changes to the company's renewals programme that would reduce the overall capital cost. Consistent with the company's assumptions, this reduces the number of additional staff required in RP3 from 367 to 323. As stated above, we estimate this would reduce costs by approximately £17m.

Staff costs: network management

- 3.28 National Highways' efficiency case for operations relies largely on maintaining current performance levels with existing staff, despite the company's expectation of increased network incidents in RP3 that would place greater demands on traffic officers and regional operational control rooms (ROCs). In this context, maintaining performance relates to the level of service provided by traffic officers and ROCs and continuing to deal with incidents on the network in a timely fashion as measured by the incident clearance key performance indicator (KPI).
- 3.29 Although no staffing increase is planned, 'pre-efficient cost' estimates allow for higher expenditure on the basis that, if it were not for planned efficiency improvements, National Highways would require extra resources to maintain performance given the increase in incidents. Therefore, the draft SBP assumes £134m of efficiencies from managing the increased incident volume without additional resources.
- 3.30 National Highways forecasts that total incidents on the SRN will rise by 48% between RP2 and RP3. Without efficiency gains, it estimates that its network management function would need to expand by approximately 24% to manage this increase.
- 3.31 This estimate is derived by extrapolating incident trends since April 2015, assuming that each 1% increase in incidents requires a corresponding 0.5% increase in staff. This relationship is based on professional judgement rather than empirical evidence or historical trends. National Highways has not provided any details of the specific aspects of its service that would face pressures.
- 3.32 National Highways has identified several initiatives intended to sustain performance despite the expected growth in incidents. These include developing an app to enhance communication between ROCs and on-road staff, and improving consistency in incident management across regions. However, the company has not provided any quantitative evidence to demonstrate the link between these initiatives, its ability to manage a higher volume of incidents, and the efficiency savings it claims.
- 3.33 National Highways achieved efficiencies in this area during RP2 by, for example, utilising 'single crewing' of traffic officer vehicles to enable it to attend to more incidents without a proportionate increase in staff. It is positive that the company is continuing to find ways to improve its management of the SRN and reasonable that it should report efficiencies if, as a result, it is able to maintain performance notwithstanding the increase in demands placed upon it. However, the evidence

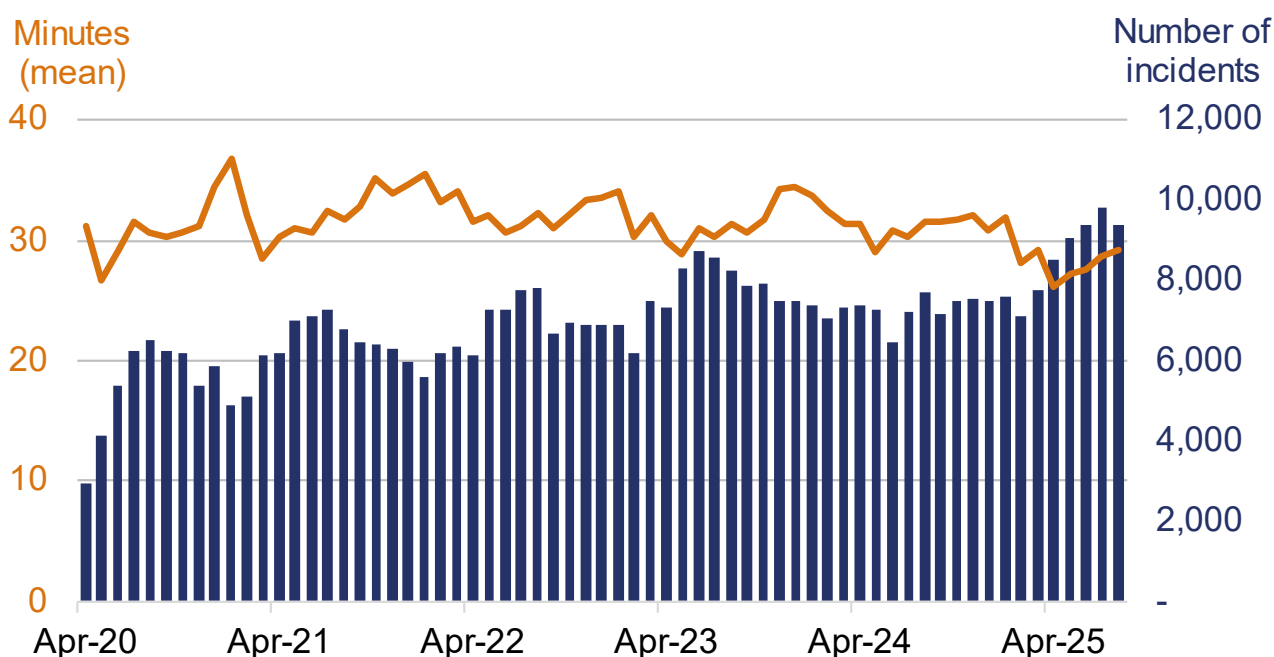
indicates that the currently claimed efficiency saving is likely to be overstated for three primary reasons:

- the relationship between incident volumes and performance is complex: current evidence does not clearly indicate that meeting the incident clearance KPI is becoming more difficult. Recent data (shown in Figure 3.3) shows the opposite trend – that incident volumes have increased alongside improved performance with the resources National Highways has available to it.
- National Highways has assessed efficiency by comparing total incidents in RP2 with its forecast for RP3: efficiencies should instead be measured relative to the end of RP2. The company's current approach risks double-counting efficiencies already achieved during RP2 and overstates incident growth, as RP2 includes the period affected by Covid-19 when traffic and incident levels were temporarily suppressed; and
- although future trends remain uncertain and dependent on traffic growth, evidence suggests that incidents may increase more slowly than National Highways' forecasts. Incident rates rose rapidly between 2016 and 2020, although this period was affected by changes to the definition of incidents, which contributed to the increase. Between 2020 and 2024 incident volumes increased at approximately the same rate as traffic growth, with an uptick in spring and summer 2025. The causes of the recent increase are not yet clear, though hotter weather and an ageing vehicle fleet may be contributing factors. Given recent trends, some flattening of the rate of growth appears more realistic than the company's assumption of continued rapid increases.

3.34 National Highways should revise its calculations for its final SBP. We have modelled an alternative, less pessimistic, scenario in which incident rates continue to increase but at a slower pace than the company has assumed. Under this scenario, incidents are estimated to be approximately 22% higher by the end of RP3 compared with the final year of RP2. In the absence of stronger evidence and applying the company's own assumption for the relationship between incidents and resource requirements, the estimate shows that 'pre-efficient' costs for operations are currently overstated by £89m.

3.35 As described later in this chapter (paragraphs 3.59 to 3.62) this leaves a gap in National Highways' efficiency proposals and that further cost savings are required to restore efficiencies at the level the company is expected to achieve. Nevertheless, these savings do not necessarily need to be found from within the network management budget.

Figure 3.3 Trends in incidents and average incident clearance time



Maintenance

- 3.36 This expenditure line covers the day-to-day maintenance of the SRN and asset inspections. Maintenance works are delivered by contractors under National Highways’ maintenance and response (M&R) contracts.
- 3.37 Maintenance funding has become increasingly constrained in recent years, partly due to higher than expected inflation within a fixed revenue budget. The challenge is compounded by an ageing asset base that requires more frequent maintenance. This has led to issues such as overgrown vegetation that can obstruct roadside technology – including cameras and traffic sensors – and undermine the performance of digital infrastructure. Once vegetation has become overgrown it is more difficult and costly to maintain.
- 3.38 If underfunding of maintenance is sustained over the long term, it will result in a higher prevalence of defects. This may adversely affect performance, including in respect of safety, increase the number of claims for vehicle damage, and result in a degradation in the SRN’s appearance.
- 3.39 In this context, the department has directed National Highways to prioritise operational and maintenance funding to ensure that performance is at least

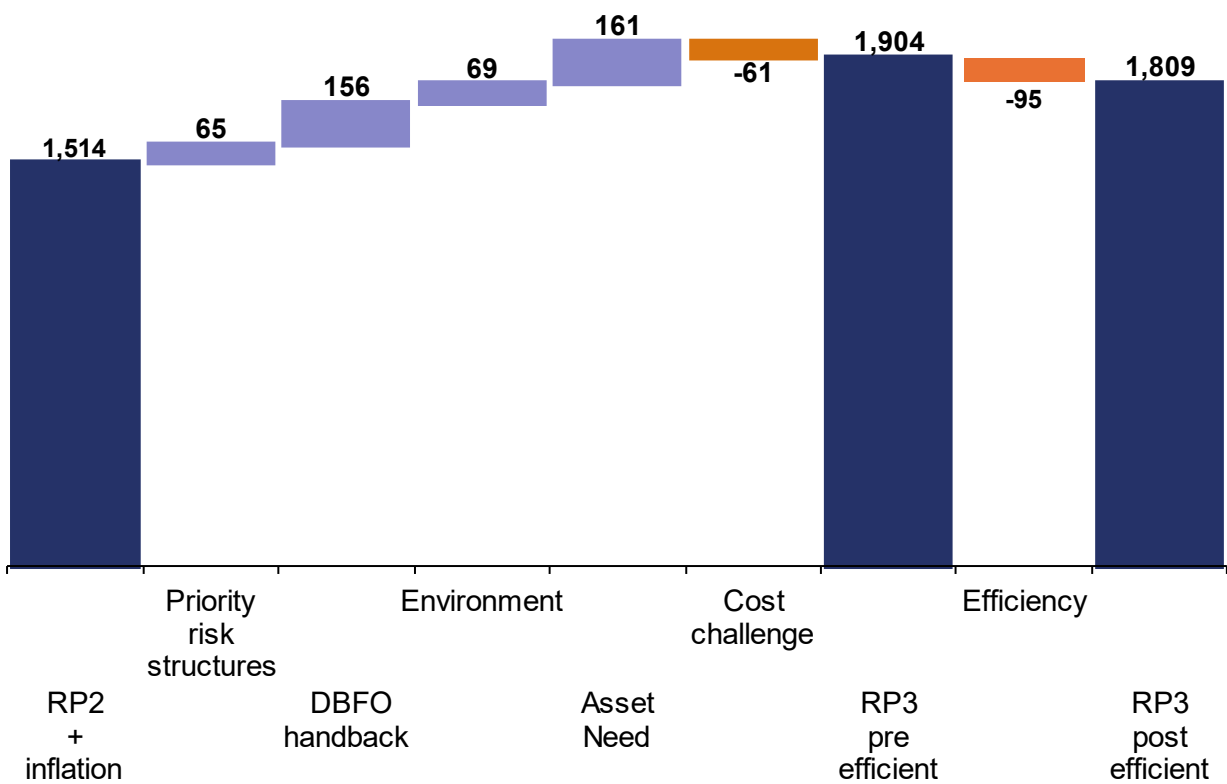
maintained at current levels. Overall, we consider that the company’s maintenance plans are broadly in line with this objective.

3.40 Opex funding in RP3 remains largely flat but as described, lower DBFO payments provide National Highways with the headroom to increase maintenance spending by 30% in nominal terms between 2025-26 (the interim period) and 2026-27 and a further 14% between 2026-27 and 2027-28. Thereafter, spending will increase broadly at the rate of inflation.

3.41 The main drivers of changing cost between RP2 and RP3 are illustrated in Figure 3.4. As noted, the percentage changes in cost differ slightly from those set out in Table 3.1 due to differences in inflation assumptions employed.

3.42 National Highways has provided evidence of a detailed bottom-up approach it has taken to modelling its costs, as it did for the interim draft SBP. The suite of models and the explanations provided by the company’s maintenance team provides confidence that its cost estimates are reasonable.

Figure 3.4 Maintenance expenditure across road periods (£m, nominal)



- 3.43 National Highways' plans are based on maintaining the performance levels achieved in RP2, as measured by the number of defects on the network and the speed with which they are resolved. During RP2, performance varied across regions with some regions lagging average performance levels at different points during the road period. Due to improvements planned to be implemented by the company we expect to see more consistent performance across the regions in RP3.
- 3.44 In its draft SBP, National Highways commits to using the increase in funding in RP3 to further improve the balance of proactive and reactive maintenance. Proactive maintenance is more efficient in the long run and reduces traffic disruption. In RP3, the company's reporting and monitoring of maintenance efficiencies should be tied to its achievement of these performance objectives, whilst delivering its planned cyclical maintenance in accordance with its plans.
- 3.45 In RP3, we expect National Highways to report on its performance in resolving roadside technology defects. Defects for these assets are not currently included in the company's regular reporting. It is essential that all assets are reported on so that we can verify that it is delivering the level of maintenance it is funded for.
- 3.46 National Highways estimates that the current level of funding available for maintenance in RP3 (at £1,810m) is slightly below (by £61m) the amount it requires to achieve its performance commitments. However, at 3% of total costs the difference is relatively slight, and the company acknowledges that there is an inevitable degree of imprecision in its estimates. In practice it will endeavour to close this gap by improving efficiency. If this is not possible a reduction in the scope of its maintenance activities may be required. If that occurs the company should notify the department, setting out the expected impact on performance and whether it will seek a formal change to RIS3.
- 3.47 National Highways has committed to deliver £95m of efficiencies in its delivery of maintenance through the following efficiency levers:
- intelligence-led, data-driven maintenance (£55m): improving the quality of asset data, reviewing the suitability of asset information systems and further developing decision-support tools;
 - efficiencies achieved via the letting of new M&R contracts (£38m): the next generation of M&R contracts, to be rolled out from 2028-29, provides an opportunity for National Highways to achieve greater efficiency, including through standardising rates across its regions; and

- network claims (£1m): improving recovery of damage to network property (DNP) costs by improving culprit identification and streamlining claims processes.

- 3.48 The new M&R contracts are a key opportunity for National Highways to improve efficiency in the long term, although many of the benefits will not be realised until later in RP3 and in the fourth road period. The company must ensure that these contracts are robust and that the terms of the contract are clear and concise, ensuring the company gets value for money from its maintenance spending. We expect the M&R contracts to deliver improved co-ordination and reduced customer disruption. The company must ensure that the transition to the new M&R contracts does not result in a short-term deterioration of performance in the management of incidents and maintenance.
- 3.49 The overall efficiency challenge, at around 5% of total costs, is slightly lower than in the interim draft SBP. In our interim advice, we noted that not all efficiency proposals were supported by quantitative evidence. National Highways' updated plans provide greater clarity and appear more realistic. As noted, there may be scope for the company to achieve additional efficiencies to help close the 3% maintenance funding gap, thereby avoiding a reduction in the maintenance activities delivered.

Operational technology

- 3.50 As noted, National Highways has prepared plans for operational technology alongside those for corporate technology as part of an overall 'digital plan'. Corporate technology costs are included within the 'digital and corporate services' spending line, whereas operational technology is included under 'operating and maintaining the network'. Operational technology relates to data, digital and technology services to support the operation of the SRN. It does not include the cost of maintaining and renewing roadside technology assets such as CCTV cameras. Further details of the company's proposals for roadside technology are set out in chapter 4.
- 3.51 National Highways has also separated the renewal of technology and roadside technology assets managed by tunnel control rooms (TCRs) from its operational technology plans. TCRs operate separately from the ROCs. The company has outlined its intention to implement common, streamlined processes and procedures for operational control and asset management across the tunnels estate. This would enable the company to improve the collection and reporting of asset condition data in accordance with its licence (condition 5.9). Due to the importance of these systems in the operation of these assets, the company should

set out more detailed plans and regularly report on progress of these developments.

3.52 National Highways' plans are largely unchanged from those set out in its interim draft SBP, as is our conclusion, that they are broadly consistent with its stated objectives for RIS3. Those objectives are as follows:

- running a minimal viable service to maintain a second road investment strategy exit position;
- ensuring legislative compliance (for example, General Data Protection Regulation and Security of Networks & Information Systems regulations);
- safeguarding critical services ('essential cyber security'); and
- keeping an eye on the future and acting proportionately (for example, connected services to create capacity on the SRN).

3.53 Throughout RP3, National Highways must provide assurance that its operational and corporate technology is resilient and compliant with all relevant legislation and regulatory obligations, and that any commitments agreed with competent authorities are fulfilled.

3.54 For the first four years of RP3 (the period overlapping with that covered by the interim draft SBP), National Highways' overall digital services budget is around 4% lower than previously forecast. However, the company spent more on digital services during the interim period than it had anticipated. The company has itemised the adjustments made to its cost estimates since the interim draft SBP, demonstrating cost reductions achieved through revised assumptions and improved efficiency. It calculates that a funding 'gap' remains, although at £28m across digital services this represents only 2% of total costs.

3.55 As observed during the interim review, National Highways' efficiencies for digital services are based on specifically identified initiatives, such as consolidating existing contracts into a single contract to reduce costs. The company has demonstrated that it has good processes in place to track the delivery of these efficiencies.

Network electricity

3.56 National Highways has considered how its electricity consumption will change in RP3 due to factors such as the return of the DBFO roads, and increased use of

light emitting diode (LED) lighting. The overall impact is a forecast 7% increase in electricity consumption between the interim period and the end of RP3.

3.57 National Highways' forecasts suggest electricity costs will be largely unchanged in real terms on RP2. As described further in chapter 8, we have proposed alternative electricity inflation assumptions because the company's financial model assumes real-terms price increases, contradicting the Office for Budget Responsibility's forecasts. Adopting our recommended approach would reduce costs by approximately £13m.

Financial impact of our recommendations

3.58 In summary, our financial recommendations in respect of operations and maintenance are as follows:

- reduced funding for EV roll-out (£7m);
- reduction in the planned increase in asset management staff costs (£17m);
- employing more balanced assumptions for the impact of increased incidents on National Highways' 'pre-efficient' cost estimates (£82m. Note: this is lower than the £89m quoted in paragraph 3.35 because the £89m figure reflects pre-efficient costs, which equates to £82m in post-efficient terms.); and
- employing more appropriate assumptions for electricity inflation (£13m).

3.59 National Highways has applied an efficiency challenge of 6% of pre-efficient costs, equivalent to £322m. This figure is based on benchmarking undertaken by the company against efficiencies achieved in other sectors. As discussed further in chapter 8, an efficiency challenge of 6% is also broadly consistent with our benchmark efficiency ranges. However, under either the company's or our own assumptions, the challenge sits towards the lower end of the benchmark evidence range.

3.60 On balance, we consider an efficiency challenge of 6% for RP3 to be both stretching and achievable. As it sits towards the lower end of benchmark ranges, we would not support any reduction below this level. Therefore, where the recommendations set out above are to reduce National Highways' 'pre-efficient' costs (such as in respect of the cost of its network management function) this means that additional efficiencies need to be found.

3.61 In practice these efficiencies could be found from any area of National Highways' plans. Based on our assessment of the evidence, the proposed changes do not

necessitate a reduction in spending on network management activities (such as traffic officers). For the purposes of our analysis, we have assumed that the savings can be realised through efficiencies in the company's asset management activities given that, as noted, no efficiency challenge has been applied to these costs in the draft SBP.

3.62 Overall, our adjustments reduce National Highways' cost estimates by £119m thereby reducing the gap between estimated costs and available funding. Even with our proposed reductions, excluding funding for DBFO payments that, as noted, are largely fixed, National Highways would have approximately 10% more funding, in real terms, for operating and maintaining the network in RP3 compared with RP2. The evidence provided supports that this should be sufficient for the company to meet government's RIS3 requirements.

Key proposals

We advise that:

National Highways should revise its operations cost estimates, taking account of our recommended adjustments to its asset management and network management plans.

National Highways should review the assumptions underpinning its estimates of the cost of electric vehicle roll-out for its fleet and report on progress on an annual basis.

National Highways should provide evidence that it is delivering planned cyclical maintenance activities and improving the balance between proactive and reactive maintenance.

National Highways should ensure quarterly reporting of defects and performance in respect of cyclical and reactive maintenance is expanded to include roadside technology assets.

National Highways should ensure, and provide evidence, that the transition to the new M&R contracts does not result in any short term deterioration in performance experienced by users.

National Highways should provide further details of its plans to streamline its tunnel asset's operational control systems, improve that asset's condition data, and report on progress made towards implementation.

National Highways should provide assurance that its operational and corporate technology is compliant with all relevant legislation and regulatory obligations.

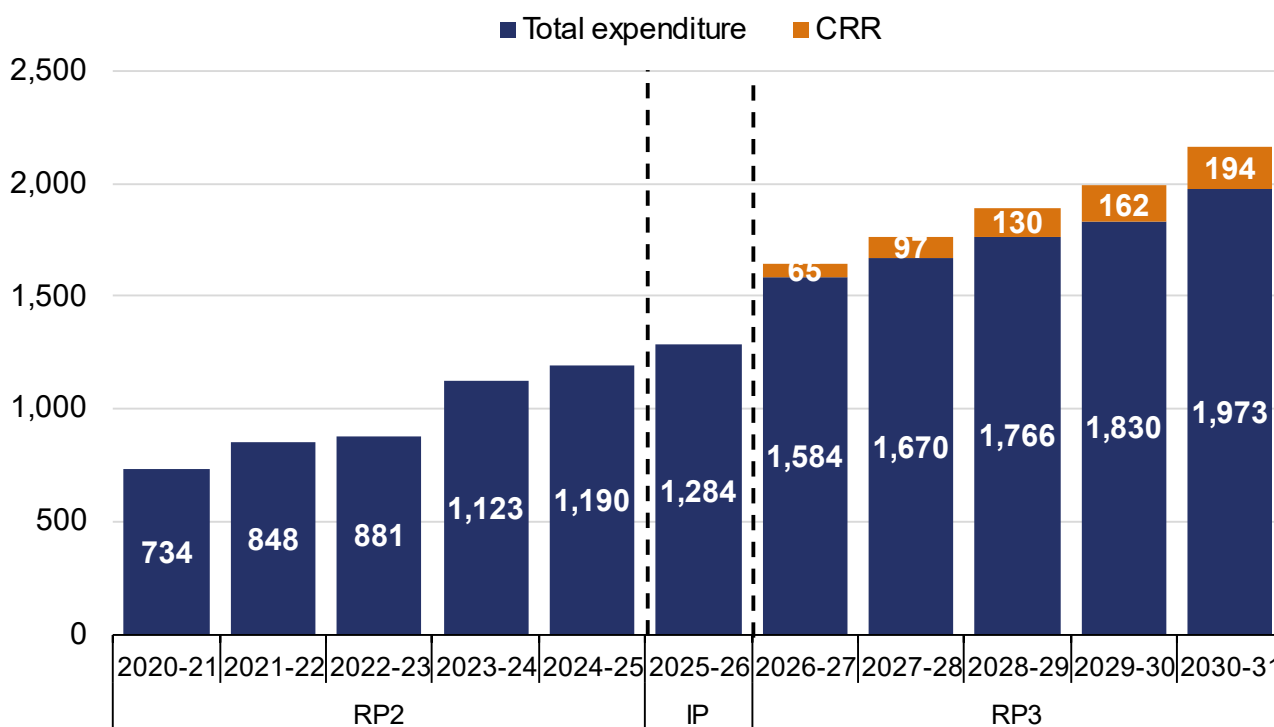
National Highways should revise its electricity cost forecasts to reflect our recommended approach to electricity price inflation.

4. Renewals

National Highways' proposals

- 4.1 Investment in renewals will need to increase in the third road period (RP3, April 2026 to March 2031) to meet the department's requirement to maintain network performance to at least current levels and to address the long-term challenge of an ageing network.
- 4.2 Maintaining current performance does not necessarily mean that the age or condition of all assets can be maintained at a 'steady state'. The average age of some asset types will increase and their condition degrade. But National Highways must develop a balanced programme that is affordable and deliverable, that maintains wider network performance in the short-term and addresses long-term renewals requirements in a way that limits the financial burden on taxpayers and minimise disruption to users in future road periods.
- 4.3 Figure 4.1 illustrates how renewals costs will change between the second road period (RP2, April 2020 to March 2025), the interim period (April 2025 to March 2026) and RP3, in nominal terms, under National Highways' plans. The draft strategic business plan (SBP) sets out plans to invest £8,822m, an increase of 55% in real terms on RP2 (excluding funding allocated to the central risk reserve (CRR)). Spending on renewals in the first year of RP3 would be 21% higher in real terms than in the interim period (based on current forecasts).
- 4.4 For RP3, Figure 4.1 also includes the amount of the CRR that National Highways has notionally apportioned to renewals. While the CRR represents additional funding earmarked for renewals, in practice it could be used to fund risks other than those relating to renewals if not protected, as was the case during RP2.
- 4.5 National Highways' current estimate of £8,822m compares with a budget of £7,382m (including the previously proposed operational technology National Programme) included in the interim draft SBP. Whilst these figures are not directly comparable – principally because they cover different time periods (2025–26 to 2029–30 for the interim draft SBP, and 2026–27 to 2030–31 for the final draft SBP) – the latest estimate represents a substantial upward revision to planned expenditure.

Figure 4.1 Annual renewals expenditure across road periods (£m, nominal)



4.6 Table 4.1 provides a comparison of costs between RP2 and RP3 for each asset type. In practice, renewals projects typically address more than one asset type. National Highways records the cost of each project through delivery but does not attribute the costs to individual asset types. As a result, while the company can report the total amount it has spent on renewals during the period, it is unable to provide an accurate disaggregated estimate of spend by asset type. It is undertaking work to resolve this issue for RP3.

Table 4.1 Renewals comparison between RP2 and RP3 by asset type (£m)*

	RP3 (nominal)	RP3 (real – 2024-25 prices)	RP2 (real – 2024-25 prices)	Percentage change (real)
Ancillaries	312	285	217	31%
Drainage	413	377	241	56%
Geotechnics	238	218	130	68%
Lighting	284	259	108	140%
Flexible pavements	1,675	1,531	1,601	-4%

Office of Rail and Road | Road Investment Strategy 3 (RIS3)

	RP3 (nominal)	RP3 (real – 2024-25 prices)	RP2 (real – 2024-25 prices)	Percentage change (real)
Rigid pavements	824	751	456	65%
Roadside technology	1,019	932	282	230%
Road restraints	312	285	512	-44%
Soft estate	170	155	unknown	-
Structures	2,954	2,687	1,608	67%
Tunnels	115	105	55	93%
DBFO	211	192	NA	-
Damage to network property	264	243	NA	-
National Insurance	30	27	NA	-
Total	8,822	8,049	5,209	55%
CRR	648	448	NA (RP2 figures include any CRR draw-down)	-
Adjusted total	9,470	8,479	5,209	63%

**figures may not sum due to rounding*

- 4.7 Given the absence of disaggregated outturn cost data, the breakdown shown in Table 4.1 is based on the second road investment strategy (RIS2) draft SBP. Therefore, the asset level comparisons are provided for indicative purposes only. However, they show that the amount of funding allocated by National Highways increases between RP2 and RP3 in real terms for all asset types with the exception of asphalt pavements – albeit the difference is relatively slight – and vehicle restraint systems (VRS) for which reflects a change in approach to that adopted in RP2 (as further described in paragraphs 4.61 to 4.64)
- 4.8 National Highways' proposed increase in renewals expenditure is attributed to an increase in requirements linked to the age profile of its network, as well as the proliferation of technology assets on the strategic road network (SRN) in recent decades. For RIS3, the company has also developed more comprehensive plans

for asset types that have previously received limited investment and for which renewals needs were not well understood, for example, its soft estate. This also increases costs.

4.9 This chapter covers the plans and cost estimates for the renewals expenditure lines only. The appropriateness of the CRR allocation is considered in chapter 8.

Assessment

National Highways' overall approach to renewals investment planning

4.10 National Highways' approach to developing its RIS3 renewals plans is described in our interim advice on the RIS3 draft SBP. In overview, we concluded that the company has made significant progress in improving its approach to renewals investment planning, but the robustness of its plans varies greatly across asset types.

4.11 National Highways' approach to investment planning remains largely unchanged in the final draft SBP. With some exceptions, the company has updated its cost estimates to reflect the delayed start of the road period or, for certain assets, adjusted its strategy. However, for the most part the plans continue to be based on the same data and modelling tools used for the interim draft SBP.

4.12 Maintaining a consistent approach is justifiable. However, as discussed later in this chapter, we consider that National Highways should have updated its unit cost assumptions or, at a minimum, benchmarked them against more recent delivery data.

4.13 Our interim advice included the following recommendations related to National Highways' investment planning capabilities:

- develop an asset data improvement plan to improve the robustness of renewals plans ahead of the fourth road investment strategy (RIS4) development process;
- develop a cost estimation improvement plan; and
- improve evidence on the long-term impact of National Highways' approach to renewals including developing a suite of 'asset health' metrics.

4.14 National Highways has made progress in each of these areas during the interim period. In autumn 2025, it outlined its planned approach to developing asset data

and cost estimation improvement plans. We provided feedback on these plans and will work closely with the company as it implements them in the early part of RP3.

- 4.15 National Highways has made progress towards the development of prototype asset health indicators that, once fully developed, are intended to provide a more rounded understanding of asset condition and can be used to predict renewals requirements across multiple road periods. As further described in chapter 9, we support the department's proposal to explore the feasibility of incorporating asset health measures into the Performance Specification during RP3 to demonstrate better the needs of the network. In accordance with the Interim Settlement for the investment and management of the SRN in 2025-26, the company will begin regular reporting of the asset health indicators in April 2026 and undertake a comprehensive review of the feasibility of including them in the Performance Specification no later than autumn 2028.

Changes to plans since the interim draft SBP

- 4.16 As shown in Table 4.2 the estimated cost of National Highways' renewals plans in its 2024 interim draft SBP was £7,382m over five years (excluding the CRR allowance). This includes £300m allocated to the interim draft SBP proposal, subsequently reallocated, for an operational technology National Programme that would also have been used to fund renewals.
- 4.17 We identified some areas where we were not aligned with the choices that National Highways made in the prioritisation of funding across different asset types. However, we concluded that a substantial increase in renewals investment in RP3 was justified and that the overall proposed funding struck the right balance between maintaining short-term performance, managing risks, and addressing longer-term renewals requirements.
- 4.18 Aside from adjusted inflation allowances, the main changes since the interim draft SBP that have resulted in an increase in cost to £8,822m are as follows:
- increases in funding allocated to the following asset types:
 - flexible (asphalt) pavements (increased from £1,383m to £1,675m);
 - roadside technology (increased from £906m to £1,019m);, and;
 - structures (increased from £2,474m to £2,954m);
 - allowance for the cost of renewing returning DBFO roads (£211m);

- inclusion of costs for damage to network property renewals following reclassification of these costs to capital renewals (£264m);
- allowance for the cost of changes to employers' National Insurance introduced in April 2025 (£30m); and
- an increase in CRR provision (explored in further detail in chapter 8).

4.19 For other asset types not listed above, the plans are largely unchanged from the interim draft SBP and difference in cost reflect the deferral of the start of the road period and the effects of inflation.

4.20 Our updated review has focused primarily on the evidence to support the most significant adjustments since the interim draft SBP to ensure that resulting plans are appropriate, efficient and deliverable.

Table 4.2 Renewals comparison between interim and final draft SBPs (£m, nominal)*

	Interim draft SBP	Final draft SBP	Percentage difference
Ancillaries	306	312	2%
Drainage	401	413	3%
Geotechnics	234	238	2%
Lighting	275	284	3%
Flexible pavements	1,383	1,675	21%
Rigid pavements	823	824	0%
Roadside technology	906** (adjusted to include the operational technology National Programme)	1,019	12%
Road restraints	303	312	3%
Soft estate	165	170	3%
Structures	2,474	2,954	19%
Tunnels	111	115	4%

	Interim draft SBP	Final draft SBP	Percentage difference
DBFO	0	211	-
Damage to network property	0	264	-
National Insurance	0	30	-
Total	7,382	8,822	20%
CRR	575	648	13%
Adjusted total	7,957	9,470	19%

**figures may not sum due to rounding*

***adjusted to include the previously proposed operational technology National Programme*

Asset-level plans

4.21 We have assessed the plans put forward for all asset types during both the interim review and the final efficiency review. This section sets out our assessment of a selection of asset types with a particular focus on those for which plans have changed between the interim and final draft SBPs.

Asphalt pavement

4.22 In our interim advice we noted that National Highways was planning to constrain funding for asphalt pavement renewals to prioritise other assets. The company’s flexible pavement team provided compelling evidence of the benefits of regular replacement of the topmost layers of the pavement asset to protect the condition of foundation layers, thereby limiting the need for deeper, more costly treatments. Yet the approach set out in the interim draft SBP would have resulted in a deterioration in performance for users, as measured by the pavement condition KPI, while increasing maintenance and renewals costs in the long term.

4.23 National Highways has addressed this concern by increasing the funding allocation for asphalt pavements, aligning its plans to the requirement to at least maintain performance.

4.24 National Highways updated its approach to cost estimation such that its ‘pre-efficient’ unit rates (pounds per lane kilometre) are based on evidence of the outturn cost of pavement renewals delivered during RP2. This improves the reliability and transparency of the cost estimates. However, we identified an error in the application of inflation adjustments that results in a reduction in cost of

£71m. The company should correct this error in the final version of its financial model.

- 4.25 National Highways has applied the average unit rate from RP2 instead of the end-of-period rate. It is normally best practice to use the end-of-period rate as it incorporates the efficiency gains realised by the end of RP2. However, the company has provided evidence indicating that a lower-than-typical proportion of higher-cost, deeper renewals was undertaken during the final two years of RP2, thereby depressing the unit cost.
- 4.26 National Highways assumes that it will undertake a similar proportion of deeper renewals in RP3 compared to RP2. This is inconsistent with the strategy set out in the interim draft SBP that indicated, based on the company's strategic modelling, a relatively low volume of deeper renewals in RP3. However, recognising that a strategic modelling tool may not be wholly reliable, and that deeper pavement renewals can, in the right circumstances, offer better whole-life cost outcomes, we consider it prudent to apply the slightly higher unit cost.
- 4.27 Crucially, during RP3 National Highways' will need to demonstrate delivery is efficient with reference to both the volume (lane kilometres) and depth of pavement renewals because this depth has a significant influence on cost. The company has developed sophisticated analysis to enable this.

Roadside technology

- 4.28 One of the most significant changes in approach to renewals planned for RIS3 is a step change in the level of investment to replace ageing roadside technology assets such as CCTV cameras, signs, signals and traffic monitoring equipment.
- 4.29 Roadside technology is a maturing asset class. National Highways' planning and cost estimation for RIS2 was rudimentary with approximately £200m allocated at the start of RP2 – significantly below the level required to maintain performance. This allocation was increased mid-way through RP2 with the introduction of the modernisation and refresh programme (originally planned as a £105m initiative) focused on All Lane Running (ALR) motorways.
- 4.30 In the latter part of RP2, performance – as measured by the technology availability PI – has declined. Roadside technology assets were available and functioning 90% of the time at the end of RP2, compared with 95% at the start of the period. However, around 2.5% of this reduction reflects a change introduced in April 2023 to National Highways' fault classification system, aimed at improving the identification and prioritisation of faults.

4.31 Performance is stronger on ALR motorways. The modernisation and refresh programme was designed to improve availability of key assets including CCTV, incident detection, signs and signals to at least 97% on these roads. However, as of August 2025, availability remained around 95%. The programme has faced delays, scope changes and underspend, with completion now expected in early 2026, almost one year later than originally intended. This shortfall highlights the challenges National Highways has faced in delivering roadside technology renewals, and the importance of robust asset data and delivery capability.

