



National Audit Office



REPORT

The condition and maintenance of local roads in England

Department for Transport

SESSION 2024-25
HC 117



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The condition and maintenance of local roads in England

Department for Transport

Report by the Comptroller and Auditor General

Ordered by the House of Commons
to be printed on 22 July 2024

This report has been prepared under Section 6 of the
National Audit Act 1983 for presentation to the House of
Commons in accordance with Section 9 of the Act

Gareth Davies
Comptroller and Auditor General
National Audit Office

7 June 2024

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Contents

Key facts 4

Summary 5

Part One

The Department for Transport's understanding of the condition of local roads 13

Part Two

The Department for Transport's allocation of funding for local road maintenance 23

Part Three

The Department for Transport's role in providing guidance on asset management 34

Appendix One

Our audit approach and evidence base 38

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Key facts

£1.1bn

the Department for Transport's (DfT's) total capital funding for maintaining the local road network in 2022-23

48%

proportion of local roads in England (excluding London) estimated to be in good structural condition in 2023-24, with 35% in adequate condition and 17% in poor condition, according to a long-running Asphalt Industry Alliance survey of local authorities

1.9mn potholes

estimated to have been filled in England during 2023-24, by a long-running Asphalt Industry Alliance survey of local authorities (including London); potholes are a symptom of poor road condition

98%

the proportion of the total road network in England made up by local roads

5.2% and 2.4%

the respective proportions of local A roads and B, C and unclassified roads that received maintenance treatment in 2023; maintenance levels have been falling since 2017 when proportions were 7.6% and 4.3% respectively

£7.6 billion to £11.7 billion

DfT's 2019 estimate of the cost to address the backlog in road maintenance. In 2023-24, industry estimates put the backlog at £15.6 billion, based on a long-running Asphalt Industry Alliance survey of local authorities

12

the number of different funding pots through which DfT is providing funding for local road maintenance, between April 2015 and March 2025

7:1

DfT's 2020 estimate of the benefit-to-cost ratio of local road maintenance

1

the number of funds, out of the 12 it has provided, that DfT has evaluated

Summary

1 The local road network in England is essential to everyday travel and the movement of goods. Almost all journeys start and end on the local road network, which consists of 183,000 miles of road and represents 98% of the total road network.¹ As well as the road surface, the local road network includes pavements, embankments, bridges and drainage systems that need to be kept in good condition.

2 The Department for Transport (DfT) says that poorly maintained local roads can be dangerous to the people using them, lead to congestion and longer journeys, and cause people to avoid types of travel, such as cycling or walking. It considers that well-maintained local roads are vital for the economy and the social wellbeing of communities. Well maintained roads and infrastructure are also necessary for DfT's objective to improve transport for the user, as well as specific policy areas such as increasing active travel and supporting autonomous vehicles.²

3 DfT is responsible for providing policy, guidance and funding to local authorities in England to help them run and maintain their road networks. Local authorities are responsible for the management of the local road network under their control. While central government provides funding towards maintenance of the road network, it is for each individual local authority to decide on how best to maintain its roads based on local needs, priorities and funding. Central government provides capital and revenue funding.

- DfT provides local authorities with capital funding for planned maintenance, such as resurfacing roads and repairing bridges. In 2022-23, DfT provided local authorities with £1.1 billion (adjusted for inflation) of capital funding. In total, in 2022-23, local authorities spent around £2.1 billion of capital on local road maintenance. The additional £1 billion of capital came from a combination of other government funds and locally derived sources.
- In addition, we estimate that local authorities spent around £580 million in 2022-23 on the maintenance of road structures from revenue funding. This is day-to-day spending that includes minor repairs and is drawn from funds that local authorities use to provide a wide range of services. Revenue spend comes from a combination of formula funding from the Department for Levelling Up, Housing & Communities (DLUHC)³ and other sources of income, such as council tax and retained business rates.

¹ Local roads are designated as classified (locally managed motorways and A roads, and B and C roads – intended to connect areas) or unclassified (intended for local traffic). Throughout this report, references to A roads includes those sections of motorway managed locally (only 1% of the total motorway network) and does not include the 13% of A roads that are part of the Strategic Road Network and managed centrally by National Highways.

² Autonomous vehicle are those vehicles capable of travelling without monitoring or control by an individual.

³ On 9 July 2024, DLUHC was renamed the Ministry of Housing, Communities & Local Government (MHCLG). However, we refer to DLUHC throughout this report, as that was the name in use at the time of our fieldwork.

4 In October 2023, DfT announced £8.3 billion of additional capital funding for local authorities to spend on road maintenance between late 2023 and March 2034. DfT has so far allocated around £300 million of this funding, split between 2023-24 and 2024-25. This is in addition to the funding that DfT had previously allocated up to 2025. DfT is working with HM Treasury to determine allocations of future funding.

Scope of this report

5 This report examines whether DfT is ensuring value for money through its funding provision for local road maintenance, and whether it is effectively fulfilling its role in supporting local authorities to deliver local road maintenance. We have assessed whether:

- DfT understands the condition of local roads in England;
- DfT is using its data and information to inform its funding decisions; and
- DfT is supporting local authorities effectively through providing guidance on asset maintenance.

6 This report focuses primarily on DfT's role and its distribution of capital expenditure to support local road maintenance. Local authorities also receive funding from DLUHC that is used for road maintenance, but we have not examined elements relating to general maintenance, such as street lighting, gully clearing, road sweeping, cleaning signs, cutting grass verges and gritting roads. This report does not examine the delivery of local road maintenance by individual local authorities, combined authorities or Transport for London. It does not examine the condition and maintenance of the strategic network of motorways and some A roads in England, which is operated and maintained by National Highways (a government-owned company of DfT).

Key findings

DfT's understanding of the condition of local roads

7 There are currently significant gaps in DfT's information on the condition of local roads, limiting its understanding of condition of the network. DfT requires local authorities to report the proportion of their road networks that should be considered for maintenance each year, based on a survey of a portion of the network. Local authorities do not provide all the data that DfT mandates – for example, one fifth of authorities did not share data on the proportion of their A roads that should be considered for maintenance in 2023. DfT plans to increase the response rate of local authorities by working with them more closely and recruiting a dedicated DfT specialist for road condition data collection. There is no reporting requirement for unclassified roads, which make up 62% of the local network, although around 70% of local authorities provided these data in 2023. This means DfT does not hold information for much of the network. DfT told us that it decided to limit the data it collects from local authorities to minimise administrative burdens, consistent with DLUHC policy. Local authorities are adopting new data collection approaches for their own use, and DfT is planning changes to support local authorities making use of different technologies and modernise its data collection approach. DfT does not collect data for footways or cycleways and has not collected data on bridge condition from local authorities since 2014, when it revised its data collection. A 2023 survey by industry found that on average 4% of bridges maintained by local authorities – totalling around 2,300 – were in substandard condition (paragraphs 1.5 to 1.9).

8 The limited data that DfT collects show the surface condition of local roads as stable over time, but information from industry bodies and people using roads suggests that road condition is getting worse. DfT's latest data on road surface condition show that around two-thirds (67% in 2022-23) of total local road network length was in good condition. However, a long-running survey of local authorities by the Asphalt Industry Alliance shows only half of roads (48% in 2023-24) to be in good structural condition, and that this has been largely consistent since 2015-16. Research undertaken in 2021 by the UK Roads Leadership Group – a body chaired by DfT, but whose members come from national and local government – found the condition of the network was deteriorating. Potholes are a symptom of poorly maintained roads, with industry estimates of 1.9 million potholes being filled in England (including London) during 2023-24, the highest number since 2015-16. Companies dealing with vehicle breakdowns also show an increase in callouts related to damage caused by potholes. An annual survey of road users, covering around 75% of local authorities, reported in 2023 that public satisfaction with the road condition was declining (paragraph 1.10 and Figures 5 and 6).

9 DfT's data do not allow it to understand how the funding that it provides for local road maintenance improves the condition of local roads. In 2020, DfT estimated that one of its funds for local road maintenance could deliver benefits of £7 for every £1 spent at the national level, which it categorises as “very high” value for money. These include benefits for safety, journey reliability and the environment delivered through maintaining and improving footway and carriageway surfaces. However, the limitations in data that DfT collects on road surface condition means that it cannot use these data to understand the benefits that have actually been delivered from its investment of over £1 billion a year. DfT has evaluated only one of the 12 funding pots that it has provided for local road maintenance to understand the impact it has had. The lack of benefits monitoring and completed impact assessments means that DfT does not know the totality of benefits or impact that its funding has delivered (paragraphs 1.11 and 1.12).

Allocation of funding for local road maintenance

10 Unlike its longer-term funding for the strategic road network, DfT's funding for local roads has generally been short term and provided through multiple funds. DfT provides funding for the strategic road network (motorways and some major A roads) through one dedicated fund in five-year periods because it believes this funding certainty can help drive better value for money. In comparison, in the past decade, funding for local roads has been provided through 12 different funds. Although spending review settlements include multi-year annual totals for local road maintenance, DfT has only provided certainty over total funding to the majority of local authorities on an annual basis. The exception is DfT's City Region Sustainable Transport Settlement (CRSTS), which provides transport funding, including for local road maintenance, to eight combined authorities in five-year periods. Annual allocations through multiple funds reduce the certainty of funding for local authorities, inhibiting their ability to develop longer-term, more cost-effective maintenance regimes (paragraphs 2.4 to 2.6 and Figures 7 and 8).

11 DfT does not consider the condition of roads or the factors that contribute to their deterioration when allocating funding to local authorities. DfT's total annual funding (adjusted for inflation) over the last 10 years has varied between £1.1 and £1.6 billion, and stands at £1.2 billion for 2024-25. DfT allocates almost all capital funding based on road length and the number of bridges and lighting columns in each local authority. DfT took this approach following a consultation with local government stakeholders in 2014, when it decided not to use information on underlying road condition – where data are patchy – or other factors that impact on the condition of roads, such as traffic volumes. At the time, 63% of respondents to the consultation agreed that traffic volumes should not be included. Our analysis provides an example of how data could be used and shows that taking traffic usage and road condition into account in allocations could help DfT better target its capital funding to areas with greater exposure to factors that affect deterioration (paragraphs 2.7 to 2.9 and Figures 7 and 9).

12 DfT's use of funding incentives to improve local authorities' approach to asset management no longer works as intended. Since 2015, DfT has allocated around £1.1 billion to local authorities through an incentive mechanism that aimed to encourage authorities to adopt best practice principles for road maintenance. Local authorities complete a self-assessment and receive funding according to where they grade themselves, with those reporting that they adopt best practice receiving the most funding. Stakeholders in local government told us that this initially had a positive impact but is no longer effective. In 2021, 98% of local authorities placed themselves in the highest category. DfT no longer asks authorities to complete self-assessment, instead providing the incentivisation funding based on road length and number of bridges and lighting columns. DfT has not evaluated the impact of this funding mechanism. DfT considers that a future incentive mechanism could be used to drive improvements in climate adaptation, asset management approaches and increasing biodiversity (paragraphs 2.10 and 2.11).

