30TH ALARM SURVEY

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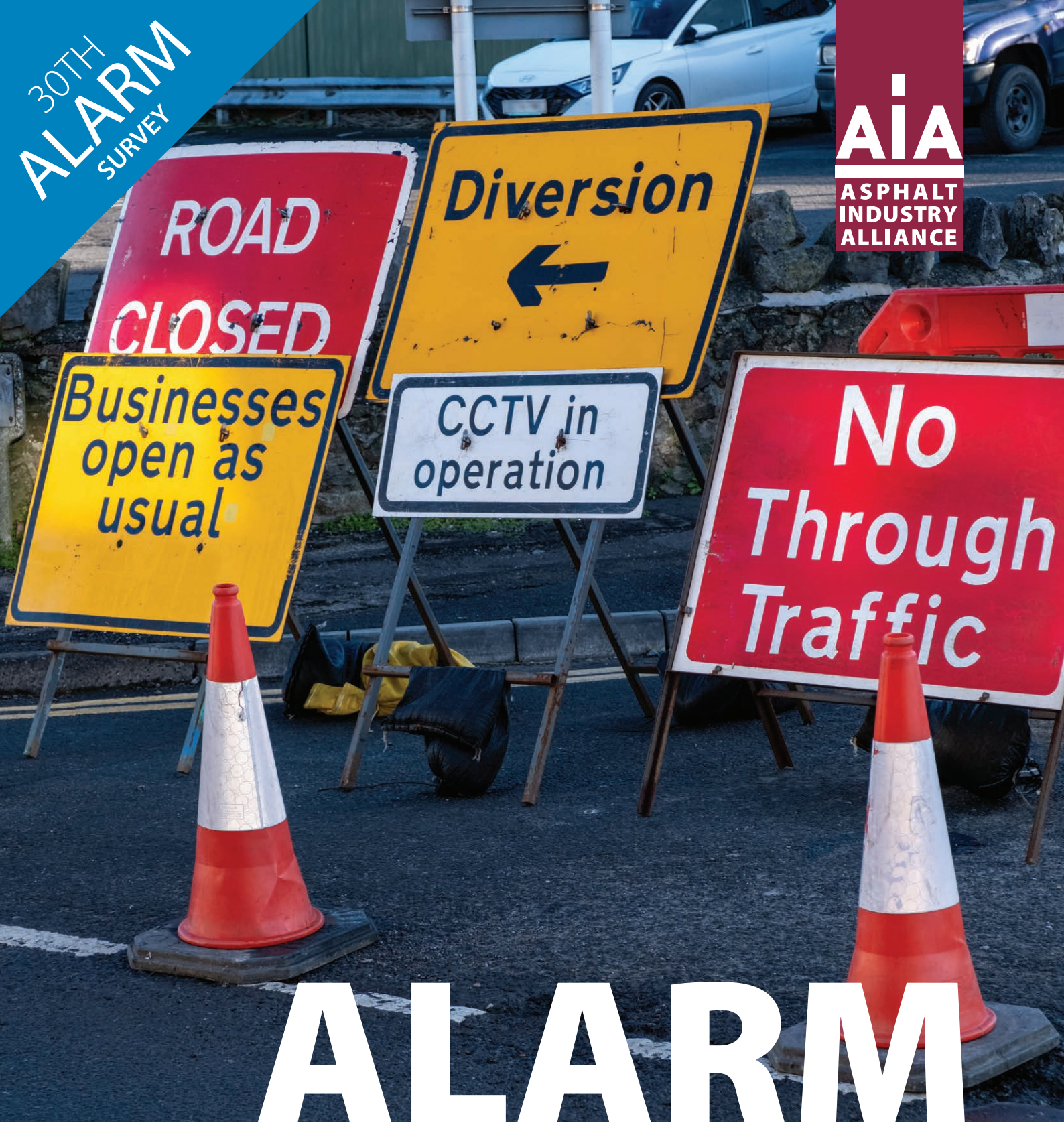

ALARM

Annual Local Authority **Road Maintenance** Survey Report

2025

Publication embargo: 00.01 18 March 2025

About the ALARM survey

Each year the Asphalt Industry Alliance (AIA) commissions an independent survey of local authority highway departments in England (including London) and Wales.

The aim of the survey is to take a snapshot of the general condition of the local road network, based on information provided directly by those responsible for its maintenance. The data received from local authorities provides a means of tracking any improvement or deterioration, allowing long-term trends to be reported, and the qualitative feedback received from them provides context.

Questions in the survey relate predominantly to the maintenance of the carriageway itself – the road surface and structure – and only that part of the total highway maintenance budget which specifically addresses the condition of the carriageway, referred to as the carriageway maintenance budget. Total highway maintenance budgets also cover other significant areas of expenditure – including structural work to bridges, street lighting and cyclical maintenance (for example grass-cutting, checking traffic signals and the replacement of street furniture) – which are excluded from this report.

ALARM 2025 is the 30th annual survey and 78% of authorities responsible for local roads in England and Wales responded. This report summarises the key findings.

The survey and data collation was carried out between December 2024 and February 2025. Unless otherwise stated, the findings are based on the financial year 2024/25, ending 31 March 2025. Where these are unavailable, figures for the calendar year 2024 were requested.

There are four authorities in England, and one in London, which have Private Finance Initiative (PFI) contracts in place to fund and manage their highway maintenance programmes over a 25-year period. These are not included in the survey.

Contents

The ALARM survey 2025 includes the findings of both quantitative and qualitative research.

The data received from local authorities has been extrapolated to represent the 115 local authorities in England without a PFI, 22 in Wales and 32 in London. The results have been collated, analysed and verified by a registered member of the Royal Statistical Society. ALARM survey reports from previous years can be accessed via our website: www.asphaltuk.org. A broad range of other road-related statistics are collated on RoadFile: www.roadusers.org.uk

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Quotations used in this report are from local authority highway officials.

Arrows indicate the direction of change from the findings reported in ALARM 2024.

10 year trend: data covers ALARM report years.

Invest to halt decline and kickstart economic growth

Overview by **David Giles**, Chair, Asphalt Industry Alliance

It was encouraging to hear the Chancellor recognise the importance of roads in the October Budget statement.

Her remark that 'potholes have been an all too visible reminder of our failure to invest as a nation' echoes our own calls for sustained, targeted investment and a longer-term funding horizon for local roads.

But is the new Government's manifesto promise to fix an additional one million potholes each year enough to have any real impact on the condition of our local road network? The findings of this year's ALARM survey report, suggest not.

This year marks the 30th anniversary of the ALARM survey, which was introduced to gather information on local road conditions and funding in England and Wales directly from those responsible for their maintenance. We are indebted to the local authorities' highway teams who take part and who, this year, led to a record response rate of almost 80%.

Tackle the backlog

Over the past three decades ALARM has reported a repeated pattern of short-term cash injections in an effort to stem the accelerating decline in road conditions, followed by longer periods of underfunding. And, the scale of the problem has reached new heights, with a reported £16.81 billion now needed to tackle the backlog of repairs.

Almost all local authorities have told us that, in their opinion, there has been no improvement to their network over the last year, with 65% stating that conditions have declined: a view no doubt shared by road users.

Over £20 billion has been spent on carriageway maintenance in England and Wales over the last decade but, due to the short-term allocation of this funding, there have been no significant improvements in structural road conditions.

It's well documented that any investment made in local roads provides an effective return on investment for tax payers. The DfT's own 2024 *economic appraisal for investing in local highways maintenance* sets out that 'for every additional £1 invested there is an absolute minimum return of £2.20, with analyses identifying typical returns of up to £9.10 at a national level.'

Why then are local authorities, which manage 97% of roads in England and Wales not provided with the five-year funding horizons that National Highways benefits from for the strategic network?

This year authorities actually reported a drop in their total highway maintenance budgets. However, they have spent a higher percentage on the carriageway itself in an effort to sustain increasingly necessary carriageway maintenance.

The result is that more than half of the network is reported to still have less than 15 years' structural life remaining – with 34,600 miles of these in poor condition – while 4,100 miles have also deteriorated into lower condition classifications.

In fact, some local authorities have told us that they need their budgets to more than double for the next five to 10 years if they are going to be able to make any lasting improvements to the condition and resilience of the network.

Increase in investment

So, what's the answer? There needs to be a complete change in mindset away from short-term to long-term funding commitments. Local authorities need a minimum five-year funding horizon and there needs to be a substantial, sustained increase in investment with budgets ring-fenced specifically for local roads maintenance.

Investing to save in local roads – which support communities and enable connectivity – will allow local authorities to plan and provide better value for money while helping kickstart the Government's stated economic growth plans.