Interim draft SBP proposals

4.32 In its interim draft SBP, National Highways proposed investing £906m in roadside technology renewals to achieve 95% availability – an improvement on current performance – while acknowledging uncertainty around the outputs and performance impacts achievable. The company initially planned to renew approximately 14,000 assets with this budget, later revising this to 19,000.

4.33 In our interim advice, we concluded that the modelling underpinning National Highways' estimate was not sufficiently robust to support an increase in investment of the scale proposed. We recommended that a budget of around £600m would provide for a manageable ramp-up in renewals; achieve a smoother profile of investment across RP3 and RP4; and likely maintain the technology availability KPI at around 92.5%, broadly in line with the department's requirement to maintain current levels of performance.

National Highways' updated plans and cost estimates

4.34 In its final draft SBP, National Highways increased planned spending in RP3 to £1,019m (around £200m a year). The updated plans form part of a six-year strategy initiated during the interim period. The company's approach focuses on replacing obsolete assets rather than introducing new technology, although in many cases more modern equipment delivers enhanced performance. Obsolescence assumptions are based primarily on asset age, with each asset type assigned an expected age at replacement is likely to be needed.

4.35 National Highways estimates that it will renew around 15,000 assets in RP3, but stresses that the draft SBP represents a point-in-time assessment and has been superseded, with further updates expected as planning progresses. Since its interim draft SBP the company has developed a prioritisation model that it is using to identify assets that may need to be replaced.

4.36 Consistent with our interim advice, additional priority is assigned based on asset function and road type, with smart motorway roadside technology assets receiving

the highest priority. However, smart motorway assets currently account for around 10% of planned renewals. This is largely due to their relatively recent installation, meaning most technology has not reached end of life. Furthermore, CCTV has a shorter lifespan (approximately eight years) compared to other assets (around 15 years) and is therefore given higher priority. In addition, the planned changes to its telecommunications infrastructure (NRTS) from analogue to digital by 2030, will mean that CCTV will need to account for a significant proportion of assets renewed in RP3.

- 4.37 The roadside technology budget has been set at a level that National Highways considers likely to be affordable, rather than targeting specific assets or performance levels. Nevertheless, the company considers that asset needs exceed available funding for RIS3. Without any renewals activity in the interim period or RP3, the company estimates that, based on their age, around 19,000 assets – almost half of all roadside technology assets on the network – would be obsolete by the end of RP3. While an obsolete asset can continue to function, its age raises the probability of failure and increases maintenance costs.
- 4.38 National Highways is unable to link technology renewals spending and performance outcomes in a quantitative way. It has suggested that the planned level of investment would enable it to achieve 95% availability as measured by the KPI although this assessment is based on professional judgement. The company set out a ‘do nothing’ scenario that showed a potential decline of availability by approximately 9% at the end of RP3 and increase in reactive maintenance costs, however it is unable to demonstrate how incremental changes in investment would affect performance.
- 4.39 Cost estimates and output forecasts for RIS3 carry a high degree of uncertainty for the following reasons:
- the estimates in the draft SBP have been superseded and will continue to be updated before the start of RP3. The latest working version of the prioritisation model provided to us during the review was based on a budget of £1,097m;
 - National Highways is using more comprehensive and up-to-date data on roadside technology assets, but gaps remain. In some cases, incomplete information requires the company to estimate the age of assets to inform its obsolescence assumptions. As demonstrated by the experience of the modernisation and refresh programme, the number of assets requiring replacement may differ from the predicted number;

- unit rates were developed based on evidence from 2018–21 and have not been updated to reflect new equipment contracts or more recent data on actual costs of renewals schemes;
- National Highways has applied blended rates combining more complex renewals (for example, those involving associated infrastructure such as cabling, masts, or cabinets) with simpler renewals limited to the equipment itself. Cost differences between these scenarios are large. Until detailed inspections are conducted, the proportion of complex renewals cannot be confirmed, so the current mix is based on professional judgement; and
- rates have been calculated assuming each renewal is delivered as a standalone activity. No account has been taken of cost savings from combining multiple renewals into a single scheme, as would occur in practice. Consequently, costs for design development, traffic management, preliminaries, construction management, and NRTS-related activities are likely overstated.

4.40 National Highways also presented renewals costs for RIS4 in its plans, which are expected to return to around £100m per annum. However, this is based on modelling from the interim draft SBP which the company has low confidence in its forecast.

Deliverability

4.41 National Highways has encountered recent challenges in scaling up its delivery of roadside technology renewals, particularly during the RP2 modernisation and refresh programme. These challenges have primarily stemmed from outdated asset data, which has complicated the integration of new assets and required additional time for design and engineering solutions. The programme was originally scoped to deliver 2,500 assets for £105m. However, during delivery it became clear that fewer replacements were required. As a result, approximately 1,700 assets will be replaced when the programme concludes. Delivery of the modernisation and refresh programme is currently forecast for January 2026, later than the March 2025 date set out in the company's original plans. Expenditure to date has been lower than anticipated. It is estimated that approximately £64m will ultimately be spent on activities within the original scope with part of the funding redirected to improving supporting operational technology systems.

4.42 National Highways plans to invest £119m during the interim period, alongside its spending on the overrunning modernisation and refresh programme. This is below

the £178m originally forecast in the interim draft SBP, supporting our assessment that the viability of its plan is questionable.

- 4.43 National Highways told us that its interim period plans were subject to a degree of uncertainty. As a result, the company was only able to set out a ranged output commitment (of between 637 and 1,209 CCTV, signs or signal upgrades). It undertook to provide firmer commitments at the mid-point of the year. At the time of writing, the company has reported facing delivery challenges such as with Advanced Motorway Indicators – dynamic message signs that display information on speed limits, lane closures and hazards. It is attempting to mitigate these issues by accelerating other signals renewals schemes but is forecasting it will deliver output volumes at or near the lower end of the ranged commitment. This further highlights the delivery challenges associated with increasing investment in this area.
- 4.44 National Highways has demonstrated that it is learning lessons from the modernisation and refresh programme and is using these to shape its approach to delivery in RP3. Several important changes have or will be implemented with the aim of strengthening future programme delivery. These include new longer term equipment supply contracts for greater resilience, standardised design principles to reduce design bottlenecks, and targeted investment in asset data quality to ensure specification and physical asset information are aligned. However, these improvements will be implemented progressively during the interim period and RP3. Therefore the ‘new model’ for roadside technology delivery will not be fully in place until the latter part of RP3.

Overall conclusions

- 4.45 A substantial increase in investment in roadside technology renewals is required in RP3 given the age profile of assets and recent trends in performance as measured by the RP2 and interim period technology availability PI. However, this needs to be achieved in a planned, targeted and efficient way.
- 4.46 National Highways has provided evidence supporting the case for increased spending. However, its plans and cost estimates remain uncertain, and it is unable to demonstrate how its plans will impact performance, and therefore the consequence to users, relative to higher or lower funding scenarios.
- 4.47 National Highways’ plans are more robust than those it submitted in 2024. However, given recent delivery challenges, there is insufficient evidence to assure the department that the proposed budget would be deployed efficiently and in line with the company’s plans. A more gradual ramp-up of investment during RP3 is

recommended, ensuring that a higher proportion of renewals are delivered once the company has put in place new delivery arrangements. This would provide a smoother expenditure profile across RIS3 and RIS4, helping to ease potential capacity constraints within National Highways and its supply chain.

- 4.48 The recommended spending profile results in a budget of £850m in RP3. Although lower than National Highways' estimates, this still represents an increase of approximately 175% in real terms compared with estimated spend during RP2 (based on the assumption that originally allocated budget of £200m was spent in full in addition to £64m funded via the modernisation and refresh programme).

Performance requirements

- 4.49 The department has proposed introducing a new KPI based on the availability of roadside technology assets on ALR motorways. We support establishing a KPI for roadside technology given the increase in investment and the importance of these assets for safety and reliability. However, restricting the target to ALR motorways would limit its efficacy given that renewals on these roads account for only around 10% of National Highways' proposed renewals programme. We recommend that the new technology availability KPI comprise two indicators: one for ALR motorways and one for the network as a whole. A network-wide KPI would incorporate ALR motorways. However, given the integral role technology plays in the safe and efficient operation of ALR roads it is also appropriate to monitor performance on these roads separately.
- 4.50 We consider the ALR-only target should be set at 97% availability, consistent with the aim of the modernisation and refresh programme. Setting the all-network target is more challenging, as evidence linking investment to performance is limited. Given the proposed increase in investment, it is reasonable to expect National Highways to achieve a significant improvement on current performance (90% availability). Based on its plans, the company suggests it could achieve 95% availability. However, considering the slightly reduced budget we advise, and in the absence of any other evidence, we recommend setting the target at 93% by the end of the road period.
- 4.51 Currently, the availability of technology assets operated via tunnel control rooms are not included in the calculation of the technology availability PI. Such assets are classified as 'operationally critical' given that, if not functioning, tunnels may need to be closed, causing significant disruption to users of both the SRN and impacting diversionary routes on the local road network. Therefore, it is important that, if adopted, the new KPI includes these assets so it can provide an accurate measure of performance across the network.

Structures

- 4.52 National Highways' overall strategy for structures renewals remains largely unchanged from the interim draft SBP. The company has chosen not to adopt our recommendation to allocate funding to the previously proposed preventative renewals programme. This programme is likely to offer good long-term value for money by reducing future renewals requirements and reducing the financial impacts of deteriorating assets. Instead, the company has prioritised its significant structures renewals programme, focused on high-value or complex schemes that address high-priority risks identified by regional teams. We recognise that funding for RIS3 is constrained and that National Highways is already limiting renewals to higher-risk structures. However, we would have expected more detailed evidence to justify the company's decision not to prioritise preventative renewals.
- 4.53 The cost of the structure renewals programme has been revised upward by £480m since the interim draft SBP. The basis for the increase in cost since the interim draft SBP is poorly evidenced. Part of the uplift (£311m) is an arbitrary overlay, not directly linked to the cost of specific projects, applied to the cost of the significant structures programme in year five of RP3. While National Highways has provided evidence that cost estimates for some projects have recently increased, the examples it provides do not total £311m and include schemes spanning both RP3 and RP4, and as such the financial impact of cost escalation may not be felt until RP4. This highlights again the importance for the company's draft SBP to incorporate the most recent cost information.
- 4.54 In our interim advice, we highlighted that the significant structures programme is subject to considerable uncertainty, as many projects remain at an early stage of design and development. It is recognised that the scope of works for mid-life renewals of large and complex structures often expands following more detailed investigation.
- 4.55 Notwithstanding these risks, in the interim draft SBP National Highways indicated that its plans (at £2,474m) were already at the upper limit of what it and its supply chain could deliver. Indicative of these constraints, during the interim period, the company has revised downward its planned expenditure compared with its interim draft SBP plan. Adding £480m to the budget increases deliverability risks and may not represent a prudent approach. Indicative of delivery challenges, we have observed that National Highways is forecasting to spend less during the interim period than originally proposed in its interim draft SBP.
- 4.56 Based on the evidence provided a modest reduction of £147m in year 5 is justified, to maintain a smoother expenditure profile across RP3. Given that the draft SBP

may not reflect the latest cost estimates, further work is required of National Highways before the start of the road period to align its plans with the available funding and considerate of deliverability constraints. It should also consider the company's ability to manage emerging risks by re-profiling costs between RP3 and RP4 and, once the period is underway, via the CRR.

Rigid (concrete) pavements

- 4.57 In its draft interim SBP, National Highways stated that it anticipates replacing all ageing rigid pavements by the end of the sixth road period (2045). After further considering affordability, deliverability and network risk, the company has since changed its plans and it is now proposing to postpone replacement of all rigid pavements until the end of the eighth road period (2055). This means that significant investment will continue to be required in future RISs. The company's focus in RP3 is now on managing the impacts of localised concrete pavement failures to ensure safety and service. It is planning to invest in all sections it deems to be at high risk of disruption to users.
- 4.58 National Highways' draft interim SBP put forward plans for 167 lane kilometres of reconstruction works and 387 lane kilometres of life extension works. The company's current plan reduces these planned volumes to 152 lane kilometres of reconstruction work and 314 lane kilometres of life extension work. It is important that both elements are fully delivered to maintain the performance of the network and minimise the long-term costs of renewing ageing concrete assets. Therefore, we recommend that both form part of National Highways' formal RIS3 commitments to provide assurance it will delivery in line with its plans and minimise the potential impact on users from deteriorating concrete pavements. It will also reduce the likelihood of the programme to be prolonged across further road periods than already identified.
- 4.59 The reconstruction programme would see National Highways conducting scheme optioneering and design in the first two years of RIS3, with construction in the final three years. It is unclear why construction activity for all reconstruction schemes is so heavily weighted towards the latter end of the period, particularly given that it had been provided funding in the interim year to progress design work to allow deliver in RP3. During the early part of period, it is important that the company demonstrates it remains on track to deliver the full programme and is allocating funding efficiently to achieve this.
- 4.60 It is unclear whether funding in its plans has been allocated for developing and designing schemes for RIS4. If these activities are not prioritised, the stop-start approach to the programme could persist, making it less likely that the supply

chain will invest in the skills and resources National Highways requires and increasing delivery risks. The company should aim to smooth the programme over multiple road periods to enable a continuous cycle of design and construction.

Vehicle restraint systems (VRS)

- 4.61 During RP2, the engineering standard for VRS (CD377) required that barriers in need of replacement in higher risk locations required a rigid solution typically achieved through a concrete barrier. However, implementing this standard in full was deemed unaffordable. As a result, through departures from the standard, National Highways adopted a risk-based approach, leading to a higher proportion of steel barrier replacements than originally anticipated.
- 4.62 In September 2025, the standard was updated to allow National Highways to risk-assess, on cost and technical grounds, whether to install concrete or steel VRS barrier. This enables the company to use steel barriers instead of concrete, where it deems the level of risk is acceptable, without the need for a departure. The company's RIS3 plans assume in all cases this approach will be taken and therefore its costs are estimated on the basis that only steel barrier renewals will be undertaken.
- 4.63 Reflecting broader funding constraints, National Highways' plans are based on a 'do minimum to maintain safety' scenario. Cost estimates assume that most renewals will be delivered through repairs to existing barriers ('do minimum interventions') rather than full barrier replacements. While this improves affordability, the company should, where possible, maximise full replacements, as its whole-life cost analysis suggests these are likely to be less costly in the long term. Therefore, if additional capital funding becomes available during the road period, allocating it to VRS renewals may offer good value for money.

Renewals of assets on returning DBFO roads

- 4.64 In its interim draft SBP National Highways did not allocate any specific funding for the renewal of assets on roads currently maintained under DBFO contracts. However, as management of these roads transfers back to the company from year one of RP3 it has taken the prudent step of including a specific allowance for these renewals in its updated draft SBP.
- 4.65 National Highways has allocated a total of £211m across four asset types: flexible pavements, rigid pavements, structures and drainage. The majority relates to flexible pavements (£138m) and drainage renewals (£48m). A process is in place to ensure that the DBFO companies fulfil their contractual obligations to return assets in an appropriate condition. Consequently, funding has been allocated for

ongoing renewals requirements rather than for any additional renewals requirements that might arise from assets being returned in poor condition.

- 4.66 National Highways has taken a relatively simplistic approach to estimating DBFO renewals costs, largely by scaling network-wide renewal cost estimates according to the length of the returning DBFO network. This is a particularly crude assumption for drainage renewals where the company's wider plans are based on addressing specific flooding hotspots that are not distributed evenly across the length of the network. The company has not made use of asset condition information from the hand-back process or commissioned additional assessments (such as pavement condition surveys) to inform its RIS3 plans. Estimating costs without condition data increases uncertainty. Nonetheless, despite these weaknesses, the assumptions employed are logical and align with those used for the wider network. On this basis, we do not propose any adjustment to the cost estimates submitted at the current point in time.
- 4.67 National Highways has budgeted £22m for year 1 of RP3, increasing to between £46m and £49m a year in years 2 to 5 respectively. This profile is not representative of delivery of a renewals programme for these assets given the timescales involved in assessing asset condition and developing renewals interventions. The company should revisit this profile for its final SBP to represent actual delivery programme.

Returning DBFO roads and performance monitoring

- 4.68 There is a risk that DBFO companies will return assets in a worse condition than required under their contractual obligations. If this is the case it could increase renewals costs above the level currently allowed for. These risks are being continuously reviewed as part of the handback process. Early indications from routes at a more advanced stage suggest that risks are being addressed ahead of handback and retention amounts should be sufficient to cover any remaining unresolved issues. This assurance is useful, and National Highways should provide regular updates on its risk assessment before and during RP3.
- 4.69 National Highways is not in favour of including the returning DBFO roads in the calculation of asset condition indicators, including the pavement condition KPI, during RP3. Under its proposals it would report information on the condition of these roads but would not be held to account for maintaining their condition as it is for the rest of the network. It argues that it has not been responsible for the upkeep of these roads to date and that their condition is uncertain.

- 4.70 Users would reasonably expect the same level of performance whether roads have, in the past, been maintained directly by National Highways or via DBFO contracts. Therefore, we recommend that the returning DBFO roads be incorporated into the calculation of National Highways' PIs and KPIs as soon as condition surveys are completed. This would align with the company receiving funding to maintain and renew these roads. Excluding these roads from performance metrics would leave around 10% of the network outside these measures, weakening incentives to maintain the condition of the entire network.
- 4.71 Although the condition of these roads is uncertain at this point in time, National Highways has not provided any evidence to demonstrate that their inclusion would adversely affect the pavement condition KPI or other performance targets. If the inclusion of returning DBFO roads affects the achievability of KPI targets, this can be addressed at a later stage.
- 4.72 Renewals of returning DBFO roads have not been included in the output commitments proposed by National Highways (set out in paragraph 4.92). To demonstrate that the company is proactively managing these roads on behalf of users and deploying funding efficiently for which it has been provided specifically for these assets, it should report separately spend and outputs for these roads during RP3. This will indicate whether risks relating to returning DBFO roads are greater or less than expected and ensure transparency regarding any reallocation of funds between these roads and the wider network.

Cost and efficiency

- 4.73 Since the RIS2 development process, National Highways has strengthened its approach to renewals investment planning. However, further work is needed to improve its asset knowledge and enhance its cost intelligence and estimation methods. For many asset types, cost estimates are based on evidence on unit rates from the early part of RP2 or, in some cases, RP1. Except for asphalt pavements, this evidence has not been updated between the interim and final draft SBPs, increasing uncertainty and placing undue reliance on inflation adjustments. Consequently, due to the use of relatively dated unit cost assumptions, inflation allowances account for around a third of total cost. Across the renewals programme we estimate that between 25% and 30% of total estimated renewals costs reflect inflationary uplifts.
- 4.74 The evidence provided indicates that National Highways' unit rate assumptions are likely to be overstated for two reasons:

- no adjustments have been made to reflect RP2 efficiencies. As noted, for most asset types, estimates are based on unit rates from the start of RP2 or earlier, with some rates benchmarked against projects completed no later than the first year of RP2. National Highways has provided evidence showing that renewals costs have fallen during RP2 as efficiency has improved. In its annual efficiency report published at the end of RP2, the company presents analysis for six sub-asset types indicating that, when adjusted for the types of activity delivered, RP2 costs were 13.6% lower than in RP1. However, these efficiency gains are not reflected in the cost estimates for RP3; and
- cost estimates have been developed on an asset-by-asset basis. National Highways has applied 'pure' unit rates derived from hypothetical single-asset schemes. In practice, the company typically delivers 'hybrid' renewals schemes involving multiple assets. The current estimation approach does not reflect the efficiencies normally achieved through shared overheads – such as design, development, project management, and traffic management – when delivering hybrid schemes.

4.75 Because of the way National Highways collects data it is unable to evidence like-for-like comparisons against the cost of delivery in RP2 for all asset types. This makes it difficult to assess whether the company has been spending renewals funding in line with its original plans, or to assess whether cost estimates for future road periods are set at an efficient level. Nonetheless, where such comparisons are possible, the available evidence indicates that the company's renewal cost estimates are likely to be overstated. The company must address this issue from the start of RP3 so it can improve future business plans and demonstrate it is delivering efficiently in the interest of users and taxpayers.

4.76 It is difficult to be precise about the extent to which costs are overstated. However, to counter these issues, we recommend that a reduction of 5% is applied to the 'pre-efficient' cost estimates of all asset types except for:

- asphalt pavements (for which unit rates have been updated to reflect outturn costs later in RP2 and for which a separate recommendation has been made to correct the application of inflation adjustments);
- roadside technology (for which we recommend constraining spending to a budget ceiling); and
- aspects of the structures and concrete renewals programmes (for which forecasts rely on bottom-up cost estimates for specific projects).

- 4.77 The 5% adjustment represents a high-level yet conservative estimate of inefficiency within the draft SBP cost estimates based on efficiencies achieved during RP2 – as reported by National Highways – and the anticipated gains from delivering ‘hybrid’ schemes. It has been applied only to asset types for which the company’s estimates have a price base dating from 2020 or 2021.
- 4.78 The RIS3 efficiency challenge (measured against costs at the end of RP2) should remain unchanged in percentage terms. This reduces the National Highway’s cost estimates by £132m.

RP3 efficiencies

- 4.79 National Highways has applied an overall efficiency challenge (target) of 8% for renewals, measured from the end of RP2 and averaged over the road period. The efficiency challenge is similar across all asset types. It would be achieved through progressive improvements in productivity during the road period.
- 4.80 National Highways has identified three primary efficiency levers that would enable it to achieve this target:
- better end-to-end planning and design to reduce cost and delays and increase innovation (for example, further improvements to grouping renewals interventions to reduce traffic management and design costs);
 - improving and standardising processes using technology, data and innovation; and
 - initiatives to reduce procurement costs and improve productivity of activities delivered through these frameworks.
- 4.81 National Highways has provided some examples of specific actions under each of these levers. However, the evidence it provided to support the deliverability of efficiencies is weaker than for some other aspects of the draft SBP. However, as further described in chapter 8, the level of efficiency that the company is proposing to achieve is in line with our expectations, based on benchmark evidence and the findings of the capability reviews.

Damage to network property renewals

- 4.82 National Highways’ cost estimates include £264m for repairing damage to the network caused by incidents such as barrier strikes. At the start of RP2, all such repairs were treated as operating expenditure and recorded within the maintenance budget. A change in classification was implemented in RP2, under

which longer-term repairs are now treated as capital renewals, and any recovered income is also classified as capital expenditure and offsets these costs.

- 4.83 Before this change, National Highways' systems did not effectively capture either the costs of repairs or the associated income. The company has not previously analysed or forecast these items and therefore lacks a robust evidence base; as a result, estimates in this area carry significant uncertainty. The new approach has led to a substantial increase in forecast costs compared with the interim draft SBP. National Highways considers this partly reflects omissions in the interim draft SBP and partly the fact that past repair spending was artificially low because the company limited interventions to safety-critical repairs due to constraints on operational expenditure funding.
- 4.84 Although National Highways' estimates are uncertain, existing evidence indicates the draft SBP is likely to overstate the net financial impact. The best current indication of costs is the experience of 2024-25 following the reclassification. However, the company has assumed costs increase above this level in real terms during RP3 without strong supporting evidence. We have also identified that its assumptions on income recovery are conservative. The company reports that in around 70% of cases the culprit can be identified. While it assumes incremental improvements in culprit identification and cost recovery, it has not recognised that higher-cost repairs are more likely to involve identifiable culprits. Consequently, the share of costs recoverable is likely higher than the share of incidents with an identified culprit.
- 4.85 In our assessment, we propose that costs are held flat in real terms aligned to the 2024-25 level and adopted more reasonable assumptions for income recovery. Together, these adjustments reduce National Highways' estimate by £51m.
- 4.86 We welcome National Highways' plans to improve the recording and management of network-damage incidents. There is significant potential to strengthen culprit identification and income recovery, reducing the burden on taxpayers. Given the funding now allocated, we expect National Highways to report regularly on both costs and income and to demonstrate clear improvements in its processes.

National Insurance

- 4.87 Changes to employers' National Insurance contributions were introduced in April 2025. National Highways has made appropriate allowance for the resulting impact on its staff costs. However, it has also applied an additional £30m overlay to renewals costs to reflect potential increases passed on by its supply chain following the change.

- 4.88 National Highways has provided evidence that some suppliers are seeking compensation for the change through existing contracts. However, the company's estimate of the financial impact is based on theoretical assumptions about increased employment costs and the labour share of construction project costs. It also assumes that any increase in suppliers' costs would be passed on to the company in full. The assumption suggests that National Highways would bear the full impact on suppliers, even though, according to economic theory, changes in National Insurance should already be reflected in the inflation indices built into its contracts.
- 4.89 The change in National Insurance is already reflected in the inflation rates and forecasts used in National Highways' financial model. The company's approach acknowledges this, and its adjustment is intended to capture costs incurred beyond those implied by the OBR's inflation forecasts following the National Insurance announcement. The company has not provided compelling evidence that it can isolate the impact of this change from broader inflationary trends. Consequently, it has not demonstrated that its inflation adjustments are insufficient, or how long any shortfall might persist. We therefore recommend that this adjustment be excluded.

Renewals delivery commitments

- 4.90 The capital specification will form part of National Highways' Delivery Plan for RIS3. It sets out the key commitments that the company is funded to deliver in RP3. Building on improvements introduced during the interim period, the RIS3 capital specification should provide a more appropriate and robust basis against which the company can demonstrate delivery. A draft specification is included in the draft SBP. While improvements have been made the proposed specification does not appropriately reflect the funding for which National Highways have been provide funding for by taxpayers and to provide assurance that it is delivering for users.

Renewals output commitments

- 4.91 National Highways' draft capital specification includes the following renewals output commitments:
- asphalt pavements – 9,024 lane kilometres (+/- 5%);
 - rigid pavements – 152 lane kilometres (+/- 20 lane kilometres);

- structures – progress work on 111 significant structures schemes, of which 76 (+/-10) will be constructed to the end of Stage 5 of National Highways’ ‘3D’ project development process;
- drainage – 190 flooding sub catchments mitigated (+/- 30);
- roadside technology – 15,176 assets renewed (+/- 5%); and
- road restraints – 1,191km assets renewed (+/- 5%) excluding damage to network property.

4.92 The capital specification excludes five asset types – ancillaries, lighting, geotechnical assets, soft estates, and tunnels – that comprise £1,119m (13%) of cost (based on National Highways’ estimates). Given the scale of investment, we recommend that the capital specification should be expanded to include at least some of these assets. As noted, we also recommend that a commitment for the volume of life-extending renewals of rigid pavements is included alongside the commitment to deliver reconstruction schemes. This would provide a stronger basis for the company to demonstrate it is using its funding efficiently and managing all assets effectively during RP3.

4.93 As set out above, National Highways is proposing that each output commitment would have a level of tolerance built in. The ranges it has proposed are largely arbitrary. We do not support the use of ranged commitments without clear justification as this risks the bottom of the range becoming the de-facto target and reduces the incentives on the company to develop robust efficient plans. Should there be valid reasons that emerge during RP3 why an adjustment to the commitment is required, this can be dealt with via the established processes. Should the department wish to include tolerances, we recommend that these are limited to a range no greater than +/- 5% for each asset type. Two asset types, rigid pavements reconstruction and drainage, currently have ranges equivalent to 13% and 16% respectively.

4.94 National Highways’ output commitments for roadside technology should be revised before the start of RP3 to reflect our recommendations, if adopted. Considering the delivery challenges within its current programme, it is advisable for the company to provide assurance that the programme is being delivered as planned and that the company reports outputs disaggregated by key asset sub-types (e.g., CCTV, signs, signals). This would be consistent with the approach used during the interim period. Consideration should be made as to the benefit of further

disaggregated by ALR motorways and other roads to help identify the quantum of need across the network.

Large renewals delivery commitments

- 4.95 A feature of National Highways' plans for RIS3 is the increase in planned spending on very high-cost strategic renewals projects, termed 'large renewals' by the company.
- 4.96 In our advice on the interim draft SBP, we called for stronger reporting and monitoring arrangements for these projects given their scale, complexity and high potential to impact users. Since then, we have worked closely with National Highways and the department to agree how these arrangements should work in practice. The company engaged positively in this process.
- 4.97 In developing its draft SBP, National Highways defined large renewals as projects with forecast costs exceeding £50m, although discussions on a final definition are ongoing. Based on this assumption, 15 schemes were identified, comprising nine significant structures projects and six rigid pavement reconstruction schemes. Total expenditure is estimated at **[redacted: commercially sensitive data]**.
- 4.98 Of the 15 schemes, nine are scheduled for completion before the end of RP3. However, National Highways proposes that its RIS commitment would be to complete between five and nine schemes within RP3. All nine projects are fully funded on the basis that they will be delivered during this road period; therefore, we consider the commitment should be to complete all nine. Commitments must be clear, and this would not be achieved through a ranged target. Under the company's proposal, completing only five of nine promised schemes on schedule would be considered a success. We do not believe this approach provides an appropriate balance between challenge and deliverability or reflective of the funding provided.
- 4.99 Not unlike any large scheme, National Highways' significant structures projects are subject to considerable uncertainty, however some assumptions underpinning the draft SBP appear outdated. Diluting commitments would weaken the company's incentives to deliver these schemes at pace and deliver within the funding available. Taking a longer-term perspective, this approach also reduces the emphasis on presenting robust efficient plans during the RIS development process. It is reasonable to expect that during delivery risk may realise outside of National Highways control, however it is inefficient to build these in from the start when there are appropriate mechanisms to manage within the period should these realise.

4.100 National Highways' proposed commitments for large renewals projects are for construction completion only. As six of the schemes are forecast to complete construction in RP4, we recommend establishing committed milestones for three phases: design commencement, construction start, and completion to provide confidence that the company is progressing all schemes in line with its plans, not just those reaching completion within RP3. Progress should be reported quarterly through existing arrangements.

Overall impact of our recommendations

4.101 In summary, the evidence provided supports the following adjustments to National Highways' renewals cost estimates:

- employing a more measured ramp-up in roadside technology renewals to improve deliverability (saving £169m);
- assuming a flatter expenditure profile for the significant structures programme to improve deliverability (£147m);
- applying a 5% adjustment to pre-efficient cost estimates for selected asset types to ensure costs are aligned with an efficient position at the end of RP2 (£132m);
- correcting the inflation adjustment applied to asphalt pavement renewals (£71m);
- reducing the funding allocated to 'damage to network property' renewals (£51m); and
- excluding the allowance for employers National Insurance to avoid double counting with inflation allowances (£30m).

4.102 With these changes, the evidence made available to us indicate that National Highways' renewals plan would achieve the objective of at least maintaining performance whilst also achieving a reasonable balance between affordability, deliverability and addressing long-term renewals requirements in a way that limits the financial burden on taxpayers in future road periods.

4.103 Our estimates for the impact of these recommendations are shown in Table 4.3. In aggregate, they result in a reduction to National Highways cost estimates from £8,822m to £8,221m thereby reducing the overall gap between the company's cost estimates and available funding. Even with these adjustments, the RP3 renewals budget would be 44% higher in real terms than in RP2 (excluding the

CRR) and higher in real terms than the amount previously proposed in National Highways' interim draft SBP.

Table 4.3 Renewals comparison between interim and final draft SBPs (£m, nominal)

	National Highways draft SBP	ORR proposal
Ancillaries	312	296
Drainage	413	392
Geotechnics	238	227
Lighting	284	269
Flexible pavements	1,675	1,609
Rigid pavements	824	824
Roadside technology	1,019	850
Road restraints	312	297
Soft estate	170	162
Structures	2,954	2,771
Tunnels	115	109
DBFO	211	202
Damage to network property	264	213
National Insurance	30	0
Total	8,822	8,221

Key proposals

We advise that:

National Highways should adopt the financial recommendations set out in this report to improve the efficiency and deliverability of its renewals plans.

National Highways should submit updated significant structures plans, bringing its assumptions up to date and scheduling projects appropriately to align to the proposed funding envelope.

National Highways should prioritise the development and implementation of plans to improve its capabilities in asset data and cost estimation.

National Highways should continue the development of asset health indicators, begin regular reporting in April 2026 and undertake a comprehensive review of the feasibility of including them in the Performance Specification no later than autumn 2028.

The department adopts our proposals to increase the specificity of renewals commitments set out in the RIS3 investment plan or require National Highways to reflect this in its Delivery Plan such that the company can demonstrate it is delivering in line with its funded plans and in the interest of users and taxpayers.

National Highways should periodically update and report its assessment of risks relating to the return of DBFO roads and report both spending and renewals outputs to demonstrate it is effectively maintaining these roads consistent with the wider network.

National Highways should provide regular updates on planned improvements to its approach to damage to network property and report on both costs and income recovery.

KPI's should reflect the condition of the entire network maintained by National Highways, including the returning DBFO roads, for which maintenance and renewals funding has been provided.

5. Enhancements and future road investment strategy (RIS)

National Highways' proposals

- 5.1 The Department for Transport's (department) draft RIS indicated that there would be a far greater focus on maintenance and renewal of the network during the third road period (RP3, April 2026 to March 2031). Accordingly, National Highways proposed spending £3,846m on enhancement schemes in its draft strategic business plan (SBP) (excluding allocation from the central risk reserve (CRR)), a 60% reduction in real terms on the spending on enhancements funded through the second road investment strategy (RIS2).
- 5.2 In this review we have focused on the schemes being funded through the RIS. This excludes the cost of the Lower Thames Crossing (LTC) project, for which the department is exploring alternative funding options. LTC operates largely independently, so progressing the scheme is not expected to have a significant impact on the resources funded via the RIS. Road infrastructure improvements to support third party projects – the Agratas electric car battery factory in Somerset, and the Universal Studios Theme Park in Bedfordshire – form part of wider, cross-government programmes and will also be the subject of separate funding arrangements and oversight.
- 5.3 Most of the funding, £3,591m, is to progress a portfolio of 16 existing enhancements schemes. The remaining £255m relates predominantly to legacy costs for schemes that have opened for traffic but also includes two additional schemes – the M49 Avonmouth Junction and M42 North-West Free Flow Links (NWFFL) – specified by the department.
- 5.4 National Highways' proposed portfolio of existing enhancements in its draft SBP is made up of 16 schemes, 11 of which are currently in construction. The remaining five are currently in development and scheduled to start works during RP3, with three of those scheduled not to open for traffic until the fourth road period (RP4, April 2031 to March 2036). Table 5.1 shows the proposed open for traffic (OFT) and start of works (SOW) commitments for the 16 schemes.