13 The increasing backlog in road maintenance work hinders local authorities in undertaking preventative work that could deliver better value. The maintenance backlog is the investment needed to improve the local road network so it is in a condition of good repair. Improving the network to good repair would better allow local authorities to take a preventative approach to asset management. DfT estimated the backlog to be between £7.6 billion and £11.7 billion in 2019. In 2023-24, estimates by the Asphalt Industry Alliance put the backlog at £15.6 billion (including in London) and its annual surveys of local authorities show that the backlog has grown over time. Local authorities have attributed the increase in part to DfT's short-term funding strategies as well as to cost pressures from inflation and investment levels in road maintenance by central government not being sufficient to prevent a growing backlog. DfT's data show that the percentage of road length maintained in England each year is falling (for example, between 2017 and 2023 the proportion of roads receiving maintenance treatment declined from 7.6% to 5.2% for A roads and 4.3% to 2.4% for B and C roads). DfT has previously concluded that preventative work is much more cost effective than reactive work. Industry experts say that it must be informed by regular condition surveys and predictive modelling to identify where interventions would have most effect. Reducing the backlog of maintenance would allow local authorities to follow best practice principles focused on work that prevents poor road condition, leading to financial efficiencies and better value for money (paragraphs 2.13 to 2.16 and Figures 10 and 11).

14 DfT has announced £8.3 billion in additional long-term funding for local roads maintenance, but it is not yet clear how this will be allocated. As part of its Network North announcement in October 2023, DfT set out that it will allocate an additional £8.3 billion for local roads up to March 2034. By April 2024, DfT had allocated £300 million of this, split between 2023-24 and 2024-25. This is on top of £1.3 billion and £1.0 billion already allocated, respectively, in these years. DfT has indicated to local authorities the total additional funding they can each expect to receive by 2034, but not how this will be profiled across each year. DfT has not yet allocated 15% of the additional £8.3 billion funding which it says may be distributed via an incentive mechanism to encourage innovation and best practice. DfT is working with HM Treasury to determine allocations of future funding. We consider that the additional funding provides an opportunity for DfT to change how it allocates funding to local authorities and to use data to better target where it is needed (paragraphs 2.17 to 2.20).

DfT's role in providing guidance on asset management

15 DfT has not updated its road maintenance guidance or tools that can help local authorities deliver maintenance more effectively for several years. DfT has placed less focus on guidance, in part due to having to reprioritise resource during COVID-19, but it has since been slow to refresh its work in this area. For example, DfT has previously funded an appraisal toolkit for highways maintenance to help local authorities assess the costs and benefits of proposed maintenance activities (2015); developed a code of practice for managing highway infrastructure (2016); and commissioned guidance on how to repair potholes (2019). These are areas where refreshed guidance could help local authorities. DfT provided £6 million for the Highways Maintenance Efficiency Programme but did not fund the programme after 2016-17. While there was evidence that this programme was helping local authorities achieve efficiencies in maintenance delivery, learning from it has not been shared (paragraphs 3.2 to 3.6).

16 DfT needs to plan now for how it will support local authorities to meet challenges on the road network, such as climate change and the introduction of autonomous vehicles. Adapting to the impact of climate change on the local road network will require significant activity by local authorities. DfT does not currently provide support or guidance on adaptation planning, or know the extent to which local authorities are adapting their local roads for future climate scenarios. DfT does not have an autonomous vehicle strategy for the local road network, despite planning for deployment of these vehicles on roads from 2026. To operate safely, autonomous vehicles require well-maintained roads, distinct markings and unobscured signage so they can, using their cameras and sensors, recognise and react to the road environment. The current condition of some local roads will need improving before autonomous vehicles can be used on them safely. Local authorities told us that they need guidance from DfT on how to prepare their roads for autonomous vehicles (paragraph 3.7 and Figure 12).

Conclusion on value for money

17 Local roads are a vital part of local transport infrastructure, used every day by millions of people. Despite their importance, the condition of local roads is declining and the backlog to return them to a good state of repair is increasing. DfT has provided between £1.1 and £1.6 billion of capital funding each year to local authorities and has set out plans for additional funding through to 2034. Given the fiscal constraints, it is essential that DfT secures maximum value from the funding it has available.

18 However, at present DfT does not have a good enough understanding of the condition of local roads, and does not use the limited data it does have to allocate its funding as effectively as possible. It does not know whether the funds it allocates are delivering improvements in road condition, and has not updated its guidance to local authorities, to share good practice and help them make the most of their limited funds, for some years. Managing the local road network is becoming increasingly complex – for example, as climate change and autonomous vehicles demand more from it – and the additional funding that DfT has secured provides an opportunity to equip local authorities to better meet these challenges. If DfT is able to address the issues in its current approach it will be much better placed to improve the value for money of funding in this area and secure an improved and more resilient local roads network.

Recommendations

19 To improve the accuracy and completeness of its understanding of the condition of the local road network in England, DfT should:

- a** **Review its coverage requirements for local authorities on surface condition reporting**, making use of the advances in data collection and technology since these were first set to ensure it has the information it needs.
- b** **Request information on the condition of other key road network assets**, such as bridges, where local authorities are already collecting these data and consider the frequency at which it should collect this information from all local authorities. Should DfT decide that regularly receiving this information would be useful, it should work with DLUHC to ensure effective and proportionate data-reporting requirements for local authorities.

- 20 To improve its approach to funding local road maintenance, DfT should:
- c **Review its approach to allocating capital funding to local authorities for local road maintenance to ensure its allocative effectiveness.** DfT should review how it can make better use of data to target allocations of funding where it is most needed.
 - d **Work with HM Treasury to set out how it will provide longer-term funding certainty to local authorities** that will help better support preventative road maintenance approaches.
 - e **Consolidate the number of shorter-term funds through which local authorities receive funding for road maintenance.** This should include consolidating funding pots that use similar mechanisms to allocate funds.
 - f **Update its use of incentivised funding and consider how it could use this to improve outcomes.** DfT should ensure that it develops a rigorous approach to assuring itself that its incentive mechanism is delivering real improvements.
 - g **Develop an evaluative framework** and use it to assess the impact of its investment in local road maintenance at the national level and to inform its future policy and investment approaches.
- 21 To improve its support for local authorities and guidance on how to deliver effective and efficient highways maintenance, DfT should:
- h **Review the tools and guidance that it has provided to local authorities** and set out how and when it will refresh them.
 - i **Identify and fill gaps in guidance it provides to local authorities.** This should include developing its understanding of where local authorities have expressed a need for greater direction and where new guidance is needed.

Part One

The Department for Transport's understanding of the condition of local roads

1.1 This part of the report sets out background on the local road network, outlines the responsibilities for maintaining the local road network in England and assesses the Department for Transport's (DfT's) understanding of:

- the condition of local roads in England; and
- the impact of DfT's investment on local road condition.

The local road network in England

1.2 The local road network is a strategically important asset that supports the movement of millions of people each day. Almost all journeys – by car, foot, cycle and other forms of transport – start and end on the local road network. The local road network in England comprises 183,000 miles of road and represents 98% of the total road network.⁴ It is split into A, B, C and unclassified roads (**Figure 1** overleaf). It includes around 52,000 bridges, and many other structures such as embankments, drainage systems, retaining walls, footways and cycleways.

1.3 DfT says that poorly maintained local roads and associated infrastructure can be dangerous to the people using them, lead to congestion and longer journeys, and cause people to avoid types of travel, such as cycling or walking. It considers that well-maintained local roads are vital for the economy and the social wellbeing of communities. Well-maintained roads are necessary for DfT's objective to improve transport for the user, as well as specific policy areas such as increasing active travel and supporting autonomous vehicles. DfT also sees maintenance of local roads having an important role in improving transport for users, and making travel more reliable and inclusive (**Figure 2** on pages 15 and 16).

⁴ The rest of the road network, known as the Strategic Road Network, comprises motorways and some A roads and is managed by National Highways, a government-owned company of DfT.

Figure 1

Types of roads in the English local road network

The local road network in England is made up of different types of roads, with most of the network made up of unclassified roads

Type of road	Description	Estimated length (miles)	Proportion of local road network (%)
A	Major roads that provide large-scale transport links within or between areas.	17,900	9.8
B	Roads that connect different areas and feed traffic between A roads and smaller roads.	12,400	6.8
C	Smaller roads that connect unclassified roads with A and B roads, often linking housing estates or villages with the rest of the local road network.	39,700	21.7
Unclassified	These are the smallest roads used commonly for local traffic. They are often the start and end point for journeys from residential areas.	112,600	61.7
Total		182,600	100

Notes

- 1 Data on estimated length are from 2022, published by the Department for Transport (DfT) and available at: www.gov.uk/government/statistics/road-lengths-in-great-britain-2022/road-lengths-in-great-britain-2022.
- 2 DfT published data on road length in 2023, but these include a combined estimate of C and unclassified roads. We present the more granular data from 2022. There was no substantial change in road length totals between 2022 and 2023. We have rounded total local road length to 183,000 miles elsewhere in this report.
- 3 In addition to the local road network in England, there are 4,600 miles of strategic road network made up of motorways and some A roads. These are operated and managed by National Highways (a government-owned company of DfT). This report does not cover the strategic road network.