David Giles

Executive summary

The Annual Local Authority Road Maintenance (ALARM) survey was introduced in 1995 and has evolved to highlight the connection between local road maintenance funding and conditions in England and Wales. The findings are based on information provided directly by those responsible for its upkeep.

This year marks the 30th anniversary of ALARM and a record number of local authorities (78%) responded to the survey, providing robust data for analysis and underscoring the value that those working in the sector place on its annual findings.

It is used by local authorities for benchmarking and by stakeholders across the sector as a valuable tool for tracking local road conditions and funding.

Key facts 2024/25

Funding:

- Local roads are considered to be councils' most valuable asset, worth in excess of £400 billion but only around 1% of this value is spent on their annual maintenance.
- Highway maintenance budgets saw a real terms cut of 4.1% in England and Wales, to an average of £26.0 million per authority.
- The average percentage of highway maintenance budget spent on the carriageway is up slightly but is still just 53%. This means the average carriageway maintenance budget remained in line with last year at £14.2 million per authority.
- Local authorities in England and Wales reported that, on average, they would have needed an extra £7.4 million each last year to maintain their network to their own targets. This equates to a total carriageway maintenance budget shortfall of £1.25 billion, an increase of 58% on the figure reported 10 years ago.
- £16.81 billion is now reported to be needed, as a one-off, for local authorities to bring the network up to their 'ideal' conditions and the work would take 12 years to complete. In the last decade this backlog figure has increased by 42% from £11.8 billion reported in ALARM 2016.

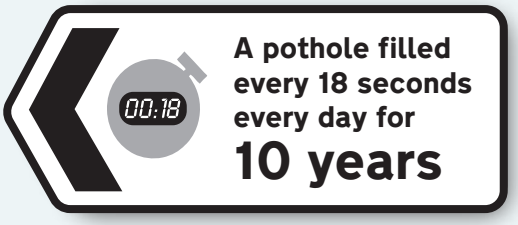
Detailed key findings can be found on page 24.

Key facts 2024/25 continued

Conditions:

- Less than half (48%) of the local road network is reported to be in good structural condition, with the remaining 52% stated to have less than 15 years' structural life remaining. Structural maintenance is needed when surface maintenance alone won't suffice, and structural conditions data provides a more holistic assessment of the carriageway asset's resilience.
- The general condition of the surface of the carriageway has declined, with a 1% drop in the number of roads reported to be GREEN (in a good state of repair) and a 1% increase in those classed as RED (poor overall condition).
- Road Condition Index (RCI) data shows that around 24,500 miles – more than one in every 10 miles – of network in England and Wales is likely to require maintenance in the next 12 months.
- The average frequency of resurfacing for all classes of local roads is once every 93 years.
- 1.9 million potholes were filled over the last year. In the last decade more than £1.08 billion has been spent filling 17.5 million potholes – equivalent to one every 18 seconds, every day, for 10 years.

Highway maintenance funds need to at least double and be consistent over the next 5 to 10 years to deliver lasting improvements.



Recommendations

There has again been no quantifiable improvement in the condition of local roads in England and Wales. Almost all (94%) of ALARM respondents think that there has been no improvement to their local network over the last year, with nearly two thirds stating that conditions have declined.

The cost of tackling the backlog of carriageway repairs has reached new heights at £16.81 billion and it is clear that the continuing pattern of short-term cash injections rather than sustained funding means that making lasting improvements remains out of reach.

A complete change of mindset is needed to allow local authorities to proactively improve the network. They need:

- **A substantial and sustained increase in highway maintenance budgets.**
- **New investment to be frontloaded with full delivery across two five-year investment periods – similar to the Road Investment Strategy (RIS) that supports the SRN in England.**
- **All funding to be ring-fenced for local road maintenance with targeted and accountable budget allocations.**

This would deliver a more resilient network and an effective return on investment for taxpayers, while providing local roads that are safe, keep people connected and will help kickstart economic growth.

Highway maintenance budgets

Highway maintenance is a key service provided by local authorities, who have a statutory obligation to keep their networks in a safe condition.

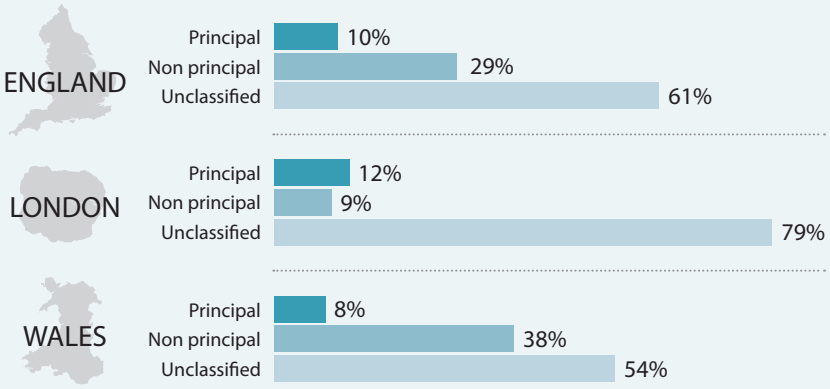
Local roads maintenance is just one of many areas of council responsibility and expenditure along with, for example, education, social care and housing.

There are 203,809 miles of local roads in England and Wales, including London, representing 97.3% of the total road network (source: Department for Transport (DfT), 2025). These roads are considered to be local authorities' most valuable asset, with a combined value well in excess of £400 billion.

Feedback received for 2024/25 suggests that the proportion of total local authority budgets allocated to highway maintenance represents around three per cent of their overall budget – a small fraction (1.1%) of the total £400 billion asset value.

Local roads in England and Wales 2024/25

Proportion of road by type (source: DfT road length data 2024)



These total budgets are funded by central government and local authority sources, which may include borrowing, use of capital reserves and monies collected through council taxes, a share of business rates, parking fines and other fees.

The problem is we don't view local road maintenance as being a contributor to local growth but it absolutely is. Every service in a council relies on highways, emergency services rely on highways, the economy relies on highways…

Highway maintenance funding in England

Local authority budgets for all highway maintenance activity in England (excluding London) were reported to have seen a 2.9% drop to an average of £33.5 million per authority (2023/24: £34.5 million). Accounting for inflation, this is a real-term drop of 5.5%, or the equivalent of a total of £218.9 million less being allocated to local roads in England.

This decrease is despite the second £150 million Network North funding payment made to English authorities in the 2024/25 financial year. These were funds announced by the previous government in October 2023, reallocated from the cancelled second leg of HS2.

The £33.5 million average highway budgets reported also hides a wide disparity between those local authorities seeing increased funding and those which experienced a cut from the previous financial year.

In England, 48% of respondents reported a cut or freeze in monetary terms – up from 43% last year – while the remaining 52% actually saw an increase on last year's highway maintenance budgets.

Of total budgets allocated for highway maintenance, an average of 55% is reported to be funded by central government, while the remaining 45% comes from local authorities' own sources.

The DfT provides 92% of the central government funding to English highway authorities – equating to approximately 50% of authorities' total highway maintenance budgets.

The majority of this DfT funding is not specifically allocated for highway maintenance or improvements and comes from several sources: Highways Maintenance Block needs-based funding and a separate incentive element, potholes funding, Integrated Transport Block (ITB) funding plus the additional Network North funding.

Capital and revenue budgets have been going down steadily over the years and, while one-off injections are appreciated, they are not sustainable or supportive of good asset management practice.

The remainder of central government funding is from other sources such as the Ministry of Housing, Communities and Local Government (MHCLG), Environment Agency grants and regional and mayoral areas growth funding, although these sources represent a small proportion of local authorities' total highway maintenance budgets at 4.6%.

In England, 41% of local authorities, particularly those in and surrounding large cities, are members of a Combined Authority, which takes responsibility for allocating all DfT transport-related funding, including highway maintenance, among its partnership authorities.

These local authorities reported an average individual highway maintenance budget of £20.5 million in 2024/25 – more than a third (39%) lower than the overall average for England (£33.5m).

Capital versus revenue maintenance budgets in England

As set out in the House of Commons Research Briefing *Potholes and local road maintenance funding* **capital maintenance** expenditure is funded by DfT and is primarily for the structural renewal of highway assets (including roads, footways, bridges, drainage and lighting) to extend the life of the asset. It is comprised of four streams:

- **Highways Maintenance Block (HMB) – needs element**
- **Highways Maintenance Block (HMB) – incentive element**
- **Integrated Transport Block (ITB)**
- **Potholes funding**

In 2022/23 and 2023/24 an additional £150 million was allocated by DfT through Network North funding.