Table 5.1 Enhancements commitments proposed in the draft SBP

	Start of works	Open for traffic
M25 Junction 10	Started	2026-27 Q1
A47 Blofield to North Burlingham	Started	2026-27 Q2
M42 Junction 6	Started	2026-27 Q3
A47 North Tuddenham to Easton	Started	2027-28 Q1
A47 Thickthorn Junction	Started	2027-28 Q1
A428 Black Cat to Caxton Gibbet	Started	2027-28 Q1
A417 Air Balloon	Started	2027-28 Q1
Mottram Moor Link Road & A57 Link Road	Started	2028-29
A46 Coventry Junctions	Started	2028-29
A52 Nottingham Junctions	Started	2028-29
M3 Junction 9	Started	2028-29
M60/M62/M66 Simister Island Interchange	2026-27 Q2	2029-30
A66 Northern Trans-Pennine	2026-27 Q4	RIS4
M54-M6 Link Road	2027-28 Q1	2030-31
A38 Derby Junctions	2029-30	RIS4
A46 Newark Bypass	2030-31	RIS4

5.5 In its draft SBP, National Highways proposed funding of £280m to develop a pipeline of future enhancements projects to begin construction during RP4, subject to business case approvals. In the same spending line, the company has proposed funding of £123m to develop other aspects of its plans for the fourth road investment strategy (RIS4). In its interim draft SBP, the company included funding for a programme of small enhancements schemes in its enhancements spending line. It has now included this as part of its National Programmes (see chapter 6).

5.6 Table 5.2 compares the proposed funding for enhancements in RP3 with outturn spending during the second road period (RP2, April 2020 to March 2025). Along

with the fall in planned spending on existing enhancements, it shows real terms increases in spending of around 50% to develop the future pipeline and prepare for RIS4.

Table 5.2 Enhancements, future RIS and scheme development spend (£m)*

	RP3 (Nominal)	RP3 (real – 2024-25 prices)	RP2 (real – 2024-25 prices)	percentage difference (real)
Existing enhancements	3,846	3,543	8,904	-60%
Future RIS	123	112	73	53%
Scheme Development	280	254	174	45%
Total	4,249	3,908	9,151	-57%
Central risk reserve	385	349	NA (RP2 figures include any CRR draw- down)	-
Adjusted total	4,634	4,257	9,151	-53%

* figures may not sum due to rounding

5.7 In its interim draft SBP, National Highways included ‘carry over’ efficiency that it claimed was embedded in the scheme costs. In line with our earlier advice, the company has now removed this from its efficiency case because of the substantial cost escalation on these schemes that occurred during RP2. In its place, it has included, £32m of ‘measured’ efficiency for existing enhancements, along with £14m from RIS4 development.

Assessment

Existing enhancements

Schedule milestones

5.8 During our review, discussions have been ongoing with National Highways and the department to revise the definitions of what is required to achieve the SOW and OFT milestones. The definitions, refreshed for RP3, will be easy to understand with clear evidence requirements to demonstrate success. These build on the RP2 definitions and incorporate the lessons from RP2, where there was ambiguity and debate over the commitments claimed for some of the schemes. While the

ambiguity has been addressed, it should be noted that the OFT definition prioritises users of the strategic road network (SRN) and is not necessarily aligned to when a scheme will be fully finalised. The company will need to ensure that the final scheme milestones are aligned to the new definitions.

5.9 The commitment dates that National Highways proposed in its draft SBP, for both SOW and OFT, include an element of 'float' – additional time in the schedule beyond the current forecast completion date to allow for risks that cause delays. The amount of float in each scheme's milestones is based on the following set of rules, proposed by the company in its draft SBP:

- for schemes with commitments in 2026-27 and 2027-28, both SOW and OFT dates will specify a quarter, based on a consistent two to three months target float;
- for schemes with commitments in 2028-29, the SOW date will specify the expected half-year of achievement, based on three to six months target float. The OFT commitment will be set on an annual basis;
- for schemes with commitments in 2029-30 and 2030-31, the SOW and OFT dates will be specified by the expected year of achievement, based on six to 12 months float; and
- for schemes with commitments beyond RP3 (that is, 2031-32 and ongoing), the road period only is specified.

5.10 National Highways' regular reporting to us includes its latest forecast completion dates against its current commitments. Comparing these forecasts against the proposed OFT commitments for schemes already in construction shows larger floats than the proposed rules would suggest. Therefore, milestone commitments for some schemes are not representative of actual programmes or appropriately challenging.

5.11 Table 5.3 uses the date of submission of the draft SBP to compare the forecast OFT dates for schemes currently in construction (as National Highways reported to us at the first quarter of 2025-26) with the OFT commitments in the draft SBP. It shows that applying the float rules can lead to float of around, or more than, 50% of the forecast remaining completion time. In the most extreme cases this could mean schemes being considered to be delivered 'on time' even if there was over a year's delay on the current forecast completion date.

5.12 The float is particularly large for schemes expected to open in 2026-27, where ‘rounding up’ to the end of the next quarter increases the total float beyond the two to three months in the proposed rules, and 2028-29, where the commitments are defined by year and so include potentially up to eleven months of ‘rounding up’.

Table 5.3 Float in OFT milestones for schemes already in construction

	Draft SBP OFT milestones	Float in months	Float as percentage of time remaining
M25 Junction 10	2026-27 Q1	4	64%
A47 Blofield to North Burlingham	2026-27 Q2	5	60%
M42 Junction 6	2026-27 Q3	5	46%
A47 North Tuddenham to Easton	2027-28 Q1	2	12%
A428 Black Cat to Caxton Gibbet	2027-28 Q1	3	16%
A417 Air Balloon	2027-28 Q1	5	27%
Mottram Moor Link Road & A57 Link Road	2028-29	11	33%
A46 Coventry Junctions	2028-29	11	33%
A52 Nottingham Junctions	2028-29	13	41%
A47 Thickthorn Junction	2028-29	14	48%
M3 Junction 9	2028-29	13	45%

5.13 We recognise that it is important to consider and allow for schedule risk, just as it is for cost risk. However, we consider that the application of the proposed float rules leads to delivery commitments that are not reflective of actual programmes or sufficiently challenging, particularly for schemes that are already in construction. We recommend that the OFT commitments are set so that the float, when compared against the most recent quarterly reported completion dates, does not exceed the durations set out in the proposed rules – for example, three to six months float for schemes expected to OFT in 2028-29, instead of the 11 to 14 months shown in table 5.3. This will likely require specifying commitments for schemes forecast to OFT in 2028-29 by quarter, or at least half year.

5.14 National Highways included SOW and OFT commitments in the draft SBP for the five schemes that are currently in development. However, we understand that,

following the spending review 2025, the department requested that the company outline how these schemes could be delivered most efficiently within the funding envelope and, where applicable, the requirements of their development consent orders (DCOs). Therefore, we understand that the schedule proposals for these schemes are likely to change and, due to the timescales, we have not reviewed any alternative proposals as part of this review.

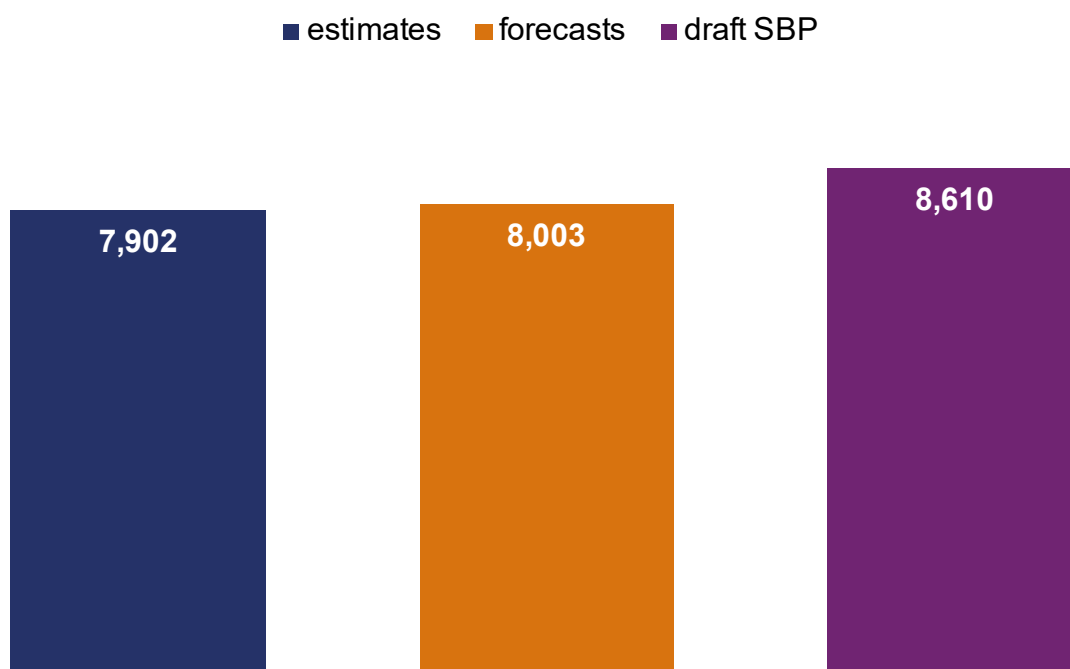
- 5.15 Depending on decisions elsewhere in the plan, it might be necessary to defer the start of these projects to improve affordability. However, such deferrals would further increase total outturn costs as seen during RP2. Therefore, given the opportunities to improve the affordability and deliverability of other aspects of the plan, we recommend against additional deferral of enhancements projects.
- 5.16 The department's requirements included two additional schemes, the M49 Avonmouth Junction and M42 NWFFL. In its draft SBP, National Highways has included the costs relating to these schemes within the £3,846m enhancements funding but it has not included milestone commitments for them in its proposals.
- 5.17 The M42 NWFFL were originally part of the M42 J6 enhancement scheme but could not be completed due to the condition of an existing structure (NEC bridge) which required renewal. As there is a budget of £89m within the plans, and the inclusion of these works are stipulated within the DCO for the M42 J6 scheme, it is reasonable to have committed dates agreed for this scheme.
- 5.18 The M49 Avonmouth Junction scheme is being delivered by South Gloucestershire Council. National Highways has included costs of under £2m in its plans. As such, this scheme is unlikely to require a specific commitment.

Cost estimation and risk allowance

- 5.19 We have three sources of evidence of cost estimates for enhancement projects that we have considered as part of this review:
- **estimates** produced at key stages in National Highways' project control framework (PCF) governance process – these include cost estimate ranges and cost breakdowns, including for risk allowances;
 - more up-to-date **forecasts** of total outturn cost, reported to us on a quarterly basis by National Highways – for this review we used forecasts from the first quarter of 2025-26; and
 - cost forecasts included in National Highways' **draft SBP** submission, for RP3 and total outturn costs.

5.20 Figure 5.1 compares the total outturn costs for the 16 schemes from these three sources. The total cost of the portfolio is similar in the estimates (£7,902m) and forecasts (£8,003m) but the costs in the draft SBP are around £600m higher. This difference is predominantly from the A66 Northern Trans-Pennine scheme, where the outturn cost in the draft SBP compared was £540m above the most recent forecast. National Highways told us that this increased cost reflects the likely impact of a later start of works and longer construction period than previously assumed. Following the spending review 2025, the department requested that the company outline how this – and the other in development schemes – could be delivered most efficiently within the funding. Therefore, the assumptions about start of work and construction duration could change again as RIS3 is finalised.

Figure 5.1 Total outturn costs from estimates, forecasts and draft SBP (£m, nominal)

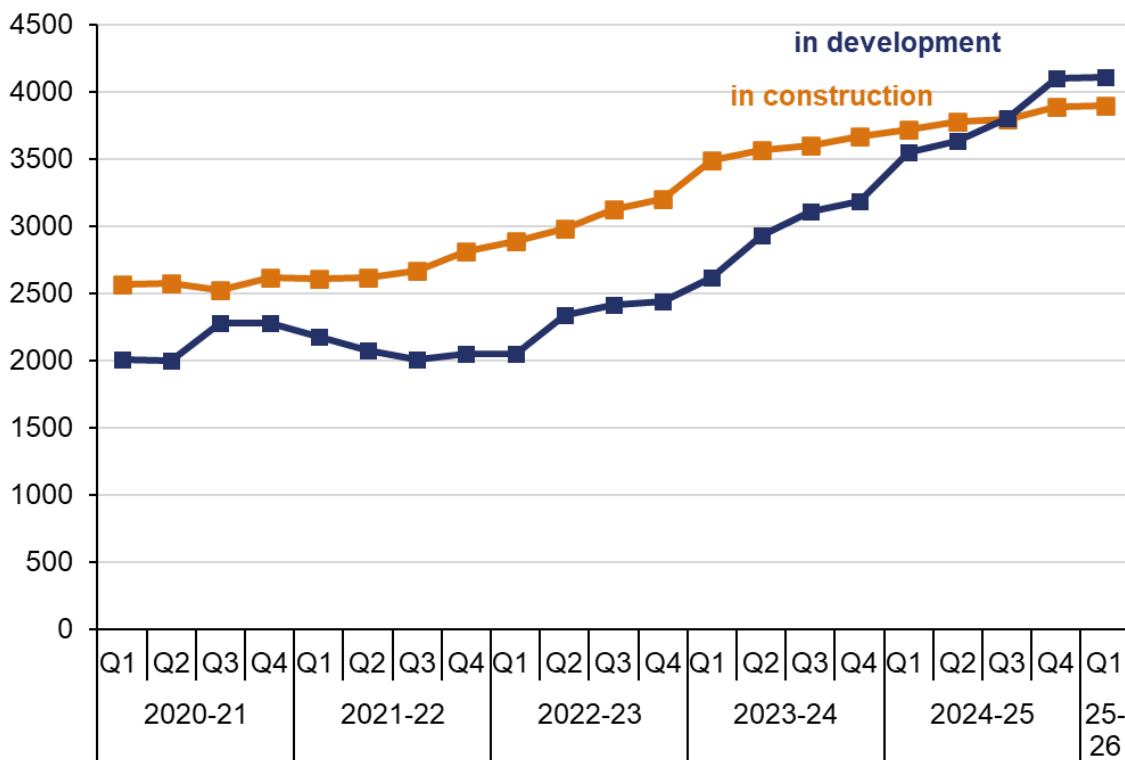


5.21 The forecast total outturn cost of the portfolio of 16 existing enhancements increased from £4,572m in Q1 2020-21 to £8,003m in Q1 2025-26. RP2 was characterised by delays in projects achieving planning consent and the high levels of inflation following the end of Covid lockdowns and Russia’s invasion of Ukraine. These cost pressures are included in the funding requirement National Highways put forward in its draft SBP.

5.22 Historically, schemes at an earlier stage of development have been more likely to see substantial cost increases. The portfolio is in a more mature position than at

the start of RP1 or RP2 and figure 5.2 shows that the cost increases for schemes in construction have relatively flattened off more recently – forecast costs have increased by 5% over the last year, compared to 7% the previous year and 21% the year before that. That is not to say that costs will not increase further. There is still risk in the portfolio and figure 5.2 also shows that cost forecasts have continued to increase for schemes still in development. Uncertainty remains about the delivery milestones and timescales for those projects but spend on them in RP3 is likely to be back-end loaded, with much of the cost risk likely to fall in RP4.

Figure 5.2 Total forecast outturn from Q1 2020-21 to Q1 2025-26 for schemes in construction and in development (£m, nominal)



5.23 National Highways’ estimates include allowances for project risk – based on known and quantified risks from a register – and uncertainty – intended to capture more ‘unknown unknowns’ but can also be used to capture specific risks. The general trend for costs to exceed estimates and increase over time suggests that risk allowances have not been sufficient in the past.

5.24 Our analysis of the project-level estimates found a range of combined risk and uncertainty allowances of 5% to 78% of base costs. The projects with the largest combined risk allowances all had large uncertainty adjustments. These reflected allowances for inflation (that are typically recorded separately in the estimate) and non-recoverable VAT. Five of the sixteen schemes had risk allowances below

10%. This appears insufficient given historical trends and benchmarks from sources such as the department’s [Transport Analysis Guidance](#).

- 5.25 This evidence indicates that there is inconsistent application of risk-assessment methods across the portfolio. As noted in Section 8, we also observed variations in how different projects treat inflation. Our review of National Highways’ cost-estimation processes, undertaken in preparation for the efficiency review, found that the company has appropriate processes in place. However, it is not clear that these are being applied consistently. The company should review how these processes are implemented as part of its broader efforts to strengthen cost-estimation capability.
- 5.26 National Highways has proposed continuing with a CRR to fund portfolio risks, as well as project level risk allowances. Provided appropriate governance processes are in place, having risk provision in separate layers can encourage more efficient delivery. We support this overall approach.
- 5.27 National Highways deployed a range of methods to consider the amount of CRR funding required for the enhancements portfolio, drawing from:
- the scheme level risk analysis in its estimates;
 - Monte Carlo analysis across the portfolio that draws from the range of costs in its estimates;
 - portfolio risk adjustments that form part of its estimates but are not included in project budgets; and
 - reference class forecasts (RCF), that compare the scheme level risk provisions with historical cost overruns.

Table 5.4 Central risk reserve funding required for 50% (P50) and 70% (P70) confidence of delivery under different methods (£m, nominal)

	P50	P70
Scheme level risk analysis	83	398
Portfolio level risk analysis	55	143
Portfolio risk adjustments	110	123
Reference class forecasting	233	598

- 5.28 As the approach is based on historical outcomes (rather than assumptions about risks that could themselves be biased) we place more weight on the results from the RCF analysis. Based on how National Highways has calculated the required risk funding, £158m of the £233m CRR requirement from this method is from the five schemes in development, with £118m for the A66 Northern Trans-Pennine scheme alone. This likely reflects the relatively low project-level risk allowance for that scheme. It should also be noted that the draft SBP funding for the A66 Northern Trans-Pennine is aligned to a substantially higher cost than in the estimate.
- 5.29 It is uncertain when cost risks would be realised in a scheme's life or construction schedule. For example, and especially during RP2, much cost escalation has been linked with project delay that results in costs being incurred later than planned. While the schemes in development may now be facing different risks, there could be a similar result with risks, and cost pressure, being more likely to materialise in RP4. The converse of this is that there might be greater risk for schemes already in construction than the calculation method suggests.
- 5.30 Therefore, while we might question the balance between schemes in construction and development in how the calculations have been carried out, CRR provision of around £250m appears adequate, based on evidence from historical cost overruns. It is important to note that this would not be sufficient to cover high impact risks affecting all schemes (and potentially other spending areas), like a repeat of the approximately 20% inflation seen during RP2 or large changes to taxation. If a situation of this magnitude occurred during RP3 the department would need to consider how it would manage the impact on National Highways and seek to adjust its programme accordingly.

Efficiency

- 5.31 In line with our previous advice, and because of the substantial cost escalation seen during RP2, National Highways has removed the £209m of “carry over” efficiency relating to the enhancements portfolio from its efficiency case. In its place, the company has included a 2% measured efficiency challenge for the following five schemes:
- A46 Coventry Junctions;
 - A52 Nottingham Junctions;
 - A66 Northern Trans-Pennine;
 - A46 Newark Bypass; and

- M60/M62/M66 Simister Island.

- 5.32 This excludes the M54-M6 Link Road and A38 Derby Junctions schemes from the set of schemes that are not in construction, on the basis that they are “close to construction”. However, it includes the A46 Coventry Junctions and A52 Nottingham Junctions, both of which have achieved SOW commitments but have a second phase that has not yet started construction.
- 5.33 Applying the 2% efficiency challenge to schemes in development only is broadly in line with our benchmark evidence for efficiencies from enhancements. However, on the basis of that evidence, it does not support excluding the M54-M6 Link Road and A38 Derby Junctions. It is reasonable to expect efficiencies should be realised on these schemes and we recommend including them within the scope of the 2% efficiency challenge. This would increase the enhancements contribution to the target by £15m, from £32m to £47m.

Future enhancements pipeline

- 5.34 The department set out its specific expectations for enhancements pipeline development separately from the draft RIS. These expectations are that the pipeline would contain no more than 15 of the most viable schemes, including the A14 Junction 10a scheme, and their affordability should be based on assumed total funding of £1,000m to £3,000m for new enhancements during RP4.
- 5.35 National Highways has identified a core pipeline of 12 schemes that it aspires to take through to full delivery, subject to approvals, with a further three that it plans to develop. However, the company’s preferred plan to develop all 15 schemes and begin construction on four during RP3 is unaffordable within the £280m proposed pipeline development budget. The current forecast total outturn cost for the 15 schemes is around £3,200m. This is £200m above the funding range indicated by the department.
- 5.36 National Highways set out an alternative option for bringing pipeline development costs within its proposed £280m funding. It would delay work on some schemes, including not beginning construction on any during RP3, drop one of the core 12 schemes due to viability concerns and not fund a second, the A14 Junction 10a scheme, from the pipeline development funding. This means that the company is seeking additional funding to progress the A14 Junction 10a scheme – or would seek to fund it through ‘over-programming’.
- 5.37 Under this approach ten of the original 12 core pipeline schemes, with a current total forecast outturn cost of around £1,700m, would be ready to begin

construction at the start of, or early in, RP4, along with a further £1,000m plus scheme. Given the tail of RIS3 enhancements costs early in RP4, forecast to be around £600m in each of the first two years, it is unlikely to be affordable or deliverable to start construction on all the pipeline schemes in this timeframe.

- 5.38 Therefore, we recommend that the department considers further the overall funding envelope, the likely profile of enhancements spending in RP4, and the implications for the pace of pipeline development required during RP3. We would recommend that development funding during RP3 could be reduced, for example by £30m to £250m, by staggering the pace of development of some of the pipeline schemes to give a smoother transition into construction during RP4. As part of its consideration, the department should also be clear with National Highways as to whether the construction of the A14 Junction 10a scheme is expected to be funded from pipeline development, as this would restrict the funding available to develop other schemes.

RIS development

- 5.39 National Highways is proposing £123m funding for RIS development. This compares with £79m spent on developing RIS3, with £66m spent during RP2 and £13m during the interim year. The company's proposed funding for RIS4 development represents a 31% real terms increase on spending on developing RIS3 (or a 53% increase in real terms on the equivalent spend during RP2). Table 5.5 shows how the proposed spend compares with RIS3 development costs (across RP2 and the interim year) across the range of activities in this area.
- 5.40 In its interim draft SBP, National Highways had included £82m in this area. The primary rationale given for the increase is that the company reviewed those figures and considered they were underestimated. However, it has not provided any further evidence on how the higher costs have been arrived at.
- 5.41 We recognise, and have highlighted throughout this advice, that there are several areas where National Highways should develop its own capability. However, it has not provided sufficient evidence to demonstrate that the proposed increase is required or efficient. As such, we recommend that funding for RIS4 development should be reduced to £100m. This is more closely aligned to spending in RP2 on RIS3 development, adjusted for inflation, and takes into account that the company is now going into its third road period and should be more mature in being able to develop its studies and business plans.

Table 5.5 Breakdown of RIS development funding (£m, nominal)

RIS development funding - thematic areas	RIS3 development (spend in RP2 and interim year)	RIS4 development (spend in RP3)
Developing RIS3/4 (i.e. SRN IR draft SBP)	26	29
RIS planning: Performance Specification, investment planning, traffic modelling, economics etc	30	38
RIS portfolio planning (activities previously included under developing RIS3/4)	0	6
15 year route map and route strategies	6	19
Strategic studies / early scheme feasibility (includes renewals case, digital case)	17	31
Total	79	123

Key proposals

We advise that:

National Highways should amend the open for traffic commitments for schemes already in construction so that schedule float does not exceed the durations set out in the proposed rules.

National Highways should include start of work and open for traffic milestones for the M42 NWFFL scheme.

National Highways should extend the 2% efficiency challenge to all schemes in development, increasing the contribution to the efficiency target to £47m.

National Highways should review how its cost and risk estimation processes for enhancements are implemented in practice as part of its broader efforts to strengthen its cost estimation capability to ensure consistency.

The evidence, drawing predominantly from the reference class forecasting provided by National Highways, supports a CRR allocation for enhancements of £250m.

The department should constrain the funding for RIS4 development to £100m to better align with similar spending during RP, adjusted for inflation, and reflect the maturity of the company going into its third period.

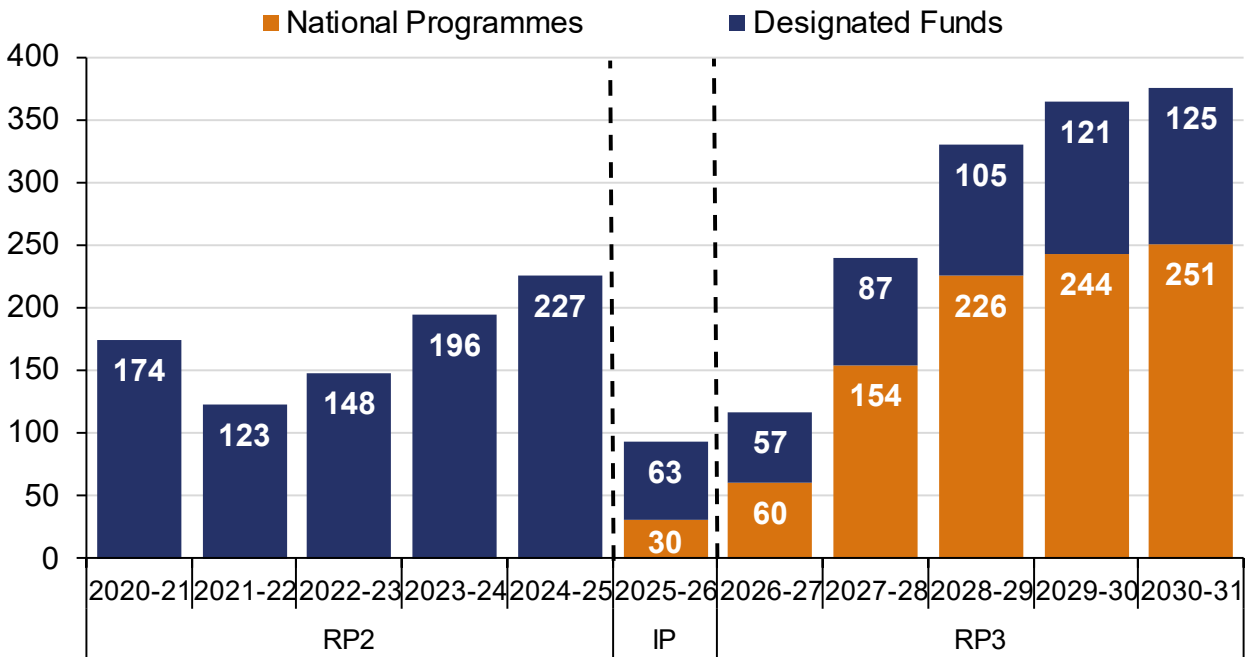
The department should consider the volume and profile of funding for new enhancements likely to be available for RP4 and the implications for pipeline development. We have included an indicative £30m reduction in proposed funding in our recommended discretionary funding reductions.

6. National Programmes and Designated Funds

Overview

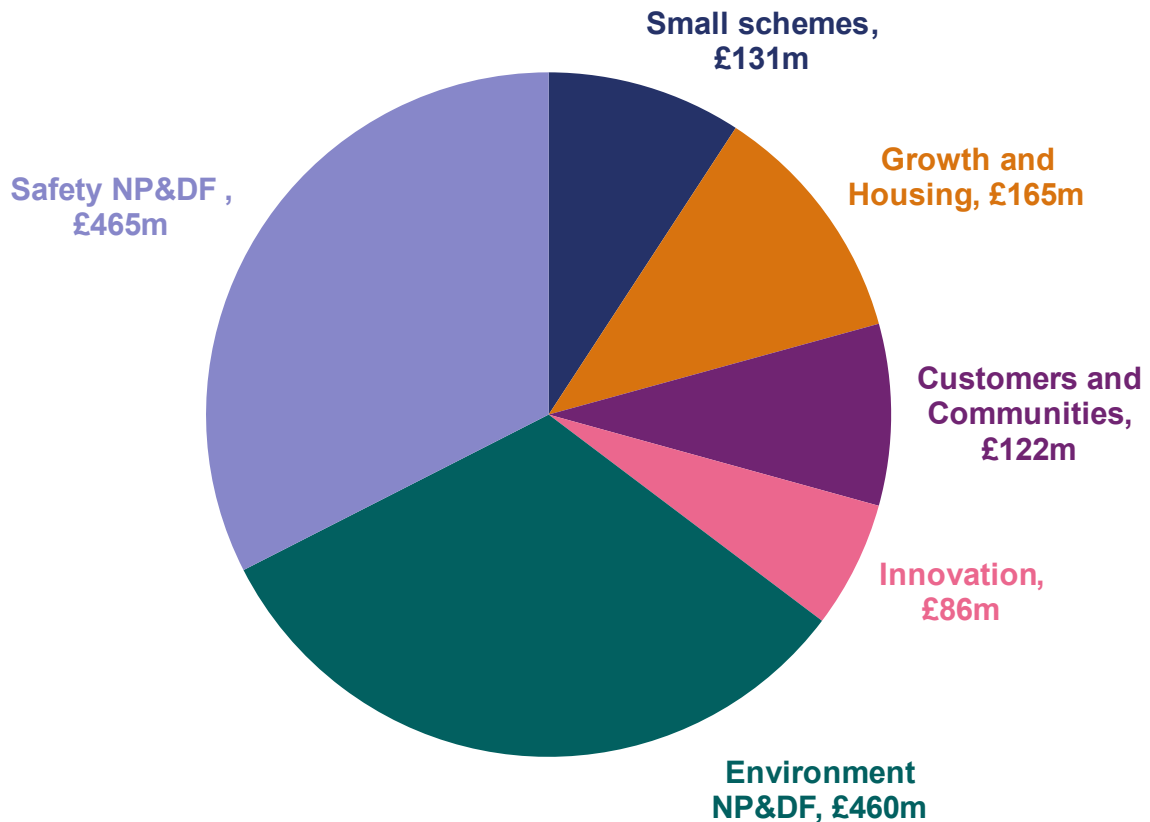
- 6.1 National Programmes and Designated Funds have been established to enable National Highways to deliver initiatives beyond its operations, maintenance, renewals and enhancements activities. The total proposed funding across both portfolio lines is £1,429m. It should be noted that National Programmes is a new category of funding introduced in the interim period (April 2025 to March 2026). During the second road period (RP2, April 2020 to March 2025) spending on Designated Funds amounted to £868m.
- 6.2 Figure 6.1 shows the proposed expenditure profile of the combined National Programmes and Designated Funds portfolios. The proposed spend profile is backend loaded, ramping up from £117m in 2026-27 to £330m in 2028-29, before more gradually rising to £376m in 2030-31. The backend loaded profile may increase the risk of missed programme commitments pushing delivery into the next road period.

Figure 6.1 National Programmes and Designated Funds RP3 proposed expenditure (£m, nominal)



6.3 Figure 6.2 shows the proposed funding allocation by theme for the combined portfolios. On this basis, safety has the largest proposed allocation of £465m, equating to 33% of the combined budget. This is followed by environment, with a proposed combined allocation of £460m.

Figure 6.2 Proposed National Programmes and Designated Funds allocations by theme



6.4 The funding allocation for these programmes has been increased from £1,225m in its 2024 interim draft strategic business plan (SBP) to £1,429m in the final draft SBP. Except for elements within the National Programmes, specific interventions have not yet been identified and costed. Funding allocations therefore represent defined envelopes that National Highways will allocate to specific interventions during the road period. Increasing the funding envelopes in the latest plans seems inconsistent with the overall funding constraints given that it is not clear what the extra funding delivers for users and stakeholders.

6.5 Determining how funding is prioritised is ultimately a matter for the department. However, we have provisionally identified the option of setting funding for the Designated Funds at the level assumed in the interim draft SBP. This would reduce National Highway's cost estimates by £90m, thereby reducing the gap between costs and available funding by the same amount. This would still result in

funding allocated to National Programmes and Designated Funds higher in real terms than the amount spent during RP2.

6.6 During RP2 it has not always been clear how projects have been selected for implementation. For the third road period (RP3, April 2026 to March 2031), the company proposes that National Programmes will be subject to more centralised control to ensure a more strategic approach to the way these funds are deployed. We consider this to be a positive proposition.

National Programmes

6.7 As noted, National Programmes are a newly introduced concept. Distinct from Designated Funds, they have been established to respond to legal requirements, mandatory obligations or the department’s objectives. National Programmes are expected to have a more clearly defined forward pipeline of projects and activities than has been the case with Designated Funds during the first road period (RP1, April 2015 to March 2020) and RP2. The company has proposed four National Programme funding lines:

- small schemes;
- safety;
- environment; and
- growth and housing.

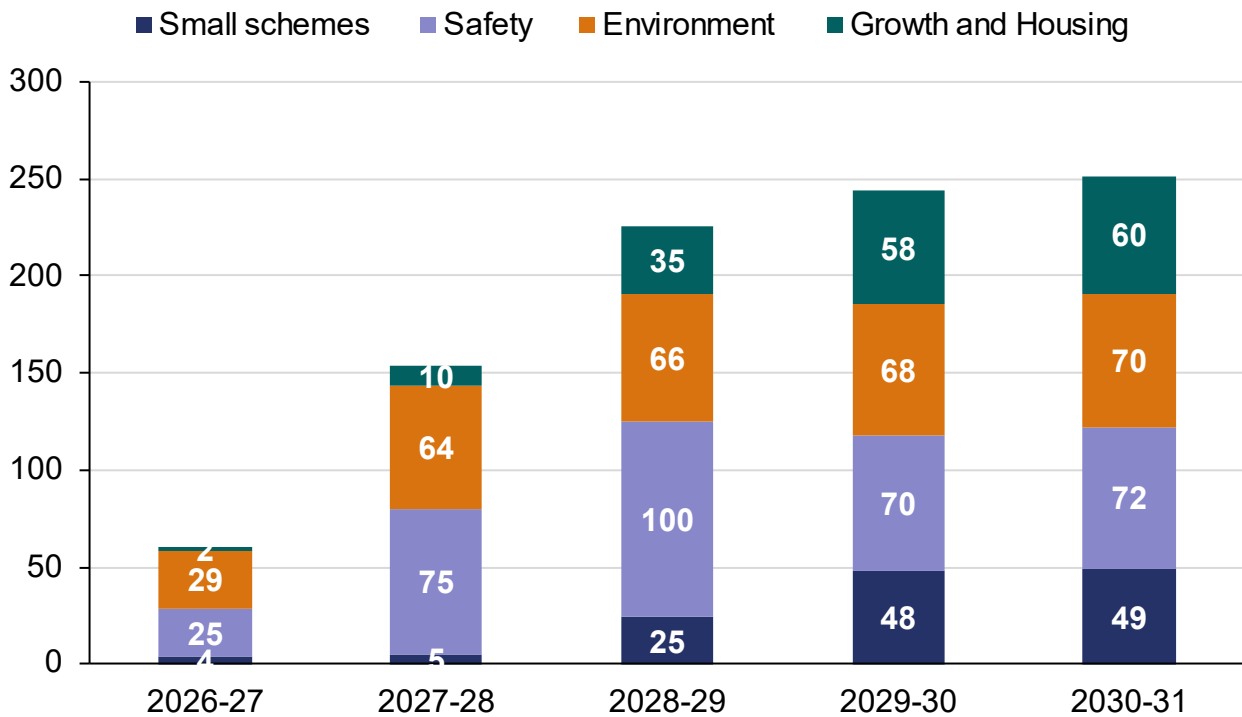
Table 6.1 National Programmes by theme (£m, nominal)

National Programmes	2026-27	2027-28	2028-29	2029-30	2030-31	RP3 Total
Small schemes	4	5	25	48	49	131
Safety	25	75	100	70	72	342
Environment	29	64	66	68	70	296
Growth and housing	2	10	35	58	60	165
Total	60	154	226	244	251	934

6.8 National Highways has allocated £934m (compared to £820m in the 2024 Interim draft SBP) to National Programmes. Table 6.1 shows the breakdown between programmes. Nearly 37% is allocated to safety, 32% is allocated to the

environment programme, 18% is allocated to the growth and housing programme, and 14% is allocated to the small schemes programme. The total spend profile, shown in Figure 6.3, is backend loaded, ramping up quickly from £60m in 2026-27 to £226m in 2028-29 before more gradually rising to £251m in 2030-31.