Source: National Audit Office review of Department for Transport information

Figure 2
Well-maintained local roads are important for meeting the Department for Transport's (DfT's) objectives
Almost all journeys begin and end on local roads and poorly maintained roads can impact on how journeys are made and experienced

Well-maintained local roads are important for improving transport for users and growing the economy

Providing a reliable and safe transport network for people and businesses. Connecting communities and providing access to goods and services, jobs, leisure and key public services such as schools

Supporting a range of journey types. Such as cars, buses, cycling, wheeling and walking, and newly emerging journey types such as autonomous vehicle

Illustrative impacts of poorly maintained local roads

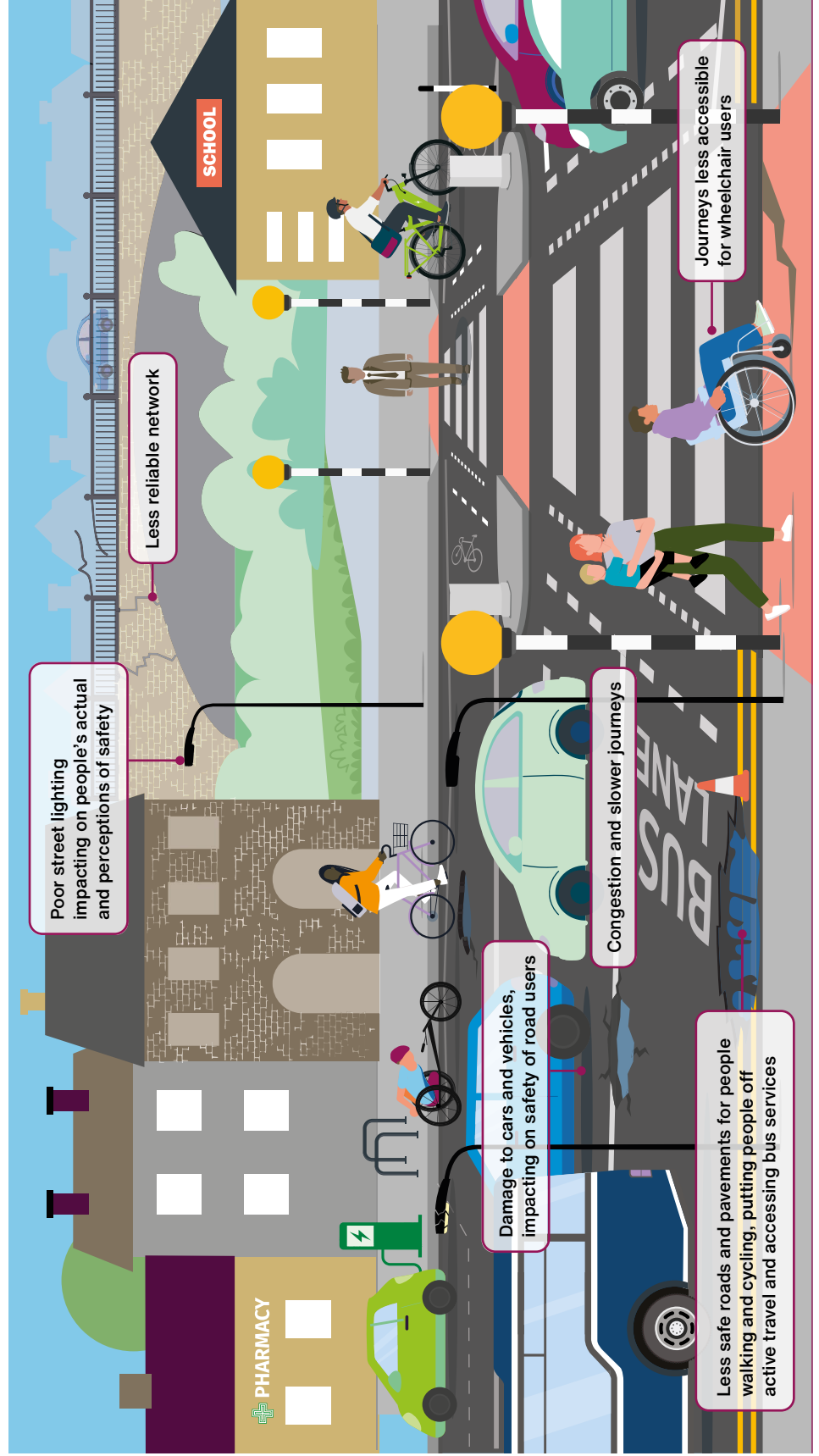


Figure 2 *continued*

Well-maintained local roads are important for meeting the Department for Transport's (DfT's) objectives

Notes

- 1 DfT has three main priority outcomes: growing and levelling up the economy; improving transport for the user; and reducing environmental impact.
- 2 The local road network comprises local authority maintained A, B and C and unclassified roads.
- 3 This illustration contains examples of activity on local roads and is not a complete representation of all activity. It is an illustration only and may not represent good design standards.

Source: National Audit Office review of publicly available information

Responsibilities for local road maintenance in England

1.4 DfT is responsible for providing policy, guidance and funding to local authorities in England to help them run and maintain their road networks. Local authorities are responsible for the management of the local road network under their control. While central government provides funding towards road maintenance, it is for each individual local authority to decide on how best to maintain its roads, based on local needs, priorities, and funding (**Figure 3**).

DfT's understanding of the condition of local roads in England

Completeness of DfT's data on road network condition

1.5 DfT requires local authorities to provide it with annual data on the proportion of roads where maintenance should be considered. It requires local authorities to survey a portion of their A, B and C roads but has no reporting requirement for unclassified roads, which make up 62% of the total local road network length in England. Local authorities also provide voluntary information on road surface condition and how much of their road network surface has been treated each year. DfT told us that it decided to limit the data it collects from local authorities to minimise administrative burdens, consistent with DLUHC⁵ policy.

1.6 In 2023, 79% of local authorities provided mandatory information to DfT for where maintenance should be considered on their A roads, with lower responses for B and C (74%) and unclassified (72%) roads. Response rates for voluntary information on road surface condition were just under three-quarters for A roads (70%) and lower for B and C road surface condition (61%). DfT told us it plans to increase the response rate of local authorities by working with them more closely and recruiting a dedicated DfT specialist for road condition data collection.

⁵ On 9 July 2024, DLUHC was renamed the Ministry of Housing, Communities & Local Government (MHCLG). However, we refer to DLUHC throughout this report, as that was the name in use at the time of our fieldwork.

Figure 3

Roles and responsibilities for local road maintenance in England

Local authorities are responsible for maintaining the local road network and receive funding from central government to support their activities

Organisation	Responsibilities
Department for Transport (DfT)	<p>Sets the policy and legislative framework through which the local road sector operates.</p> <p>Develops guidance for how roads should be managed and publishes data on the condition and maintenance of roads.</p> <p>Provides capital funding through various funding pots for planned local road maintenance, such as resurfacing roads and repairing bridges.</p>
Department for Levelling Up, Housing & Communities (DLUHC) ¹	Provides revenue support for day-to-day maintenance, including minor repairs to roads.
Local authorities ²	<p>Manage and maintain the local road network in England.³</p> <p>It is for each authority to procure and decide on a maintenance regime based on their needs, priorities and funding. Typically, they contract out road maintenance to the private sector.⁴</p>
Transport for London (TfL)	Responsible for transport in London. Funding for local road maintenance in London is different compared with the rest of England. London boroughs receive some transport funding from TfL for maintenance of A roads and bridge strengthening. TfL provides this to those in most need of repair and uses condition surveys to establish this need. London boroughs fund other road maintenance from their own capital borrowing arrangements. DfT has occasionally provided grant top-up funds for the Boroughs and TfL.

Notes

- 1 On 9 July 2024, DLUHC was renamed the Ministry of Housing, Communities & Local Government (MHCLG). However, we refer to DLUHC throughout this report, as that was the name in use at the time of our fieldwork.
- 2 The English local road network is managed by 153 local authorities.
- 3 Responsibilities are set out under section 41 of the Highways Act 1980.
- 4 Five local authorities currently have long-term public finance initiative (PFI) arrangements in place to manage all or part of their local highway commitments. All PFI arrangements are planned to end by 2034.

Source: National Audit Office review of publicly available information

1.7 DfT requires local authorities to collect surface condition data using SCANNER (Surface Condition Assessment for National Network of Roads). This is an automated survey carried out by specialised vehicles that detect surface damage and deterioration. The technology has been in use for many years, with current specifications in place since 2011, and some local authorities are using new technologies to understand the condition of their roads. DfT is developing a new data standard, which, once in place in 2024, will modernise its approach to data collection, enabling local authorities to report data to DfT using different technologies to SCANNER, which some are already using. However, DfT will not require local authorities to increase the proportion of the network they monitor each year.

1.8 DfT does not currently collect any information on the condition of the local road network beyond road surfaces. Bridges and tunnels are key structural assets, and their failure can cause substantial disruption to road users and pose serious risks to safety. They can be expensive to repair, and individual local authorities may not be able to fund this within their regular maintenance budgets, requiring additional support from DfT (**Figure 4**). Early intervention may help reduce repair and maintenance costs in the long run. DfT has limited data on the condition of footways or cycleways from reports that it commissioned in 2019 and 2021, and does not know whether their condition is currently an enabler or barrier to the uptake of inclusive active travel.

1.9 DfT last asked local authorities to report the condition of bridges in 2014 as part of a wider exercise to inform how best to distribute funding for local roads and stopped collecting data on bridges at this point when it revised its data collection. In 2023, the RAC Foundation undertook a survey of local authority-maintained bridges and found that on average local authorities reported that 4% of bridges in England – totalling around 2,300 – were in substandard condition, based on data from 2022-23. DfT analysis, following the 2016 National Flood Resilience Review, identified over 11,000 bridges on the A road network that are vulnerable to failure in a severe weather event and require mitigation measures, although DfT has not done any follow-up work based on this analysis. DfT told us that it has not collected data on bridges from local authorities to avoid increasing the burden of data collection and reporting. However, new technologies are making data collection easier, and many local authorities are already collecting data to inform their asset management plans. DfT could ask local authorities to regularly provide these data by obtaining approval from the Department for Levelling up, Houses & Communities to collect them through annual data reporting procedures, providing funding to local authorities to cover the costs of any additional data collection, or by attaching reporting requirements to the grant funding it provides. It could also collect these data through a one-off exercise, for example, to inform a spending review bid.

Reliability of DfT's data on road network condition

1.10 The limited data that DfT collects show that the surface condition of local roads has been relatively stable over time. In 2022-23, DfT's latest data show that two-thirds (67%) of total road network length in England (including London) was in 'good' condition, requiring no further investigation or work, and that only 4% of A road length and 6% of B and C road length should be considered for maintenance.⁶ This figure was slightly higher, at 17%, for the unclassified road network (**Figure 5** on page 20). While DfT's data show a stable picture, evidence from other sources indicates that the condition of road surfaces is worsening (**Figure 6** on page 21).

⁶ DfT defines the "percentage of roads that should be considered for maintenance" as the percentage of road where condition monitoring data indicates that the road is in poor condition.