Revenue maintenance expenditure mainly covers routine work required to keep the highway serviceable and reactive measures to rectify defects, such as filling in potholes. This is funded by the Ministry of Housing, Communities and Local Government through the revenue support grant.

Local authorities also allocate funding to capital and revenue budgets from their own sources.

Highway maintenance budgets continued

Highway maintenance funding in London

Respondents in London have reported, on average, a 9.1% increase in their overall highway maintenance budget to £10.8 million, back in line with the amount received in 2022/23 (£10.7m) from the £9.9 million reported last year.

This overall increase in budgets has primarily been fuelled by a handful of boroughs which have benefitted from significant capital investment projects funded from their own sources which, in some cases, more than doubled their previous year's budget total.

Nonetheless, 57% of London respondents did report receiving an increase in their total highway maintenance budget, with the remaining 43% experiencing a freeze or a reduction on last year before the impacts of inflation are accounted for.

London boroughs are, however, also benefiting from the Network North funding, with the DfT allocating an additional £7.5 million across the capital in 2024/25, which equates to an average of £235,000 per authority.

In 2024/25, only 17% of budgets for the capital are reported to originate from central government sources (including TfL and DfT). This has fallen from 73% in 2018, when this data was first collected.

Highway maintenance funding in Wales

Average budgets reported in Wales have seen a 6.3% increase on last year to £8.5 million (2023/24: £8.0m) but are still below the level reported in 2022/23 (£9.0m).

However, most Welsh respondents (60%) reported a cut on last year's overall highway maintenance budget, with just 40% experiencing increased funding.

Approximately one quarter (26%) of this total funding came through the Welsh Government, with some authorities reporting not receiving any monies at all from this source. The remaining 74% of funding came directly from authorities' own sources. This contrasts with the split stated in 2018, when 66% of funding was reported to originate from central government in Wales.

Highway maintenance funding sources in London

In 2018 the UK Government withdrew annual funding to Transport for London (TfL) which has meant that, since then, London boroughs have not received any support for the maintenance of their principal routes. However, there are several competitive grants available for London boroughs to bid for from TfL, including Local Implementation Plans (LIP) and the Liveable Neighbourhoods scheme which can be allocated to road maintenance.

In the last two years London boroughs have received some direct funding from DfT via the Network North allocation, announced in October 2023 under the previous government.

Predominantly, local road maintenance is now funded by London borough's own sources, which include council reserves, a share of business rates, borrowing and fines, as well as developer contributions (e.g. Section 106 agreements and the Community Infrastructure Levy).

London boroughs do not currently receive any funding for highway maintenance from TfL raised via the expanded ULEZ scheme.

Highway maintenance funding sources in Wales

The Welsh Government receives a block grant from the UK Government which forms the basis of its budget along with monies raised from devolved taxes, such as business rates and council taxes as well as limited amounts of borrowing.

From this, local authorities receive the Revenue Support Grant (RSG), which is a non-ring-fenced funding stream for allocation across all core local services, including road maintenance.

In addition, Welsh authorities can bid for competitive grants provided by the Welsh Government, such as the Resilient Roads Fund and the Local Transport Fund, which provide targeted support for climate resilience and infrastructure improvements.

Local authorities also generate their own revenue through sources such as parking fines and borrowing, which can help fund road maintenance.

We had a bit more money this year, but our costs have gone up so we're back where we started.

Overall picture

The overall total highway maintenance budget across England and Wales for 2024/25 is calculated as £4.39 billion, down 1.6% on the 2023/24 figure (£4.46bn). This is well below the level required to keep pace with inflation (2.6% source: statista.com), which would have required an increase of 4.2% to £4.58 billion.

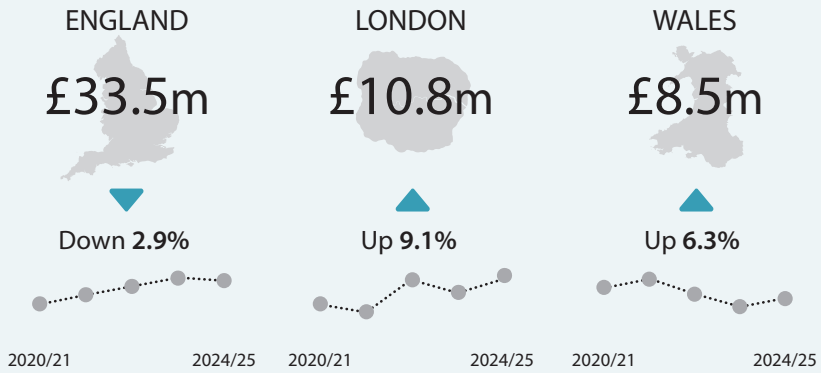
The graphic below demonstrates the fluctuating level of highway maintenance budgets over the last decade.

This year's budgets have suffered the 'death by a thousand cuts'.

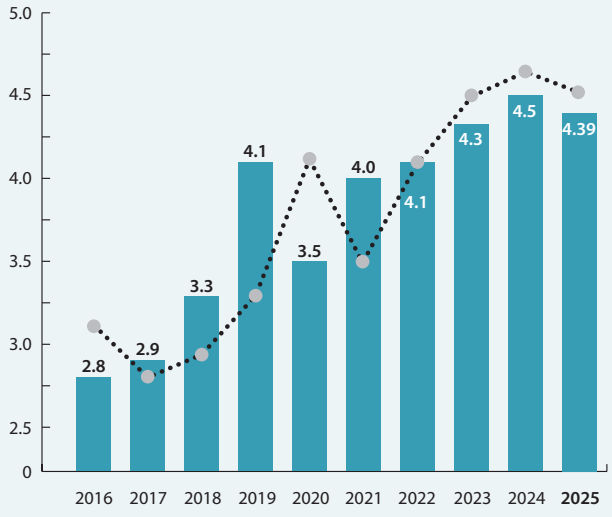
Highway maintenance budgets 2024/25

Average per authority 2024/25, with change from 2023/24

Includes bridge maintenance and structural work, cyclical maintenance (such as sweeping, grass cutting, checking traffic signals and replacing street furniture) and maintaining street lighting.



10 year trend: total highway maintenance budget 2015/16 – 2024/25 (£bn)



Total highway maintenance budget in England and Wales

Equivalent amount if annual rate of inflation was accounted for (source: statista.com)

Highway maintenance budgets continued

Highway maintenance budget variances 2024/25

Percentage of local authorities who saw decrease/increase/no change compared with 2023/24

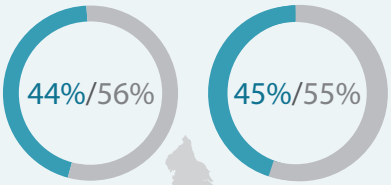
	Decrease	Increase	No change
ENGLAND	43%	52%	5%
LONDON	24%	57%	19%
WALES	60%	40%	0%

Funding streams 2024/25

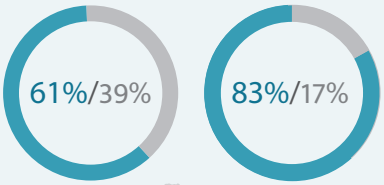
Local authority and central government funding

KEY: Local authority; Central government

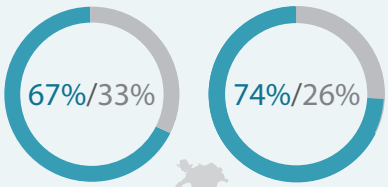
ENGLAND



LONDON



WALES



We haven't had a budget increase and it's forced us to be even more selective in choosing the schemes we're doing.

Carriageway maintenance

The carriageway spend is defined in the ALARM survey as: *the percentage of the highway maintenance budget spent on the carriageway itself.* This figure increased to 53% across ALARM respondents, up marginally from 52% in 2023/24.

Both England and London reported a 2% increase in the amount spent on the carriageway, while Wales saw a 2% drop (see graphic right). Overall, the reported total carriageway maintenance budget across England and Wales in 2024/25 was £2.40 billion, similar to last year's figure (£2.38bn). It would have needed to be £2.44 billion to stay in line with inflation.

The vast majority of local authorities (89% of responses) spent all of this and more than one in five (23%) of these reported an **overspend** due to factors such as rising prices, schemes carried over from the previous financial year and the scope of projects changing at the point of delivery e.g. further deterioration occurring between compilation of schemes and undertaking of works.