Figure 6.3 National Highways’ proposed annual funding profile for National Programme activities (£m, nominal)



Small Schemes National Programme

6.9 A new small schemes National Programme has been allocated £131m. This is aimed at delivering schemes with costs of £2m to £25m. Types of schemes that may be progressed include lane widening, small scale junction improvements and pedestrian crossings.

6.10 National Highways identified 70 sites for potential small scale improvement projects through its route strategies, stakeholder engagement and feedback from the company’s regions. Based on analysis of these sites, a shortlisting process has produced a work bank of 30 schemes. The analysis shows that the majority of these schemes are likely to offer high or very high value for money.

6.11 National Highways plans to deliver ten to 15 schemes in RP3. The year by year spend shows a backend loaded profile of expenditure, with a modest spend in Year 1 and Year 2 of the road period. Development and design funding, in the

order of £4m to £5m, is allocated for 2026-27 and 2027-28, with construction expected to start in 2028-29. Funding increases from £25m in 2028-29 to £48m and £49m in 2029-30 and 2030-31 respectively. Focusing construction towards the mid and end of part of RP3 increases the risk of delivery slipping into the next road period. It is unclear, particularly given the deferral of the start of RP3, why construction activity must be concentrated in the final three years of RP3 and not earlier.

- 6.12 National Highways must meet a commitment to set out a final programme at the end of 2027-28 if it is to provide certainty that it can deliver. In the interim, it should regularly report on progress in developing the programme and progressing scheme designs. It should also provide further detail on how it will select the final list of schemes and agree this approach with the department. The decision-making process should be transparent, so that the programme aligns with the department's objectives and delivers value for money for the taxpayer.

Safety National Programme

- 6.13 National Highways has allocated £342m to the safety National Programme. This compares to £275m allocated in the 2024 draft SBP. The programme is focused on delivering safety interventions on 18 priority corridors with current poor safety performance and a low International Road Assessment Programme (iRAP) star rating, divided across the company's operational regions. Schemes for a further six 'reserve' corridors are also being developed, to build an element of overprogramming. The company proposes that delivery of the schemes for the 18 corridors, and the savings in the number of people killed or seriously injured (KSI) it calculates, would directly contribute to achieving its road safety key performance indicator (KPI) target.
- 6.14 Planned expenditure occurs towards the latter part of RP3. The proposed spend profile rises from £25m in 2026-27 to peak at £100m in 2028-29. The initial schemes will be completed in 2028-29, meaning that casualty reductions will not be realised until toward the end of the road period. During the engagement process, National Highways highlighted the risk that delivery may, in practice, be pushed further into the latter part of RP3. While we consider the programme deliverable overall, the expenditure profile increases the risks to delivery.
- 6.15 As for other programmes with back ended expenditure profiles, it is unclear, given the opportunity afforded by the interim period, why it has not proved possible to deliver more construction activity earlier in the period. National Highways must address this issue during RP3 to achieve a smoother delivery profile in future road periods.

- 6.16 From the evidence presented to us by National Highways we conclude that the corridor selection process, using the iRAP star rating system, appears to be robust. Scheme design is currently underway, but detailed costs were not available for the review. However, the company stated that the 18 corridor schemes have an average cost of £14.5m. The further six corridors cover a shorter length and are costed at an average of £10m each. The company estimates that the 18 corridor schemes will lead to a reduction of around 20 KSIs each year. As a result of the profile of the delivery programme, the company estimates that the benefits will begin to be realised in the last three years of RP3; however, given the risks outlined above, this may occur even later in practice. The company has not provided estimates of the KSI savings for the additional six corridor schemes. This should be provided if these are to progress to provide assurance it is maximising safety benefits on the network.
- 6.17 National Highways should provide detailed activities and milestones in its safety action plan. This should be updated during the road period to reflect progress and changing circumstances to ensure it remains relevant.

Environment National Programme

- 6.18 National Highways has allocated £296m to the environment National Programme. This compares to £245m in the 2024 draft SBP. This programme is intended to deliver activities that meet environmental legal requirements or government commitments. These obligations include provisions related to improving water quality, improving the status of Sites of Special Scientific Interest (SSSIs), improving the cultural heritage of sites on the strategic road network (SRN), noise reduction for communities adjacent to the SRN and enhancing biodiversity. The company's spending profile for the environment National Programme rises from £29m in 2026-27 to £64m in 2027-29, before levelling off in the last three years of RP3 at between £66m and £70m.
- 6.19 The environment National Programme is divided into the following elements:
- water quality;
 - noise;
 - cultural and heritage assets;
 - biodiversity – SSSIs; and
 - biodiversity – supporting nature recovery.

6.20 National Highways' proposed allocation for these activities is shown in table 6.2.

Table 6.2 National Highways' proposed funding allocation for the environment National Fund (£m, nominal)*

Environment National Programmes	2026-27	2027-28	2028-29	2029-30	2030-31	RP3 Total
Water quality (high risk outfalls)	13	35	35	38	39	159
Noise	7	11	11	11	12	52
Cultural heritage	1	3	3	3	3	13
Biodiversity - SSSI (favourable status)	4	5	6	6	6	25
Biodiversity - supporting nature recovery	5	10	11	10	10	46
Total	29	64	66	68	70	296

**figures may not sum due to rounding*

6.21 In our interim advice, we highlighted concerns about the limited detail in the draft SBP regarding what will be delivered via the environment National Programme. The updated plans offer greater clarity on how funding will be allocated to different priorities and, in some areas, provide more detailed proposals for expected outputs. However, the level of detail remains below what is reasonable to expect at this stage of the road investment strategy (RIS) development process, and there remains uncertainty about the specific activities that will be delivered. Before RIS3 is finalised, National Highways should provide more detailed plans, in its delivery plan, and set out a pipeline of projects it intends to progress in the early part of RP3, to give assurance that these funds will be deployed efficiently in the interest of users, stakeholders and taxpayers and appropriately targeted.

6.22 The remainder of this section sets out our observations on each of the elements of the environment National Programme.

Water quality

6.23 National Highways has allocated £159m for improving water quality. This compares to £128m in the 2024 draft SBP. The proposed spend profile rises from

£13m in 2026-27 to £35m in 2027-28, where it broadly remains for each remaining year of RP3.

- 6.24 National Highways has a legal duty under the Water Environment Regulations 2017 and Environmental Permitting (England and Wales) Regulations 2016 to not pollute water courses. To improve water quality, the company plans to mitigate confirmed high-risk outfalls from which run-off polluted water enters watercourses near the SRN. It committed to do this by 2030 in its [Environmental Sustainability Strategy](#).
- 6.25 National Highways had previously identified 1,236 higher risk assets that require further study and potential mitigation. Of these, it had previously estimated that ~250 higher risk assets would require mitigation. The company has now reviewed 90% of these assets. Its current estimate is that 214 assets, from the original list of 1,236, will require mitigation in RP3. Nine of the 214 are scheduled for delivery in 2025-26. In addition, a further 35 assets, not forming part of the 214, are scheduled to be addressed through existing schemes by the end of 2025-26.
- 6.26 In its 2024 draft SBP National Highways had estimated that scheme costs were in the order of £350,000 to £450,000 (with 10% contingency) per asset. The company has developed its design approach and refined its costs estimates for these treatment schemes which have included more complex sites. For some schemes land is required beyond the highway boundary. Consequently, estimated costs have more than doubled to between £900,000 and £1.2m per asset.
- 6.27 National Highways estimates that between 110 and 130 mitigated assets will be delivered from the allocated budget as part of this programme in RP3. Taking into account the nine scheme being delivered in 2025-26, the company forecasts that between 75 and 95 assets will be carried over for mitigation during RP4. This means National Highways will not deliver ~250 outputs by 2030 which it previously proposed and committed to in its [2030 Water Quality Plan](#). The company estimates that between £186m and £294m would be required to deliver all the mitigated assets by the end of RP3. National Highways should seek to work with the department to manage expectations where it has previously committed publicly to deliver a bigger programme and the reasons this is no longer feasible.
- 6.28 Despite the revision in per unit cost estimates, National Highways explained that cost data in this area remains limited, in terms of the unit cost of the solution, and associated requirements such as traffic management. In addition, the company indicated that it has not undertaken external benchmarking, as its priority is to understand performance within its own operating environment. To date, evidence

has been drawn from a limited number of retrofit projects delivered through Designated Funds.

- 6.29 In overview, the evidence to support National Highways' plans is high-level, making it difficult to assess whether the proposed delivery commitment has been set at a challenging and deliverable level. On balance, based on evidence of the cost of recent interventions, we consider that the proposed commitment, in terms of the number of outfalls treated, is conservative and should be revised such that it represents an appropriately challenging commitment.

Noise

- 6.30 National Highways has allocated £52m for noise mitigation. This compares to £45m in the interim draft SBP. The proposed spend profile rises from £7m in 2026-27 to £11m in 2027-28, where it remains flat for each of the three remaining years of RP3.
- 6.31 National Highways has gained considerable experience delivering noise mitigations during RP1 and RP2. The company mitigated 7,776 households, exceeding its target of 7,500 households, through a combination of resurfacing, noise barriers and upgrading insulation at affected properties. However, it is unclear how the company has applied this learning to its plans for RP3. The information provided has been high-level and, in some cases, unsubstantiated.
- 6.32 The proposed programme is limited by the budget allocation. National Highways has advised that an average cost per household of £10,000 was used to inform the cost allocation. This compares to the average delivery cost of £7,200 per household in the second road investment strategy (RIS2), a difference of 39%. The company considers that the average cost per household in RIS3 will be higher than previous road periods due to recent high inflation and greater complexity to mitigate the remaining households compared to previously. However, no evidence is provided to justify the need to increase from £7,200 to £10,000.
- 6.33 The proposed RIS3 budget and cost per household equates to a target of 5,200 households. National Highways has proposed a RIS3 target of between 4,500 and 5,500 households. The company's delivery ambition has materially reduced compared to previous periods, while estimated costs per household have increased without reasonable substantiation. National Highways should provide detailed justification to support the cost increase and provide more detail in its delivery plan to evidence how it will reach the target to reduce the noise exposure to households within noise important areas.

Cultural and heritage assets

- 6.34 National Highways has allocated £13m to preserving and improving cultural and heritage assets. This compares to £11.5m in the interim draft SBP. The proposed spend profile rises from £1m in 2026-27 to £3m in 2027-28, where it remains for each of the remaining three years of RP3.
- 6.35 The requirement to improve the condition of cultural heritage assets stems from the [Protocol for the Care of the Government Historic Estate 2017](#). This requires government departments to protect heritage assets. National Highways is responsible for a range of cultural heritage assets, such as those on the National Heritage List for England, that are on or adjacent to its network.
- 6.36 National Highways has created Cultural Heritage Asset Management Plans (CHAMP) for these assets that detail the condition of the assets and provide recommendations for maintenance and repair. The measurement unit is “cultural heritage units” (CHUs) that are calculated based on the condition and distinctiveness/value of individual cultural heritage assets. The approach to CHAMPs predates RIS2, and the plans were not designed to support the CHU metric. For example, CHAMPs are inconsistent with each other and are not of equal quality. Different assumptions have been made when compiling the list of assets under the company’s ownership, with gaps where assets could not be accessed to assess their value or condition. This makes CHAMP data unreliable for metric purposes and means that there is no line of sight from CHAMPs to performance against the metric. National Highways should undertake a review of the metric to ensure it more effectively measures delivery of the outputs of this fund.
- 6.37 National Highways states that funding will support the delivery of interventions to prevent deterioration of the cultural heritage assets identified to be in a ‘fragile’ condition over RP3. However, the company has not provided any detailed evidence on the plan it aims to deliver for the funding or an estimate of the number of CHUs resulting from the delivery of interventions. National Highways should provide a detailed plan, in its Delivery Plan, of what it intends to deliver for the funding.

Biodiversity

- 6.38 National Highways has allocated £25m for SSSI improvement and £46m for supporting nature recovery. This compares to £22m for SSSI improvement in the interim draft SBP. The closest comparable programme for supporting nature

recovery was the 'no net loss' biodiversity programme that had a funding allocation of £37m in RP2.

- 6.39 Section 102 of the Environment Act 2021 amended the existing general duty under the Natural Environment and Rural Communities Act 2006 that was focused on conservation of biodiversity. The amendment extended the existing requirements on public authorities to include 'enhancement' of biodiversity. National Highways has responded to this legal change by proposing that, where it owns or partially owns SSSI land, it will use appropriate management to influence the overall condition and bring the site towards a 'favourable' condition, where feasible. Favourable condition means that the SSSI's habitats and features are in a healthy state and are being conserved by appropriate management.

SSSI Improvement

- 6.40 In its interim draft SBP submission National Highways identified 68 sites requiring intervention to reclassify them from an 'unfavourable' to 'favourable' condition status and it proposed to maintain an additional 107 sites. Our interim advice concluded that National Highways' plans appeared ambitious given the complexity of enhancing SSSIs. We also identified that its cost estimates may have been overly simplistic given the range of activities that can be involved in addressing a SSSI.
- 6.41 In the draft SBP National Highways explains that, during 2025-26, it is developing management plans for the SSSIs under its ownership or partial ownership. In addition to these, several other sites are being assessed for potential inclusion, pending legal and land ownership reviews. Interventions outlined in these plans would be implemented during RIS3. No further details were contained in the draft SBP. From the evidence submitted it is not clear how well formed the company's SSSI improvement plans are or what programme of projects will be delivered.
- 6.42 National Highways should submit a detailed delivery plan for this funding stream to provide basis against which it can demonstrate it is delivering benefits.

Supporting nature recovery

- 6.43 National Highways proposes to deliver 2,000 biodiversity units through this funding programme. The profile of delivery is shown in Table 6.3.

Table 6.3 Proposed delivery profile of biodiversity units

	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Number of biodiversity units	100	300	500	500	600	2,000

- 6.44 The average unit cost in its plan is £23,000. The cost per biodiversity unit is influenced by several factors, including intervention location, delivery method and, especially, habitat type. Defra’s regulatory impact assessment set an offset unit price of £22,800, noting that the market was not fully developed at the time and that prices could range from £14,000 to £30,000. Adjusting for 20% CPI inflation since 2021, this range increases to £16,800–£36,000.
- 6.45 National Highways told us that the 2,000 biodiversity units it has set for the target, are deliverable under a 30-year maintenance scenario (full metric compliance) at £23,000 per unit.
- 6.46 National Highways has ten years’ experience delivering biodiversity improvements, reflected in its RP2 performance. The company’s delivery of biodiversity units exceeded its RP2 target, following intervention from the Office of Rail and Road mid-way through the period. It has completed feasibility studies for 850 biodiversity units, primarily in off-site locations that it states will make up the first tranche of delivery. There is evidence that overall programme readiness has improved but the company has not provided a clear sequencing plan that demonstrates how and when individual biodiversity projects will be delivered in line with the overall target. This would be expected to be readily available due to the proximity to the start of RP3 and the companies experience. Without this information, there remains a degree of uncertainty as to whether the programme is achievable in RP3.

Growth and housing National Programme

- 6.47 The department requested in SR25 that National Highways establishes a growth and housing fund. The company has allocated £165m to the new programme. The aim of which is to fund, or partially fund with match funding, projects on the SRN that assist delivery of housing and employment sites. In the order of 20 to 40 schemes would expect to be funded. The principles for the fund and the allocation criteria are still in development, which is reasonable to expect due to their late inclusion within its plans. A call for bids will be made in early 2026. A modest allocation of £2m for programme development is proposed for 2026-27, rising to £10m in 2027-28, £35m in 2028-29, £58m in 2029-30 and £60m in 2030-31.

- 6.48 There appears to be little documentation on the learnings from a similar programme that National Highways delivered in RP1. Nevertheless, experience from other comparable programmes highlights the need to plan for and mitigate the risk of interdependencies with other funding streams, the complexity of co-ordinating with multiple stakeholders, long lead times and uncertain outcomes.
- 6.49 Notwithstanding that National Highways has operated a similar fund in the past. There is inevitably a higher degree of uncertainty when allocating funds to third-party projects, particularly if they are dependent on the progress of housing or employment development. Work has already been undertaken to identify potential candidate schemes to help mitigate this risk. Nevertheless, regular reporting is necessary to demonstrate the programme is on track to achieve its aims for government. As for the small schemes programme, the company should set out further details of the process it will follow to select schemes, the criteria it will employ to inform decision-making, and the role the department will play in this process.

Designated Funds

- 6.50 Designated Funds is a dedicated funding stream for improvements, or mitigations to issues, valued by SRN users and local communities that are beyond the traditional focus of roads investment. It is a funding stream that National Highways has designed to be reactive, rather than having a five-year pipeline. However, it is important that the company is clear on the activities it will deliver to provide confidence that the funds will be used effectively in line with the department's objectives.
- 6.51 National Highways has put forward a new set of principles that are intended to provide greater clarity on how Designated Funds projects are prioritised. It is also improving governance of the programmes to provide greater transparency. We recommend that these principles be reflected in the RIS to ensure that funding is allocated to the activities of greatest priority for the department.
- 6.52 In our interim advice, we highlighted the limited evidence of a pipeline of projects to enable National Highways to hit the ground running at the start of the road period. It remains the case that the draft SBP sets out broad themes for investment without including details of specific projects or candidate projects that will be delivered during the first year of RP3.
- 6.53 It is reasonable to expect, due to its proximity to the start of RP3, that National Highways has a programme in place covering at least two or three years for

Designated Funds. This needs to be in place prior to the start of RP3 and should be a continuous rolling programme for all the funds going forward. This will assist resource planning, smooth delivery profiles and assist the supply chain.

6.54 There are four Designated Funds funding lines linked to named ‘themes’:

- safety;
- environment;
- customer and communities; and
- innovation and research.

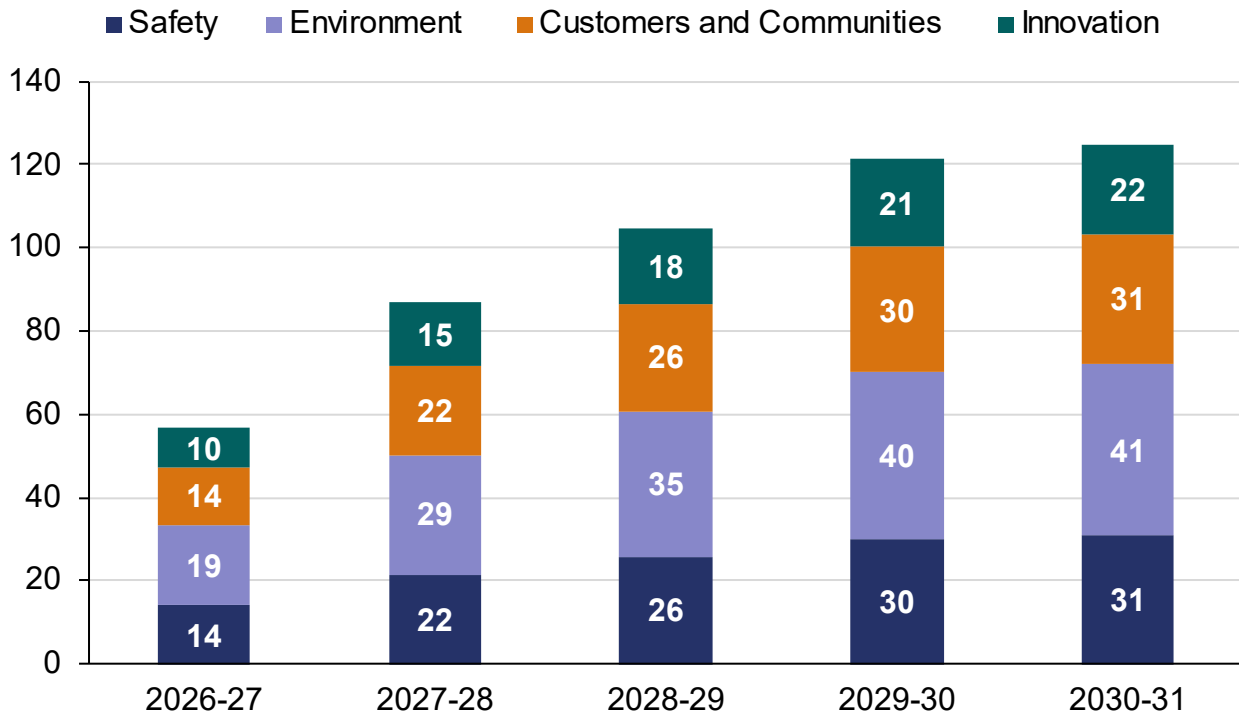
6.55 National Highways has allocated £495m (compared to £405m in the interim draft SBP) to Designated Funds. Table 6.4 shows the breakdown between programmes. A third is allocated to the environment programme, one quarter is allocated to safety, a further quarter is allocated to customers and communities activities, and 17% is allocated to innovation and research. The total spend profile, shown in figure 6.4, is backend loaded, increasing from £57m in 2026-27 to £105m in year 2028-29 before rising to £125m in 2030-31.

Table 6.4 Designated Funds by theme (£m, nominal)*

Designated funds	2026-27	2027-28	2028-29	2029-30	2030-31	RP3 Total
Safety	14	22	26	30	31	122
Environment	19	29	35	40	41	164
Customers and communities	14	22	26	30	31	122
Innovation and research	10	15	18	21	22	86
Total	57	87	105	121	125	495

* figures may not sum due to rounding

Figure 6.4 National Highways’ proposed annual funding profile for Designated Funds activities (£m, nominal)



Safety Designated Fund

6.56 National Highways has allocated £122m to the safety Designated Fund. This compares to £100m in the interim draft SBP. The company has not provided any evidence to demonstrate that the rise will result in increased outputs or outcomes. The company expects this activity to directly contribute to it achieving its proposed road safety KPI target. The funding profile is backend loaded, with over twice the spending planned in later years than the early years to account for time to identify and develop intervention before implementation. It is focused on the following three themes:

- suicide prevention – targeting frequently used locations, in addition to what is delivered within renewals and enhancements projects;
- effective proactive action – implementing safety compliance methods, for example, speed enforcement cameras; and
- reactive action – interventions to improve safety following collision investigation.

6.57 National Highways estimates that Designated Funds will produce a saving of approximately five KSIs a year in each year of RP3. In the interim draft SBP it

estimated that the safety Designated Funds would produce a saving of around ten KSIs a year that would begin to materialise in the last four years of RP3. It is not clear from the evidence provided why the estimated KSI savings are more conservative than previously proposed.

Environment Designated Fund

6.58 National Highways has allocated £164m to the environment Designated Fund. This compares to £135m in the interim draft SBP. The funding profile is backend loaded, with over twice the spending planned in later years than the early years of RP3. It is divided into the following four categories of activities:

- landscape scale connectivity;
- nature based solutions;
- improving environmental asset data; and
- other environment;
 - air quality;
 - off network cultural heritage; and
 - other environment.

6.59 National Highways' draft SBP provides no explanation as to how it has determined the allocations within the environment Designated Fund. There is limited specificity concerning what will be delivered, and the benefits that will arise. In addition, its proposed funding lines do not have a clear and direct link to the Performance Specification. Without better plans there is a risk that the funding will not be targeted where it has most impact to support government objectives. More detailed, clearer plans would outweigh the risk of any perceived loss of flexibility, suggested by the company, in managing the fund. National Highways should improve the quality and detail of its proposals in its delivery plan to avoid ineffective and inefficient spending of funds.

Customer and communities Designated Fund

6.60 National Highways has allocated £122m to the customer and communities Designated Fund. This compares to £100m in the interim draft SBP. The funding profile is backend loaded, with over twice the spending planned in later years than the early years of RP3. It is focused on the following five categories of activities:

- access and inclusion;
- freight and roadside facilities;
- community;
- active travel; and
- integration.

6.61 National Highways' user satisfaction KPI may be impacted by these activities by different degrees. However, it is challenging to estimate the extent of this. Some evidence has been provided by the company as to how it is prioritising the themes against the proposed funding allocation. In previous advice we have highlighted the company's lack of detailed forward plans, omitting a programme, costs, benefits and a timeline, for Designated Funds delivery. Rectifying this would ensure more effective delivery of the funds. There is evidence of an indicative pipeline of planned investment for some of these activities, notably active travel. However, plans for the customer and communities Designated Fund need to be improved for the final delivery plan to provide transparency and on what will be funded, by when and to what benefit and outcome. This will provide confidence that the funds are appropriately allocated.

Innovation and research Designated Fund

6.62 National Highways has allocated £86m to the innovation and research Designated Fund. This compares to £70m in the interim draft SBP. The funding profile, shown in table 6.5 is backend loaded, with over twice the spending planned in later years than the early years of RP3. The scope of the fund has been rationalised and consolidated from nine categories, proposed in the interim draft SBP, to the following four categories of activities:

- safety;
- decarbonisation;
- customer experience; and
- asset resilience.

Table 6.5 National Highways’ proposed funding profile for the innovation and research Designated Fund (£m, nominal)

	2026-27	2027-28	2028-29	2029-30	2030-31	RP3 Total
Innovation and Research Designated Fund	10	15	18	21	22	86

6.63 National Highways has shared information about the process and governance arrangements for how it operates the fund. However, it has provided no evidence as to how it prioritises themes or its proposed funding allocation between categories of activities, even at a broad level, or how these support its efficiency target.

Key proposals

We advise that:

National Programmes and Designated Funds

National Highways’ plans for National Programmes and Designated Funds should, in all cases, contain more detail as to what will be delivered, by when, for what budget and to deliver what benefit. The company should develop and provide more detailed plans for the final SBP and delivery plan.

This detail should include the measurable benefits that the activities will deliver, justification for the spending allocations and cost estimates that it has put forward, with time bound programmes to ensure commitments are delivered and remain aligned with RIS requirements. Without this information at the start of the RIS it will be difficult for National Highways to demonstrate whether the money spent is delivering beneficial outcomes for users, communities and the wider public across and beyond the road period.

National Programmes

Plans for the environment National Programme for SSSI improvement and cultural heritage lack detail on outputs to justify the proposed spending allocation. National Highways should provide further detail for the final SBP and delivery plan.

Plans for the environment National Programme for noise mitigation lack detail justifying the unit costs for delivery. National Highways should provide further detail for the delivery plan.

For the small schemes and growth and housing programmes, the company should set out further details of the process it will follow to select schemes, the criteria it will employ to inform decision-making, and the role the department will play in this process.

Designated Funds

The department should consider defining in the RIS, the principles for allocating Designated Funds, based on those developed by National Highways. This will help to ensure that Designated Funds are focused on more effectively delivering government objectives.

Because many of National Highways' plans for RIS3 remain high-level, with limited evidence of a pipeline of projects, the department should consider the option of prioritising funding for activities that are clearly specified.

All of the categories of Designated Funds lacked detail on what will be delivered for the funding. National Highways should provide further detail for the Delivery Plan.

National Highways should develop rolling programmes, covering at least two or three years, for Designated Funds. This will assist resource planning, smooth delivery profiles and assist the supply chain.

7. Digital, corporate services and protocols

National Highways' proposals

- 7.1 This section covers National Highways' corporate services functions, the 'corporate technology' element of the company's digital plans (see chapter 3 for 'operational technology'), and capital investment in the company's estates (depots, outstations, and offices). It also includes the costs of activities aimed at reducing the company's own carbon emissions ('corporate carbon'), which is distinct from emissions associated with supply-chain maintenance or construction activities, and from users' tailpipe emissions.
- 7.2 Although a separate area of activity, 'protocols' are also addressed in this section. This refers to services provided in addition to National Highways' core purpose of operating, maintaining, and enhancing the strategic road network (SRN).
- 7.3 Across the spending lines in aggregate, National Highways' cost estimates in the draft strategic business plan (SBP) indicate a real-terms increase in spending of 10% in real terms on the second road period (RP2, April 2020 to March 2025) (Figure 7.1 and Table 7.1). The increase is largely driven by an expanded programme of corporate-carbon initiatives and higher capital investment in the company's estates. In contrast, the company anticipates a slight reduction in spending on corporate services and corporate technology in real terms.

Figure 7.1 Annual digital, corporate services and protocols expenditure (£m, nominal)

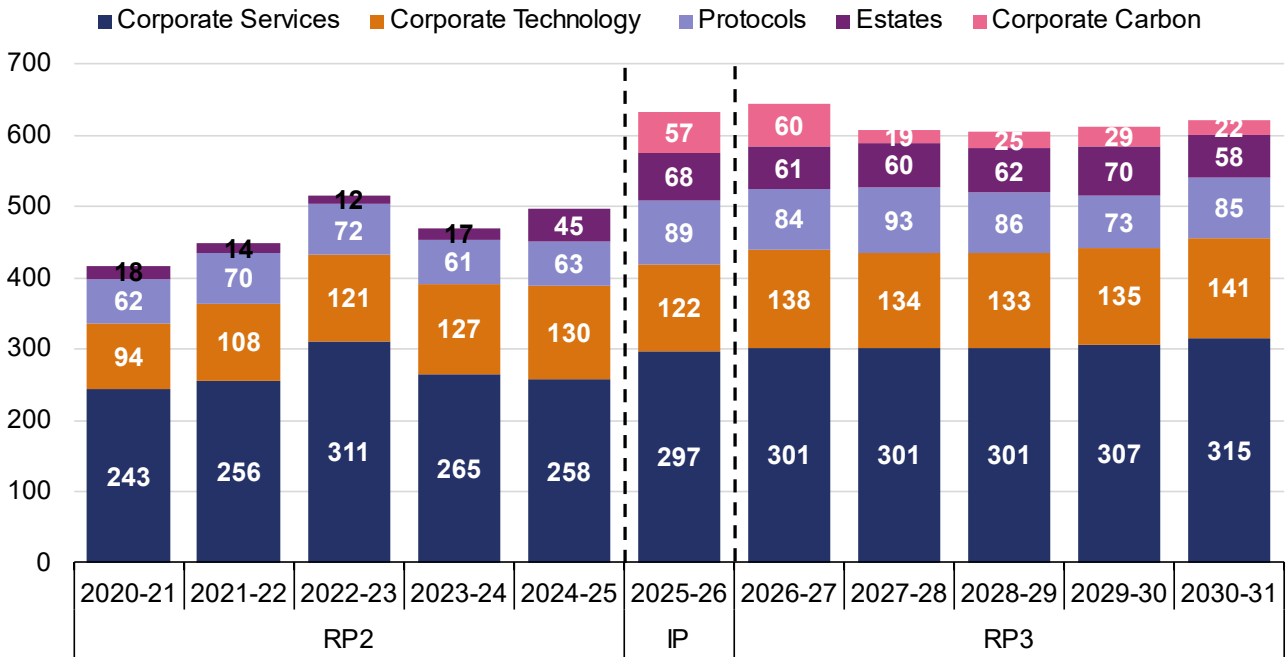


Table 7.1 Digital, corporate and protocols financial breakdown (£m)*

	RP3 (nominal)	RP3 (real-2024-25 prices)	RP2 (real – 2024-25 prices)	Percentage difference (real)
Corporate services	1,524	1,393	1,470	-5%
Corporate technology	681	623	635	-2%
Estates	311	284	114	150%
Corporate carbon	155	142	0	-
Digital and corporate services total	2,671	2,442	2,218	10%
Protocols	421	385	364	6%
Total	3,092	2,828	2,582	10%

*figures may not sum due to rounding

Assessment

Corporate services

7.4 Corporate services includes the staff and business costs related to the following National Highways directorates:

- chief executive's office
- customer, strategy and communications;
- finance and business services;
- human resources;
- legal services;
- major projects; and
- safety, engineering and standards.

7.5 Based on National Highways' cost estimates the cost of staff and project costs of these directorates in the third road period (RP3, April 2026 to March 2031) would amount to £1,413m. Additionally, corporate services includes the cost of the company's new business improvement programme (BIP) that commenced during the interim period and is intended to improve the company's efficiency. We deal with each of these areas in turn.

Corporate services directorates

7.6 In our interim advice, we highlighted that National Highways' 'pre-efficient' cost estimates assumed a substantial increase in staffing levels across various directorates. Therefore, the company's efficiency challenge was predicated, in part, on avoiding an increase in future cost, rather than generating overall cost savings. We concluded that appropriate evidence to justify the increase in cost had not been provided.

7.7 National Highways' updated plans broadly address this concern. Planned spending on corporate services has been reduced from the level set out in the interim draft SBP, and for the first year of RP3 it is now roughly in line with expected outturn costs for the interim period.

7.8 Comparisons between RP2, the interim period, and RP3 are hampered by changes in organisational structure and the way costs are categorised. This

makes it more challenging to assess whether National Highways' plans are efficient. During RP3, the company must ensure that any similar adjustments are accurately recorded to improve transparency.

- 7.9 National Highways has incorporated an efficiency challenge of £70m in its plans. This assumes that costs remain broadly constant in nominal terms during the first three years of RP3. The implication is that improvements in efficiency would enable it to absorb the effects of inflation without requiring an increase in funding.
- 7.10 Whilst this approach ensures National Highways has built in an efficiency challenge, it reflects a relatively high-level approach to efficiency. For the fourth road investment strategy, the company must provide stronger evidence to support its efficiency proposals, specifying the efficiency levers and expected benefits. At £70m, the efficiency challenge for corporate services alone is modest at approximately 4% of pre-efficient costs. However, as discussed in chapter 8, the combined efficiency challenge for digital and corporate services aligns broadly with expectations based on benchmark evidence.
- 7.11 Pay costs for National Highways' staff account for the majority of corporate services expenditure. As noted in chapter 3, the company has not provided a company-wide plan in its draft SBP to align resources with the requirements of the third road investment strategy (RIS3). Corporate services' plans largely roll forward current resourcing levels and are not based on directorate-specific proposals. Although the company states that it is currently reviewing and challenging its resourcing plans as part of business planning, this should have been undertaken prior to submission of the draft SBP.
- 7.12 While we do not intend to recommend arbitrary staffing limits, National Highways' headcount, totalled across all directorates, has steadily increased throughout the first road period (April 2015 to March 2020) and RP2. Any further expansion that increases costs must be justified with robust evidence.
- 7.13 As described in chapter 3, National Highways' operations plans build-in an increase in staffing and cost relative to the end of RP2, based on the increase in renewals delivery. However, the company has not included a reduction in staffing and costs in its major projects directorate to reflect the reduced level of enhancements delivery. This reflects the more general point, noted above, that the draft SBP does not contain a fully coherent plan for how resources will be deployed to meet the requirements of RIS3.