Figure 4

Significant bridge repairs and maintenance can be difficult for local authorities to fund without additional support

In these examples, the Department for Transport (DfT) is providing funding to help local authorities fund the bridge repairs and maintenance

Hammersmith Bridge (London)	
Background	Opened in 1887, the bridge connects Hammersmith with Barnes in London. The grade II* listed structure ¹ is owned by the London Borough of Hammersmith and Fulham (LBHF).
Issue	Micro-fractures in the iron pedestals. These were caused after the chains at either end of the bridge seized, preventing required movement of the bridge.
Usage	Prior to closure to motor traffic in 2019, the bridge carried around 22,000 motor vehicles and 16,000 pedestrians and cyclists a day.
Repairs required	Two stages of repairs are required: <ul style="list-style-type: none"> ● stabilisation, including repairs to pedestals and replacement of bridge bearings; and ● strengthening, to enable the bridge to re-open permanently to traffic.
Estimated cost of repairs	Around £250 million. Funding will be split between DfT, Transport for London and LBHF. Exact contributions have not yet been determined.
Tyne Bridge (Newcastle and Gateshead)	
Background	Opened in 1928, the bridge connects Newcastle upon Tyne with Gateshead. The grade II* listed structure ¹ is jointly owned by Newcastle City Council and Gateshead Council.
Issue	In 2022, inspection work identified structural and other issues, including corrosion of the steel caused by peeling paintwork, damaged joint decks, leaking drains and damage to road surfaces on the bridge.
Usage	Up to 70,000 vehicles a day.
Repairs required	Restoration work is required, including structural steel and concrete repairs, stonework and masonry repairs, drainage improvements, bridge deck waterproofing, resurfacing of the road surfaces, parapet protection and bridge joint replacement.
Estimated cost of repairs	£32 million. DfT is providing 85% of funding with 15% funded by Newcastle City Council and Gateshead Council. ²

Notes

- 1 Grade II* listings are for particularly important buildings of more than special interest.
- 2 DfT's total capital contribution to Newcastle City Council and Gateshead Council is £35.3 million. This is contributing to two projects: Tyne Bridge restoration works and an additional road project, the combined cost of which is expected to be £41.5 million. The councils are contributing the remainder of funding for the two projects.

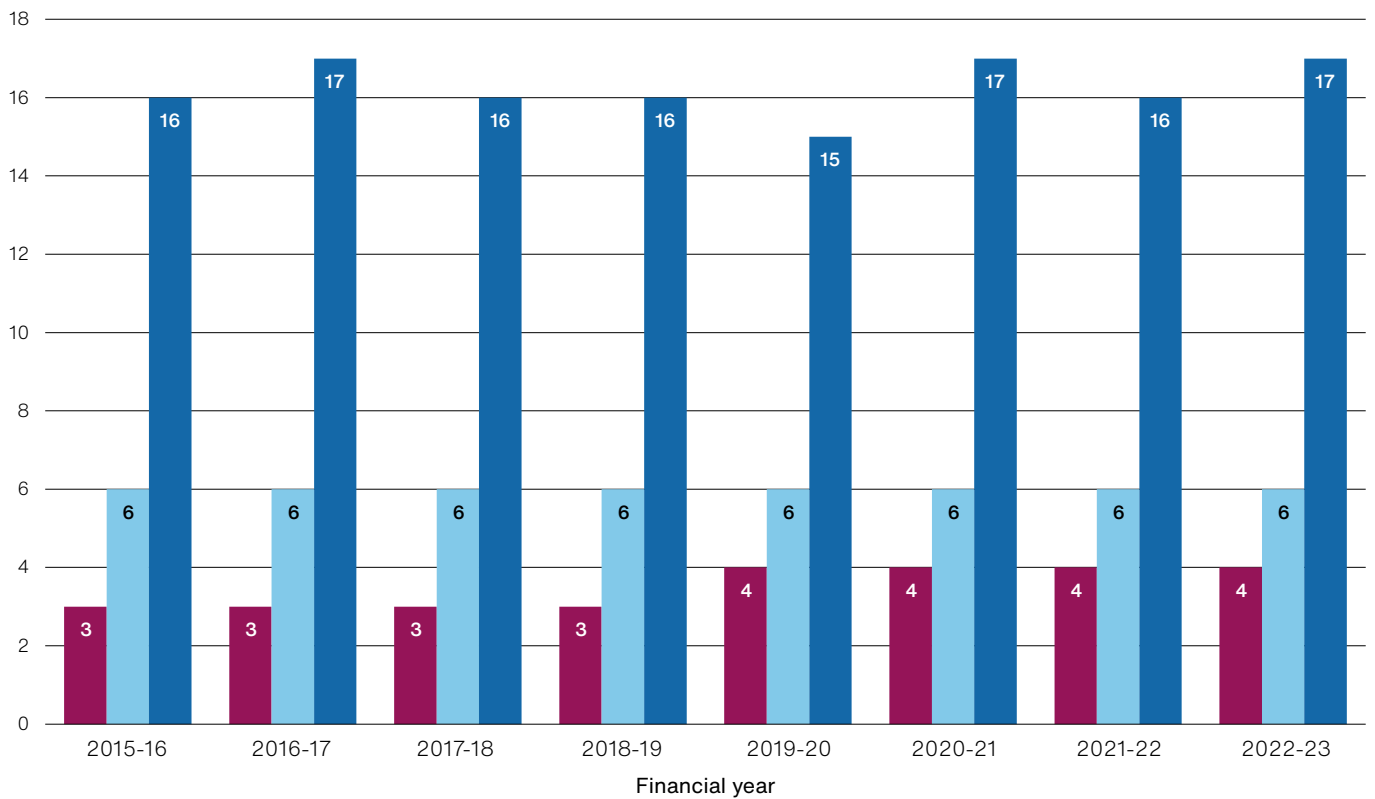
Source: National Audit Office analysis of public information

Figure 5

Proportion of the English road network where maintenance should be considered, 2015-16 to 2022-23

The Department for Transport’s (DfT’s) data show the condition of the road network has remained broadly stable, with unclassified roads having the highest proportion where maintenance should be considered

Proportion of the network where maintenance should be considered (%)



- A roads
- B and C roads
- Unclassified roads

Notes









- 1 DfT defines the “percentage of roads that should be considered for maintenance” as the percentage of road where condition monitoring data indicate that the road is in poor condition. Data are provided to DfT by local authorities.
- 2 Data for A, B and C roads are collected by vehicle-based surveys. Unlike for A roads and for B and C roads, DfT does not specify a mandatory method for collecting data on unclassified roads, and local authorities use a variety of road condition monitoring techniques. Definitions of A, B, C and unclassified roads are provided in Figure 1.
- 3 Not all local authorities provided information to DfT each year about where maintenance should be considered. In 2022-23, 79% of local authorities provided data on A roads, 74% on B and C roads and 72% on unclassified roads.
- 4 The presented data include London. However, response rates for London have been lower since 2019 following a change in the way surveys are undertaken after Transport for London (TfL) withdrew funding, with TfL now undertaking surveys for A roads only.

Source: National Audit Office review of Department for Transport information

Figure 6

Comparing data on road surface condition from multiple sources

Data from a range of sources indicate that road surface condition in England is deteriorating, in contrast to the Department for Transport's (DfT's) road surface condition data, which show a stable picture

Source	Data	Road condition over time	Description
DfT	Road surface condition		Shows road surface condition has been relatively stable between 2018-19 and 2022-23. ¹
	Road user satisfaction		Since 2016, just under half of road users each year have been dissatisfied with the provision of local roads (42% in 2022). ²
UK Roads Leadership Group	Road condition		In 2021, identified a deteriorating network with current investment below that needed to maintain current levels of service. ³
Asphalt Industry Alliance (AIA) ⁴	Roads in good structural condition		In 2023-24, less than half of roads (48%) were in 'good' structural condition, the lowest proportion since this metric was first included in the survey in 2015-16.
	Potholes filled		1.9 million potholes filled in 2023-24 in England (including London), the most since 2016-17. Potholes are a symptom of poorly maintained roads.
RAC	Pothole-related incidents		In 2023, RAC patrols attended nearly 30,000 pothole-related breakdowns, up by 33% compared to 2022.
AA	Pothole-related incidents		In 2023, the AA dealt with 631,852 pothole-related incidents, the highest for five years.
National Highways & Transport Network ⁵	Road user satisfaction		In 2023, responders were least satisfied with the condition of roads and reported that condition was getting worse. Of 30 indicators for road maintenance, 29 had worsened compared with 2022.

 Indicates worsening condition

 Indicates stable condition

Notes

- DfT's data on road surface condition are based on data reported to it by local authorities. Some local authorities do not provide data on road surface condition. In 2023, 79% of local authorities provided data to DfT on surface condition for A roads. Response rates were lower for B and C (74%) and unclassified (72%) road surface condition. The data include surface condition of the carriageway only. They do not cover the condition of footways and cycleways as DfT does not collect this information.
- DfT's information on road user satisfaction was collected through its National Travel Survey and is based on 4,017 respondents.
- This information is taken from the UK Roads Leadership Group's (UKRLG's) information pack on the case for investing in highways maintenance, which it produced to support DfT's 2021 Spending Review bid for local road maintenance funding. UKRLG brings together national and local government to consider roads infrastructure engineering and operations matters. It is chaired by DfT.
- The Asphalt Industry Alliance (AIA) publishes an annual survey on local road condition based on responses provided by local authorities in England. AIA received responses from 77% of authorities in England in 2023-24. AIA extrapolates the data it receives from local authorities to represent all local authorities in England, including London. There is no agreed definition of a pothole, and no nationwide data on potholes held by government.
- The National Highways & Transport Network undertakes an annual public satisfaction survey. The 2023 survey is based on 91,314 respondents. The survey covers around 75% of local authorities.

Source: National Audit Office analysis of publicly available information

Impact of the DfT's investment in local road maintenance on condition

1.11 We attempted analysis using DfT's data to examine the impact of DfT's investment in local road maintenance. We found no relationship between road surface condition and annual spend on maintenance by local authorities. However, the limitations in completeness of DfT's data on surface condition mean that these findings should be interpreted with caution, and we found DfT's data were not good enough to assess the impact of investment with certainty. DfT has only evaluated one of the 12 funds that it has provided for local road maintenance. It has not carried out any evaluation of the totality of funding that it has made available to local authorities for road maintenance to assess whether investment has led to an improvement in road condition, or whether its assumptions about the benefits of local road maintenance are borne out in practice.

1.12 In 2020, DfT estimated the benefits that one of its funds (Highways Maintenance Block) could deliver. It set out that, for every £1 invested in local road maintenance, the government should achieve around £7 in benefits, mainly from improvements to vehicle operating costs and journey reliability through improved road condition. DfT categorises this as "very high" value for money. This was DfT's estimate of the benefits the funding could deliver, but it has not conducted any assessment of whether the benefits actually were delivered. In 2021, DfT's spending review submission set out that improved maintenance of the local road network could also reduce disruption following extreme weather events. Wider research undertaken by the UK Roads Leadership Group in 2021 identified possible benefits for individuals' health and the environment – for example, through improved safety and reductions in the costs to health associated with poor air quality and with physical inactivity through increased active travel.⁷ DfT has commissioned new research, expected to be completed in 2024, which will update its estimate of the benefits that local road maintenance can deliver.

⁷ The UK Roads Leadership Group brings together national and local government to consider roads infrastructure engineering and operations matters. It is chaired by DfT.