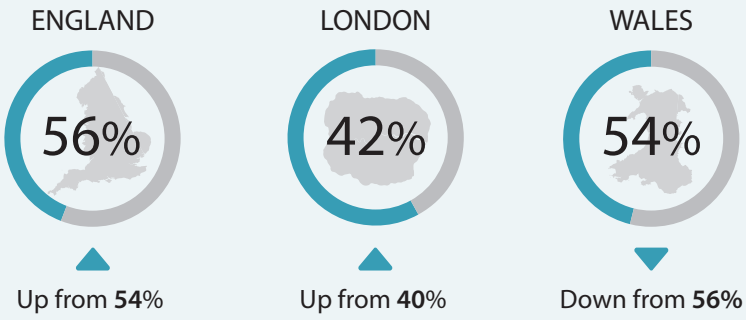
The average reported proportion of the carriageway maintenance budget spent on reactive maintenance (i.e. that not planned for at the beginning of the year) across England and Wales is 25%, the same as reported last year. This breaks down as 21% in England (2023/24: 22%), 26% in London (2023/24: 26%), and 46% in Wales (2023/24: 41%).

These figures acknowledge that circumstances can create an immediate need for maintenance to keep the roads safe and useable.

It is extremely difficult for local authorities to predict and allocate the percentage of budget required for this kind of work but, it is generally agreed that around 15% (2023/24: 16%) is considered to be a more appropriate level, far less than the reported reality.

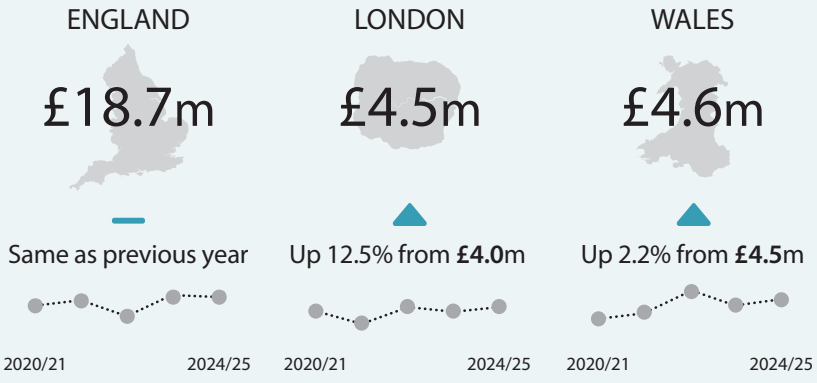
Carriageway spend 2024/25

Proportion of the overall highway maintenance budget spent on the carriageway itself



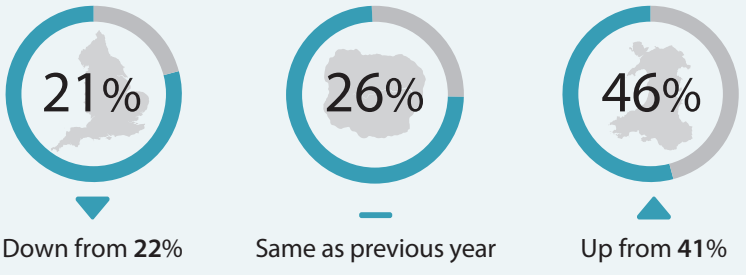
Carriageway maintenance budgets 2024/25

Average per authority, with change from 2023/24



Reactive maintenance 2024/25

Proportion of carriageway maintenance budget spent on reactive maintenance (**15%** considered ideal)



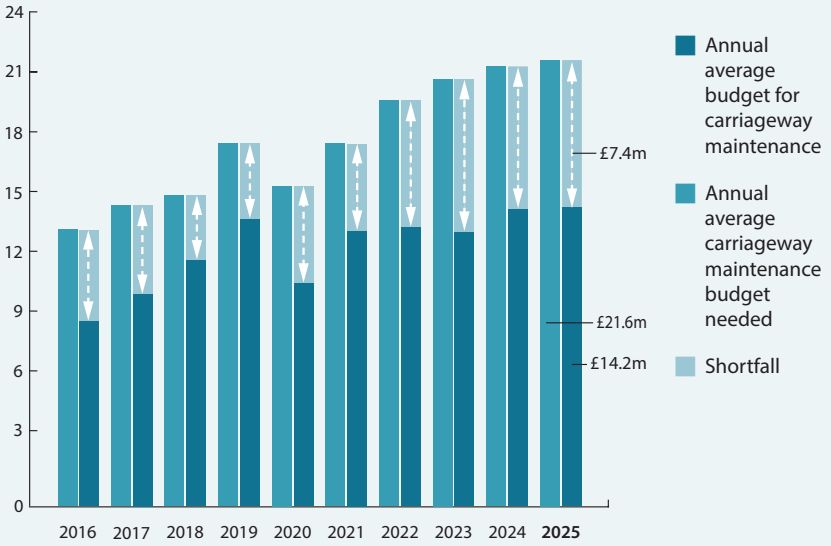
Highway maintenance budgets continued

We've needed to gradually increase the percentage of our budget spent on the carriageway to prevent further decline.

We spend around a quarter of our carriageway budget on reactive maintenance, which is much higher than I'd like.

10 year trend: carriageway maintenance budget needed 2015/16 – 2024/25

Annual average per authority (£m)



Unforeseen costs

A sizeable number of respondents have reported having to cope with unforeseen highway maintenance costs over the year.

The reasons identified for this include dealing with the effects of extreme weather events, rising traffic volumes and increased average vehicle weights on a deteriorating network, which combine to compromise resilience. The impact of inflation has also had a noticeable effect on these costs in recent years.

In England, just over half (53%) of respondents have dealt with unforeseen costs, down from 57% reported last year. The average additional cost incurred has dropped by 48% to £993,400 from the £1.9 million per authority reported last year. Feedback suggests this is due to a milder winter (2024-25) as well as the reduced severity of the impact of the most recent storms experienced. Significantly fewer London boroughs also reported experiencing unforeseen costs – 35% this year compared with 89% last – but the additional cost incurred only dropped by 25% to an average of £289,500 per authority (2023/24: £385,500).

However, the number of respondents in Wales reporting dealing with unforeseen costs remains extremely high, increasing to 86% (2023/24: 83%), although the average cost per authority reduced by almost two thirds to £174,300 (2023/24: £530,300).

Overall, £127.3 million was spent addressing unforeseen costs in England and Wales in 2024/25, down by almost half (49%) on last year. This means that less money has been diverted from ongoing highway maintenance schemes to deal with unexpected eventualities.

Adverse weather

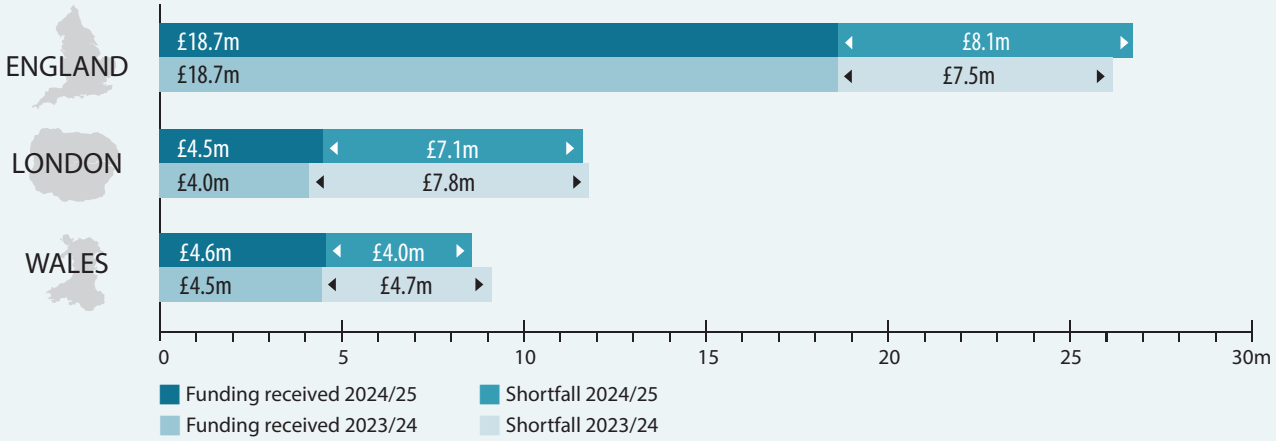
Adverse extreme weather conditions, particularly wetter winters with more intense downpours and storms and hotter, drier summers, coupled with increased traffic volumes and the age of the network can result in accelerated deterioration and a cycle of reducing resilience.

The combined impacts are more acute on evolved and often less well-maintained roads, where water can penetrate existing cracks or defects, leading to the formation of potholes which proliferate over time, compromising the serviceability of the road.