7.14 Anticipating the outcome of the challenge process described above, we have assumed a modest adjustment of approximately £17m to National Highways' corporate services costs. This is broadly equivalent to 40 full-time equivalent staff, based on initial analysis from the company. This is a conservative estimate in the place of a more comprehensive resourcing plan. While precise staffing levels in the draft SBP remain unclear, current evidence suggests this could be achieved by holding staffing levels flat or through attrition. As set out in Section 3, in our analysis of the company's operations plans we do not intend to prescribe arbitrary limits for its overall headcount as there may be opportunities to improve efficiency by undertaking more activities in-house and reducing reliance on external consultants.

Business improvement programme

- 7.15 The BIP is intended to develop and fund projects to improve National Highways' approach to delivery, meet new challenges, and drive efficiency. The Programme is similar to 'Operational Excellence 2025' that the company utilised during RP2. As noted, the programme began in the interim period and some projects are already underway.
- 7.16 As further described in chapter 8, the BIP has been set up and resourced to deliver in the region of £950m in efficiencies during RP3, approximately two-thirds of total efficiencies. This estimate is based on high-level assumptions, and it is difficult in practice to distinguish the impact of BIP initiatives from efficiency measures that National Highways' teams would implement independently.
- 7.17 During our review of National Highways' interim draft SBP, we noted that teams responsible for developing plans in the areas of operations, maintenance, renewals, and enhancements rarely cited the BIP as being integral to the achievement of their proposed efficiency measures. This raised concerns about the role the BIP would play in delivering efficiency improvements in RP3. However, more recent discussions indicate greater awareness of the programme among delivery teams, with more examples emerging of how the BIP may support the development and implementation of efficiency initiatives.
- 7.18 Cost estimates for the programme are relatively high level. National Highways has allocated £112m for RP3, comprising £72m for consultancy support from its delivery partner and £40m for implementation costs (such as new software licences if these are required to realise the benefits of initiatives). The programme remains at an early stage. While the company has identified several priority initiatives for the interim period and the start of RP3, it does not yet have a complete project pipeline to support its cost estimates. Implementation funding

represents a higher proportion of total project costs than under operational excellence 2025. It considers this reasonable given potentially higher implementation costs, but the allocation appears to be based on professional judgement rather than detailed bottom-up evidence.

- 7.19 Given the cost of the BIP and its critical role in supporting the RIS3 efficiency challenge, National Highways should demonstrate that implementation is on track and that benefits and efficiencies are being realised throughout the road period, to provide assurance that it is meeting its efficiency target. To support this, we have asked National Highways to provide a programme detailing the specific activities it intends to progress. The company has agreed to provide this information before the start of RP3, including detailed plans for year 1 and higher-level plans for subsequent years.

Corporate technology

- 7.20 Corporate technology encompasses the digital, data and technology services needed for communication, collaboration and information sharing within National Highways. This is distinct from operational technology (technology services to support the operation of the SRN). However, the company has developed in parallel its plans for both corporate technology and operational technology.
- 7.21 Assessing whether National Highways' corporate technology costs are set at an efficient level is challenging as IT requirements vary greatly depending on their applications within different organisations. However, as described in chapter 3, we are broadly satisfied that the company's digital plans are aligned with its objectives and that it has undertaken a robust cost challenge process.

Estates

- 7.22 National Highways will face increased costs associated with the maintenance and renewal of its estates in RP3. This is attributed to addressing gaps in network coverage, preparing for the return of the design build finance and operate roads (chapter 3), and upgrading depots and outstations reaching the end of their useful life.
- 7.23 National Highways contends that the 'unconstrained' need for investment in RP3 is in the region of £450m. Given funding constraints, the company has prioritised activity to align with the currently available budget. Based on the evidence provided, we are satisfied that the programme has undergone an appropriate level of cost challenge and are not proposing any further adjustments.

Corporate carbon initiatives

- 7.24 National Highways has developed a programme of initiatives intended to contribute towards the company's ambition of achieving 'net zero' on its corporate emissions by 2030.
- 7.25 National Highways has presented much clearer plans for the activities it would undertake and their contribution to reducing emissions than those set out in the interim draft SBP. The cost of the programme has significantly reduced from £215m in the interim draft SBP to £155m.
- 7.26 The reduction in cost is partly due to the removal of a previous proposal to deploy solar energy on land adjacent to the network to meet a target of generating 10% of National Highways' electricity from renewable sources. As noted in our interim advice, based on the company's own assessments, these proposals were unlikely to be feasible, and it is therefore prudent not to pursue them further.
- 7.27 National Highways' continued delivery of the light emitting diode (LED) lighting programme accounts for around a third of the cost of corporate carbon initiatives. Due to its lower electricity consumption and greater durability, replacing conventional lighting with LEDs is likely to provide high value for money. The company is proposing to replace 7,320 LEDs at a unit cost of approximately £6,500. This compares to a unit cost of approximately £2,700 applied to estimate costs for the interim period.
- 7.28 National Highways has provided evidence that the cost of LED replacements is rising, as it has already prioritised installations in more straightforward locations. The company is now progressing schemes on routes with more complex access and traffic management requirements. It may also need to undertake additional renewal activities – such as replacing lighting columns or cables – alongside LED installations. However, it acknowledges that its cost estimates remain uncertain and has not provided evidence to substantiate its revised figures.
- 7.29 National Highways has not been able to provide evidence to justify the scale of the increase in cost. In the absence of suitable evidence, we have assumed a unit rate of approximately £3,000 per replacement which is more closely aligned with costs assumed for the interim period. Adopting this assumption reduces estimated costs in RIS3 by approximately £28m. If renewal activities are required as part of the programme, this can be funded through the lighting renewals budget, consistent with the approach the company outlined in the draft SBP.

- 7.30 The cost of National Highways' corporate carbon initiatives is additional to the cost of converting the company's light vehicle fleet to electric vehicles (EVs) (see chapter 3). Both contribute towards lower corporate emissions. The corporate carbon programme includes £28m to install electric chargers for heavy vehicles. However, the company has no plans to purchase heavy vehicles during RP3 and therefore this initiative would not realise any carbon savings until RP4.
- 7.31 National Highways' plans are linked to the proposed corporate carbon key performance indicator (KPI) (see chapter 9). It should also be noted that some initiatives, although they may contribute towards wider government objectives and targets, will not directly contribute to performance as measured by the KPI. For example, based on the currently proposed methodology for measuring changes in emissions, the company's electricity consumption will be rated as zero carbon on the basis that it procures its electricity on a 'green' tariff. Therefore, the LED programme will not contribute to the KPI. Similarly, the low carbon innovation fund will not reduce corporate emissions but could, in the long run, contribute to lower emissions in maintenance and construction activities including, but not limited to, those carried out by the company.
- 7.32 The cost effectiveness and value for money of National Highways' corporate carbon initiatives warrants closer attention. In practice, achieving net zero requires the company to reduce its corporate emissions by 90% compared to its 2019-20 baseline. A reduction of approximately 70% was achieved by the end of RP2. Therefore, a further reduction of 20% is required. Actions already implemented or funded via other expenditure lines are forecast to achieve an 87% reduction by the end of RP3. Therefore, £155m of investment in corporate carbon initiatives only achieves a reduction of 3%. Corporate carbon accounts for only 0.1% of total SRN emissions (including tailpipe emissions). Therefore, there are likely to be more cost-effective measures available to the Department of Transport's (department) to reduce carbon emissions.
- 7.33 As shown in Table 7.2, National Highways' analysis suggests that the majority of corporate carbon reduction measures are likely to offer poor value for money. For some initiatives, the value-for-money assessment has been deemed 'indicative' because certain potential cost savings or wider benefits (beyond direct emissions reduction) are not currently captured in the appraisal. However, based on the evidence provided, we conclude that in most cases, including these impacts is unlikely to materially affect the overall value-for-money assessment.

Table 7.2 Corporate carbon initiatives: cost and value for money*

Initiatives	Cost (£m, nominal)	Value for money	RIS3 carbon savings (tCO ₂)
LED lighting	48	Very high (and financially positive)	0
Electric chargers for heavy vehicles	28	Poor (indicative)	2,840
Upgrading energy efficiency at 50% of leased offices	22	Poor (indicative)	227
Low carbon innovation fund	16	Economically positive	0
Depot renewables	9	Very high	0
Depot low carbon technology	7	Poor (indicative)	385
Office renewables	5	Poor (indicative)	0
Consultancy support	5	Unknown	0
Tree planting	1	Poor (indicative)	0
Other	13	Unknown	-
Total	155		

**figures may not sum due to rounding*

7.34 We have identified the following options for the department to further reduce costs in this area and improve the overall affordability of RIS3 plans:

- delaying expenditure on chargers for heavy vehicles until RP4 given that National Highways has no plans to purchase new electric heavy vehicles in RP3, reducing cost by £28m;
- the department could instruct National Highways to allocate funding from the Designated Fund to meet the cost of the low carbon innovation fund as it did in RP2. This would reduce the amount of funding available to spend on other innovation projects, reducing costs by £16m. However, as described in chapter 6, the company does not have a clearly specified pipeline of projects that it plans to deliver from the Designated Fund; and/or
- reducing funding allocated to other activities that offer poor value for money.

- 7.35 The department must determine the priority it places on National Highways reducing its corporate carbon emissions and provide clear guidance on the approach it expects the company to taken when finalising its plans. Final decisions will depend on the importance attached to achieving the net zero milestone by the end of RP3, although there are options to reduce costs without compromising this target.
- 7.36 It In the interim, we have assumed a potential cost reduction of £50m as part of the possible measures to reduce the cost of discretionary programmes, in addition to our recommended revision of £28m to the cost estimates for the LED programme.

Protocols

- 7.37 Protocols are defined as activities or functions, specified by the Secretary of State, that are not core to National Highways' role as a strategic highways company. Consequently, whilst funding provision has been made in the RIS, the delivery of protocols is not monitored by ORR.
- 7.38 Of the eight protocols, most costs are associated with four: Dartford Crossing, Severn River Crossings, Operation Brock (a traffic management system in Kent to manage cross-Channel transport disruption), and management and upkeep of the Historic Railways Estate (HRE).
- 7.39 The interim draft SBP included approximately £20m per annum for the operation, maintenance, renewal and emergency repair of the HRE. In the draft SBP this has been revised to £5m to cover operating cost. No capital funding has been included. There may be safety implications if capital works are not undertaken and therefore the department may need to make alternative funding arrangements to cover these costs.
- 7.40 As set out in our interim advice, we recommend that the department reconsiders how the definition of protocols is applied in practice and provides clarity on how these activities are financed and how National Highways is held to account for their delivery.

Key proposals

We advise that:

National Highways should prioritise the development of an organisation-wide plan to align its resources to deliver the requirements of RIS3. We recommend that a more robust cost

challenge is applied, ensuring efficient resource levels across both operations and corporate services directorates.

To demonstrate it is on track to achieve its RIS3 efficiency target, National Highways should regularly report progress in developing, implementing and capturing the benefits and efficiency realised of projects funded through the BIP.

National Highways should revisit and update its cost estimates for LED roll-out assuming any associated renewals activities are funded via the lighting renewals budget.

The department should consider options for reducing the cost of corporate carbon initiatives as it reviews opportunities to align RIS3 plans with available funding.

The department should consider how the definition of protocols is being applied and how these activities should be financed and monitored in future, including whether and how National Highways should be held to account for their delivery.

8. Inflation, efficiency and financial risk

8.1 This chapter of our advice considers inflation, efficiency and financial risk. These topics are closely related. For example, inflation is a risk for National Highways, particularly as the company is funded in nominal terms. Similarly, an overly optimistic efficiency challenge would increase its risk around delivery and performance.

Inflation

Allowance for future inflation

8.2 The Statement of Funds Available (SoFA) is a fixed amount. Accordingly, National Highways must take account of the impact of future inflation when preparing its plans. If insufficient allowance for inflation is made, the company will face affordability challenges during the road period, making it more difficult to deliver its programme of investment and to maintain required levels of performance. Equally, if inflation allowances are overstated this could result in government unnecessarily diverting funding away from other priorities.

8.3 Inflation is inherently uncertain, and it is unrealistic to expect that inflation can be accurately forecast over a six-year period. In reviewing National Highways' inflation proposals, we have sought to establish inflation allowances based on the 'most likely' path of inflation.

8.4 As the prices of many of National Highways' inputs tend to rise at rates different from general inflation (as measured by the Consumer Prices Index (CPI)), appropriate adjustments need to be made to ensure that inflation allowances reflect the company's cost base. These are termed real price effects (RPE).

8.5 For the second road investment strategy, National Highways applied a bespoke inflation index provided by the Building Cost Information Service. For RIS3, for most of its expenditure, the company has adopted inflation forecasts linked to the Office for Budget Responsibility's (OBR's) forecast for CPI with adjustment for RPE. We support this decision as the bespoke forecasts reduce transparency without necessarily improving accuracy.

8.6 To support the development of the third road investment strategy (RIS3) plans, we commissioned analysis of National Highways' input prices to inform our

assessment of appropriate inflation adjustments. In its interim draft strategic business plan (SBP), National Highways applied RPE assumptions exceeding the levels indicated under a ‘most likely’ scenario. Had these assumptions been retained, they would have resulted in an inefficient funding settlement. Following our review of the interim draft SBP, the company proposed to adopt some, but not all, of our recommendations.

- 8.7 Given the differing positions of the Office of Rail and Road (ORR) and National Highways on inflation, the Department of Transport (department) commissioned advisers to review the evidence and make recommendations on the approach to RIS3. In line with the department’s instruction, the company has adopted the majority of the advisers’ recommendations (there is a difference in how it has treated inflation risk, discussed below). As shown in Table 8.1, these recommendations are broadly consistent with our advice.
- 8.8 The primary difference between our advice and the assumptions now adopted by National Highways concerns inflation risk – the possibility that actual inflation proves higher than forecast. The department’s advisers recommended the inclusion of a nominal adjustment to reflect its view that OBR forecasts have historically tended to underestimate CPI inflation. Specifically, they proposed adjustments of 0.15% in year 1, rising to 0.25% after five years.
- 8.9 In a departure from the department’s recommended approach, National Highways has embedded the inflation risk allowance within individual expenditure lines rather than incorporating it into the Central Risk Reserve (CRR). Our view, consistent with that of the department’s advisers, is that inflation risk should be managed through the CRR, while the company’s core funding should be based on a ‘most likely’ scenario. However, the risk adjustment is modest in scale. Considering this and given that the CRR has been estimated using high-level assumptions, we are not proposing any further changes to the company’s approach.

Table 8.1 Forecast inflation assumptions

	ORR recommended approach	Draft SBP assumption
Enhancements	CPI+0.75%	CPI+0.9%, rising to CPI+1% by year 5
Renewals	CPI+0.75%	CPI+0.9%, rising to CPI+1% by year 5

	ORR recommended approach	Draft SBP assumption
Maintenance	Non-labour share: CPI+0% Labour share: OBR average earnings forecast	Non-labour share: CPI+0.15%, rising to CPI+0.25% after five years Labour share: OBR average earnings forecast
Non-staff operating costs	CPI+0%	CPI+0.15%, rising to CPI+0.25% after five years
National Highways' staff costs	OBR average earnings forecast	OBR average earnings forecast
DBFO payments	RPI+0%	RPI+0.15%, rising to RPI+0.25% after five years

Enhancements

- 8.10 Once enhancements projects enter the construction phase, they are priced in nominal terms, with inflation implicit in the target cost agreed between National Highways and its contractor. For projects still in design and development, inflation adjustments are applied by individual project teams. However, we have found these adjustments to be neither transparent nor consistent. In some cases, the assumptions applied exceed those stated in the company's draft SBP; in others, contractors have determined the assumptions, and the company is unable to confirm the precise assumptions that have been used.
- 8.11 As described in chapter 5, cost estimates for development-stage projects remain provisional, and National Highways is effectively working within a funding ceiling. We are therefore not proposing any changes to the current funding proposals. However, when updating its cost estimates, the company should ensure that development-stage projects apply the inflation assumptions set out in the draft SBP and review its cost estimation processes to ensure a consistent approach across project teams.

Electricity

- 8.12 To forecast the cost of its electricity usage, National Highways has utilised forecasts provided by its supplier (Crown Commercial Services) for 2026-27 and 2027-28. Thereafter, it has projected the rate forwards applying the percentage movements in the OBR Electricity price forecasts. This approach results in an electricity price that remains broadly stable during the first two years of the third road period (RP3, April 2026 to March 2031) before increasing by around 11% by

the end of the road period. This contrasts with the OBR's March 2025 forecasts for the whole period that suggest electricity prices will be approximately 27% lower in 2029 (the final year of its forecast) than in 2025.

- 8.13 National Highways suggests that its approach aligns with that proposed by the department's advisers. However, as illustrated by its treatment of inflation risk described in paragraph 8.9, the company has not adopted all aspects of the advisers' approach.
- 8.14 We consider that, based on the evidence set out above, National Highways' approach results in an overly pessimistic forecast because it adopts the OBR's forecasts only for the period in which it expects prices to rise but excludes the period for which prices are expected to fall. This was not apparent at the point in time when the department's advisers undertook their assessment. We recommend that the company assumes flat electricity costs throughout the period, reducing costs in RIS3 by around £13m. This remains a relatively conservative assumption but reflects the uncertainty surrounding electricity prices in the current geopolitical context.

Adjusting to a current price base

- 8.15 National Highways' cost estimates are based on assumptions – such as the unit rates of specific activities – derived from the costs of projects and activities it has delivered in the past. Accordingly, for many expenditure lines, the company has applied inflation adjustments to bring costs in line with a current price base before applying the inflation forecast assumptions set out in Table 8.1. We have reviewed these assumptions and consider that the company used appropriate inflation indices for this purpose.
- 8.16 As described in chapter 4, National Highways' cost assumptions are relatively dated, meaning that these adjustments have a significant influence on its overall estimates. Reliance on relatively outdated evidence increases uncertainty and places greater dependence on inflation indices that are intended only to provide a broad indication of price trends. The company needs to address this issue during RP3 as part of its plans to improve its capabilities in cost estimation and forecasting.

OBR's revised forecasts

- 8.17 National Highways' draft SBP is based on the inflation forecasts in the OBR's [Economic and Fiscal Outlook](#) published in March 2025. On 26 November 2025, the OBR published updated forecasts. When finalising its RIS3 financial model,

the company should adjust its assumptions to reflect the latest forecasts. When doing so, it should remove any inflation risk allowances currently included for 2025-26 given that uncertainty regarding the outturn level of inflation in the current year is now significantly reduced.

- 8.18 Inflation has remained higher than expected during 2025. As a result, the OBR's November 2025 forecasts exceed those published in March 2025. Adopting the latest forecasts will slightly increase National Highways' cost estimates. This should be considered when finalising decisions to align RIS3 plans with available funding.

Efficiency

- 8.19 For the most part, National Highways' funding is set at a 'post-efficient' level. This means that it builds in an assumed level of efficiency improvement. A key part of our role in undertaking this review is to ensure that the level of efficiencies that the company is proposing to achieve is challenging and deliverable.
- 8.20 We measure National Highways' efficiency with reference to a 'pre-efficient' baseline cost for the activities the company is required to deliver. This is defined as the cost we would expect it to incur if it were to continue to deliver at its current level of efficiency.
- 8.21 The activities that National Highways is required to deliver change over time, so greater efficiency does not necessarily mean a net reduction in the level of government funding. It is an important principle that efficiency is not achieved at the expense of quality or long-term value for money.
- 8.22 When setting efficiency targets, regulators often distinguish between two theoretical concepts – 'ongoing' and 'catch-up' efficiencies:
- 'ongoing' efficiencies are the ongoing productivity gains that we would expect an already efficient organisation to achieve through technological change and changing management practices; and
 - 'catch-up' efficiencies apply to an organisation operating at a sub-optimal level of efficiency. They are the efficiencies we could reasonably expect an organisation to achieve by improving the way it operates.
- 8.23 Consistent with the approach taken in the second road period (RP2, April 2020 to March 2025), National Highways also distinguishes between two types of efficiency:

- ‘embedded efficiencies’ result in a lower funding requirement for RP3; and
- ‘measured efficiency’ is a concept applied to areas of expenditure for which the scope of activities is less well defined. Measured efficiencies do not reduce the funding requirement but, if realised, would enable National Highways to deliver more outputs.

National Highways’ efficiency proposals

8.24 Based on the plans and cost estimates in its draft SBP, National Highways proposes to deliver total efficiencies of £1,435m, the majority of which (£1,338m) relates to embedded efficiencies. The remaining £97m comprises measured efficiencies expected to be realised across three areas: enhancements, Designated Funds and National Programmes, and the fourth road investment strategy (RIS4) and pipeline scheme development.

8.25 Whether National Highways’ efficiency proposals are appropriately challenging and deliverable can only be assessed with reference to the scale of investment proposed. Table 8.2 shows the efficiency proposals as a proportion of ‘pre-efficient’ cost estimates disaggregated by major spending lines.

Table 8.2 Total efficiency contribution by major spending line (£m, nominal)*

	Embedded efficiency	Measured efficiency	Total efficiency	% of pre-efficient costs
Operating and maintaining the network	322	-	322	6.0%
Renewals	768	-	768	8.0%
Enhancements	-	32	32	0.8%
National Programmes and Designated Funds	-	50	50	3.5%
Digital and corporate services	247	-	247	8.5%
RIS4 and pipeline scheme development	-	14	14	3.5%
Total	1,338	97	1,435	-

**figures may not sum due to rounding*

8.26 As set out in our advice on National Highways’ interim draft SBP, we have established benchmark efficiency ranges against which we can compare the company’s proposals. These ranges reflect:

- ongoing efficiencies, based on evidence of productivity trends in capital-intensive sectors and secondary evidence from other regulatory settlements; and
- catch-up efficiencies, derived from the findings of two capability reviews that examined the efficiencies reasonably achievable through improvements in National Highways’ capability. The company has undertaken a similar benchmarking exercise that also informed its efficiency proposals.

8.27 National Highways measures its efficiency offer by comparing pre- and post-efficient costs for the whole road period. Therefore, the ranges in Table 8.3 have been converted to road period totals assuming a constant expenditure profile.

Table 8.3 Benchmark efficiency ranges (percentage each year)

	Catch-up efficiency	Ongoing efficiency	Total efficiency range
Operations and maintenance	1.0% to 2.8%	0.5%	1.5% to 3.3%
Renewals	1.0% to 2.8%	0.5%	1.5% to 3.3%

8.28 Table 8.4 compares the benchmark ranges against National Highways’ efficiency offer for operations, maintenance and renewals. A different approach is taken for enhancements because of the complexity related to the development stage of projects. This shows that the efficiency challenge applied by the company for both operating and maintaining the network and renewals lie within the range indicated by the benchmark evidence.

Table 8.4 Benchmarking National Highways’ efficiency proposals

	National Highways’ efficiency	Benchmark range
Operating and maintaining the network	6.0%	4.4% to 9.5%
Renewals	8.0%	4.4% to 9.5%

Enhancements

- 8.29 The scope for National Highways to achieve efficiencies on enhancements projects is heavily influenced by the stage of development of the project in question. The existing enhancements portfolio comprises mostly schemes already in construction. For these schemes, the company will have less ability to influence costs. Reflecting this, its efficiency target for enhancements relates only to schemes in development.
- 8.30 As described in chapter 5, National Highways is proposing to deliver efficiencies equivalent to 2% of the cost of these schemes. This is broadly in line with expectations based on benchmark evidence. However, we are proposing that the target is widened to include the M54-M6 Link Road and A38 Derby Junctions that are also at the development stage. The effect of this is to increase the efficiency target for enhancements from £32m to £47m.

Supporting evidence

- 8.31 National Highways' efficiency proposals are informed by top-down benchmarking evidence, consistent with the approach described above. In addition, the company has undertaken a bottom-up exercise to quantify the expected contribution of specific efficiency initiatives. This bottom-up evidence is used to validate the overall scale of proposed efficiencies and to inform assumptions on the relative contribution of each sub-area (for example, operations, maintenance, operational technology).
- 8.32 The quality of the bottom-up evidence varies. For renewals, National Highways has identified three primary efficiency levers intended to support achievement of its target:
- better end-to-end planning and better design to reduce cost, delays and increase innovation (for example, improved grouping of renewals interventions to reduce traffic management and design costs);
 - improving and standardising processes using technology, data and innovation; and
 - initiatives to reduce procurement costs and improve productivity of activities delivered through these frameworks.
- 8.33 However, National Highways has provided limited quantitative evidence regarding the contribution of specific efficiency initiatives to the target. Similarly, as described in chapter 7, the efficiency challenge for corporate services is based on the

assumption that the company will absorb inflationary cost pressures. While this is an acceptable approach the assumption is not supported by bottom-up evidence to support its validity.

- 8.34 In contrast, the evidence supporting efficiency targets in other areas is more robust. In particular, National Highways' digital and maintenance teams have provided details of specific actions to improve efficiency and the estimated financial impact of each. This offers greater confidence that these efficiencies can be delivered.

Business improvement programme (BIP)

- 8.35 The BIP forms an integral part of National Highways' efficiency proposals. The company's efficiency plan assumes that the programme will deliver approximately £950m of efficiencies – around two-thirds of the overall efficiency target. This represents both a substantial proportion of the total target and a very high rate of return on the £112m allocated to the programme. This estimate is based on evidence from similar business transformation programmes delivered by the company in the past, rather than the expected impact of specific projects. It is therefore subject to significant uncertainty.

- 8.36 In practice, the boundaries between efficiencies attributed to the BIP and those identified by delivery teams are unclear. There appear to be overlaps and potential duplications. For example, 'intelligence-led, data-driven maintenance' is one of the three main efficiency levers identified by the maintenance team. Projects commissioned through the BIP may support the realisation of such efficiencies, but this does not imply that, in its absence, no efficiencies would be achieved. In practice, attributing efficiencies specifically to the programme may prove challenging and therefore a clear process is required to evidence and demonstrate efficiency improvements.

- 8.37 Notwithstanding this complexity, delivery of the RP3 efficiency target is closely linked to the success of the BIP and therefore, as set out in chapter 7, National Highways will need to report and evidence the programme's progress throughout RP3 to ensure it is on track to enable the company to meet its efficiency target.

Overall conclusions

- 8.38 Overall, the level of efficiencies proposed by National Highways broadly aligns with our expectations, given its current capabilities and benchmark evidence for a company entering its third road period. However, in this report we have recommended several adjustments to the company's financial plans that have a small effect on the monetary value of the efficiency target. Our recommendations

have no significant impact on the level of efficiencies expressed as a percentage of cost but ensure that the efficiency target is set against an appropriate baseline. As noted above, we also propose a minor adjustment to the efficiency target for enhancements. If our recommendations are adopted, and other options for reducing the cost of discretionary activities are also taken, this would result in an overall efficiency target of £1,393m, as shown in Table 8.5.

Table 8.5 Total efficiency contribution by major spending line (£m, nominal)*

	Embedded efficiency	Measured efficiency	Total efficiency	% of pre-efficient costs
Operating and maintaining the network	314	-	314	6.0%
Renewals	731	-	731	8.2%
Enhancements	-	47	47	1.2%
National Programmes and Designated Funds	-	47	47	3.5%
Digital and corporate services	242	-	242	8.6%
RIS4 and pipeline scheme development	-	12	12	3.5%
Total	1,287	106	1,393	-

**figures may not sum due to rounding*

Financial risk and the CRR

- 8.39 This section considers whether centrally held risk funding has been set at an appropriate level. National Highways is exposed to risk at the project and portfolio level. Portfolio-level risks are those common across a programme or portfolio. Project-level risk funding is held within the budgets for individual spending lines or projects within them.
- 8.40 The CRR provides for risks that are outside of the control of individual projects or programmes and that impact the portfolio as a whole. In RP3, as for RP2, the CRR is intended to provide funding for risks relating to National Highways’ existing enhancements portfolio, and its programme of capital renewals. The company has established internal governance processes to manage the allocation and drawdown of risk allowances from the CRR during a road period.

8.41 National Highways has proposed a CRR allocation of £1,033m for RP3. Around 40% of this (around £380m) relates to enhancements projects and the remaining 60% (around £650m) relates to renewals. It is not possible to calculate this apportionment precisely as the figures provided do not accord with the company's stated assumptions. To date, the CRR has not been ring-fenced for any specific activities so in practice the renewals portion of the CRR could be drawn down to cover enhancements risks and the enhancements portion for renewals. Consideration should be taken if this principle remains appropriate going forward.

Draft SBP assumptions

8.42 For its draft SBP, National Highways has employed the following high-level assumptions to determine the amount allocated to the CRR:

- existing enhancements (projects already included in the enhancements portfolio in RP2) – 10% of estimated costs;
- new enhancements (projects added to the portfolio in RP3) – 12.5% of estimated costs;
- structures renewals – 10% of estimated costs; and
- other renewals – 5% of estimated costs.

8.43 These are intended to be interim assumptions. National Highways suggests that it has had insufficient time to employ a statistical approach due to uncertainty regarding RIS3 funding and requirements resulting from the timing of the spending review 2025. Whilst funding and requirements have been finalised at a relatively late stage, the need for interim assumptions also reflects the lack of a reliable and settled methodology for modelling risk.

Enhancements

8.44 National Highways has undertaken a range of quantitative analysis to verify the appropriateness of the CRR it has estimated using the high-level percentages. As described in chapter 5, for enhancements the company has applied four alternative methodologies that give widely varying results. At a P50 level of confidence, the estimated CRR requirement varies from £55m to £233m. In theory, at P50, there is an equal chance that the outturn costs for the programme will be above or below that level of funding if CRR of that amount is included.

8.45 As set out in chapter 5, we consider that a CRR provision of around £250m for enhancements appears adequate, based on evidence from National Highways' historical cost overruns. However, this would not be sufficient to cover high impact

risks such as a repeat of the approximate 20% inflation seen during RP2 or major changes to taxation. Should risks of this nature arise, the department would need to review the overall programme and reprioritise funding and schemes commitments.

- 8.46 Set against this, experience from the first road period (April 2015 to March 2020) and RP2 indicates that project cost increases are often associated with schedule delays. Allocating additional funding to the CRR for enhancements projects could therefore result in resource being committed for projects that are ultimately delayed until the fourth road period (RP4, April 2031 to March 2036). This particularly applies to development stage projects which will commence construction in RP3 but which are not due to complete until RP4. The cost and schedules of these projects are typically associated with a higher degree of uncertainty. These projects are expected to account for the majority of enhancement spending in the final two years of RP3.
- 8.47 National Highways has provided evidence on the potential impact of proposed landfill tax reforms recently subject to [government consultation](#). Under these proposals, materials such as rock and soil currently eligible for the lower landfill tax rate would instead be taxed at the standard rate. Although the changes would be phased in, the company's initial estimates suggest a significant cost increase during RP3. As the current analysis is at an early stage, we have not yet assessed the full implications. Nonetheless, the estimated impact appears too large and too uncertain to justify provision within the CRR at this stage. If specific provision were made, this could lead to funding being set at an inefficient level if the risk does not ultimately materialise or has a lesser impact than currently anticipated. Therefore, should the proposed changes be implemented in their current form, their impact would likely need to be managed through established change control processes.

Renewals

- 8.48 For renewals, National Highways has updated the quantitative risk analysis underpinning its interim draft SBP. This analysis indicates that a risk allowance of £1,087m would be required to fund renewals at a P50 confidence level. However, as outlined in our advice on the interim draft SBP, the analysis is not robust to support this conclusion. The company's estimate contrasts with the experience of RP2, during which £159m of CRR was utilised for renewals. However, comparisons between RP2 and RP3 must take account of differences in the type and risk profile of planned activities.
- 8.49 National Highways' renewals cost estimates are derived from unit rates based on, or benchmarked against, its historical outturn costs. For example, as described in

chapter 4, to estimate the cost of asphalt pavement renewals the company has applied the average outturn unit rate from RP2. In principle, realised risks are already reflected within these rates. National Highways' risk analysis does not clearly delineate between different types of risk. Therefore, there is potential that certain types of risk will be accounted for twice – once within the renewals cost estimates and again within the CRR.

8.50 Nevertheless, as with any multi-year programme, there are also risks that the scope or volume of renewals required will exceed initial expectations. Historically, such pressures have been managed through deferral of activities. However, National Highways has not provided empirical evidence on the potential scale of scope or volume risks.

8.51 In line with our interim advice, we continue to conclude that a CRR provision of approximately £500m is sufficient for renewals. After accounting for our recommended adjustments to the renewals programme, this level of provision would allow for risk funding equivalent to around 10% of the cost of the significant structures programme, in addition to 5% for all other assets. In comparison, the amount of risk funding drawn down during RP2 was around 3% of total renewals spending.

Overview

8.52 In summary, determining the appropriate level of risk funding is inherently challenging and requires professional judgement informed by experience of previous road periods and by the evolving risk profile of the programme. Viewed on an aggregate basis, based on available evidence, a CRR of £750m (around 4% of capital cost) appears prudent and proportionate.

8.53 National Highways utilised £969m of CRR (6% of capital spending) in RP2, the majority of which was used for enhancements projects. However, of this total, £613m (4% of capital) was drawn down during the road period, as £357m had been allocated before the start of RP2 to cover changes in cost estimates that emerged prior to the beginning of the period. Although further increases in forecast project costs are possible before the start of RP3, given the short time remaining, we would not expect these to be of a similar scale.

8.54 When comparing risk provision in RP2 and RP3 it is also important to recognise that the RIS3 enhancements portfolio is smaller and more mature than in RP2, with approximately 40% of costs relating to projects already in construction. Typically, once projects enter the construction phase, cost estimates become more certain and therefore less risk provision is required.

- 8.55 National Highways will undertake a larger number of major and complex renewals of ageing structures in RP3. Historically, the scope of such projects has often expanded beyond initial expectations, meaning that the uncertainties associated with renewals are greater than in RP2. However, under our proposals, the level of risk provision for renewals would be higher than in RP2 to reflect this.
- 8.56 The more funding assigned to the CRR, the greater the confidence that the investment plan will be delivered. Accordingly, when finalising the RIS, the department may direct National Highways to adjust CRR funding up or down depending on its risk appetite. However, it is also important that the company has clear governance procedures around use of the CRR so that it is transparent about and can evidence whether it has been used to fund risks that have materialised in-period, or is being used for inefficient cost increases. Without this evidence it will be unable to robustly demonstrate it has achieved its efficiency target.

Key proposals

We advise that:

A CRR of £750m be allocated for RP3. It is for the department to decide whether to direct National Highways to adjust this amount up or down, depending on its risk appetite.

Ahead of the RIS4 development process, National Highways must prioritise improving its capabilities in cost estimation and risk modelling.

If our other financial recommendations are adopted, we propose that National Highways is set an efficiency target in RP3 of £1,393m.