Part Two

The Department for Transport's allocation of funding for local road maintenance

2.1 This part of the report assesses whether the Department for Transport (DfT) is using data and information to inform its funding decisions for local road maintenance. To do this we:

- evaluate DfT's approach to allocating capital funding for local road maintenance; and
- assess how the backlog in maintenance activities is affecting local authorities' ability to deliver cost-effective maintenance.

2.2 DfT provides capital funding to local authorities for planned maintenance activities that extend the life of an asset, such as resurfacing roads and repairing bridges. In 2022-23, DfT provided local authorities with £1.1 billion (adjusted for inflation) of capital funding.⁸ As with most central government grants to local authorities, DfT's funding for local road maintenance is not ring-fenced, and local authorities have discretion over how they use this funding, including on other local capital investments. In total, in 2022-23, local authorities spent around £2.1 billion of capital on local road maintenance, with additional capital a combination of other government funds and locally derived sources.

2.3 In addition to capital funding provided by DfT, we estimate that local authorities spent around £580 million in 2022-23 on the maintenance of road structures from revenue funding.⁹ This is day-to-day spending that includes minor repairs and is drawn from funds that local authorities use to provide a wide range of services. Revenue spend comes from a combination of formula funding from the Department for Levelling Up, Housing & Communities (DLUHC)¹⁰ as well as other sources of income such as council tax and retained business rates.

8 We have adjusted funding allocations for inflation, based on 2022-23 prices.

9 This is gross expenditure and excludes any income generated by local authorities, for example through sales or fees & charges.

10 On 9 July 2024, DLUHC was renamed the Ministry of Housing, Communities & Local Government (MHCLG). However, we refer to DLUHC throughout this report, as that was the name in use at the time of our fieldwork.

DfT's approach to allocating capital funding for local road maintenance

2.4 In the past decade, DfT's total annual funding (adjusted for inflation) has varied between £1.1 and £1.6 billion, and stands at £1.2 billion for 2024-25 (**Figure 7** on pages 25 and 26). DfT has provided this funding to local authorities through multiple funds. In the past decade, this has included:

- six block funds and two top-up funds distributed based on road network length;¹¹
- three competitive funds which local authorities bid for;¹² and
- one incentive fund.¹³

Multiple funding pots with different criteria for eligibility make the funding landscape complex and reduce funding certainty, which is needed for local authorities to develop longer-term, more cost-effective maintenance regimes. Funding has become more fragmented over time: in 2015-16, 73% of funding was through the Highways Maintenance Block. By 2024-25, this fund will make up only 32%.

2.5 DfT provides funding to most local authorities through its various pots on an annual basis. This is despite spending reviews in 2015 and 2021 including five- and three-year settlements for local road maintenance, respectively.¹⁴ The exception is DfT's City Region Sustainable Transport Settlement (CRSTS), which provides transport funding, including for local road maintenance, to eight combined authorities in five-year periods. Since Spending Review 2022, DfT added a top up fund for 2023-24 and introduced Network North funding (Figure 7). Annual provision reduces the certainty of funding for local authorities, which is needed to allow them to develop longer-term, more cost-effective maintenance regimes. Stability of funding over the longer term enables local authorities to invest in building skills and capabilities, and procure contracts for maintenance at better prices over a longer period.

2.6 DfT has taken a different approach to funding work on the strategic road network of motorways and some A roads, which is managed by National Highways, a government-owned company of DfT (**Figure 8** on page 27). Since 2015, DfT has provided funding for the strategic road network through a single, dedicated fund in five-year periods. DfT introduced the five-year investment period approach because it believes this funding certainty can help drive better value for money. It is intended to allow National Highways, who is responsible for managing the network, greater ability to plan for the longer term and provide greater confidence and a more predictable volume of work for suppliers.

11 DfT's block funds include: Highways Maintenance Block, Potholes Action Fund, wet weather and flood resilience funding, Potholes Fund, funding provided through the City Regions Sustainable Transport Settlement, and Network North funding.

12 The Highways Maintenance Challenge Fund and two traffic signals maintenance funds.

13 The incentive element of DfT's Highways Maintenance Block.

14 There were additional Spending Reviews in 2019 and 2020. Due to the change in Prime Minister in 2019 and the COVID-19 pandemic in 2020, these spending reviews were single-year settlements.

Figure 7 *continued*

The Department for Transport's (DfT's) provision of capital funding to local authorities in real terms, 2015-16 to 2024-25

Notes

- 1 Figures have been adjusted for inflation using 2022-23 prices.
- 2 DfT allocates all its capital funding by formula except for the Highways Maintenance Challenge Fund and traffic signals maintenance funds which were competitive funds. In 2015-16 and 2017-18, wet weather and flood resilience funding was provided to specific local authorities to repair exceptional storm damage.
- 3 DfT does not usually provide funding for local road maintenance activities in London. However, total funding in this graphic does include £37.2 million nominal funding that DfT has provided to London boroughs between 2015 and 2025, made up of: £20 million provided through the 2018 top-up fund, £2.2 million provided through the Potholes Action Fund and £15 million provided through Network North funding. This funding was provided to London boroughs based on road length.
- 4 The City Regions Sustainable Transport Settlement (CRSTS) was introduced in 2022-23 and provides funding to eight combined authorities, including for local road maintenance. CRSTS funding has replaced Highways Maintenance Block (incentive and needs) and Potholes Fund provision to these combined authorities.
- 5 From 2020-21, one local authority and two combined authorities agreed to forgo their Highways Maintenance Block allocations in return for retaining part of the business rates they collect. This has reduced the funding that DfT provides to these authorities but is a net neutral pilot scheme and does not affect the total money available to these local authorities for highways maintenance. We have included gross allocations for the Highways Maintenance Block (needs and incentive) for all years, which from 2020-21 include an equivalent amount of business rates retention for three local authorities.

Source: National Audit Office analysis of Department for Transport information

How DfT allocates funding to each local authority

2.7 DfT provides funding to local authorities using different mechanisms, but most funding to local authorities is based on information about the road network (**Figure 9** on page 28). We outline in the remainder of this section our assessment of how the main funding mechanisms operate.

Funding provided based on road network information

2.8 DfT's allocations based on road information are based on a simple set of data. The funding is allocated according to road length (82.4%), and the number of bridges (15.4%) and lighting columns (2.2%) in each local authority. DfT does not use other relevant information to inform its funding provision. For example, it does not use data on condition – which are partial and incomplete – to identify areas in greatest need, where funding could have most impact on improving condition. It does not consider factors that affect deterioration of the network, such as traffic volume, type of traffic and geological or environmental factors.

Figure 8

Comparison of the Department for Transport's (DfT's) funding arrangement for the strategic road network and local road network in England

DfT provides funding for the strategic road network over a longer period and through one fund, compared to annual provision of capital funding through multiple funds for the local road network

	Strategic road network	Local road network
Background	2% of road network length. Carries 34% of all traffic and 69% of heavy good vehicles (HGV) traffic.	98% of road network length. Carries 66% of all traffic and 31% of HGV traffic.
Maintenance responsibilities	National Highways, a government-owned company of DfT, maintains the strategic road network.	Local authorities maintain their sections of the local road network.
Provision of funding from DfT	DfT provides funding to National Highways for maintenance through one fund in five-year 'road investment strategy' periods.	DfT provides capital funding to local authorities through multiple funds.
Flexibility in use of funds	All funding provided by DfT to National Highways is for exclusive use on the strategic road network to be spent in line with five-year road investment strategies against which they are held to account.	Funding that DfT provides to local authorities is not ring-fenced, and local authorities are free to choose how they spend it, including on other local services.
Power to generate additional funding for maintenance	In certain situations, National Highways can secure suitable contributions from key beneficiaries, for example, developers benefitting from a road enhancement.	Local authorities can use other capital funding, not provided by DfT to fund local road maintenance.

Notes

- 1 The strategic road network comprises motorways and some A roads in England. This report does not cover the condition or maintenance of the strategic road network. We include this information as a comparison only of DfT's funding approaches for the strategic and local road networks.
- 2 Traffic volumes are for 2022, the latest available from DfT.

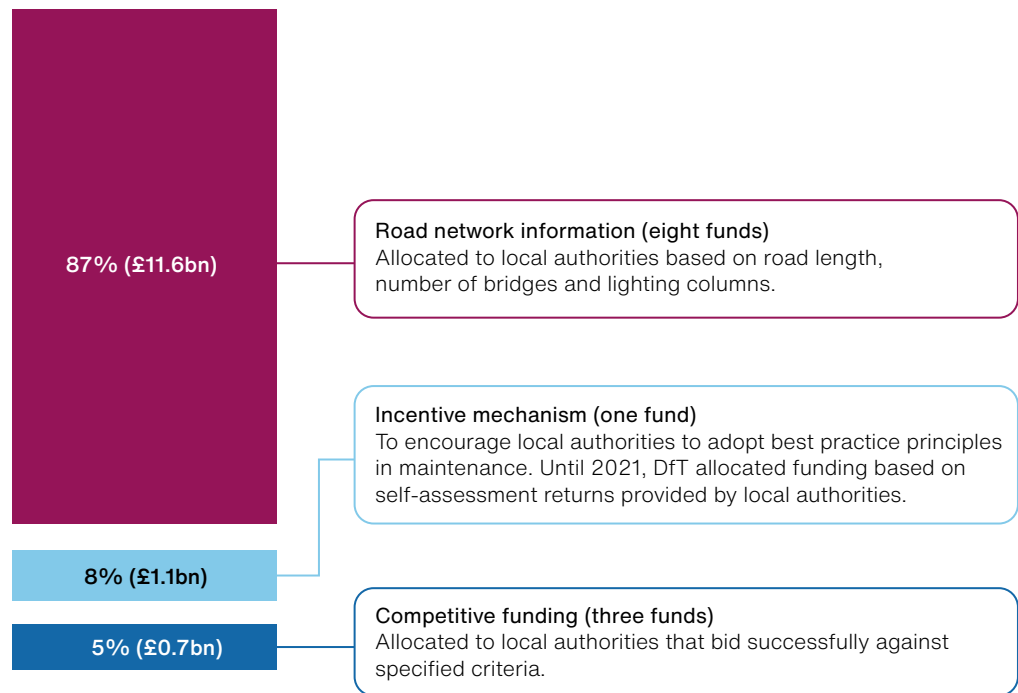
Source: National Audit Office review of Department for Transport information

Figure 9

The Department for Transport’s (DfT’s) use of different ways of allocating local road maintenance funding over 10 years, March 2015 to March 2025

DfT has provided the majority of capital funding for local road maintenance based on the road length, number of bridges and number of lighting columns in each local authority

Funding and method of allocations 2015 to 2025



Notes

- 1 We began our analysis in 2015-16 as this is the first year that DfT introduced its funding approach based on road network length. Financial values have been adjusted for inflation using 2022-23 prices.
- 2 DfT has had eight funds which use road length and number of structures to allocate funding. These are the Highways Maintenance Block; the Potholes Fund; the Potholes Action Fund; wet weather and flood resilience funding; Network North funding; funding provided through City Regions Sustainable Transport Settlement (CRSTS); and two one-off top-up funds in 2018 and 2023. CRSTS was introduced in 2022-23 and provides funding to eight combined authorities, including for local road maintenance.
- 3 In 2015-16 and 2017-18, wet weather and flood resilience funding was provided to specific local authorities to repair exceptional storm damage.
- 4 DfT does not usually provide funding for local road maintenance activities in London. However, total funding (in cash prices) in this graphic includes £37.2 million that DfT has provided to London boroughs between 2015 and 2025, made up of the following: £20 million provided through the 2018 top-up fund, £2.2 million provided through the Potholes Action Fund and £15 million provided through Network North funding. This funding was provided to London boroughs based on road length.
- 5 Since 2021, local authorities have not had to demonstrate improvements to receive funding via DfT’s incentive mechanism, which is now essentially acting as a top-up fund.
- 6 DfT does not currently provide funding for local road maintenance through competitive funds. DfT’s competitive funds over this period were the Highways Maintenance Challenge Fund (ended 2021) and two traffic signals maintenance funds (in 2021-22 and 2023-24).
- 7 Figures may not sum due to rounding.