Highway maintenance budgets continued

Budget shortfall 2024/25

Average carriageway maintenance budget received and average shortfall per authority to meet target conditions (£m)



Budget shortfall

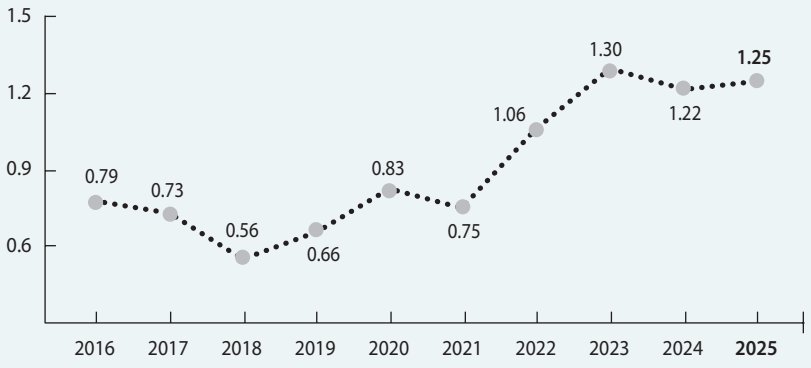
The total shortfall (see panel above) in 2024/25 carriageway maintenance budgets reported in England and Wales is £1.25 billion (2023/24: £1.22 billion), the equivalent of a funding gap of £7.4 million per authority or an average of £6,165 per mile of network. This is a 2.8% increase on ALARM 2024 figures (£7.2m average). In England, the shortfall is reported as £8.1 million per authority, an increase of 8.0% on last year (2023/24: £7.5m).

However, the gap is reported to have dropped in London by 9.0% to an average of £7.1 million (2023/24: £7.8m) and by 15% to £4.0 million in Wales (2023/24: £4.7m), reflective of the increases seen in average carriageway maintenance budgets in these areas.

We have such a deficit in our budget that we're always going to be catching up and roads will carry on deteriorating.

10 year trend: carriageway maintenance budget shortfall 2015/16 – 2024/25

Total carriageway maintenance budget shortfall (£bn)



Shortfall versus the backlog

The **shortfall** is the difference between the sums received in any financial year and the amount a local authority would need to keep their network to current target conditions and prevent further decline.

Backlog describes the amount that would be needed – as a one-off – to bring the network up to an 'ideal' condition that would allow it to be managed cost-effectively going forward as part of a proactive asset management approach.

One-time catch-up cost (backlog)

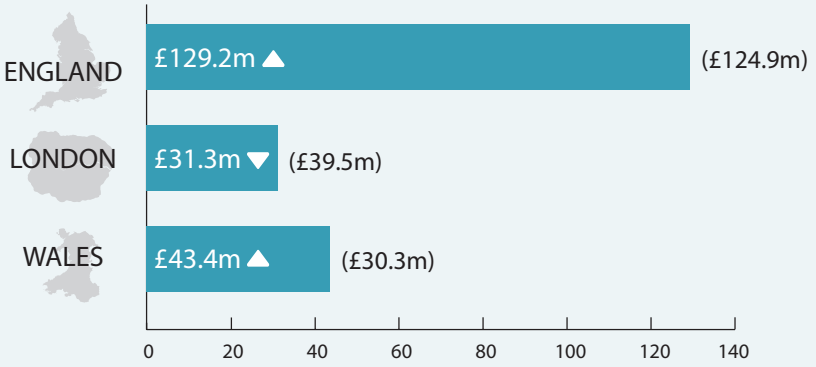
Each year the ALARM survey asks highway departments to estimate how much it would cost to address the effects of the legacy of shortfalls and bring their road networks up to their 'ideal' conditions (assuming they had the resources in place to make it practical to do so as a one-off project).

This would be the condition from which longer-term and cost-effective, planned preventative maintenance programmes could be put into place, deferring the future cost of more extensive repairs or replacement.

The combined estimate for this one-time 'catch-up' cost – *over and above what local authorities indicate they already receive* – for England and Wales (including London) is now **£16.81 billion**. This is the highest reported in ALARM and continues the upward trajectory reported (see chart below) over the last decade, although the rate of increase has dropped to 3.1%, which is more in line with inflation.

One-time catch-up costs (backlog) 2024/25

Average additional one-time catch-up cost required to clear carriageway maintenance backlog per authority, £m (2023/24 in brackets)

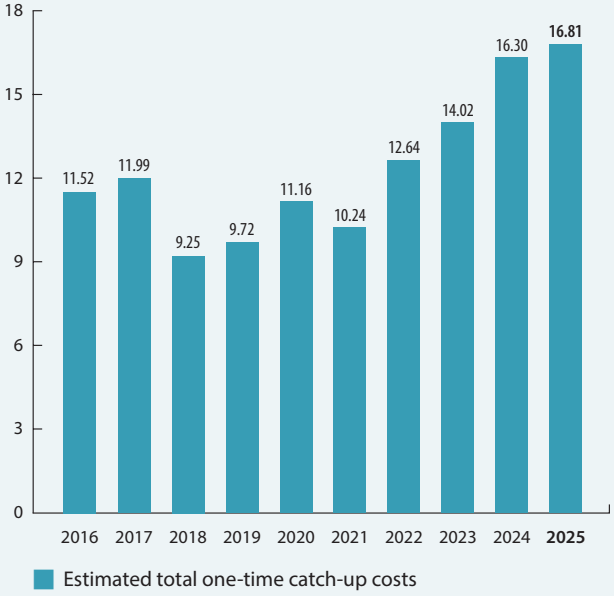


This equates to an average carriageway maintenance 'backlog' cost of £82,500 per mile of local road in England and Wales with the one-time catch-up cost an average of £129.2 million per authority in England; £31.3 million in London and £43.4 million in Wales.

Addressing the maintenance backlog

Highway departments estimated that it would take 12 years to get local roads back to their 'ideal' conditions, if adequate funding and resources were in place. This breaks down as an average of 12 years in England, 10 years in London and 13 years in Wales.

10 year trend: one-time catch-up costs 2015/16 – 2024/25 (£bn)



Maintenance backlog

12 years: average number of years needed to clear carriageway maintenance backlog (2023/24: 10)

Highway maintenance budgets continued

Longer term funding

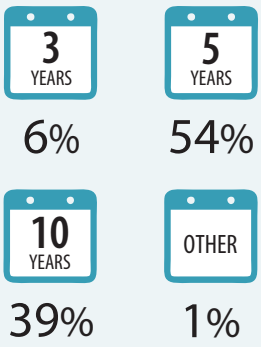
There is consensus among all respondents that guaranteed, longer-term funding helps increase efficiency and provide a more resilient road network.

Almost all responses indicate that at least 5 years should be considered as the optimal term (5 years: 54%; 10 years: 39%).

Security of funding helps authorities plan with more confidence and drive greater cost and environmental efficiencies through the promotion of proactive asset management techniques.

Longer term funding 2024/25

Reported ideal term funding in England and Wales (% of responses)



If we had a five-year funding scheme, we could do more planning and proactive work.

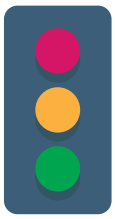
Road condition

Road Condition Index (RCI)

The percentage of the local road network classed as RED – likely to require maintenance in the next 12 months – has increased to 12%, meaning more than one in every 10 miles of network in England and Wales (around 24,500 miles) is likely to require maintenance in the next 12 months.

The length of roads classed as being in a good state of repair is reported to have decreased by 1% over the year, meaning that 56% of local roads are reported to be GREEN (2023/24: 57%), while 32% remain AMBER (the same as last year).