9. Performance Specification and targets

Background

- 9.1 The performance framework within the road investment strategy (RIS) plays a critical role in framing requirements that meet the needs of road users, communities adjacent to the strategic road network (SRN), other stakeholders and taxpayers. It is shaped by a combination of the department's priorities and National Highways' level of ambition. The performance framework must reconcile these factors, where there is tension, and within the funding provided. It should also be aligned, as far as possible, with the Secretary of State's requirements for how the company must carry out its functions, set out in its licence (issued to the company as statutory directions and guidance).
- 9.2 The performance framework consists of the Performance Specification, the capital specification and descriptive commitments. This chapter describes our recommendations for the Performance Specification and its related descriptive commitments. Advice on the capital specification is provided in chapters four, five and six of this document and we will continue to advise the Department for Transport (department) on the appropriate commitments as National Highways finalises its delivery plan for the third road period (RP3, April 2026 to March 2031).
- 9.3 Our advice relating to the extent and form of the Performance Specification has been shaped by the following considerations, so that the Performance Specification should:
- be commensurate with National Highways' extensive and complex portfolio of activities;
 - match the desired outcomes of the RIS;
 - represent what is important for users;
 - be understandable to stakeholders;
 - drive the right behaviours in National Highways; and
 - ensure good value for the taxpayer.

Overview

RIS3 requirements and expectations

9.4 The Performance Specification is structured around the following six outcome areas defined by the department and described in the draft RIS:

- improving safety for all;
- providing fast and reliable journeys;
- a well maintained and resilient network;
- being environmentally responsible;
- meeting the needs of all road users; and
- achieving efficient delivery.

9.5 For each outcome area there are a set of targeted key performance indicators (KPIs) and supporting performance indicators (PIs). With regards to targets, the department's expectation is that performance is at least maintained either at the same level as RIS2 or on the same trajectory to achieve long-term goals.

National Highways' proposal

9.6 National Highways has proposed a Performance Specification comprising 12 KPIs and 24 PIs. The proposals include:

- improving safety for all;
 - a safety KPI focused on delivering a set of safety schemes and the anticipated/ attributable savings in those killed or seriously injured (KSI), rather than a formal target. This KPI would be supported by delivery of a safety action plan;
- providing fast and reliable journeys;
 - an average delay KPI with a target focused on delivering a set of schemes, which reduce delay, and achieving the resultant reduction in average delay forecast for these projects. This KPI would be supported by delivery of a customer and delay action plan;
 - a network availability KPI;

- an incident clearance KPI;
- a well maintained and resilient network;
 - a pavement condition KPI;
 - an all-lane running motorways (ALR) technology availability KPI;
- being environmentally responsible;
 - a noise KPI;
 - a biodiversity KPI;
 - a corporate carbon emissions KPI;
- meeting the needs of all road users;
 - a user satisfaction KPI supported by delivery of a customer and delay action plan;
 - a roadworks information and timeliness KPI;
- achieving efficient delivery;
 - an efficiency KPI.

Office of Rail and Road's (ORR) recommendations

9.7 We have reviewed National Highways' draft SBP and its proposals for the Performance Specification, including targets for the KPIs. For many of the KPI targets there is no, or only partial, evidence of a direct analytical link between the level of spend, the output, the outcome and the target. We understand that these issues are complex. However, the company must continue to develop a significantly improved capability to make, or strengthen, the linkage between funding, delivery and outcomes of its plans. This will improve the quality of information for decision makers and demonstrate to stakeholders, users and taxpayers the impact of funding decisions. As such, consideration is needed to the form and detail of other commitments that should be stipulated in the wider performance framework, to ensure that it is proportionate and representative of the funding which has been provided to National Highways.

9.8 The existing framework of KPIs and PIs will form the basis of the RIS3 Performance Specification. However, we recommend the department considers

options for new indicators and options to reduce the number of KPIs so that the performance framework is proportionate whilst still reflecting the evolving demands on National Highways, and the interests of users, stakeholders and taxpayers. We recommend the following:

- improving safety for all;
 - a safety KPI with a target for the whole SRN for the reduction in the number of those killed or seriously injured. This KPI would be supported by delivery of a safety action plan;
- providing fast and reliable journeys
 - a journey time reliability KPI with a target for the whole SRN. This KPI would be supported by delivery of a customer and delay action plan;
 - a network availability KPI;
 - an incident clearance KPI;
- a well maintained and resilient network;
 - a pavement condition KPI;
 - a technology availability KPI with targets for;
 - (1) SRN wide technology availability and
 - (2) ALR motorway technology availability;
 - the option of an additional KPI for drainage resilience;
- being environmentally responsible
 - the option of a commitment in the capital specification for biodiversity instead of a KPI;
 - the option of a maintenance and construction carbon emissions KPI as an alternative to the corporate carbon KPI;
 - consider the option of an additional KPI for air quality;
 - the option of a commitment in the capital specification for noise instead of a KPI;

- meeting the needs of all road users
 - a user satisfaction KPI supported by delivery of a customer and delay action plan;
 - a roadworks information and timeliness KPI
- achieving efficient delivery
 - an efficiency KPI.

9.9 A summary of our recommendations is set out in table 9.1. The remainder of this chapter describes the context and rationale for our recommendations.

Table 9.1 ORR's recommended Performance Specification KPIs

RIS outcome	KPI	ORR recommendation	Consistent with DfT expectation
Improving safety for all	Total number of people killed or seriously injured (KSI)	Set SRN-wide target to be achieved by end of 2031. Trend based target to sustain the reduction trajectory in KSIs observed to date. Monitor delivery of safety action plan.	Yes
Providing fast and reliable journeys	Journey time reliability	Set SRN-wide target for 2026-27. Future targets dependent on methodology review. Proportion of trips within 20% of modal average journey time set at no worse than 2025-26 outcome. Maintains performance. Monitor delivery of customer and delay plan (with SMARTER actions).	Yes
	Network availability	Set network availability target for 2026-27 once data is available. Maintains performance.	Yes

RIS outcome	KPI	ORR recommendation	Consistent with DfT expectation
		Adoption of delay from roadworks target for 2028-29 onwards once baseline data available.	
	Incident clearance	Set a revised higher target of 88%. To be achieved at the end of each year of RP3. Maintains performance.	Yes
A well maintained and resilient network	Pavement condition	96.2% target to be achieved at the end of RP3, with 0.1% variance in years 1 to 4 of RP3. Maintains performance.	Yes
	Technology availability	Consider KPI targets for: SRN-wide technology availability of 93% to be achieved at the end of RP3. ALR motorway technology availability of 97% to be achieved at the end of each year of RP3.	No
	Drainage resilience	Set SRN-wide target for the percentage length of carriageway that does not have an observed significant susceptibility to flooding – not weather normalised. Target of 71% to be achieved at the end of each year of RP3. Maintains performance.	Yes
	Biodiversity	Consider reporting as a commitment in the capital specification.	No

RIS outcome	KPI	ORR recommendation	Consistent with DfT expectation
	Carbon	Consider construction and maintenance carbon emissions KPI as alternative to corporate carbon emissions. To be achieved at the end of RP3.	No
	Air quality	Consider requirement for air quality KPI. To be achieved at the end of RP3.	No
	Noise	Consider reporting as a commitment in the capital specification.	No
Meeting the needs of all users	Road user satisfaction	Set absolute figure of 71% based on 12-month rolling average, to be achieved at the end of each year of RP3. Maintain performance. Monitor delivery of SMARTER customer and delay action plan.	Yes
	Roadworks information timeliness and accuracy	Set a revised higher target of 82% to be achieved at the end of RP3. Maintain performance.	Yes
Achieving efficient delivery	Total efficiency	£1,393m to be achieved at the end of RP3 if all of ORR's recommendations are taken into account.	Yes

Improving safety for all

DfT RIS3 expectation

9.10 The department expects that there will be a KSI reduction target within RIS3 and requested that National Highways propose target setting approaches and targets in the draft SBP. The department expects the metric to cover all trunk roads and motorways forming the SRN, including Design, Build, Finance and Operate (DBFO) managed roads.

National Highways' proposal

9.11 National Highways proposes that it will deliver a flexible five-year plan agreed on an annual basis. The plan is mainly focused on delivering the 18 schemes contained in the safety National Programme and activities funded through the safety Designated Fund. In combination, these are intended to achieve an estimated saving of approximately 85 KSIs across RP3 (subject to change when individual appraisals are in place). The company will also continue monitoring the number of people killed or seriously injured and KSI rates on the SRN.

ORR's recommendation

9.12 We recommend that the KPI metric for the 'Improving safety for all' outcome should be the annual number of people killed or seriously injured. The target for this KPI should be the reduction in the number of KSIs, which applies to the whole SRN, supported by delivery of a safety action plan.

National Highways' draft SBP safety plans

9.13 National Highways' proposed approach to road safety, described in the draft SBP, is composed of schemes delivered through the safety National Programme, initiatives delivered using Designated Funds and through corporate operations (such as safety information campaigns). The estimated casualty savings are linked to only the National Programmes and Designated Funds initiatives. The plan does not include the full range of operations, maintenance and renewals activities that can also contribute to casualty reduction. Therefore, we conclude that the plan is too narrow in its focus and does not capture other ways, beyond National Programmes, Designated Funds and corporate activities, in which National Highways can influence safety and deliver improvements such as opportunities to leverage new technology, improvements delivered via operations and maintenance activities, and working with stakeholders such as the emergency services. In addition, given the lag involved in evaluating safety improvements relating to specific schemes, which require at least three years of post-delivery

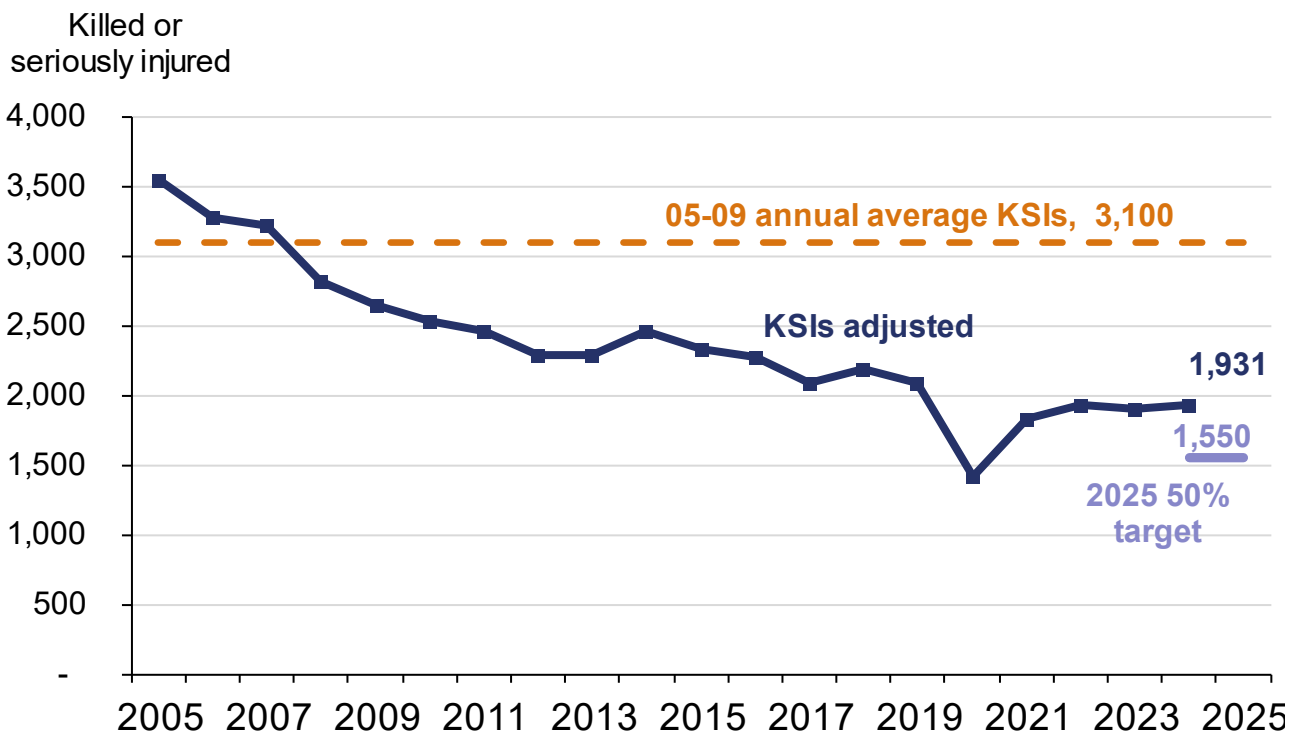
'after' data, it is unclear how performance outcomes could be effectively evidenced during RP3.

Background

9.14 The first road investment strategy (RIS1) road safety target was set as a 40% reduction in KSIs, to be achieved across the SRN by December 2020, compared to the 2005-09 annual average baseline. National Highways met this target, but only because traffic levels, and consequently KSIs, had fallen due to the COVID-19 pandemic. The RIS2 target was set as a 50% reduction in KSIs, across the SRN, compared to the 2005-09 annual average baseline, with a 5% tolerance for variability. This equates to a reduction in the number of KSIs to 1,550, or fewer, to be achieved by the end of December 2025 (based on the department's adjusted data for 2024).

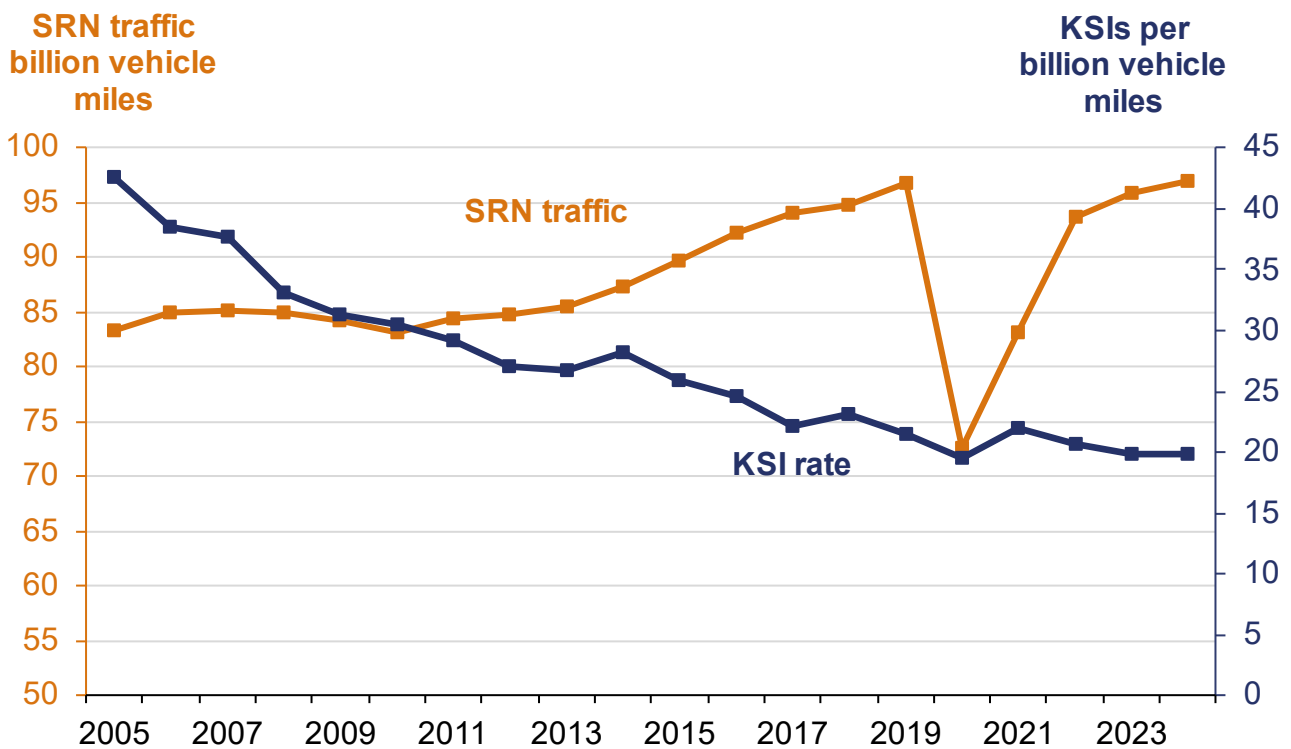
9.15 The latest published data, shown in Figure 9.1, (adjusted to take account of changes in the reporting of injury severity by some police forces) reported that 1,931 people were killed or seriously injured on the SRN in 2024. This is 38% below the baseline. National Highways needs to achieve a further reduction of 12 percentage points (381 KSIs) if it is to achieve its target for RP2. The latest figures show that this target is almost certain not to be met.

Figure 9.1 The annual number of KSIs on the SRN between 2005 and 2024 (adjusted)



9.16 The number of KSIs has reduced on the SRN over the last 20 years, despite rising traffic levels as shown in figure 9.2. Between 2010 and 2024 the level of traffic on the SRN (left hand axis) increased from 83.1 billion vehicle miles to 96.9 billion vehicle miles (a 17% increase), compared to the 38% reduction in KSIs. Consequently, there has been a long-term reduction in the KSI rate, measured in KSIs per billion vehicle miles (right hand axis), despite the increase in traffic. Between 2010 and 2024, the KSI rate fell from 30.4 KSIs per billion vehicle miles to 19.9 KSIs per billion vehicle miles (a reduction of 35%). This represents an annual average reduction of 2.5%. This reduction in the KSI rate is predominantly the result of a combination of safety improvements in the national vehicle fleet and initiatives delivered by National Highways.

Figure 9.2 SRN traffic and KSI rates, 2005 – 2024



Considerations for target setting

9.17 In its draft RIS3 the department states its ambition to “achieve zero harm by 2050, meaning that nobody should be killed or seriously injured on the SRN by that date”. If the assumed percentage reduction in KSIs were to continue to increase by ten percentage points for each road period (that is, 40% in RP1, 50% in RP2, 60% in RP3 and so on), it would mean that KSIs would be eliminated by the end of RP7 (2051 if all road periods are set in continuous five-year blocks hereafter). This approach would see KSIs reduce linearly until they are eliminated by the end of RP7, with just over 300 fewer KSIs at the end of each road period. This means

that the relative pace of improvement must increase. A reduction of 300 KSIs against a total of 1,500 at the end of the preceding road period represents a reduction of 20%. A reduction of 300 KSIs against a total of 1,200 KSIs at the end of the subsequent road period represents a reduction of 25%, and so on.

- 9.18 Population growth and economic growth are projected, based on the department's forecasts, to increase traffic levels on the SRN. The KSI rate therefore needs to decrease commensurately to prevent the annual KSI figure from increasing. Achieving a reduction in the absolute KSI numbers means safety performance must improve still further. As effective safety measures are introduced and KSIs numbers reduce, the KSIs that remain are likely to be caused by factors that are increasingly difficult to address. They may therefore require more significant policy changes, infrastructure developments, technological innovations or behavioural changes and actions from stakeholders other than National Highways.
- 9.19 These factors all suggest that to set a target aligned to the department's long-term ambition of eliminating KSIs by 2050 the KSI reduction target for the next few road periods would need to be ambitious to allow for the challenge of KSI reduction ramping up in later periods and to account for future traffic growth.
- 9.20 Furthermore, adopting and achieving more ambitious KSI reduction targets for the next few road periods would mean that the absolute number of KSIs out to 2050 is significantly fewer. If the area underneath the trendline for KSIs over time represents the total harm, trauma, disruption and economic impact of KSIs, this area is considerably smaller if KSIs are reduced earlier and approach zero in later periods, rather than remaining higher in the next few road periods while aiming for dramatic reductions closer to 2050.
- 9.21 National Highways is likely to achieve around a 40% reduction in KSIs against the 2005-09 baseline at the end of the Interim Year (2025-26). If the company were able to sustain savings in KSIs of 85 per road period thereafter, it would take more than a century (more than 20 road periods) to eliminate deaths and serious injuries from the SRN. Such a projection is not intended to be an accurate indication of the likely KSI trajectory for the next hundred years, and is clearly very simplified, but it does serve to highlight the extent of the gap between what the company currently proposes to deliver in RIS3 compared to the department's longer term zero harm ambition.
- 9.22 National Highways' proposed RIS3 plans and the trajectory required to deliver the department's long-term zero harm ambition by 2050 are not consistent. In addition, experience from previous road periods has shown the value of having a five-year

target as a measurable waypoint towards the longer-term ambition and to provide focus for the company. However, we recognise that setting an unachievable target risks demotivating the very people who are needed to achieve it. The optimal approach to target setting in this case should recognise the impact of external factors on the company's ability to make progress, acknowledge the responsibilities of other stakeholders with road safety duties, such as the emergency services, whose work is essential in achieving a target, and the primacy of safety as the overarching priority for the company.

- 9.23 For these reasons – consistency with longer term ambition, the need to focus the whole organisation and to provide clarity for stakeholders – we do not support all aspects of National Highways' proposed approach to the road safety KPI. We do support the company's proposal to deliver a defined safety plan. However, we consider that a target for a reduction in KSIs should be set, across the whole SRN. This is consistent with the department's expectation, rather than expressed as the savings in the number of KSIs the company calculates from a limited number of deliverables in a limited number of locations. Our approach would provide direction, across the whole network, for the company's activities – enhancements, operations, maintenance and renewals – in line with its stated number one priority.
- 9.24 A fixed KSI reduction number for the whole SRN is a clear, measurable approach to target setting. This contrasts with a rate-based approach where absolute harm is set in the context of traffic levels. The risk inherent in this approach is that the number of KSIs on the network could increase but the overall rate of KSIs, per volume of traffic, might decrease if the increase in traffic levels is proportionately greater. In addition, a rate-based target does not support the premise of achieving zero harm which is an absolute aim. In addition, it would be presentationally challenging for National Highways to be described as meeting a rate-based safety target if the total number of KSIs had increased. We acknowledge that while reducing the absolute number of KSIs should remain National Highways' primary goal, a rate-based approach could be helpful to support understanding of the broader context, the cost-effectiveness of interventions and the potential influence of other factors on the overall KSI numbers. On balance, we conclude that the company's safety target for RIS3 should be set as a reduction in the number of KSIs rather than a reduction in the KSI rate.
- 9.25 We have considered different theoretical approaches, including those considered but ultimately rejected by National Highways, to setting the level of the SRN target for road safety. The considerations for these approaches include achieving zero harm, the interpretation of what zero harm means in practice, the link with existing targets and the continuance of past trends and performance. This work is not

informed by any proposals from the government's forthcoming road safety strategy. Further, National Highways' draft SBP does not contain a comprehensive safety plan and, consequently, the options presented below for targets have been developed 'top-down' without the benefit of a validation from a 'bottom-up' approach. National Highways should consider how it presents options to the department on critical performance measures, such as road safety, to show the choices available and to help inform its decision.

- (a) *Zero harm by 2050 annual trajectory:* Applying the annual trajectory to achieve zero harm by the end of 2050. For this option we have assumed a working assumption of one KSI per day as the outcome of achieving zero harm. This equates to 370 KSIs (rounded to the nearest ten). It would require a 6% reduction in KSIs per year until the end of 2050. This represents a target of (rounded to the nearest ten) 1,240 KSIs, or fewer, to be achieved by the end of 2031. This is a reduction of 690 KSIs compared to the 2024 figure and a net annual linear decrease of 100 KSIs. Based on trends in safety improvements on the SRN, the existing wider policy framework of road safety delivery and available resources we consider that this would be too challenging a target to achieve.
- (b) *Extending the 50% target:* Extending the RP2 50% reduction in KSIs, compared to the 2005-2009 baseline, from December 2025 to December 2031. This would require a target of 1,550 KSIs to be achieved. This represents a reduction of 380 compared to the 2024 figure and a net annual linear decrease of 50 - 60 KSIs. On balance, and taking account of recent trends, we consider this remains a highly challenging target. Achieving this level of casualty reduction would likely require a revised approach to delivery and resourcing.
- (c) *Trend-based target:* A target based on the historic changes in KSI rates, projected forwards, and forecast changes in traffic levels, but expressed as a total number of KSIs. This would be a trend-based target. As explained in paragraph 9.16 above, the KSI rate has fallen by, on average, 2.5% per year between 2010 and 2024. Extrapolating this trend forward to the end of 2031 and adjusting by National Highways' annual traffic forecast estimates gives a KSI target of 1,780 KSIs. This represents a decline of 43% against the 2005-09 annual average baseline, and a reduction of 150 KSIs compared to the 2024 figure and a net annual linear decrease of 20 KSIs.

9.26 Figure 9.3 shows, for each scenario the total annual reduction in KSIs by the end of 2031. Figure 9.4 shows the trajectories of KSI reductions for each of the target scenarios.

Figure 9.3 Potential approaches for setting a road safety target for RP3

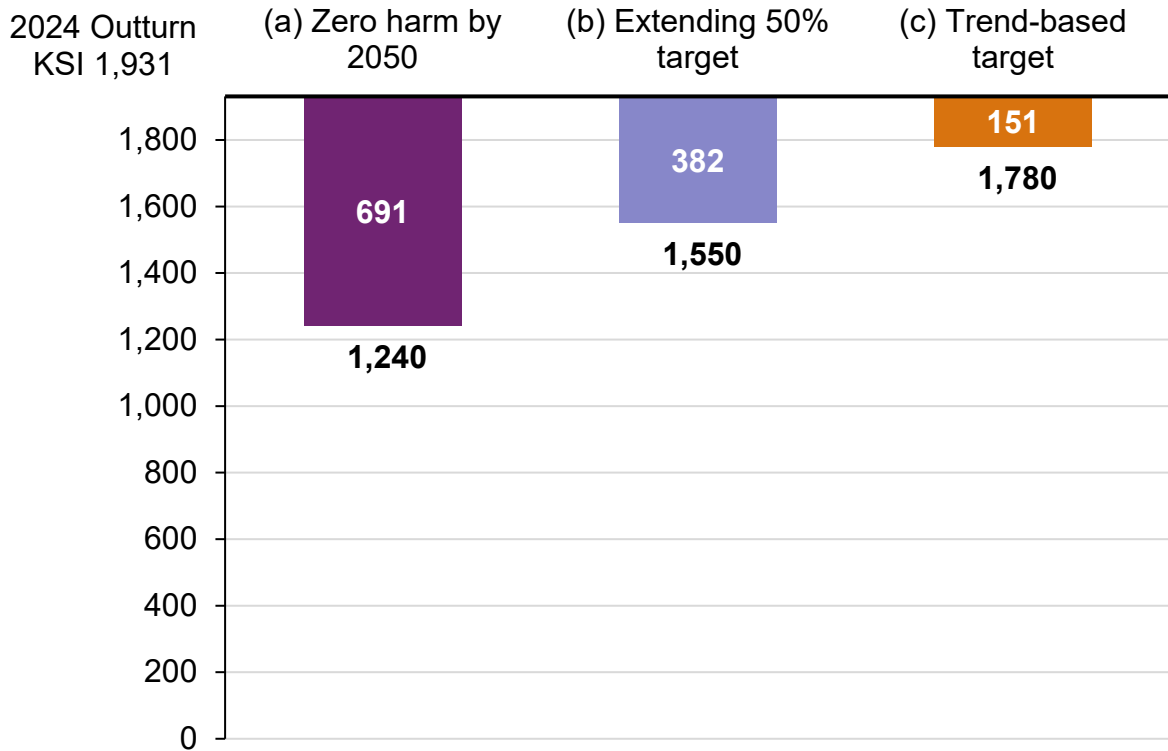
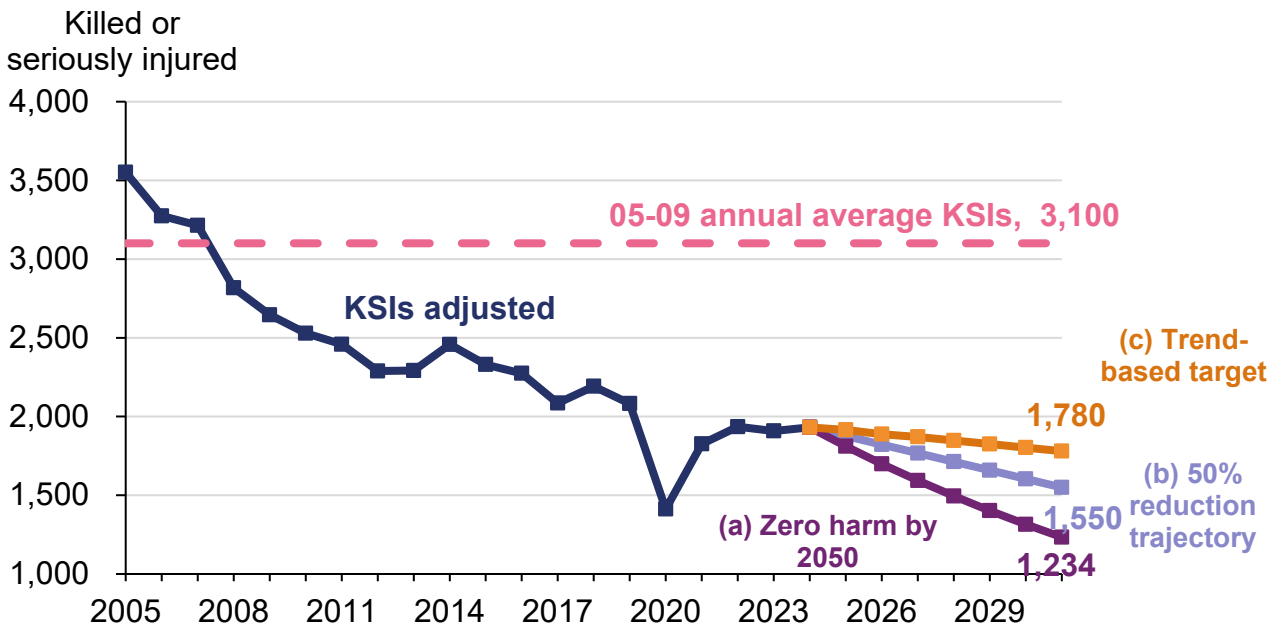


Figure 9.4 Trajectories of potential approaches for setting road safety target for RP3



9.27 In summary, whilst any forecast of KSIs is necessarily uncertain, based on currently available evidence, we recommend that the department adopts a trend-based forecast as it achieves a balance of being challenging and deliverable within the resources available.

Improving safety for all: performance indicators

9.28 Table 9.2 shows, for the ‘improving safety for all’ outcome the department’s expectations, National Highways’ proposal and ORR’s recommendation for PIs.

Table 9.2 Improving safety for all performance indicators

PI DfT expectation	National Highways’ proposal	ORR recommendation	Note
Total number of people killed or injured on the SRN	Yes	Yes	This is retained from RIS2 and the interim settlement year
Number of non-motorized and motorcyclist users killed or	Yes	Yes	This is retained from RIS2 and the interim settlement year

PI DfT expectation	National Highways' proposal	ORR recommendation	Note
injured on the SRN			
International Road Assessment Programme (iRAP star rating)	Yes	Yes	This is retained from RIS2 and the interim settlement year
Lost time incident frequency rate for National Highways' staff	Yes	Yes	This new PI is consistent with our advice for the interim settlement year that it should be introduced for RP3
Lost time incident frequency rate for Supply Chain staff.	Yes	Yes	This new PI is consistent with our advice for the interim settlement year that it should be introduced for RP3

Improving safety for all: metrics to develop

Leading safety indicators

9.29 The use of leading safety indicators is generally viewed as best practice in managing safety performance. They are metrics that provide insight into levels of potential risk, as opposed to the current lagging indicators that are measurements collected after incidents occur. In an SRN context, examples of potential measures include levels of driver distraction, locations of heavy braking or loss of grip on the network and compliance with the speed limit. This would allow National Highways to develop a richer picture of risk on the network and assist how it develops its plans, prioritises interventions and deploys resources.

9.30 We therefore recommend that National Highways develop and improve the safety PIs in RP3. It should develop leading safety indicators and report progress on their development in 2026-27, ready to begin introduction in RP3.

Providing fast and reliable journeys

9.31 The department expects that there will be the following three KPIs for this outcome:

- journey time reliability;

- network availability; and
- incident clearance rate.

Journey time reliability KPI

DfT RIS3 expectation

9.32 The department expects that there will be a journey time reliability KPI. The metric would target the percentage of reliable journeys (where reliable journey would be defined as most frequently occurring journey time + 20%). It would cover the majority of trunk roads and motorways (including smart motorways).

National Highways' proposal – average delay KPI

9.33 National Highways proposes retaining the average delay KPI but introducing a new targeted approach. In a similar manner to the road user safety KPI, the company proposes that the target for average delay should be focused on the delivery of a portfolio of delay reduction schemes, on specific parts of the network, and their associated quantified impact on average delay.

9.34 National Highways contends that many of the factors influencing delay on the SRN are outside its control and that the target should reflect only what is within its ability to control and therefore deliver. The company proposes that the target is set at saving a minimum of 8.75m vehicle hours on the SRN. This is comprised of 8.56m vehicle hours in savings derived from the delivery of major projects, open for traffic (OFT) by December 2029 (chapter 5), and 196,000 vehicle hours saved from the delivery of an emerging list of projects funded through the small schemes programme (chapter 6).

9.35 National Highways states the target can only be finalised once the department has confirmed the OFT commitment dates for major schemes in the RIS3 capital specification. The evaluation will be based on those schemes that are scheduled to OFT by December 2029 to allow for a one-year post-opening monitoring assessment to be produced in time for the end of the road period.

9.36 In addition to the target, National Highways is committing to delivery of a set of actions, contained in a customer and delay action plan, that will reduce delay. The company also proposes continuing to report network wide average delay as a non-targeted PI.

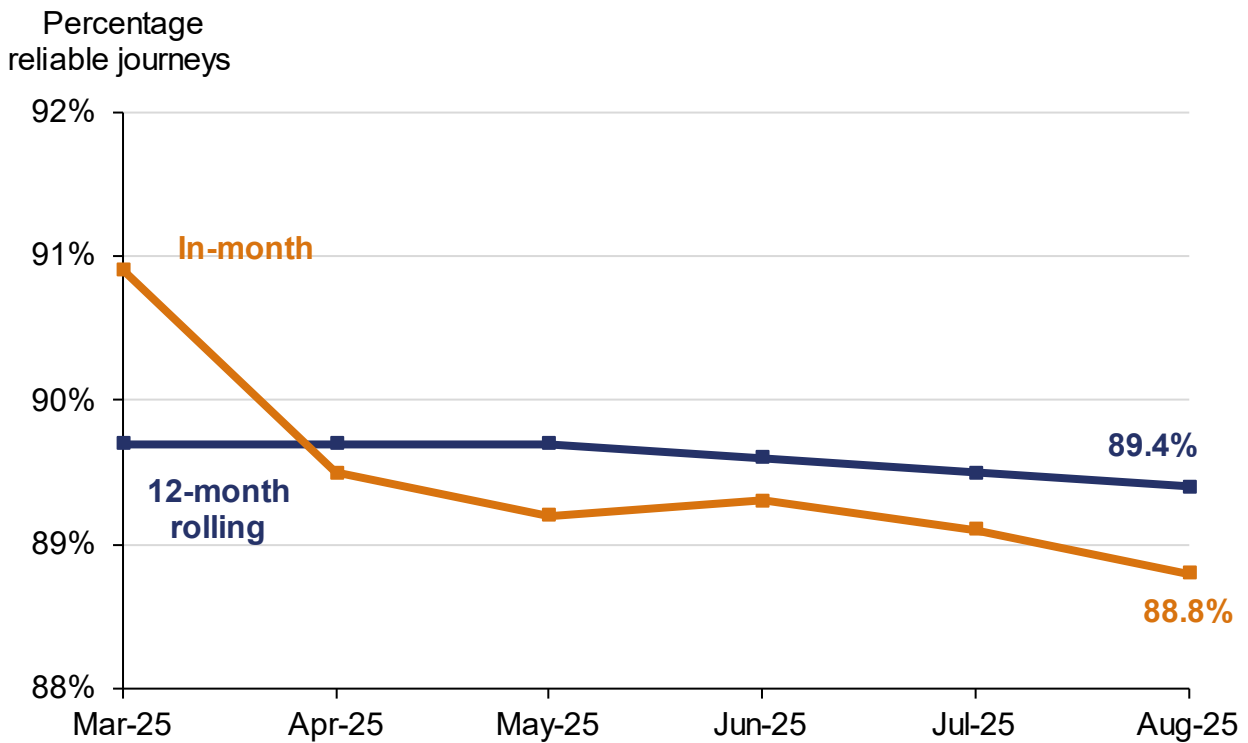
ORR's recommendation

9.37 We recommend that journey time reliability is a targeted KPI for this outcome, replacing the average delay KPI. This KPI target would cover the great majority of

the SRN. It would be supported by the delivery of a customer and delay action plan.