Source: National Audit Office analysis of Department for Transport financial information

2.9 DfT adopted this approach to funding in April 2015, following a consultation with local government stakeholders in 2014. While the approach is easy to understand and calculate, it could be updated to better reflect need. We carried out exploratory analysis to see whether considering some of these factors – such as traffic volume – would change the profile of funding to where need may be greater. We selected traffic volumes as DfT already collects this information and use it to inform DLUHC’s approach to revenue funding allocations. Other factors that DfT could consider include environmental or geological factors of the surrounding environment and current asset condition. We found that traffic volume is only loosely related to road length and that some authorities with shorter road networks have high traffic volumes. In 2014, two-thirds (63%) of respondents to DfT’s consultation on its funding approach agreed that traffic volumes should not be included. In our view, there is scope for DfT to update its approach, which could help it better target funding to areas with greater exposure to factors that affect deterioration, such as traffic volume.

Funding provided through an incentive mechanism

2.10 DfT introduced an incentivised element of its Highways Maintenance Block funding in April 2015. This was to encourage local authorities to adopt best practice principles for local highway maintenance, with more money available to those that confirmed they had implemented good asset management practices. To receive annual funding through this mechanism, local authorities complete a self-assessment questionnaire and grade themselves.

2.11 DfT will provide around £1.1 billion through its incentive fund between April 2015 and March 2025 (adjusted for inflation). Local government officials and representative groups told us that at first the incentivised fund had a positive impact, but that it is no longer effective. In 2021, more than 98% of local authorities placed themselves in the highest grade. DfT has not carried out any checks on authority assessments to confirm whether the grades that authorities have awarded themselves are reasonable. DfT no longer asks authorities to complete a self- assessment and the fund is operating as a top-up to local authorities, with funding provided based on road length, number of bridges and lighting columns. DfT is continuing to provide around £100 million (adjusted for inflation) each year to local authorities through this mechanism until 2025. DfT has not evaluated its incentivised funding or assessed the impact it has had on local authorities’ approaches to asset management. DfT has, however, when thinking about future spending review proposals, identified areas where future incentivised funding could drive improvements, including by encouraging local authorities to adapt their networks for climate change, increase biodiversity along the local road network, and adopt whole- life asset management approaches.

Funding provided through competition

2.12 DfT has provided some funding (£0.7 billion between April 2015 and March 2024, adjusted for inflation) for local road maintenance through competitive funds that local authorities bid for. This includes the Highways Maintenance Challenge Fund (which ended in 2021) and two Traffic Signals Maintenance Schemes (one-off funds in 2021-22 and 2023-24) (see Figure 7). DfT does not currently provide funding for local road maintenance through competitive funds because it recognises that it leads to inefficiencies, as local authorities forego other work to prepare bids and some do not have the capacity to produce bids.

The backlog in local road maintenance and its impact on cost-effective delivery

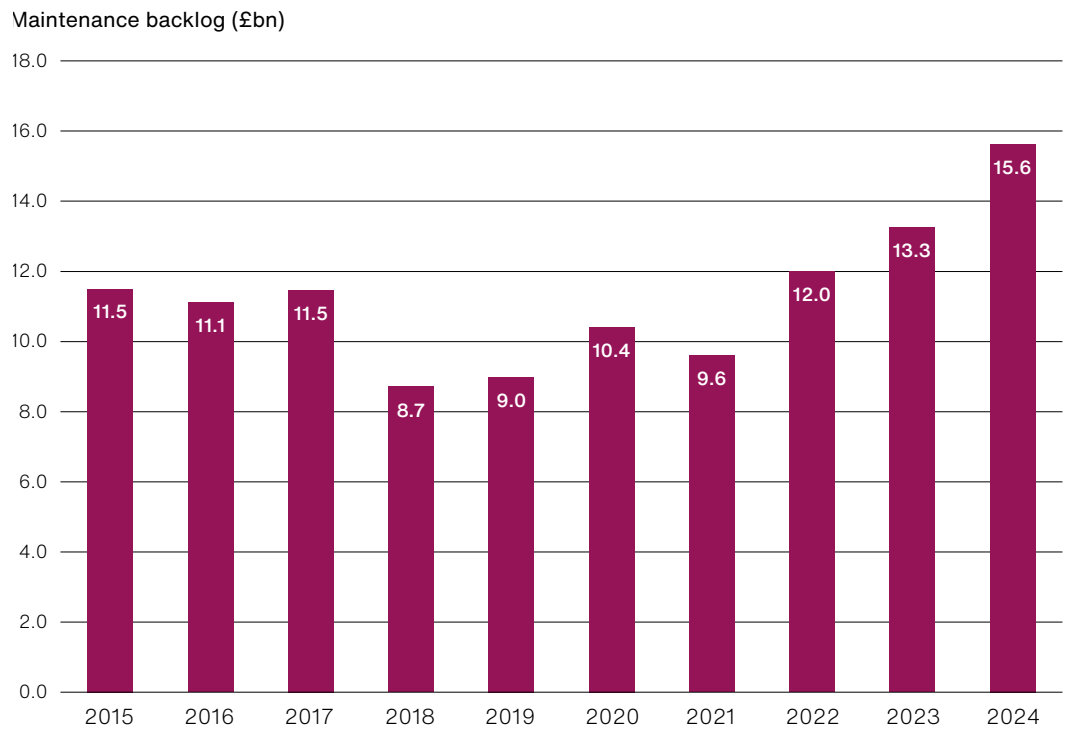
2.13 The road maintenance backlog indicates the investment that would be needed to improve the local road network to a state of good repair and allow it to be maintained going forward through proactive asset management. In 2019, DfT commissioned analysis that estimated the backlog to be between £7.6 billion and £11.7 billion. Research undertaken by the UK Roads Leadership Group in 2021 estimated that the backlog had grown by £1 billion by 2021. Long-running estimates published by the Asphalt Industry Alliance and based on information from local authorities also show that it has grown over time (**Figure 10**). In March 2024, the Asphalt Industry Alliance estimated the backlog in England (including London) to be £15.6 billion, the highest recorded in the past decade. Local authorities have attributed the increase in part to DfT's short-term funding, as well as to cost pressures from inflation and investment levels in road maintenance by central government not being sufficient to prevent a growing backlog.

2.14 DfT's data show that the percentage of road length that is maintained each year in England is falling, contributing to the growing backlog (**Figure 11** on page 32). In 2023, the percentage of roads receiving treatment was at the lowest levels since 2010, when comparable records begin. The greatest decline has been since 2017 (7.6% to 5.2% for A roads and 4.3% to 2.4% for all other roads). Local authorities have reported that inflationary cost pressures are reducing the amount of maintenance work that they can complete.

2.15 The maintenance backlog is hindering local authorities in undertaking preventative maintenance because investment is continually prioritised to deal with issues on the network that require immediate remediation. DfT and other industry stakeholders, such as the UK Roads Leadership Group, have repeatedly identified that longer-term, preventative approaches deliver better value for money and are more cost effective than reactive, short-term maintenance activities. Guidance on local road asset management, commissioned by DfT and published in 2016, encourages local authorities to adopt preventative maintenance regimes. Preventative maintenance is based on the premise that assets should not be left to deteriorate up to the point where major rework is needed.

Figure 10

Estimates of the local road maintenance backlog, 2015 to 2024

The Asphalt Industry Alliance's data from local authorities show that the maintenance backlog is growing**Notes**

- 1 Each year the Asphalt Industry Alliance (AIA) commissions an independent survey on road condition and maintenance from local authorities in England and Wales. This figure presents data for England, including London.
- 2 AIA extrapolates the data it receives from local authorities to represent all local authorities in England, including London. Between 2015 and 2024, the percentage of authorities responding to the survey ranged from 53% to 81% in England, and 41% to 72% for London.
- 3 The backlog relates solely to the carriageway itself – the road condition and structure. It excludes other structures such as bridges and street lighting.

Source: National Audit Office analysis of Asphalt Industry Alliance information

2.16 Our previous work on schools, prisons and flood defences has identified the importance of balancing preventative and reactive maintenance to ensure better long-term value from these assets.^{15,16,17} For roads, preventative maintenance may include planned activities like treating the road surface to extend its life. To identify where preventative maintenance activities would deliver best value and impact, approaches should be informed by regular condition surveys and predictive modelling, and supported by stable, long-term funding.

15 Comptroller and Auditor General, *Condition of school buildings*, Session 2022-23, HC 1516, National Audit Office, June 2023.