RCI Index



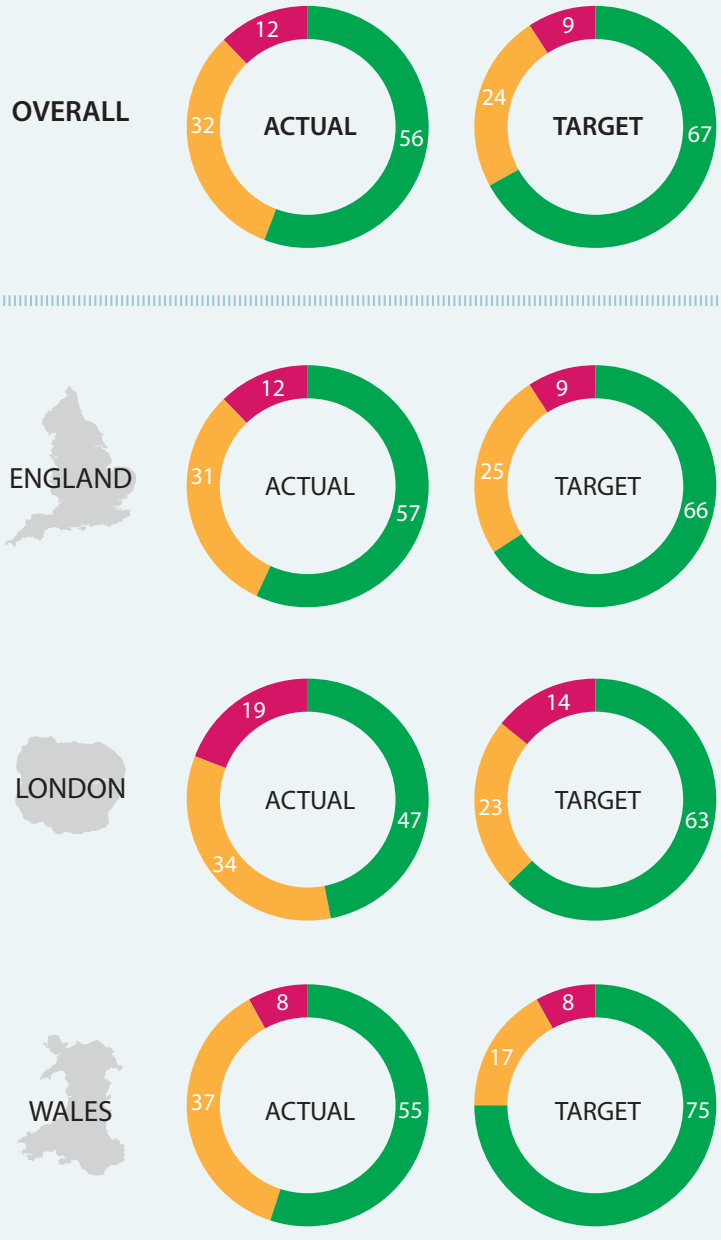
The RCI index features three condition categories (GREEN, AMBER and RED) across three road classes – principal, classified (non-principal) and unclassified – and compares current road conditions against these targets.

Local authorities can adjust the precise definitions of the categories to reflect the individual nature of their networks. However, in general, GREEN defines lengths of the carriageway that are in a good state of repair, AMBER is for lengths where some deterioration is apparent (which should be investigated to determine the optimum time for planned maintenance) and RED for lengths of carriageway in poor overall condition, likely to require planned maintenance within a year or so.

RCI data indicates overall condition, including surface issues, and can be an early indicator of issues relating to the condition of the underlying structure of the road.

Road Condition Index (average all classes)

Performance in England and Wales (% of network)



CARRIAGEWAY STATUS:

GREEN: good state of repair

AMBER: some deterioration is apparent

RED: poor overall condition – likely to require maintenance in next 12 months

Actual Road Condition Index

England and Wales (% of network)

		ALL CLASSES	PRINCIPAL	NON-PRINCIPAL	UNCLASSIFIED
GREEN	England	57 —	69 ↑	64 ↑	52 ↓
	London	47 ↓	47 ↓	40 ↓	48 ↓
	Wales	55 ↑	72 —	68 —	43 ↑
AMBER	England	31 ↓	27 ↓	30 ↓	32 ↓
	London	34 ↑	35 ↑	41 ↑	33 ↑
	Wales	37 ↓	25 —	26 —	47 ↓
RED	England	12 ↑	4 —	6 —	16 ↑
	London	19 ↑	18 ↓	19 ↑	19 ↑
	Wales	8 ↑	3 —	6 —	10 ↑

↑ Up from ALARM survey 2024 ↓ Down from ALARM survey 2024 — Same as ALARM survey 2024

These figures suggest that a further 2,000 miles are no longer in 'good' condition and the same amount more are now in 'poor' condition.

While an asset management approach to highway maintenance means that 100% of the network will not be in 100% perfect condition, 100% of the time, conditions are still falling well below local authorities' own current targets (see chart on page 16).

Qualitative feedback suggests target condition levels are developed and adjusted in line with what is achievable as well as within the parameters of the Well Managed Highways Code (which allows local authorities to develop levels of service in line with local needs, priorities and affordability).

Nevertheless, local authorities reported that, if they had sufficient funds and resources, the ideal RCI profile of the local road network in England and Wales would be: 71% GREEN, 22% AMBER and 7% RED. If this profile could be achieved, it would result in improvements to 30% of the network – the equivalent of 60,900 miles.

During the year a new standard for how highway condition data is collected and reported was published by BSI.

PAS 2161 introduces a standardised way of, categorising, classifying and reporting on condition data on A, B, C and U roads and is expected to be mandatory for local authorities in England from 2026/27. It will be optional for London boroughs.

ALARM respondents in England and London were asked if they thought PAS 2161 will support local authorities deliver improved local road conditions, with 42% agreeing, 13% disagreeing and the remaining 45% unsure.

It's a case of prioritisation. You can't justify doing a programme of cul-de-sacs when there are main roads falling apart.

Our network is looking okay on the As and Bs, but the Cs and Us are really struggling, and they make up a greater percentage of the overall network.

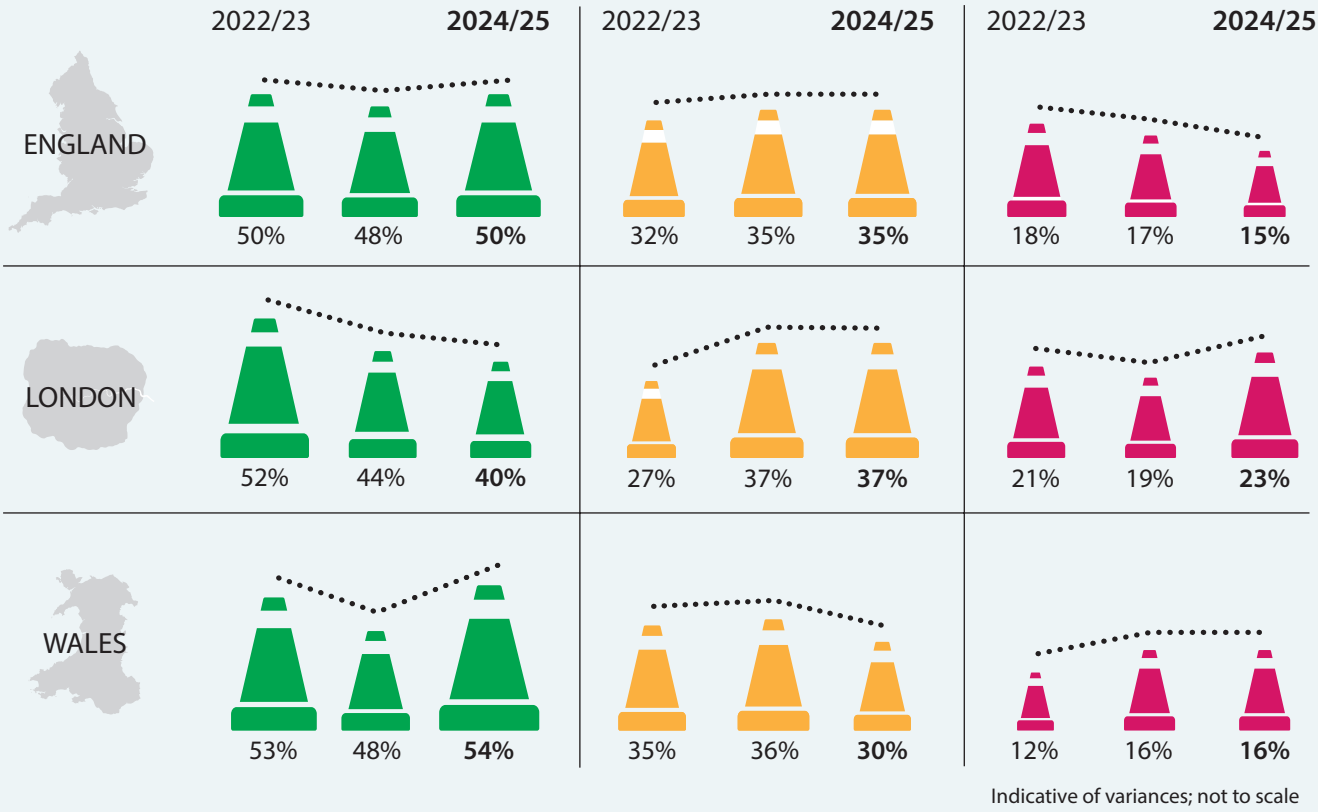
PAS 2161 will only help to improve local road conditions if it assists in getting more funding.