- 9.38 We do not support National Highways' proposal. Whilst the approach to quantification and linking a plan of interventions to outcomes is beneficial to evidence how and where the company is focusing its activities, the delay savings are theoretical and in practice may take years to determine. In addition, the target is focused on a limited set of schemes on a relatively small part of the network. While the company has provided limited analysis it is reasonable to expect that total average delay on the network will increase over the road period due to expected traffic growth and the increase in road works on the network.
- 9.39 We recommend that journey time reliability be adopted as a targeted KPI for this outcome and it should cover the majority of the SRN. We acknowledge that some factors that impact on journey time reliability are outside National Highways' control but many of its activities – across the spectrum of operations, maintenance, renewals and enhancements – significantly impact on this measure. Research by Transport Focus shows that SRN users, particularly the logistics and passenger transport sectors, highly value the reliability of their journeys. We therefore consider it is important to have a measure for the whole company across the whole network.
- 9.40 Journey time reliability was a metric in development during RP2. It expresses the percentage of journeys on the SRN observed to have been completed within a defined 'typical' timeframe. That timeframe begins at zero and ends at the mode-average travel time + 20%. For example, a journey that has a mode-average travel time of ten minutes must be completed by 12 minutes to be considered 'typical'. Journey times falling within 'typical' durations are considered to have been 'reliable' for the purposes of trip planning by the road user.
- 9.41 Since the beginning of 2025-26 the rolling average performance of this metric, shown in Figure 9.5, has been reasonably stable, with a small downward trend since May 2025.

Figure 9.5 Journey time reliability on the SRN



- 9.42 The department, National Highways and ORR now have a sufficient understanding of the metric’s variability for it to be ready to deploy as a KPI in RP3. A target of the proportion of trips within 20% of the modal average journey time for 2026-27 should be set at being no worse than that for the end of 2025-26.
- 9.43 We continue to support National Highways’ intention to produce a supporting customer and delay action plan to show what actions it is taking to reduce delay and improve reliability on the network. This plan must contain SMART deliverables – specific, measurable, achievable, relevant and time bound – and improve on the plan it produced for 2025-26. This would provide assurance that it is prioritising and delivering improvements tackling locations that are performing poorly for road users.
- 9.44 It should be noted that the adoption of this metric will not stop delay increasing across the network as a whole but focus on keeping journeys reliable for users. National Highways will continue to report average delay as a PI which, in combination with this KPI will help to inform future policy choices and options for improvement.

Network availability KPI

DfT RIS3 expectation

9.45 The department expects that there will be a network availability KPI. This metric calculates the percentage of the SRN available to traffic, with an additional weighting factor for different types of traffic management. It is measured by the percentage of lane-metre-days available. The department expects the metric covers trunk roads and motorways, including DBFO managed roads.

National Highways' proposal

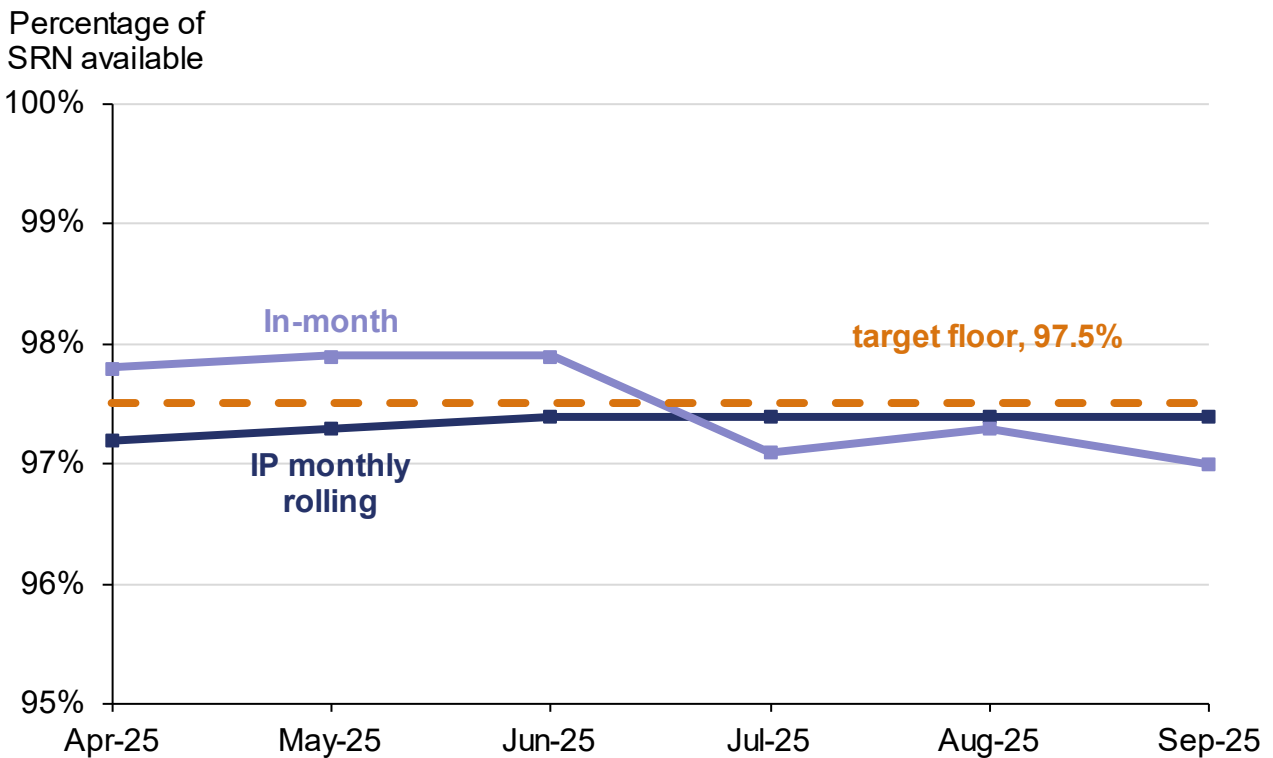
9.46 National Highways proposes that network availability should be a targeted KPI. The company proposes that a target of 97.5% be set for 2026-27.

ORR recommendation

9.47 We recommend that network availability remains a KPI for 2026-27 and until a Delay from Roadworks KPI target is ready to replace, or augment network availability, for 2028-29 onwards. Surveys of SRN users consistently report that delay from roadworks is an important issue and impacts on levels of satisfaction. We consider that the network availability KPI should be a stop-gap measure only. It was originally introduced to replace the roadworks network impact KPI until the introduction of a Delay from Roadworks KPI. The introduction of the latter measure has been impacted by the delay to the rollout of the national traffic information service update (NTIS2).

9.48 During the interim year there has been a gap in performance reporting for network availability. Therefore the available data is provisional, and National Highways is currently assuring it. Final assured data is estimated to be ready later in November 2025, after completion of our report. Figure 9.6 shows the provisional in-month and rolling monthly data. The current monthly average is 97.4%, just under the 97.5% target. While it is too soon to advise on a reasonable target, early indication suggests 97.5% is likely to be a challenging and deliverable target.

Figure 9.6 Road network availability performance



Incident clearance KPI

DfT RIS3 expectation

9.49 The department expects that there will be an incident clearance KPI. The metric would measure the percentage of motorway lane incident impacts, across all time periods, that are cleared in under an hour. It would cover motorway incidents, including DBFO managed roads and the A282 Dartford Crossing.

National Highways’ proposal

9.50 National Highways proposes that incident clearance should be a targeted KPI. The company proposes a target of 86%. It contends that incident volumes are showing a steady upward trend which consequently requires a stretch in performance to achieve the target.

ORR recommendation

9.51 We recommend that incident clearance is a targeted KPI for this outcome. However, we recommend a higher target of 88%, representative of National Highways’ longer-term performance.

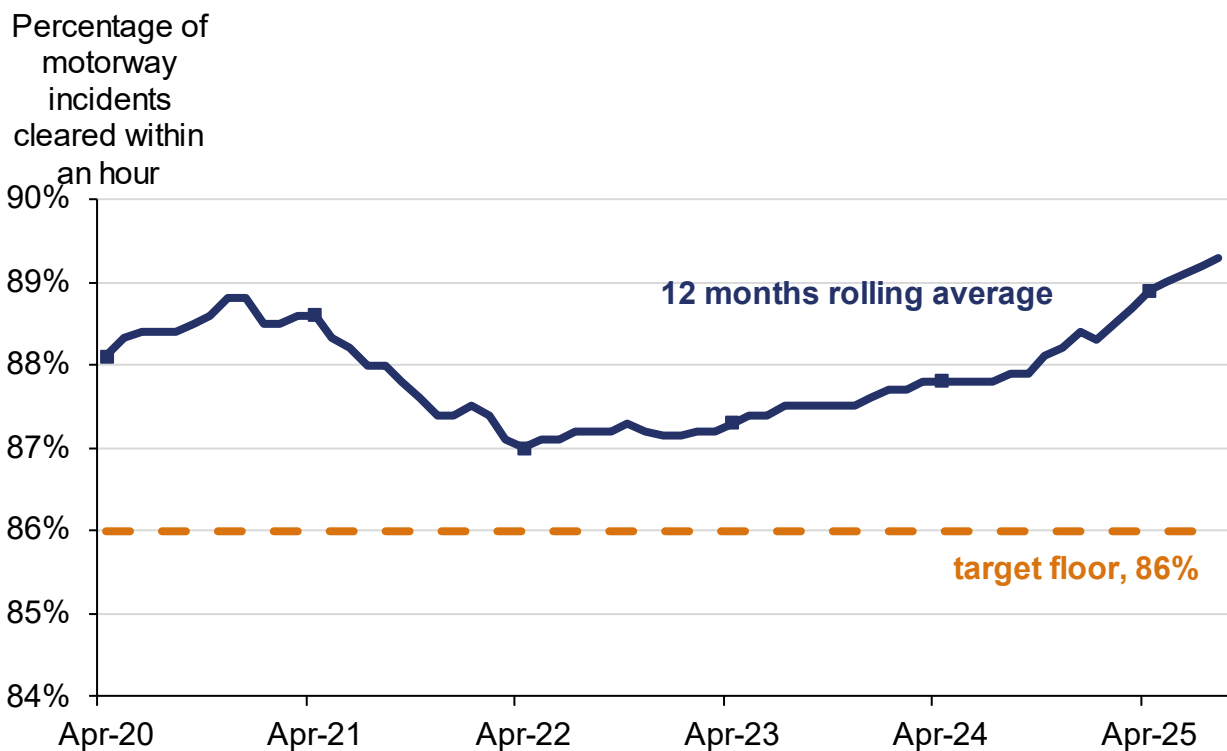
9.52 This targeted KPI is important to users. We therefore support its continued use in RP3. Its achievement is largely within National Highways' control. The KPI is reported as a 12-month rolling average.

9.53 National Highways' proposed target of 86% is unchanged since the start of RP2. Figure 9.7 shows that the company exceeded the target throughout RP2, consistently maintained performance above 86% and achieved 88.7% at the end of RP2.

9.54 The increase in incidents is suggested, by National Highways, to be caused by the growth in traffic and the impact of the cost of living leading to poorer levels of vehicle maintenance. The company's forecasts are based on extrapolating trends. Its contention that the cost of living will continue to worsen, leading to an increase in incidents, is difficult to validate.

9.55 Based upon the evidence from National Highways' longer-term performance delivery we propose that a target that is more reflective of performance is set. We therefore proposed a target of 88%. This would have been met every month over the last 12 months and in 46% of all months since April 2020.

Figure 9.7 Incident clearance, 12-month rolling average



Providing fast and reliable journeys performance indicators

9.56 Table 9.3 shows, for the ‘Providing fast and reliable journeys’ outcome the departments expectations, National Highways’ proposal and ORR’s recommendation for PIs.

Table 9.3 Providing fast and reliable journeys performance indicators

PI DfT expectation	National Highways’ proposal	ORR recommendation	Note
Delay on gateway routes – this uses a subset of the average delay data for the SRN serving England’s most economically important ports and airports	Yes	Yes	This is retained from RIS2 and the interim settlement year
Average speed – this measures the average speed of vehicles travelling on the SRN	Yes	Yes	This is retained from RIS2 and the interim settlement year
Delay from incidents – this measures the impact of incidents on SRN users. Incidents are defined as unplanned events on the SRN that have a discernible impact on SRN users	Yes	Yes	Its introduction is being delayed by the introduction of NTIS2
Average delay	As a KPI, not a PI	Yes	Continue to monitor as a PI.

Providing fast and reliable journeys: metrics to develop

Journey time reliability

9.57 We support the departments intention to review, in 2027-28, the journey time reliability metric’s appropriateness and effectiveness to determine whether the +20% margin should be retained in preparation for 2028-29 onwards.

A well maintained and resilient network

9.58 The department expects that there will be the following three KPIs for the ‘Well maintained and resilient network’ outcome:

- pavement condition;
- technology availability; and
- drainage resilience.

Pavement condition KPI

DfT RIS3 expectation

9.59 The department expects that there will be a pavement condition KPI. The metric will measure the percentage of the pavement (road surface) asset in good condition. It will cover all permanent lanes on main carriageways on the SRN. DBFO roads, slip roads and roundabouts, hard shoulders that are not dynamic excluded.

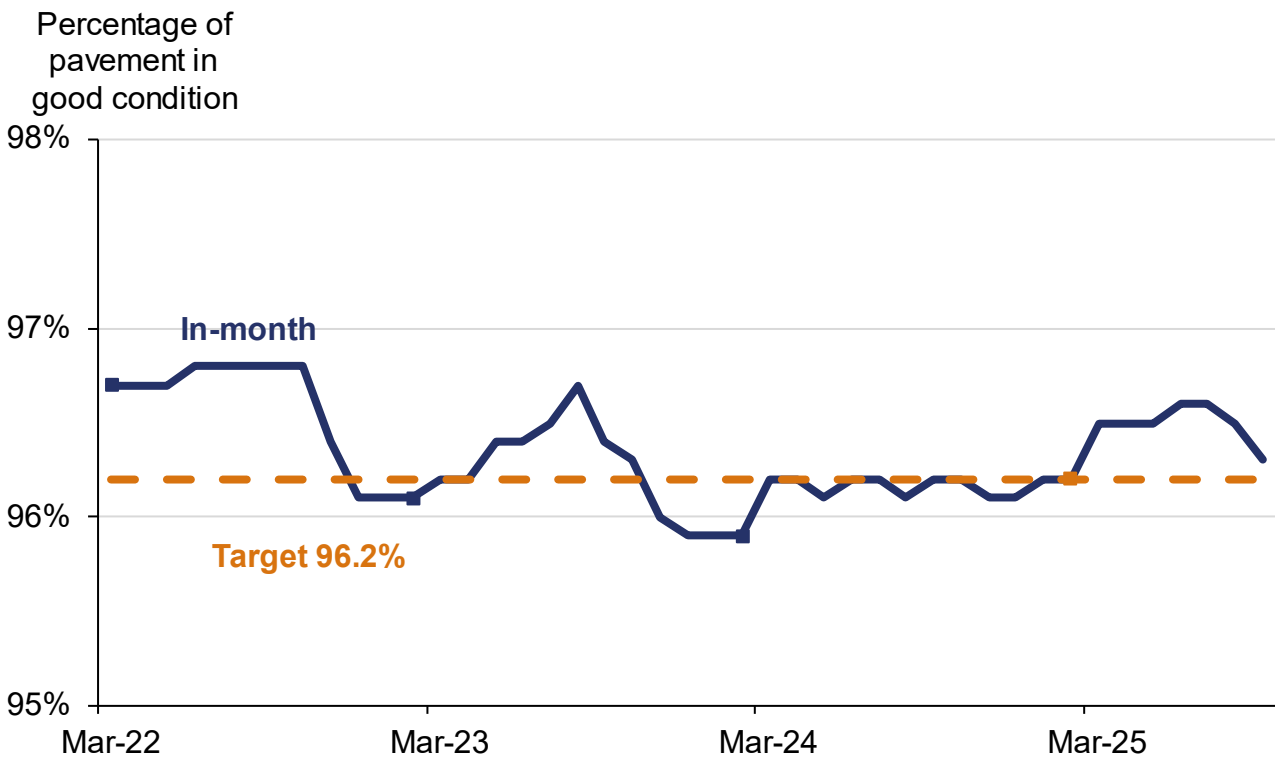
National Highways’ proposal

9.60 National Highways proposes that pavement condition should be a targeted KPI. The company proposes a target of 96.2%, measured as an average across the road period and with an allowable annual variance of 0.1% in-year. As described in chapter 4, the company does not support inclusion within the target of the sections of the SRN that are currently maintained by DBFO concessions and that are scheduled to be transferred to the company during RP3.

ORR recommendation

9.61 We recommend that pavement condition is retained as a KPI for RP3, unchanged from RIS2 and the interim period. The RIS2 target was set at 96.2% and National Highways achieved this at the end of each year of RP2, as shown in figure 9.8. We recommend this target is retained for RP3 in line with the departments’ requirement that asset performance be at least maintained at current levels.

Figure 9.8 Pavement condition KPI



9.62 We further recommend that this should be an annual target and not an average across the road period. This will ensure condition is maintained throughout the road period. Additionally, in our view, the 0.1% variance should only apply to performance during the first four years of RP3. By the end of the road period, the KPI should stand at 96.2%. This guards against the lower end of the range becoming the de facto target. In addition, for the reasons set out in chapter 4, we recommend that the transferred DBFO routes are included in the KPI as it has been provided funding to renew these roads.

9.63 We continue to make the case of the importance of improving the measure of success for this outcome. The pavement condition metric only measures, by spend, a relatively small proportion of National Highways’ pavement renewals programme. It is important that it, like other renewals classes, has appropriate output commitments in the capital specification to provide assurance the company is delivering in accordance with its funded plans. We also recommend that further work continues in 2025-26 to develop a KPI or KPIs that will provide a more appropriate measure of the company’s portfolio of assets, such as an asset health KPI. We describe this further in paragraphs 9.82 and 9.83.

Technology availability KPI

DfT RIS3 expectation

9.64 The department expects that there will be a smart motorway technology availability KPI. The metric will measure the percentage of time that all lane running (ALR) smart motorway roadside technology services are available and functioning and not experiencing a service-affecting fault.

National Highways' proposal

9.65 National Highways proposes setting a target for an ALR motorway technology availability KPI for RP3. The company proposes a range of 95-97% for 2026-27 on the basis that the KPI is under development and there is no long-term historical performance reporting against which to ascertain a reliable baseline. The company is proposing to retain a network wide internal monitoring target, currently reported as PI 3.3.

ORR recommendation

9.66 Roadside technology provides critical support for National Highways' operational management of the SRN. It is a focus of significant levels of investment and supports the safe operation of sections of the network (chapter 4). We therefore advise adopting a technology availability KPI and recommend the department considers the option of setting two distinct targets for the following:

- SRN wide technology availability target of 93%; and
- an ALR motorway technology availability target of 97%.

9.67 For the wider SRN we recommend a target of 93% by the end of the road period. While current performance is 90% (as of August 2025), 93% represents an improvement on current performance reflective of the level of investment proposed to address predicted obsolescence of ~19,000 roadside technology assets by the end of RP3. It acknowledges the need for investment and seeks to balance the level of ambition with deliverability, improving performance while recognising the condition and age of the asset base. The SRN wide KPI maintains continuity with RP2 and allows performance to be consistently compared over time, providing clear accountability for both the management of technology across the SRN and the specific systems on ALR.

9.68 The challenges encountered during the modernisation and refresh programme highlight the wider issues affecting technology delivery, rooted in historically poor asset data. This has resulted in it not yet meeting its ambition. National Highways has prioritised long term solutions to address these and plans to apply these to

RIS3 delivery. We have factored in the delivery challenges in our assessment and recommendation.

- 9.69 National Highways' proposal for the ALR KPI is based on performance previously monitored on four asset types only (CCTV, signs, signals and MIDAS). Performance for these is around 95% (as of August 2025). The company proposes to include stopped vehicle detection (SVD) which performs strongly (98%) and emergency roadside telephones which perform less strongly (less than 90%). Our assessment of the company's data and methodology indicates incorporating these additional assets has only a small effect on availability and therefore does not materially alter the baseline.
- 9.70 Furthermore, National Highways aimed to improve availability on ALR to 97% through its modernisation and refresh programme during RP2. While the programme has run late, we consider that formalising this level of performance within the KPI provides continuity and places appropriate emphasis on technology that supports ALR operation. A range would not reflect current performance or the ~10% of renewals ALR assets make up. Therefore, we recommend a target for ALR technology of 97% from the first year of RP3.

Drainage resilience KPI

DfT RIS3 expectation

- 9.71 The department expects National Highways to propose an upgrade of the existing drainage resilience PI to a targeted KPI. The target would start in RP3.

National Highways' proposal

- 9.72 National Highways has not proposed a KPI for drainage resilience. Drainage resilience would remain being reported as a PI.

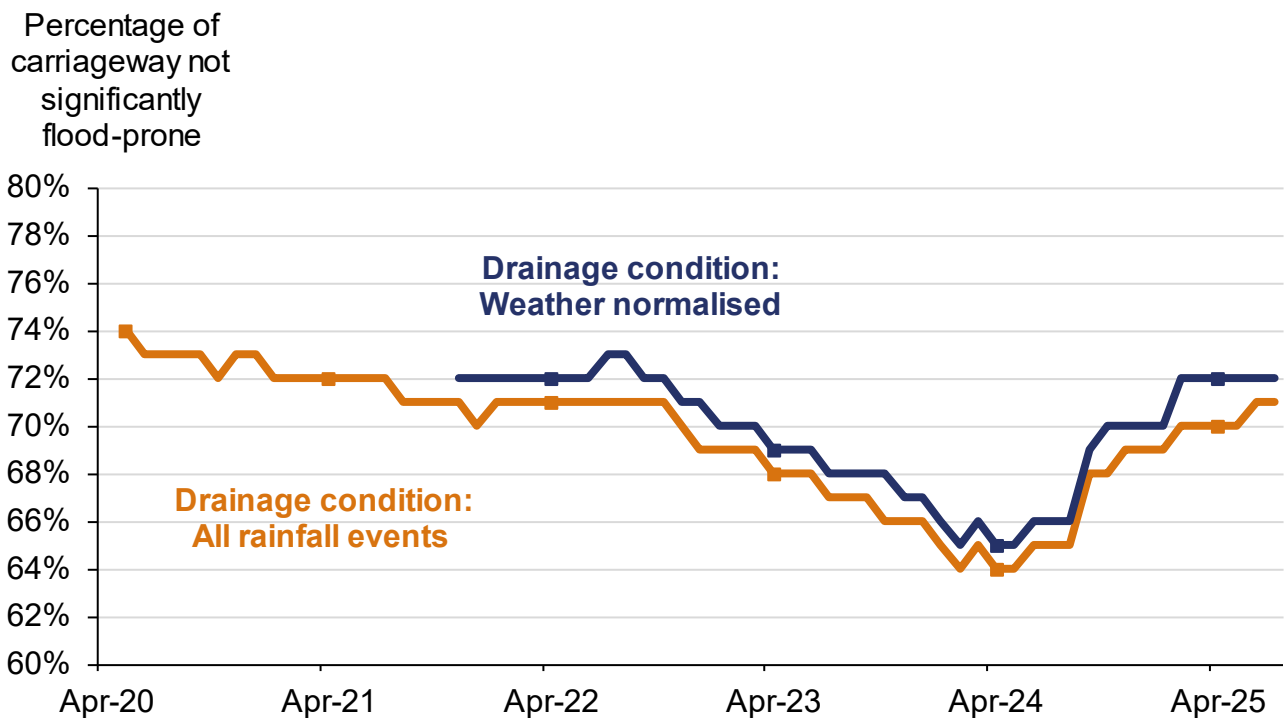
ORR's recommendation

- 9.73 We recommend that drainage resilience becomes a targeted KPI for RP3 to demonstrate that National Highways is proactively seeking to maintain the resilience and safety of the network for users. Surface water flooding carriageways has an impact on road user safety, journey time reliability, user satisfaction levels and a measure of the overall resilience of the SRN to climate change. Climate change is predicted to bring warmer, wetter winters to the UK, with a higher probability of extreme rainfall events.
- 9.74 Drainage resilience has already been monitored as a PI. It is measured as the percentage length of carriageway that does not have an observed significant susceptibility to flooding. Data is available, from May 2020 onwards, for baselining.

Current data excludes all DBFO routes, except the M25. The PI is currently reported using two metrics, one not weather normalised and one weather normalised (whereby rainfall events exceeding design standards are excluded from the measure). Monthly performance, for both measures, is shown in figure 9.9.

- 9.75 In the absence of a model, or other methodology, to estimate future performance and the impact of investment on the metric we propose that the target is set at 71%. This was the performance level at the end of RP2 and is consistent with the department’s requirement to maintain performance.
- 9.76 We propose that the existing PI, using the non-normalised measure, forms the basis of the KPI target. This is because this metric is a more representative measure of the SRN’s and National Highways’ preparedness for the more extreme rainfall events that are caused by climate change and the performance seen by users. Dual reporting of drainage resilience should continue, with the weather normalised measure reported as a PI. This will ensure that performance is considered alongside a changing climate.

Figure 9.9 SRN Drainage resilience



A well maintained and resilient network performance indicators

9.77 Table 9.4 shows, for the ‘A well maintained and resilient network’ outcome the departments expectations, National Highways’ proposal and ORR’s recommendation for PIs.

Table 9.4 Providing fast and reliable journeys performance indicators

PI DfT expectation	National Highways’ proposal	ORR recommendation	Note
Structures condition – average and critical condition of structure stock and percentage of structures with updated bands/descriptors. To continue dual reporting of ratings such as ‘good’, ‘fair’, and ‘poor’ by National Highways inspectors	Yes	Yes	This is retained from RIS2 and the interim settlement year
Drainage resilience – weather normalised	Yes	Yes	This is retained from RIS2 and the interim settlement year
Geotechnical condition – the percentage length of asset in good condition	Yes	Yes	This is retained from RIS2 and the interim settlement year

A well maintained and resilient network metrics to develop

Minimum regional pavement condition target

9.78 The pavement condition KPI is calculated as an average across the SRN. However, there are longstanding differences in performance across National Highways’ regions.

9.79 Most notably, the condition of pavements in National Highways’ East region has been consistently below the national KPI target. In 2024-25, the East region’s pavement condition was 94.1%. This is partly due to the high proportion of A-roads and deteriorating concrete roads in the region. However, our research [comparing road surface across the company’s regions](#) suggests that these factors fail to fully explain the performance gap between the East region and the network-wide average.

- 9.80 While some degree of regional variation is expected, there is a risk that poor condition in some of National Highways' regions is masked by better condition in others. To mitigate this, the department should consider the benefit of introducing a minimum condition standard that all regions must achieve. This would be set at a different level than the national KPI target but should be sufficiently stretching to incentivise the company to achieve a good condition across all regions to provide a more consistent level of service to all users.
- 9.81 If the department supports the principle of minimum regional pavement condition levels, we would work with National Highways to identify an appropriate level at which the regional minimums should be set.

Asset health performance indicators

- 9.82 Currently, National Highways' performance measure of assets is narrowly focused and does not consider the wider sustainability of the assets and future risk to the network. A more appropriate metric, which takes into account the broad needs, would be to have a measure of asset health. These would encompass asset attributes like condition, serviceability, reliability, sustainability and resilience. The requirement to develop a measure of the sustainability and resilience of assets on the SRN, to help National Highways fully understand the appropriate level of investment it requires, is compelling. In addition, it will provide richer evidence to help make the case for investment and better demonstrate the impact of underfunding.
- 9.83 Development of asset health indicators by National Highways and ORR, supported by the department, commenced in 2025-26. As set out in section 4, the company will begin regular reporting of the asset health indicators in April 2026. The RIS should include a requirement for the company to undertake a review of the feasibility of including asset health indicators in the Performance Specification. This should be completed no later than autumn 2028 to enable it to support RP4 planning.

Being environmentally responsible

- 9.84 The department expects that there will be the following four KPIs for this outcome:
- biodiversity;
 - corporate carbon emissions; and
 - air quality; and

- noise.

Biodiversity KPI

DfT RIS3 expectation

9.85 The department expects that there will be a biodiversity KPI. It expects National Highways to propose a target and outline its target setting approaches it has considered.

National Highways' proposal

9.86 National Highways proposes that biodiversity should be a targeted KPI. The company proposes a target of 2,000 biodiversity units to be delivered in RP3. This KPI aligns with the Department for the Environment, Food and Rural Affairs (Defra) [statutory biodiversity metric](#).

ORR recommendation

9.87 It is important that National Highways demonstrates the delivery of biodiversity improvement and that it can evidence that it has done so in accordance with its funded plans. However, it is also important to ensure the Performance Specification remains proportionate and balanced. The current metric tracks the delivery of outputs rather than overall biodiversity outcomes. Therefore, the department could consider whether the delivery of biodiversity units, is monitored against a commitment in the capital specification rather than being included as a targeted KPI.

9.88 National Highways' proposed target is derived from a top-down budget allocation and a unit cost for the delivery of a biodiversity unit. It is not based on a bottom-up assessment of requirement. In the absence of a more comprehensive needs-based assessment from National Highways we have no evidence to validate the proposed target. It is lower than the target of 6,148 biodiversity units set for RIS2, which was exceeded by 596 biodiversity units. However, comparisons with the previous road period requires caution. Biodiversity units delivered in RP2 were not funded to be maintained for the full statutory 30 years whilst those proposed for delivery in RP3 would be funded to be maintained for 30 years. This results in higher unit costs but matches the rules of the statutory biodiversity metric.

Corporate carbon emissions KPI

DfT RIS3 expectation

9.89 The department expects that there will be a corporate carbon emissions KPI. The department expects the metric to cover carbon dioxide and other greenhouse gas emission associated with National Highways' activities as it operates and manages

the estate and network. It expects the [Science Based Targets initiative](#) (SBTi) methodology to be used as the standard for measuring emissions. It requests that National Highways outline a proposed target in its draft SBP.

National Highways' proposal

9.90 National Highways proposes that corporate carbon be a targeted KPI for RP3 as it was in RP2. The company proposes a target of a 90% reduction in emissions, compared to the 2019-20 baseline, by the end of the road period. Corporate emissions will be measured using the using the SBTi methodology.

ORR recommendation

9.91 We recommend that the department considers including a KPI and target for carbon emissions from National Highways' construction and maintenance activities. This could serve as an alternative to the corporate carbon emissions KPI. The company's corporate carbon emissions are already reported to Defra as part of its Greening Government Commitments requirement. The current targets end in 2025. If these are extended it would remove the requirement to dual report on this measure. In addition, if a government-wide carbon reporting mechanism, such as the Greening Government commitments, continues beyond 2025, the department should consider if National Highways should align its reported emissions methodology and target to any future commitment.

Corporate carbon emissions

9.92 Corporate carbon emissions are the result of activities undertaken by National Highways. The KPI unit is tonnes of carbon dioxide equivalent (CO₂e). The company emitted corporate carbon emissions of 152,053 tCO₂e in the 2019-20 baseline year. A 90% emissions reduction equates to a KPI target of 15,205 tCO₂e.

9.93 For 2025-26, National Highways has a target to reduce corporate carbon emissions by 75% on its 2019-20 baseline. The company is currently forecasting to miss its target, with between a 69% to 72% reduction on its baseline.

9.94 National Highways set out a range of corporate carbon initiatives although only some of these directly impact the KPI. In combination, the initiatives are expected by the company to ensure it achieves the 90% reduction target by the end of RP3.

9.95 As described in chapter 7, we have identified options the department could consider to reduce the cost of the corporate carbon programme. Some of these options include reducing funding for initiatives that are likely to offer poor value for money, but which contribute to reducing emissions as measured by the KPI or

Greening Government commitments. Should these cost reducing options be taken forward this would need to be taken into account when finalising the target.

Construction and maintenance carbon emissions

- 9.96 National Highways has set an ambition in [Net Zero Highways](#) to reduce its supply chain emissions by 40%-50% by 2030 compared to the 2019-20 baseline. It reports on these emissions annually in its [net zero highways progress report](#). Supply chain emissions are the greatest contributor to carbon emissions that the company has the ability to directly control. Emissions from its supply chain's maintenance and construction activities led to emissions of around 567,794 tonnes of CO₂e in 2023-24, compared to 37,738 tonnes CO₂e from its corporate activities.
- 9.97 National Highways has expressed concerns on setting a KPI for this measure due to data quality issues from its supply chain, despite PAS2080 certification on its carbon reporting and publishing annual updates on progress to achieving its ambition to achieve net zero for maintenance and construction emissions by 2040. Therefore, we recommend that, if the department chooses to set a KPI for this measure, milestones are set within 2026-27 to improve data quality to support development of an RP3 KPI target to start from April 2027.

Air quality KPI

DfT RIS3 expectation

- 9.98 The department expects that there will be an air quality KPI. The target would be delivery of interventions, initiatives and research supporting reductions in NO₂ emissions and PM_{2.5} emissions.

National Highways' proposal

- 9.99 National Highways has not submitted a proposal for an air quality KPI. The company contends that it has delivered a programme of air quality initiatives in RP2 and that there are a very limited number of measures that it can deliver to materially improve air quality in RP3. Improvements in emissions from the vehicle fleet will result in most SRN links falling below the exceedance limits by the end of RP3.

ORR recommendation

- 9.100 This KPI could measure the number of sections of the SRN that exceed legal limits for nitrogen dioxide. The KPI would be consistent with the approach in RP2. However, in practice National Highways has a limited range of practicable levers to influence air quality on the SRN. Therefore, in the interests of ensuring the

Performance Specification remains proportionate and balanced, the department could consider whether it remains appropriate to retain the air quality KPI target for RP3.