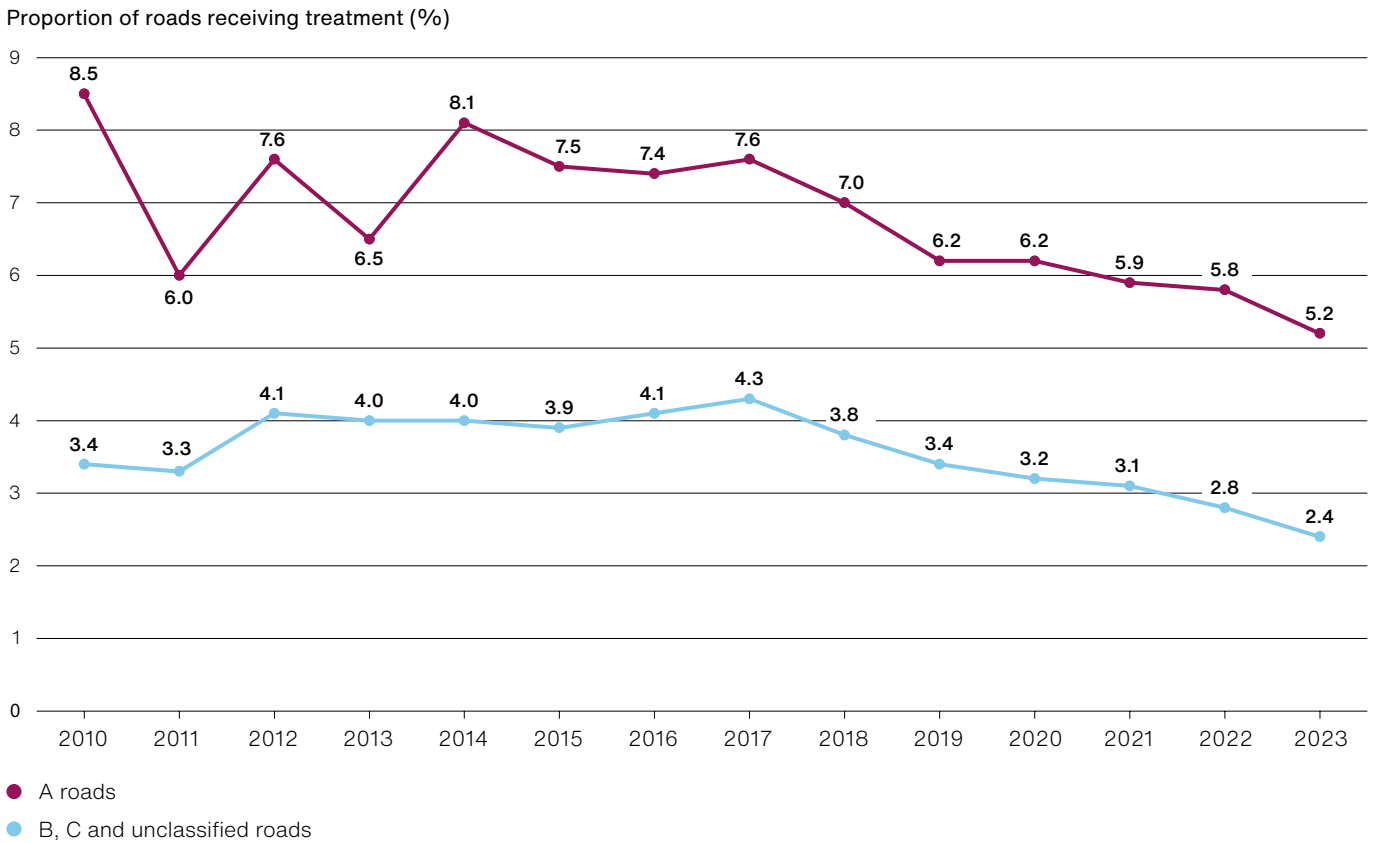
16 Comptroller and Auditor General, *Improving the prison estate*, Session 2019-20, HC 41, National Audit Office, February 2020.

17 Comptroller and Auditor General, *Resilience to flooding*, Session 2023-23, HC 189, National Audit Office, November 2023.

Figure 11

Proportion of the local road network receiving maintenance, by road type, 2010 to 2023

The proportion of the local road network receiving maintenance treatment each year has declined, with the proportion falling since 2017



Notes

- 1 Analysis begins in 2010 as this is the first year that data are comparable.
- 2 Definitions of A, B, C and unclassified roads are provided in Figure 1.
- 3 Figures are for the financial year ending in the year specified.

Source: National Audit Office review of Department for Transport information

Additional funding for local road maintenance between April 2023 and March 2034

2.17 In October 2023, DfT published its Network North plan to improve transport across England, which included £8.3 billion of new capital funding for local road maintenance.¹⁸ This and the other transport funding announced is derived from savings that DfT expects to make from cancelling Phases 2a and 2b of its High Speed 2 and High Speed 2 East projects. Over the period, DfT plans to allocate this funding by region as follows:

- North of England: £3.3 billion (40%);
- Midlands: £2.2 billion (26%); and
- rest of England: £2.8 billion (34%).¹⁹

2.18 DfT has so far allocated £300 million of this funding, split equally between 2023-24 and 2024-25. This has been provided to local authorities in addition to the £1.3 billion and £1.0 billion of capital funding that had already been allocated in these years, respectively, and each local authority has been told how much additional funding they will receive each year, as well as an indicative 11-year total. Within the regions, DfT has allocated funding to local authorities using its usual approach, based predominantly on road network length. DfT has not yet allocated £1.2 billion of the £8.3 billion (15%), part of which it says may be distributed via a new incentive mechanism to encourage innovation and best practice.

2.19 DfT has indicated to local authorities the total additional funding they can expect to receive by 2034, but not how this will be profiled across each year. It is also not clear how this will interact with baseline funding for local road maintenance from 2025-26 onwards. DfT is working with HM Treasury to determine allocations of future funding. The long-term nature of this new funding has potential to provide greater funding stability and certainty to local authorities, although the level of any capital funding for local road maintenance that DfT may provide alongside Network North funding is unknown beyond 2025.

2.20 In our view, the new funding provides an opportunity for DfT to change and experiment with how it allocates funding to local authorities, using data to identify areas of greatest need or where the value of investment could be maximised to inform allocations.

¹⁸ Department for Transport, *Network North: Transforming British transport*, October 2023. Available at: www.gov.uk/government/publications/network-north

¹⁹ DfT does not usually provide local road maintenance funding to London boroughs. However, between 2023-24 and 2033-34, DfT will provide London boroughs with a minimum of £235 million as part of its Network North plans. DfT will allocate this based on road length.

Part Three

The Department for Transport's role in providing guidance on asset management

3.1 This part of the report examines:

- how effectively the Department for Transport (DfT) is supporting local authorities through provision of guidance and tools; and
- areas of current and future challenge where new or additional guidance is required.

DfT's guidance and tools for local authorities

3.2 DfT aims to support local authorities to provide well-maintained local road networks through its provision of policy and guidance on effective asset maintenance. DfT has in the past worked in collaboration with local authority and industry experts to develop guidance and tools that can help more efficient delivery, including most notably the following:

- **Prevention and a better cure – Potholes review (2012):** This review considered how local authorities dealt with potholes, identified areas of good practice, and aimed to enable sharing of knowledge between local authorities, including lessons learned. DfT commissioned the report from the Highways Maintenance Efficiency Programme.
- **The highways maintenance appraisal tool (HMAT) (2015):** This tool can be used to assess the impacts of different maintenance funding levels on road condition, accident rates and work volume for the road maintenance sector, and can help local authorities assess the economic costs and benefits of proposed maintenance activities. HMAT was developed for DfT by the Transport Research Laboratory.

- **Code of practice for managing highway infrastructure (2016):** DfT advises that local authorities follow this code of practice to meet their legal duties to maintain their network, although this is not a statutory requirement. The code promotes the adoption of an integrated asset management approach to highway infrastructure based on local risk-based assessment. DfT commissioned the work, which was overseen by the UK Roads Leadership Group.²⁰
- **Potholes – a repair guide (2019):** This focuses on providing advice to local authorities for preventing potholes in winter and advocates a ‘prevention is better than cure’ principle. DfT commissioned this guidance from the Association of Directors of Environment, Economy, Planning & Transport (ADEPT).

DfT has not updated these tools or guidance since it first published them.

3.3 In 2011, DfT launched its Highways Maintenance Efficiency Programme (HMEP), a sector-led transformation programme promoting partnerships between local authorities and private maintenance companies. DfT intended that the resulting improved working relationships would support and embed changes across the highways sector and that these would in turn lead to efficient and effective local road maintenance activities. DfT provided £6 million to support HMEP, starting in 2011-12.

3.4 DfT stopped funding HMEP after 2016-17 with the intention that the sector would run it independently. However, this has not happened and DfT has not shared learning from HMEP. In 2018, the Local Government Association published a lessons learned exercise of the elements of HMEP that it had led on, covering the period 2012 to 2018. This identified that it had delivered benefits, including increased engagement and collaboration, and more informed decision-making and priority setting by local authorities. Some local authorities also reported increased efficiencies in the way they deliver local road maintenance activities.

3.5 In recent years DfT has placed less focus on providing guidance to local authorities. During COVID-19 DfT reprioritised its resources to develop a response to keep people safe as they travelled. DfT has not returned to guidance on road maintenance since then. DfT told us that it recognises that its code of practice is out of date and does not reflect advances in road maintenance techniques and materials. For example, DfT has not reviewed or updated the highways maintenance appraisal tool, which is based on assumptions that are almost 10 years old.

²⁰ The UK Roads Leadership Group (UKRLG), formerly known as the UK Roads Liaison Group, was established in 2001 and brings together national and local government from across the UK to consider roads infrastructure engineering and operations matters.

3.6 In April 2023, DfT published new regulations that enable local authorities to focus their inspections of the quality of road repairs by utility companies and to issue fines for poor performance. The condition of a road can deteriorate if it is opened by utility companies laying or repairing cables and pipes. DfT's statutory guidance sets out that utility companies must re-instate the road to a standard that does not shorten its life or create uneven surfaces. However, the quality of utility companies' resurfacing post-opening is mixed and, in 2024, local authorities reported that they spent 4% of their maintenance budgets addressing premature maintenance issues arising from utility openings. The new regulations allow local authorities to inspect how well street works are carried out by utility companies based on their performance, and to focus on those that perform poorly. Local authorities can charge utility companies per defect and for follow-up inspections.

DfT's guidance for local authorities to help them navigate current and future challenges

3.7 The context within which local authorities are planning and delivering road maintenance is changing. DfT needs to plan for how it will support local authorities meet current and future maintenance challenges that will impact the road network. There are several areas where local authorities would benefit from new guidance (**Figure 12**). For example, adapting to the impact of climate change on the local road network will require significant activity by local authorities. DfT has said that it will enhance its climate risk assessment guidance by 2025 to help infrastructure operators, including local authorities, identify risks and prioritise action, but it recognises that much more is needed if local authorities are to take a strategic approach to managing the risk of climate change on their road networks. DfT does not currently provide support or guidance on adaptation planning for local roads, or know the extent to which local authorities are adapting their local roads for future climate scenarios. DfT recognises the need to develop indicators to measure adaptation progress and outcomes on local roads. DfT does not have an autonomous vehicle strategy for the local road network, despite planning for deployment of these vehicles on roads from 2026. Local authorities told us that they need guidance from DfT on how to prepare their roads for autonomous vehicles.