Road condition continued

Structural road condition 2024/25

Percentage of roads in good, adequate and poor condition

KEY: GOOD: 15 years' or more life remaining
ADEQUATE: 5-15 years' life remaining
POOR: less than 5 years' life remaining



Indicative of variances; not to scale

Structural road condition

Structural maintenance is required when the condition of the road has deteriorated beyond the point at which only surface maintenance will suffice.

As shown in the chart above, the network in England and Wales has reportedly seen some improvements while in London it has seen further decline with 23% of roads in the capital now classed as poor (those with less than 5 years' life remaining).

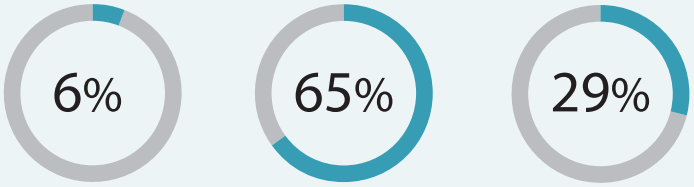
Overall, less than half (48%) of the local road network in England and Wales is reported to be in good structural condition (with 15 or more years of life remaining),

Overall structural road condition in England and Wales

GOOD: **48%**
ADEQUATE: **35%**
POOR: **17%**

Structural condition 2024/25

Opinion on the change in structural conditions of ALARM respondents' networks over the last 12 months (% of responses)



equivalent to approximately 97,800 miles. This is up 1% from 47% in 2023/24 but still well below the 51% reported in 2022/23 and 55% in 2021/22. More than a third (35%, equivalent to 71,300 miles) is now reported to be in adequate condition with 5-15 years of life remaining (down from 36% in 2023/24 but higher than the 31% reported in 2022/23 and 27% in 2021/22). In addition, 17% (34,600 miles) are flagged to be in poor condition, the same as reported last year.

These results are borne out by qualitative research which suggests that 94% of ALARM respondents think the structural condition of their network has declined or remained in a steady state over the last 12 months, with only 6% suggesting their network has improved overall.

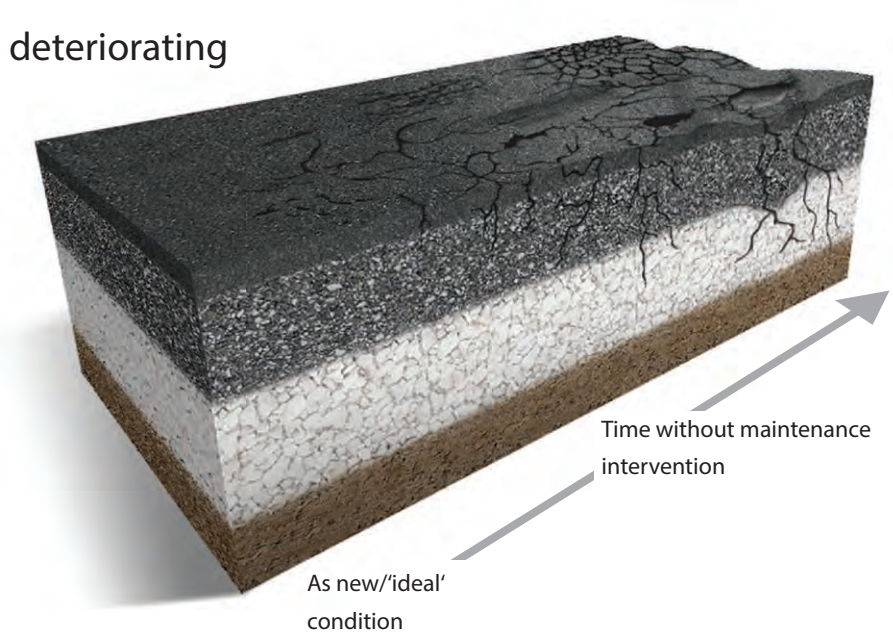
Structural assessments are carried out against engineering properties and criteria and may not always identically reflect the visually evident conditions and road user experience indicated by RCI.

We've already got a bad canvas to work on, but now that canvas is getting even worse. We are literally papering over the cracks. It comes back again to the lack of key capital investment.

Schematic diagram showing deteriorating road structure

Without proper, timely maintenance the condition of roads can deteriorate. This starts with tiny cracks at the surface which, left untreated, can become larger and penetrate the sub-surface layers. Eventually the whole structure deteriorates to the point when full-depth reconstruction is necessary.

Image courtesy of: roadresource.org/PPRA



Road condition continued

Potholes

Potholes are a clearly visible symptom of inadequately maintained roads and can be used as indicators of resilience, potentially pointing to underlying structural issues.

The total number of potholes filled reported in this year's survey has dropped by 87,000 on the number stated last year, but is still higher than any other year since ALARM 2016. This is the equivalent of one pothole being addressed every 17 seconds in England and Wales.

Qualitative feedback highlighted that more frequent weather extremes are taking their toll across the network and that pothole repairs remain only one element of the challenges local authorities dealt with in the last year, which also included flooding and landslides.

Around three quarters (73%) of authorities responding to the ALARM survey stated that they use a guideline depth of 40mm to define a pothole. Depth definition is not always the only means of prioritising repairs as the potential effect of a surface defect can vary dramatically depending on the area affected, the nature of the traffic on the road and its location.

The disparity in cost between filling potholes as part of a planned programme of carriageway repairs compared with that as a reactive repair is again apparent (see graphic above right). Costs reported do not include any relevant staff, overhead or traffic management costs. Taking the average cost for filling a pothole across each region to be £72.37, the total amount spent in England and Wales last year is estimated at £137.4 million, down 4.3% from the £143.5 million reported last year.

We are just plugging holes: we fill one pothole and then there's already another crack somewhere else.

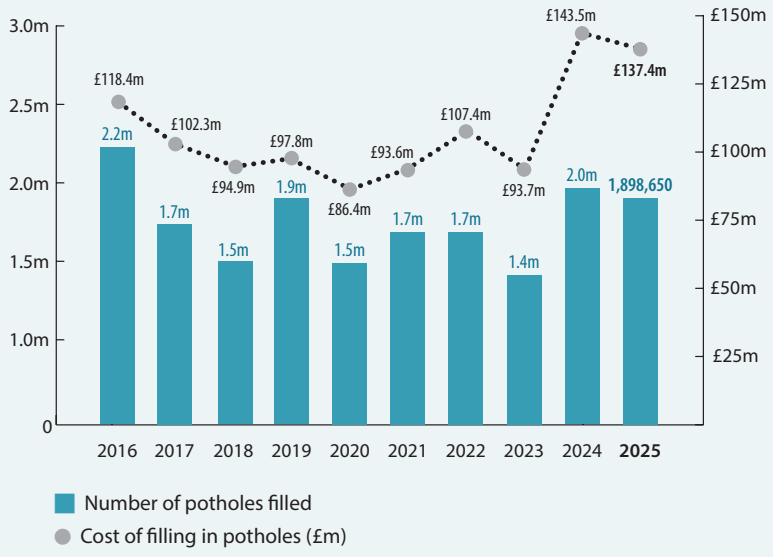
Potholes 2024/25

Average number of potholes filled per local authority, plus costs to fill as part of a planned programme and as a reactive repair, with direction change from 2023/24

			PLANNED COST	REACTIVE COST
ENGLAND	14,922	▼	£57.87	£81.62
LONDON	2,587	▼	£55.44	£106.52
WALES	4,538	▲	£54.25	£92.89

10 year trend: **potholes** 2016/15 – 2024/25

Number of potholes filled and cost (£m)



Road resurfacing frequency

Replacing the entire surface layer of roads at regular intervals maintains an appropriate level of skid resistance – vital for road safety – guards against water ingress and freeze-thaw effects by maintaining a weatherproof seal on the road's surface and enhances overall resilience. It also offers the opportunity to identify and address any deeper structural issues arising which are not initially evident.

Considering the lifespan of particular materials, the type of road and the level and nature of its traffic, the recommended frequency of road resurfacing is between 10 and 20 years – an ideal not reported to be achieved on any type of road in England and Wales.

The average frequency of resurfacing across all road types and regions is calculated to be once every 93 years. This breaks down as once every 103 years in England, once every 44 years in London and once every 108 years in Wales.

The data shown in the graphic above right continues to highlight how local authorities have to prioritise key routes, to the detriment of unclassified roads, as current budgets are not sufficient to adequately maintain the whole network.

Over the last 12 months, local authorities in England and Wales reported that they resurfaced an average of just 1.5% of their network, which equates to around 3,100 miles of the 203,809 mile total. Additionally they reportedly treated 3.0% (6,100 miles) seeking to prolong the life of the road.