- 9.101 Air quality has been improving in areas adjacent to the SRN. This is predominantly caused by the improvement in vehicle emissions. National Highways estimates that 15 sections of the SRN exceeded the legal limit for nitrogen dioxide in 2024, and this is forecast to reduce to one by 2030. This is a reduction from the 20 sections the company estimated were exceeded in 2023.
- 9.102 Poor air quality is a concern for some communities adjacent to the SRN and a number of links are still exceeding nitrogen dioxide limit values. If a target is retained, we recommend an approach consistent with that used for RP2, where National Highways must bring nitrogen dioxide levels into legal compliance in the shortest time possible. Although setting a KPI focuses the company on the need to continue to deliver against this outcome, in practice the company has a limited range of levers that it can deploy to improve air quality, and it has not allocated a specific fund for air quality initiatives.

Noise KPI

DfT RIS3 expectation

- 9.103 The department expects that there will be a noise KPI. The metric is to measure households within noise important areas mitigated. It requests that National Highways outline a proposed target in the draft SBP.

National Highways' proposal

- 9.104 National Highways proposes that noise should be a targeted KPI for RP3. The company proposes a target of between 4,500-5,500 households benefitting from noise exposure reduction in [noise important areas](#).

ORR recommendation

- 9.105 We recommend that noise is either a targeted KPI or an output commitment in the capital specification. Noise pollution from traffic on the SRN impacts communities adjacent to the network. Like biodiversity, National Highways' proposed target is derived from a top-down budget allocation and a unit cost for the delivery of noise mitigation. It is not based on a bottom-up assessment of need.
- 9.106 The KPI is measured by the number of households within noise important areas where the noise impact is mitigated. Mitigation is achieved by National Highways through either installing lower noise road surfacing, upgrading insulation in affected households or installing noise attenuation barriers.

9.107 National Highways had an RP2 KPI target to mitigate noise for 7,500 households by the end of RP2. The company exceeded that target and mitigated noise for 7,776 households.

9.108 National Highways gained significant experience of successfully delivering a programme of noise mitigation in RP2. This would support that the upper range of the proposed target, of 5,500 properties, is adopted for RP3.

Being environmentally responsible performance indicators

9.109 Table 9.5 shows, for the ‘being environmentally responsible’ outcome the departments expectations, National Highways’ proposal and ORR’s recommendation for PIs.

Table 9.5 Being environmentally responsible performance indicators

PI DfT expectation	National Highways’ proposal	ORR recommendation	Note
Water quality – number of high-risk outfalls treated.	Yes	Yes. The department should consider how this interacts with commitments under the national programme and if the definition is clear enough on the level of treatment required before being reported as mitigated	This is retained from RIS2 and the interim settlement year.
Cultural heritage assets. ‘Quality score’ for individual cultural heritage assets based on the asset value vulnerability ratings given in CHAMPs for heritage assets owned by National Highways	Yes	Yes. National Highways should review the metric to improve the consistency in how it is measured. See section 6.	
Litter – percentage of network at an acceptable grade of cleanliness	Yes	Yes. See section 9.111	

Being environmentally responsible metrics to develop

Road user carbon emissions performance indicator

9.110 National Highways' ambition for net zero carbon travel on the SRN by 2050 is described in [Net Zero Highways](#). The company has a limited range of levers to manage the reduction of road user carbon emissions. Despite this, it has publicly set its ambition and a prudent approach to support this would include milestones against which to hold the company publicly to account. Therefore, given the importance of this issue and to support transparency, we recommend that the department considers the development of a metric for the SRN to support the company's ambition in RP3 and beyond.

Litter performance indicator

9.111 Litter on the SRN is an important issue for stakeholders, users of the network and the communities living and working adjacent to the SRN. Each of National Highways' regions is responsible for undertaking respective surveys of litter. The timing and frequency of the surveys can vary between regions meaning that results can be challenging to compare. We recommend that the company reviews its guidance to its regions for the surveys that inform this PI. The purpose of this refreshed guidance should be to ensure that the timing and frequency of the surveys is consistent, and results comparable, across all regions, and that the survey results are not impacted by, for example, the vegetation growth season cycle.

Water quality

9.112 For water quality, it is not clear whether there is a significant difference between the proposed PI and the commitment, relating to the environment national programme, to mitigate 110-130 high risk outfalls. We recommend that the department considers the most appropriate way for National Highways to report its progress in this area and if the proposed PI is sufficiently clear on the level of treatment required for an outfall to be reported as mitigated.

Meeting the needs of all users

9.113 The department expects that there will be the following two KPIs for this outcome:

- road user satisfaction; and
- roadworks information timeliness and accuracy.

KPI – Road user satisfaction

DfT RIS3 expectation

9.114 The department expects that there will be a road user satisfaction KPI. The metric is to measure Strategic Roads User Survey respondents who are ‘satisfied’ or ‘very satisfied’ with a specific stretch of their journey on the SRN. It requests National Highways to outline a proposed target in draft SBP.

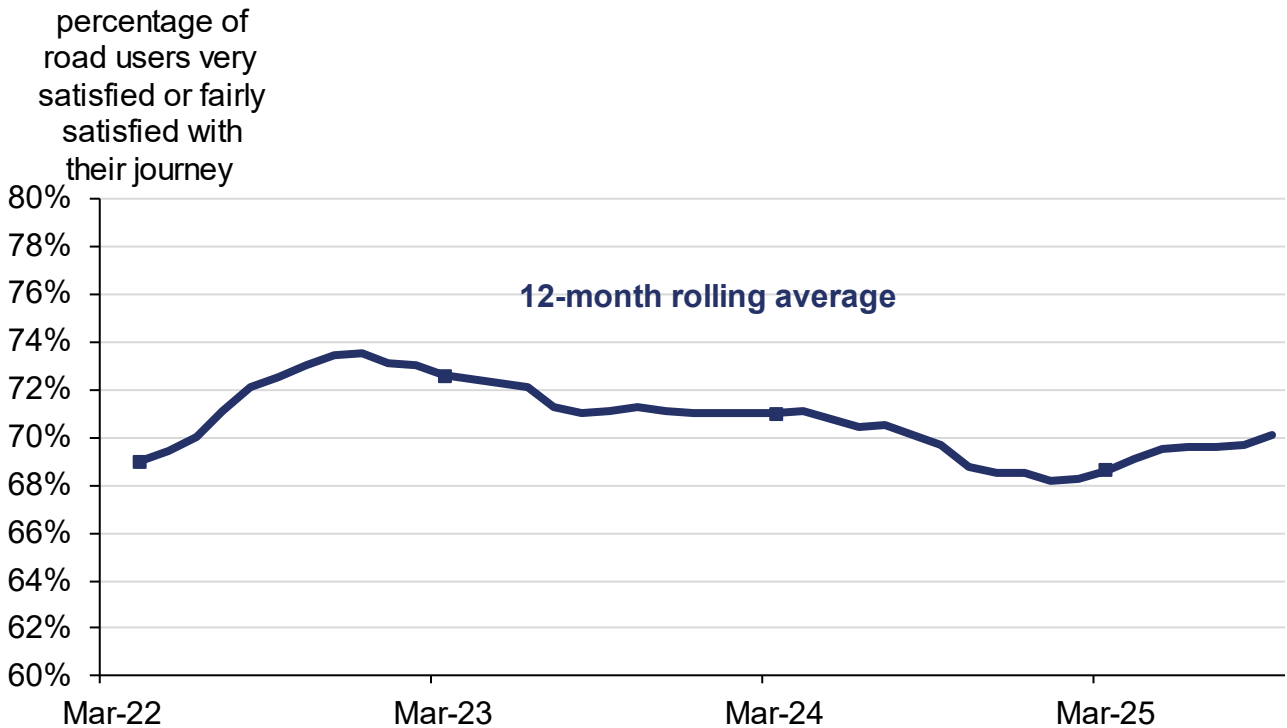
National Highways’ proposal

9.115 National Highways proposes that road user satisfaction should be a targeted KPI for RP3. The company proposes a target to achieve year-on-year improvement. In addition to the target, the company proposes that it demonstrates performance through successful deliver of a set of actions in a customer and delay action plan.

ORR recommendation

- 9.116 The KPI is measured by a 12-month rolling average for the year end. The Strategic Roads User Survey (SRUS) provides data on the proportion of SRN users who are fairly satisfied or very satisfied with their journey on the SRN. In 2024-25, National Highways missed its in-year road user satisfaction target of 71.0%, with 68.6% of users fairly satisfied or very satisfied with their journey on the SRN. The target for 2025-26 was set at a one percentage improvement on the outturn for 2024-25, 69.6%.
- 9.117 Figure 9.10 shows the decline in satisfaction scores during 2024-25. The 12-month rolling average fell from 71.1% in April 2024 to 68.2% in January 2025. National Highways judged that the extent and nature of the traffic management for the NEAR programme would have a detrimental impact on both delay and satisfaction and this hypothesis underpinned the company’s case to reduce the target for 2024-25.
- 9.118 The completion of the NEAR programme in March 2025 led to a reduction in the level of roadworks and roadworks-related delay. Satisfaction levels, on the 12-month rolling average basis, have continuously risen since then. The 12-month rolling average satisfaction score for September 2025 was 70.1%.

Figure 9.10 Road user satisfaction 12-month rolling average



9.119 We recommend that road user satisfaction is a targeted KPI. This KPI measures road users’ satisfaction with their journey on the SRN and is supported by Transport Focus. One challenge with National Highways’ proposed approach based on ‘year-on-year improvement’ is determining what level of increase represents a material improvement. Therefore, we recommend setting an absolute figure of 71%. This was the 12-month rolling average road user satisfaction score, before the impact of the national emergency area retrofit (NEAR) programme led to satisfaction levels declining. Setting the target at 71% is consistent with the department’s expectation of maintained performance. We recommend that the target, based on the 12-month rolling average, is for each year of RP3. The department may wish to consider the addition of a review point or points within the road period to reassess the target, for the end of the road period, if it wishes to drive improved performance.

9.120 We support National Highways’ intention to produce a supporting customer and delay action plan to show that it is doing all that it can to improve road users’ satisfaction with their journey on the SRN. This plan needs to contain deliverables which are more SMART – specific, measurable, achievable, relevant and time bound – than that produced for the 2025-26 customer and delay plan. We

recommend that the department considers setting clear expectations of what the plan should achieve and the process for its approval prior to its implementation.

Roadworks information timeliness and accuracy KPI

DfT RIS3 expectation

9.121 The department expects that there will be a roadworks information timeliness and accuracy KPI. The metric is to measure the percentage of overnight planned roadworks requiring full carriageway or slip road closures that are accurately notified seven days in advance. It requested National Highways to outline a proposed target in the draft SBP.

National Highways' proposal

9.122 National Highways proposes that roadworks information timeliness and accuracy should be a targeted KPI for RP3. The company proposes a target of 79%.

ORR recommendation

9.123 We recommend that roadworks information timeliness and accuracy should be a targeted KPI.

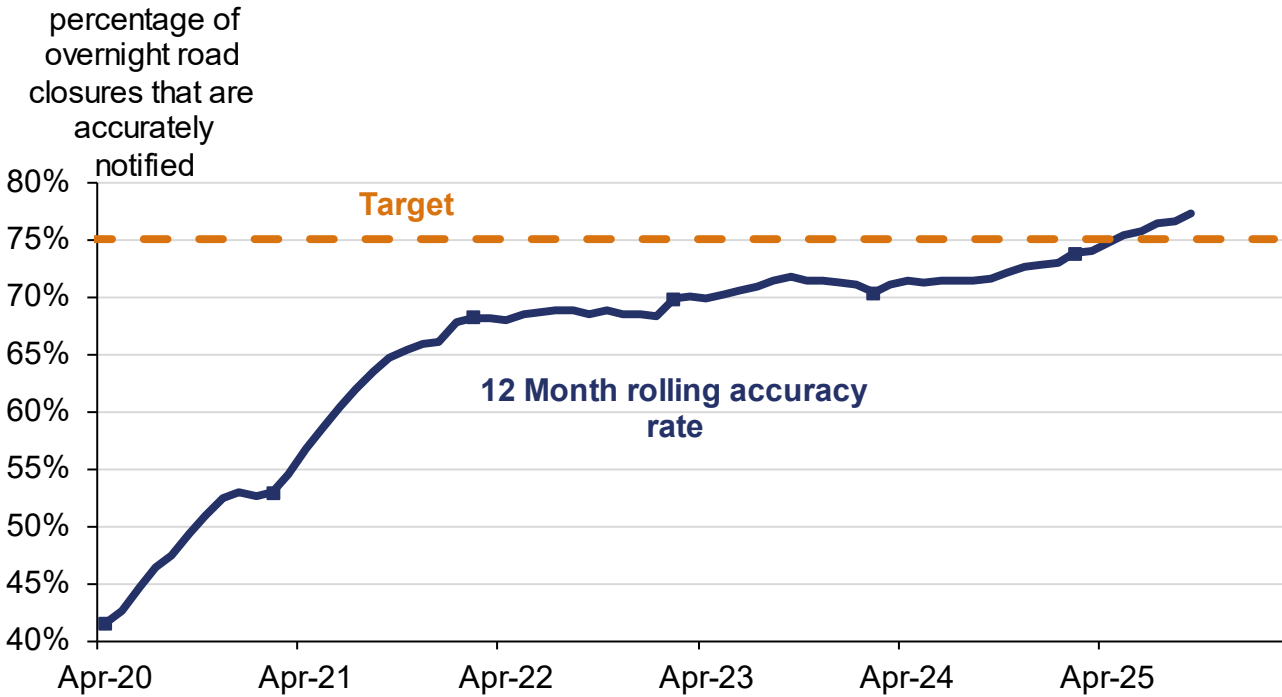
9.124 This KPI measures the percentage of overnight road closures correctly notified to road users seven days in advance. It is measured by a 12-month rolling average for the year end. National Highways has an existing KPI target that 75% of overnight road closures are accurately notified one week in advance.

9.125 Analysis of the reasons why some closures were not accurately notified, seven days in advance, indicates that 12.8% of closures in the final year of RP2 were due to reasons outside National Highways' control, such as unplanned safety work or high traffic flows, not known about when the closures were notified. Allowing for the impact of factors outside of the company's control to increase, but also recognising the progress the company has made in increasing the accuracy rate since May 2024, and particularly since April 2025, indicates that a longer-term target of 82% is challenging but deliverable. We therefore recommend that the target is set at 82%. Our analysis indicates that the company can achieve this through improvements in existing processes that do not require additional funds.

9.126 Figure 9.11 shows that at the start of RP2 National Highways had low accuracy rates. Although good progress was made, through improved processes and scrutiny of road space booking, the company narrowly failed to achieve the 75% target. The rolling 12-month accuracy rate in March 2025, at the end of RP2, was 74.1%. However, the rolling 12-month accuracy rate has continued to improve and

stood at 77.3% in September 2025. The in-month score rose to over 81% for the five-month period between April 2025 and August 2025.

Figure 9.11 Roadworks information timeliness and accuracy rolling 12-month accuracy rate



Meeting the needs of all users performance indicators

9.127 Table 9.6 shows, for the ‘meeting the needs of all users’ outcome the departments expectations, National Highways’ proposal and ORR’s recommendation for PIs.

Table 9.6 Meeting the needs of all users performance indicators

PI DfT expectation	National Highways’ proposal	ORR recommendation	Note
Timeliness of information provided to road users through electronic signage. This measures the average median time to set signs and signals on all motorways.	Yes	Yes	This is retained from RIS2 and the interim settlement year
Ride quality. This measures the	Yes	Yes	This is retained from RIS2 and the interim settlement year

percentage of the network assessed to have a good or better ride quality condition			
Working with local highways authorities to review diversion routes for unplanned events. This measures the percentage of local highway authorities that National Highways engaged with, to review diversion routes for unplanned events	Yes	We recommend that this PI is replaced during RP3. See 9.103.	
Logistics and coach manager satisfaction survey. This measures the percentage of respondents fairly satisfied or very satisfied with how the SRN met their business needs	Yes	Yes	

Meeting the needs of all users metrics to develop

Diversion routes and roadworks

9.128 We recommend that PIs are developed during RP3, for consideration to replace the existing measure of ‘working with local highways authorities to review diversion routes for unplanned events as the current PI does not adequately address users’ concerns’:

- roadworks and planned event diversion routes: the quality of roadworks and planned event diversion routes using results from a sample of ‘mystery shopper’ drive-through surveys; and
- unplanned event diversion routes: compliance with standards for unplanned event diversion routes. Initial work with National Highways has demonstrated that the data exists through route inspections, so the company is able to develop a PI based on existing data.

Walking, wheeling, cycling and horse riding

- 9.129 Measuring users' satisfaction of the SRN for active travel (walking, wheeling, cycling and horse riding) has previously been an aspiration, for the department and Transport Focus, but has proved to be too complex and expensive to deliver. A user satisfaction type survey, and rate-based casualties metrics, were deemed not practicable to develop in RIS1 or RIS2.
- 9.130 Instead of a user satisfaction measure and the elapsed time in developing an alternative, there is a need for National Highways to develop and improve reporting of its performance for users that walk, wheel, cycle or ride on the SRN. This view is supported by Transport Focus. Reporting should cover, but not be limited to, the company's operations, maintenance, renewals, initiatives and enhancements, information that is already held by National Highways. We recommend that the reporting should be quarterly and that the reporting approach is developed in collaboration with the department, ORR and Transport Focus. In addition, we recommend that the company produces an annual active travel delivery plan that details its proposed actions across a rolling two or three-year programme. These would help to provide assurance that the company is "supporting walking, wheeling and cycling, particularly where the SRN interacts with cycleways, footways, bridleways and local roads" (page 11 draft RIS). The active travel plan, alongside the updated bus and coach plan, will allow the company to demonstrate how it is responding to the needs of these users' groups.

Achieving efficient delivery

- 9.131 The department expects that there will be the following KPI for the 'Achieving efficient delivery' outcome:
- Total efficiency.
- 9.132 The conceptual basis for the efficiency measure is unchanged from RP2. National Highways would be held to account for achieving a monetary value for the total efficiencies it achieves during RP3. In the draft SBP, National Highways presented proposals for an efficiency target set at £1,435m. As described in chapter 8, we support the approach taken by National Highways in most areas, although we make several recommendations for minor adjustments to the target.
- 9.133 Based on the recommendations set out in this report, and the supplementary options for reducing costs, the target would be adjusted to £1,393m. However, the target can only be confirmed once the department has finalised its decisions on RIS3 requirements and funding allocations.

Summary of recommendations

9.134 Table 9.7 provides a summary of the department's expectations, National Highways' proposals and ORR's recommendations for the KPIs and targets in the Performance Specification.

Table 9.7 Summary of ORR’s recommendations for the Performance Specification

KPI	Department’s expectation	National Highways’ proposal	ORR recommendation	Consistent with department expectation	
Improving safety for all				NH	ORR
Killed and serious injuries	KSI reduction target within RIS3. NH to propose target setting approaches and targets in the draft SBP, being clear on the assumption of the baseline performance (end of 2025).	Deliver a minimum number of 85 KSI savings, supported by the delivery of the agreed Safety Plan and monitoring of the number of KSIs and KSI rates on the SRN.	Set SRN-wide target Target: Trend based target to sustain the reduction trajectory in KSIs observed to date.	Yes	Yes
Providing fast and reliable journeys				NH	ORR
Journey time reliability	Journey time reliability KPI. NH to propose approach to improving JTR in the draft SBP and how this will be measured. If NH propose a different approach the evidence and rationale for this should be clearly set out.	Deliver time savings that will save a minimum of 8.75m vehicle hours on the SRN. Comprised of savings of 8.56m vehicle hours from major projects open for traffic by December 2029, and 196,000 vehicle hours from emerging small scheme portfolio. Also	Set SRN-wide target Target for 2027 of proportion of trips within 20% of modal average journey time set at no worse than 2025-26 outcome. Maintains performance. Monitor delivery of customer and delay action plan (with SMARTER actions).	No	Yes

KPI	Department's expectation	National Highways' proposal	ORR recommendation	Consistent with department expectation	
		<p>deliver customer and delay action plan actions, improving delay performance to go beyond the minimum target. Continue to report overall average delay.</p> <p><i>Annex 3 Addendum: Average Delay KPI.</i></p>			
Network availability	Percentage of running lane availability of the SRN with respect to closures caused by roadworks, with an additional weighting factor applied for the different types of traffic management. NH to propose target in draft SBP.	97.5%	Set network availability target for 26-27 once data is available. Maintains performance.	Yes	Yes
Incident clearance	Percentage of motorway lane incidents impacts across all time periods, which are cleared in under an hour. NH to propose target in draft SBP.	86%	Set a revised higher target of 88%. Maintains performance.	Yes	Yes
A well-maintained and resilient network				NH	ORR

KPI	Department's expectation	National Highways' proposal	ORR recommendation	Consistent with department expectation	
Pavement condition	Percentage of the road pavement that is in good condition (and does not require any further consideration for maintenance). NH to outline proposed target in draft SBP.	96.2% on average for RIS3.	96.2% target for end of RP3 with 0.1% variance in years 1 to 4. Maintains performance.	Yes	Yes
Smart motorway technology availability	Percentage of time that All Lane Running (ALR) smart motorway roadside technology services are available and functioning and not experiencing a service-affecting fault. There is an expectation that the target of the smart motorway KPI will be set at a level higher than current performance based on the investment made in modernisation and refresh programme in RIS2 and the Interim Settlement year.	95-97% (expected range on current performance + spend).	Consider KPI targets for <ul style="list-style-type: none"> • SRN-wide performance of 93% • ALR motorway performance 97% 	Yes	No
Drainage resilience	Percentage of carriageway that does not have an observed significant susceptibility to flooding (To continue dual reporting of drainage resilience, including and excluding extreme weather events).	Not recommended.	Set SRN-wide target for the percentage length of carriageway that does not have an observed significant susceptibility to flooding – not weather normalised.	No	Yes

KPI	Department's expectation	National Highways' proposal	ORR recommendation	Consistent with department expectation	
			Target: 71%. Maintains performance.		
Bring environmentally responsible				NH	ORR
Biodiversity	NH to propose a target in its draft SBP and outline its target setting approaches it has considered.	2,000 biodiversity units delivered + 10% net gain on all NSIPs.	Consider reporting as a commitment in the capital specification.	Yes	No
Corporate carbon emissions	Carbon dioxide and other greenhouse gas emission associated with National Highways activities as it operates and manages the estate and network. SBTi to be used as the standard for measuring emissions. NH to outline proposed target in draft SBP.	Net zero by 2030.	Consider construction and maintenance carbon emissions KPI as alternative to corporate carbon emissions.	Yes	No
Air quality	Delivery of interventions, initiatives and research supporting reductions in NO2 emissions and PM2.5 emissions.	Not recommended.	Consider requirement for air quality KPI.	No	No
Noise	Households within noise important areas mitigated. NH to outline proposed target in draft SBP.	4,500-5,500 No. properties mitigated by 2030-31.	Consider reporting as a commitment in the capital specification.	Yes	No

Office of Rail and Road | Road Investment Strategy 3 (RIS3)

KPI	Department's expectation	National Highways' proposal	ORR recommendation	Consistent with department expectation	
				NH	ORR
Meeting the needs of all road users and integrated transport				NH	ORR
Road user satisfaction	Strategic Roads User Survey respondents who are 'satisfied' or 'very satisfied' with a specific stretch of their journey on the SRN. NH to outline proposed target in draft SBP.	Achieve year-on-year improvement.	Set absolute figure of 71%. 12-month rolling average set for each year of RP3. Maintain performance. Monitor delivery of SMARTER customer and delay action plan.	Yes	Yes
Roadworks information timeliness and accuracy	Percentage of planned roadworks requiring full carriageway or slip road closures that are accurately notified seven days in advance. NH to propose target in draft SBP.	79% by 2030-31.	Set a revised higher target of 82% for the end of RIS3. Maintain performance.	Yes	Yes
Achieving efficient delivery				NH	ORR
Total efficiency	Measured Efficiency that National Highways delivers during the Road Period. The principles for defining, demonstrating, and evidencing the delivery of efficiency in RP3 to be set out in the Efficiency and Inflation Monitoring	c£1.4bn (6%)	£1,391m	Yes	Yes

KPI	Department's expectation	National Highways' proposal	ORR recommendation	Consistent with department expectation
	Manual. NH to outline proposed target in draft SBP.			



Key proposals

We advise that:

The department should consider the following recommendations for the Performance Specification relating to KPIs and targets:

improving safety for all;

- a safety KPI with a target for the whole SRN for the reduction in the number of those killed or seriously injured. This KPI would be supported by delivery of a safety action plan;

providing fast and reliable journeys

- a journey time reliability KPI with a target for the whole SRN. This KPI would be supported by delivery of a customer and delay action plan;
- an incident clearance KPI;
- a network availability KPI;

a well maintained and resilient network;

- a pavement condition KPI;
- a technology availability KPI with a target for;
 - SRN wide technology availability;
 - ALR motorway technology availability;
- the option of an additional KPI for drainage resilience;

being environmentally responsible

- the option of a commitment in the capital specification for biodiversity instead of a KPI;
- the option of a maintenance and construction carbon emissions KPI as an alternative to the corporate carbon KPI;
- consider the option of a KPI for air quality;

- the option of a commitment in the capital specification for noise instead of a KPI;
- a user satisfaction KPI supported by delivery of a customer and delay action plan;
- a roadworks information and timeliness KPI

meeting the needs of all road users

- an efficiency KPI.

The department should consider the recommendations set out above, in section 9, relating to PIs and metric development.

10. Summary of our financial proposals

- 10.1 This chapter brings together our financial proposals set out in the previous chapters of this report. It provides an estimate of combined impact of our recommendations and considers the overall affordability of the third road investment strategy (RIS3).
- 10.2 It should be noted that the results set out here are estimates. To inform the further development of RIS3 National Highways should update its financial model to take account of the full range of recommendations set out in this report, following the direction provided by the Department for Transport (department).

Recommended financial adjustments

- 10.3 A list of the recommendations we have made that affect National Highways' cost estimates is set out below. We distinguish between two types of recommended financial adjustment:
- recommended financial adjustments to improve the efficiency and deliverability of National Highways' plans, including adjustments to align risk provisions with prudent and proportionate levels (set out in Table 10.1); and
 - options to reduce funding for discretionary programmes (set out in Table 10.2).
- 10.4 While the latter are matters for the department, to support in making the plan deliverable we have identified options that could reduce the cost of discretionary programmes without materially affecting the department's draft RIS3 requirements.

Table 10.1 Recommendations to improve the efficiency and deliverability of plans (£m, nominal)*

Expenditure line	Recommendation	Potential savings against National Highways' estimates
Operations and maintenance	Adjustments to National Highways' operations costs where our analysis suggests estimates are overstated	99
	Less conservative estimates for the costs of replacing existing vehicle fleet with electric vehicles	7
	Less conservative forecast for future electricity prices	13
Renewals	Correcting the inflation adjustment applied to asphalt pavement renewals	71
	Adjustments to selected asset types to ensure 'pre-efficient' cost estimates reflect an efficient position at the end of the second road period (RP2, April 2020 to March 2025)	132
	Employing a more measured ramp-up in roadside technology renewals	169
	Assuming a more even expenditure profile for the significant structures programme	147
	Removing National Highways' adjustment for the recent change in employers National Insurance	30
	Adjustments to the forecast increase in spending on 'damage to network property' renewals	51
Future RIS and scheme development	Bringing forecast spend on development of the fourth road investment strategy (RIS4) more in-line with the amount spent in RP2 to develop RIS3	23
Digital and corporate services	Aligning costs to planned resource levels	17
	Reduction in the unit cost assumptions for the LED lighting programme	28
Central risk reserve	Adjustment to ensure risk funding is proportionate to the RIS3 programme, drawing on RP2 experience.	283
Total		1,071

*figures may not sum due to rounding

Table 10.2 Further options for reducing the cost of discretionary programmes (£m, nominal)

Expenditure line	Recommendation	Potential savings against National Highways' estimates
National Programmes and Designated Funds	Aligning funding envelopes for Designated Funds with the level assumed in the interim draft strategic business plan (SBP)	90
Digital and corporate services	Indicative reduction in cost to reflect options for reducing the scope of corporate carbon initiatives offering poor value for money.	50
Future RIS and scheme development	Opportunity to phase the development of RIS4 pipeline projects, avoiding potential affordability and deliverability issues in RP4.	30
Total		170

Overall affordability of RIS3

- 10.5 As set out in chapter 2, National Highways has assessed the cost of RIS3 at £26,213m. This is £1,230m more than the statement of funds available (SoFA) of £24,983m. The potential impact of our recommendations is shown in Table 10.3.
- 10.6 If our recommendations are adopted, we estimate that this would reduce National Highways' cost estimates to £24,972m, bringing costs broadly into alignment the SoFA. Our adjustment leaves a small surplus against funding of £11m. A deficit in operational expenditure funding of £30m remains, although this is relatively small in the context of overall funding and is largely due to constrained funding in year 5.
- 10.7 Even with our proposed adjustments, it should be noted that RIS3 will result in a substantial real terms increase in investment in maintenance and renewals. Funding available for both operations and corporate services would also be slightly above RP2 levels in real terms.
- 10.8 It should be noted that costs may increase from the position set out in Table 10.3 once National Highways' financial model is updated to reflect the Office for Budget Responsibility's most recent inflation forecasts. These are higher than those underpinning the estimates in the draft SBP. We expect the impact of the updated forecasts will be sufficient to push costs back above the SoFA. Should this occur, the department may need to go further than our current recommendations in some areas to bridge the gap.

10.9 The department should provide National Highways with direction on how it expects the company to finalise plans and, in doing so, ensure that they align with available funding. The appropriate approach will depend on whether the department wishes to prioritise funding for discretionary programmes or for the CRR, in order to provide greater certainty that the investment plan can be delivered in full. There is also scope to adjust funding for enhancements projects. However, we recommend that this option be pursued only if necessary, given that it is likely to increase costs of projects in the long term.

10.10 Notwithstanding this, we conclude that, while further decisions are required by the department to align final plans with available resources, the emerging requirements for RIS3 appear deliverable within the current funding envelope.

Table 10.3 Impact of ORR’s recommendations on the affordability of RIS3 (£m, nominal)*

	National Highways’ draft SBP	Adjusted for ORR recommendations on efficiency and deliverability	Adjusted for ORR recommendations on discretionary programmes
Operating and maintaining the network	7,587	7,469	7,469
Renewals	8,822	8,221	8,221
Enhancements	3,846	3,846	3,846
National Programmes and Designated Funds	1,429	1,429	1,339
Future RIS and scheme development	403	380	350
Digital and corporate services and protocols	3,092	3,047	2,997
CRR	1,033	750	750
Total	26,213	25,142	24,972
SoFA	24,983	24,983	24,983
Funding Gap	1,230	159	(11)

**figures may not sum due to rounding*

11. Next steps

Finalising the third road investment strategy (RIS3)

- 11.1 We will continue to work closely with the Department for Transport (department) and National Highways during the final stages of developing plans for RIS3. We remain available to provide additional information and advice as the department reviews its options for aligning final plans with the available funding.
- 11.2 To facilitate this process, National Highways should update its plans and financial model to help the department finalise RIS3. The company should prioritise the following:
- updating plans for operating and maintaining the network, taking account of our conclusions on the efficiency of its operations plans and reassessing plans for electric vehicle rollout;
 - revising renewals costs estimates and planned outputs with particular focus on updating its planned approach to structures and roadside technology renewals;
 - updating and sharing its assessment of risks relating to the condition of returning design, build, finance and operate assets;
 - at the earliest opportunity, completing the exercise currently underway to realign the costs and schedules of development stage enhancements projects to ensure alignment with draft strategic business plan (SBP) funding assumptions;
 - updating and sharing plans for National Programmes and Designated Funds based on the department's final decisions on the funding to be allocated to each fund;
 - review plans for corporate carbon initiatives based on direction provided by the department and, if necessary, updating forecasts for key performance indicator (KPI) performance;
 - finalising organisation-wide staffing plans and adjusting cost estimates for operations and corporate services accordingly;

- update the RIS3 efficiency target based on the final SBP plans and considering our advice on efficiency;
- aligning inflation assumptions to latest Office for Budget Responsibility forecasts and adjusting electricity price forecasts in line with our advice; and
- updating the central risk reserve allowance based on direction by the department, reflecting its risk appetite.

11.3 It is important that National Highways' final RIS3 SBP and delivery plan provide sufficient detail to serve as a clear and transparent point of reference for users and stakeholders, setting out what the company will deliver and the levels of performance for which it will be held to account.

11.4 During the RIS2 development process, changes made between the draft and final versions of the SBP were not transparent. As a result, it has been difficult during RP2 to trace National Highways' plans back to its draft SBP or to assess how our advice was reflected in the final version of the plan. We have identified several areas where the company should amend its plans for the final SBP and expect these adjustments to be applied in an open and transparent manner.

11.5 We will develop and publish monitoring and reporting guidelines for the third road period (RP3) in line with our statutory powers (sections 10(3) and 10(6) of the Infrastructure Act 2015 and conditions 7.1 and 7.2 of National Highways' licence). The guidelines will set out the frequency, scope, and level of detail we require from the company in its regular reporting to demonstrate delivery of the RIS and allow us to perform our statutory duty.

11.6 We will continue to work with the department, National Highways and Transport Focus as final decisions are made on the Performance Specification – both in respect of the metrics included and the KPI targets – to ensure the company can demonstrate that it is delivering for users and spending public funds efficiently in the interests of taxpayers.

Looking ahead to the RIS4 development process

11.7 As described in chapter 2, National Highways has strengthened aspects of its strategic business planning during the RIS3 development process. However, we have also identified areas where evidence is weak. We therefore expect the company to put in place commitments, in a form of a plan, to improve its approach for RIS4 as per the interim year.

- 11.8 National Highways should further develop and implement the plans already underway to enhance its capabilities in asset data and cost estimation. It should also improve the evidence base on the links between investment and performance and develop more robust approaches to demonstrating how different levels of investment in RP4 would affect performance. Planned activities to improve the company's capabilities should be set out in its delivery plan and regularly updated during RP3.
- 11.9 During the RIS3 process, we have observed that, in most areas, National Highways developed a single set of proposals that were iterated and adjusted as circumstances or funding availability changed, or in response to direction from the department. For RIS4 – particularly in the early stages of RIS development – there should be a stronger emphasis on setting out options and investment scenarios, thereby providing the department with a more robust basis for developing the RIS. The SRN Initial Report, in particular, is a key opportunity to present a range of costed options for the future development of the SRN.
- 11.10 As set out in this report, renewals requirements are on an upward trajectory. This stems from the age profile of assets, with much of the network constructed in the 1960s and 1970s; the increase in technology assets in recent decades; and other factors, including the impact of climate change. These are long-term challenges that will need to be addressed over multiple road periods. National Highways anticipates that a further substantial increase in renewals investment will be required in RP4.
- 11.11 These challenges highlight the need to view strategic planning as a continuous process. It is vital that National Highways can provide the department with an evolving indication of the potential funding requirement for RIS4, the choices available, and the trade-offs associated with allocating more or less funding to renewals in RP4. The emerging asset health indicators could play an important role in providing these insights. The company needs to demonstrate that it is undertaking early assessments of its internal capability and the capacity of its supply chain to ensure that it is prepared to efficiently and effectively deliver future investment.
- 11.12 Similarly, early planning – including project feasibility assessment and design development – for National Programmes, Designated Funds and other emerging initiatives is essential to achieve a smoother delivery profile in RP4.



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