Figure 12

Areas where further guidance would help local authorities face road maintenance challenges

There are several areas where the Department for Transport (DfT) could provide guidance to local authorities

Area for guidance	Description
Climate adaptation	Failure to keep up regular maintenance speeds deterioration, making roads more vulnerable to damage from extreme weather. Repairing damage caused can have substantial financial implications for local authorities. In 2023, the Climate Change Committee found gaps in adaptation planning for local road networks and that current policies are insufficient.
Preparedness for autonomous vehicles	Legislation passed in May 2024 will allow autonomous vehicles on roads from 2026. To operate safely, self-driving vehicles will require well-maintained roads, distinct markings, and unobscured signage so they can, using their cameras and sensors, recognise, and react to, the road environment. The current condition of some local roads will need improving before autonomous vehicles can be used on them safely.
Harnessing digital and other new technology to maintain the road network	Technological advances present opportunities to maintain the local road network more efficiently and at lower cost, and some local authorities are already making use of these. Advances in digital technology could, for example, be used to: <ul style="list-style-type: none"> ● improve the quality and timeliness of data used to monitor asset condition and reduce the need for visual inspection; ● develop collaborative platforms to manage maintenance across organisations; and ● automate repair work using robotics.
Decarbonising road maintenance	DfT is committed to reducing transport emissions to meet the government's legally binding carbon budgets and target to achieve net zero emissions by 2050. Local road maintenance activities contribute to greenhouse gas emissions from transport.
Managing infrastructure to facilitate sustainable modes of travel	DfT has objectives to increase rates of walking and cycling, and has recognised that poor-quality infrastructure is a key barrier to achieving these. In 2018, the UK Roads Leadership Group published guidance on risk-based maintenance approaches for footways and cycle routes. In 2020, DfT published updated design guidance for cycle infrastructure, which includes recommended maintenance approaches. No update has been provided for footways. <p>DfT's plans to reduce carbon emissions from transport include increasing the number of electric vehicles. These require accessible and reliable chargepoints, which must be maintained.</p>

Note

1 This list of challenges is not exhaustive. We have included the challenges which were raised most with us during fieldwork conversations with local government stakeholders and through our survey of local authorities.

Source: National Audit Office analysis of Department for Transport information and of information provided by local government stakeholders

Appendix One

Our audit approach and evidence base

Our audit approach

1 This report examines whether the Department for Transport (DfT) is ensuring value for money through its capital funding provision for local road maintenance, and whether it is effectively fulfilling its role in supporting local authorities to deliver local road maintenance. We divided our review into:

- an assessment of DfT’s understanding of the condition of local roads in England;
- an assessment of DfT’s approach to using its data and information to inform its capital funding decisions; and
- an assessment of DfT’s support to local authorities through its provision of guidance on asset maintenance.

2 The Department for Levelling Up, Housing & Communities (DLUHC)²¹ provides some revenue funding for local road maintenance, which is used for day-to-day spending that includes minor repairs and is drawn from funds that local authorities use to provide a wide range of services. We do not examine the provision of revenue funding for local road maintenance in this report.

3 Once funded, local road maintenance activities are delivered by local authorities. Our audit examined DfT’s oversight of local authority investment in local road maintenance and the support it provides to local authorities to enable effective and efficient delivery. We focused on DfT oversight and coordination of investment and did not audit local authority delivery of local road maintenance.

Our evidence base

4 We reached our independent conclusions on whether DfT is ensuring value for money through its funding for local road maintenance, and whether it is effectively supporting local authorities to deliver that maintenance, after analysing evidence collected between October 2023 and March 2024.

²¹ On 9 July 2024, DLUHC was renamed the Ministry of Housing, Communities & Local Government (MHCLG). However, we refer to DLUHC throughout this report, as that was the name in use at the time of our fieldwork.

Interviews

5 We conducted 24 interviews to assess DfT's understanding of the condition of the local road network in England; DfT's approach to using data and information to inform its funding decisions; and DfT's support to local authorities through its provision of guidance.

- Seven with DfT on key topic areas. We interviewed senior members of DfT's Local Highways team and specific team leads on relevant topics. Interview topics included data collection, road condition, funding, private finance, resilience, and its Live Labs project.
 - Six with other government departments or bodies to understand their involvement with local road maintenance. We interviewed officials from other relevant parts of government including, Active Travel England, The Department for Levelling Up, Housing & Communities (DLUHC), HM Treasury, the National Infrastructure Commission, the Office for Local Government (Oflog) and Transport for London.
 - 11 with other expert stakeholders who were selected to participate because of their relevance to the audit:
 - Asphalt Industry Alliance.
 - Association of Directors for Environment, Economy, Planning and Transport.
 - Atkins global and Atkinsrealis.
 - Chartered Institute of Highways & Transportation.
 - Chartered Institute of Public Finance and Accountancy.
 - County Councils Network.
 - Local Council Road Innovation Group.
 - Local Government Association.
 - Local Government Technical Advisers Group.
 - Sustrans.
 - RAC.
- 6** Our fieldwork interviews were held virtually over Microsoft Teams.

Document review

7 We reviewed a range of departmental documents and other published documents to develop our understanding of whether DfT is ensuring value for money through its capital funding provision for local road maintenance, and whether it is effectively fulfilling its role in supporting local authorities to deliver local road maintenance.

8 To assess DfT's understanding of the condition of the local road network in England we reviewed:

- DfT's published statistics on road condition, and associated technical notes, spanning 2015 to 2023;
- internal and published documents on DfT's planned update to its data standard on road condition data collection;
- reports and analysis commissioned by DfT, including on benefit-to-cost ratio of highways maintenance and potholes;
- DfT's National Travel Attitude Survey (Wave 1) from 2019, which included views on road condition;
- annual surveys on road condition and maintenance funding published by the Asphalt Industry Alliance, spanning 2012 to 2024; and
- information on road condition published by expert stakeholders, including the AA, RAC, and the National Highways and Transport Network.

9 To assess DfT's approach to using data and information to inform its funding decisions we reviewed:

- financial information from DfT setting out its capital funding for local road maintenance, spanning 2015-16 to 2024-24;
- DfT's published information on its provision of capital funding to local authorities, spanning 2020 to 2025, and beyond;
- the funding landscape within which local authorities receive capital funding for local road maintenance;
- DfT's spending review submissions from 2020 and 2021;
- internal audit reports;
- reports and analysis commissioned by DfT, including on the maintenance backlog and on the case for investing in highways maintenance;
- example communications between DfT and local authorities setting out funding allocations and assurance arrangements;

- DfT's publications relating to new funding announced through Network North in October 2023;
- DfT's approach to funding the strategic road network; and
- annual surveys on road condition and maintenance funding published by the Asphalt Industry Alliance, spanning 2012 to 2024.

10 To assess DfT's support to local authorities through its provision of guidance we reviewed:

- DfT's Organisational Development Plan;
- published tools and guidance commissioned by DfT on asset management for local roads, including the highways maintenance appraisal tool (HMAT), *Well Managed Highways Infrastructure: A Code of Practice*, and *Potholes – A repair guide*.
- documents relating to DfT's Live Labs (1 and 2) project, including business cases, planned projects and funding;
- documents relating to DfT's Highways Maintenance Efficiency Programme, including the business case and lessons learned report; and
- updates to regulations relating to road openings that DfT published in April 2023.

Quantitative analysis

Trend analysis

11 To support our understanding of the condition of the local road network in England we analysed a range of public information including the following:

- Annual statistics on the make-up of the local road network in England, published by DfT and available at www.gov.uk/government/statistical-data-sets/road-length-statistics-rdl. Specifically, we drew on data table RDL0101.
- Annual statistics on road condition in England, published by DfT and available at www.gov.uk/government/statistical-data-sets/road-condition-statistics-data-tables-rdc. Specifically, we drew on data tables: RDC0120, RDC0130, RDC0122 and RDC0320.
- Annual information on road condition and maintenance funding published by the Asphalt Industry Alliance. Its reports are available at: www.asphaltuk.org/alarm-survey-previous-reports/.

12 To support our understanding of DfT's approach to using data and information to inform its funding decisions we analysed:

- Financial information from DfT setting out its capital funding for local road maintenance, spanning 2015-16 to 2024-24. This included analysis on quanta of total/annual funding and the proportions that DfT makes available via different mechanisms.
- Annual information on local authorities' capital expenditure on road maintenance, published by DLUHC and available at www.gov.uk/government/collections/local-authority-capital-expenditure-receipts-and-financing. Specifically, we drew on data table CORA2.
- Annual information on the maintenance backlog published by the Asphalt Industry Alliance. Its reports are available at: www.asphaltuk.org/alarm-survey-previous-reports/.

Deflating

13 Unless otherwise stated, all financial data are in nominal terms. Where financial data have been converted into real terms to adjust for inflation, we use the GDP deflator series published by HM Treasury in December 2023 and available at www.gov.uk/government/collections/gdp-deflators-at-market-prices-and-money-gdp. We used 2022-23 as our price base, which is the latest year available.

Comparative analysis

14 To support our understanding of DfT's approach to using data and information to inform its funding decisions we undertook the following:

- A comparative analysis using DfT's statistics on road surface condition and maintenance spend by each local authority. We found no significant relationship.
- A comparative analysis using DfT's statistics on traffic volume and maintenance spend in each local authority. We found a strong relationship. Based on this relationship, we looked at the forecasted traffic volumes published by DfT and considered what each scenario may require in terms of future funding.
- A comparative analysis using DfT's statistics on road length (as a proxy for spend), proportion of roads in need of maintenance, traffic volume and road surface condition in each local authority. We found that DfT's distribution of funding based on road length did not follow patterns of condition or traffic volume. We found a generalised trend between road length and traffic volume, but not one strong enough to establish a clear relationship.

15 Due to limitations in the completeness of DfT's data on road surface condition, these findings should be interpreted with caution.

Qualitative analysis

Survey of local highways authorities

16 We conducted an online survey of local highway authorities to inform the evidence base for our study. We used this to understand the local delivery context for road maintenance, local understanding of road condition, and the challenges facing local authorities delivering local road maintenance. We designed our questions with internal support from survey experts and sense-checked our proposed questions with an experienced local highways professional.

17 We ran our survey from 14 December 2023 to 2 February 2024. A survey link was mailed by the Association of Directors of Environment, Economy, Planning and Transport (ADEPT) on our behalf to all their local highway authority members, with two subsequent chaser emails. We requested one response from each local highway authority surveyed. Respondents were able to complete the form anonymously if they chose, and questions were not mandatory. We received responses from 37 local authorities (25% of the 153 local authorities in England). We used responses to our survey to help triangulate other evidence, rather than drawing on it directly in developing our findings.

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National Audit Office

Design and Production by NAO Communications Team
DP Ref: 013935-001

£10.00

ISBN: 978-1-78604-554-6