We are looking after the classified network, to the detriment of the unclassified one.

Road resurfacing frequency 2024/25

Average frequency (years) of resurfacing by road category with direction change from 2023/24

	All classes	Principal	Non principal	Unclassified
ENGLAND	103 ▲	39 ▲	60 ▲	134 ▲
LONDON	44 ▲	25 ▲	40 ▲	47 ▲
WALES	108 –	78 ▲	59 ▼	225 ▼

Road condition continued

Utility company road openings

Opening a road to create a trench can reduce its structural life by an average of 17% (source: TRL) and the continuing high level of utility openings in England and Wales – reported as 2.2 million (8.3% lower than the 2.4m reported in 2023/24) – can reasonably be assumed to be having an overall detrimental effect.

While the majority of utility reinstatements (84% based on responses received) are completed in accordance with legislation, local authorities still reported spending an average of 2.8% of their carriageway maintenance budget addressing premature maintenance arising from those openings. This totals £66.8 million in England and Wales (2023/24: £91.7m) – more than £395,000 per authority.

Across the board, highway engineers agree that the number of utility openings reduces the life of the carriageway.

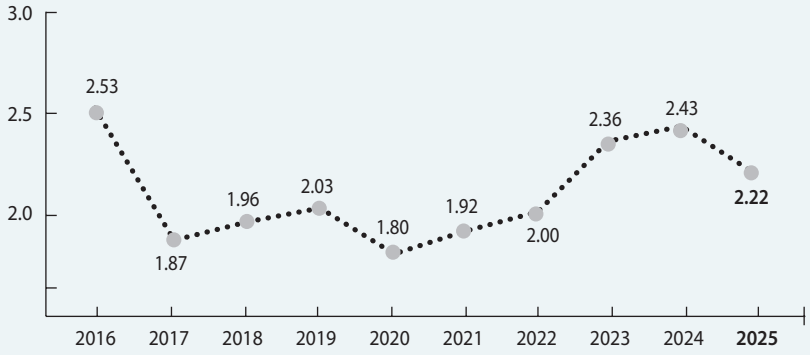
Utility company openings 2024/25

Average number of utility openings per authority in past year (previous year in brackets)

ENGLAND	LONDON	WALES
15,811	9,579	4,347
(17,263)	(10,540)	(5,034)

10 year trend: **utility company openings** 2015/16– 2024/25

Total number of utility company openings (millions)



Road user compensation claims

The average number of claims received by local authorities in England and Wales has decreased by 2.6% to 410 per authority (2023/24: 421 per authority), but with 92% of the total reportedly relating specifically to potholes.

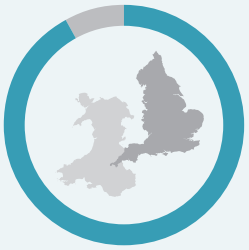
There has, however, been a marked rise in the total amount paid out for compensation claims, which has increased by 30% to £19.7 million, although it is recognised that successful claims will not necessarily relate to the current financial year.

A further £17.6 million was spent on staff costs to deal with claims, bringing the overall total spent addressing claims to £37.3 million across England, London and Wales, up 32% on last year (2023/24: £28.2m). This is the equivalent of £183.04 paid out per mile of road last year.

When you look at the graphs of pothole numbers against claim numbers, they directly correlate.

Pothole-related claims

% of road user compensation claims in England and Wales (average per authority)



92%

Total cost: £34.3m

Road user compensation claims 2024/25

Number of claims in past year (average per authority) plus **total** cost (£) of dealing with claims (2023/24 figures in brackets)

ENGLAND	551* ▼ (562)	COST OF CLAIMS £15.8m ▲ (£12.2m)	STAFF COSTS £13.1m ▲ (£10.5m)	TOTAL COST £28.9m ▲ (£22.7m)
LONDON	106* ▼ (140)	COST OF CLAIMS £2.6m ▲ (£2.0m)	STAFF COSTS £2.7m ▲ (£2.3m)	TOTAL COST £5.3m ▲ (£4.3m)
WALES	114* ▲ (94)	COST OF CLAIMS £1.4m ▲ (£989.1k)	STAFF COSTS £1.7m ▲ (£821.8k)	TOTAL COST £3.1m ▲ (£1.8m)

2020/21 — 2024/25

(***95%** pothole-related)

(***75%** pothole-related)

(***98%** pothole-related)

Key findings

	TOTAL*	England**	London	Wales
Percentage of authorities responding	↑ **78%**	↑ 83%	↑ 78%	– 50%
Highway maintenance budgets				
Average highway maintenance budget per authority	↓ **£26.0m**	↓ £33.5m	↑ £10.8m	↑ £8.5m
Percentage of highway maintenance budget spent on carriageway	↑ **53%**	↑ 56%	↑ 42%	↓ 54%
Average carriageway maintenance budget per authority	↑ **£14.2m**	– £18.7m	↑ £4.5m	↑ £4.6m
Shortfall				
Shortfall in road carriageway budget 2024/25	↑ **£1.25bn**	↑ £934.5m	↓ £228.9m	↓ £88.9m
Average carriageway maintenance budget shortfall per authority 2024/25	↑ **£7.4m**	↑ £8.1m	↓ £7.1m	↓ £4.0m
Estimated time to clear carriageway maintenance backlog	↑ **12 yrs**	↑ 12 yrs	↑ 10 yrs	↑ 13 yrs
Estimated one-time catch-up costs (backlog)	↑ **£16.81bn**	↑ £14.86bn	↓ £1.00bn	↑ £953.7m
Estimated one time catch-up cost per authority (backlog)	↑ **£99.5m**	↑ £129.2m	↓ £31.3m	↑ £43.4m
Road condition				
Frequency of road resurfacing (all road classes)	↑ **93 yrs**	↑ 103 yrs	↑ 44 yrs	– 108 yrs
Number of potholes filled over past year	↓ **1,898,650**	↓ 1,716,030	↓ 82,784	↑ 99,836
Average number of potholes filled per authority over past year	↓ **11,235**	↓ 14,922	↓ 2,587	↑ 4,538
Average cost to fill one pothole – planned	↑ **£56.94**	↑ £57.87	↓ £55.44	↑ £54.25
Average cost to fill one pothole – reactive	↑ **£87.80**	↑ £81.62	↓ £106.52	↑ £92.89
Total spent filling potholes in past year	↓ **£137.4m**	↓ £124.2m	↓ £6.0m	↑ £7.2m
Compensation claims				
Amount paid in road user compensation claims	↑ **£19.7m**	↑ £15.8m	↑ £2.6m	↑ £1.4m
Staff costs spent on claims (per year)	↑ **£17.6m**	↑ £13.1m	↑ £2.7m	↑ £1.7m

* England, London and Wales

** excludes London

NB Numbers in the table may not add up due to rounding.

↑ Up from ALARM survey 2024
↓ Down from ALARM survey 2024
– Same as ALARM survey 2024

About the AIA

Asphalt Industry Alliance

The Asphalt Industry Alliance (www.asphaltuk.org) is a partnership of the two principal bodies which represent the UK suppliers of raw materials used to produce asphalt, as well as asphalt producers and laying contractors: the Mineral Products Association (MPA) and Eurobitume. It draws on the knowledge and resources of each association and their members.

The AIA was established in 2000 to increase awareness of the asphalt industry and its activities, and the uses and benefits of asphalt. Asphalt is the generic term used to refer to the range of bitumen coated materials available in the UK that are used in road construction and maintenance. Asphalt also has other, non-road applications such as airport runways, sports arenas and parking areas.

Mineral Products Association

MPA Asphalt is part of the Mineral Products Association (www.mineralproducts.org), the trade association for the aggregates, asphalt, cement, concrete, dimension stone, lime, mortar and industrial sand industries and is the sectoral voice for mineral products.

MPA Asphalt represents the interests of its asphalt producer and contractor members through representation and liaison with national and European clients, specifiers, regulators, researchers and standards bodies as well as with trade associations from other countries and related industry sectors. It also funds research into asphalt and its uses and operates the Asphalt Information Service which provides general guidance and information on the use of asphalts in the wide range of their applications.

Eurobitume

Eurobitume (www.eurobitume.eu) is the voice of the European bitumen industry, educating and promoting the efficient, economic, effective, safe and sustainable use of refined bitumen in road, industrial and building applications.

Eurobitume provides information and guidance on technical, health, safety and environmental matters, based on proven data, and works to create a positive image and environment for sustained bitumen demand and communicate the product benefits to key stakeholders.

In addition, it works with government and regulatory bodies to develop and maintain testing procedures and safety standards to ensure the highest possible quality standards in all bitumen-related operational activities

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