

Highways Performance Dashboard – Winter 2024/25

Report of the Director of Climate Change, Environment and Transport

1) Introduction

In response to the recommendations of the Planned and Reactive Maintenance: Potholes and Drainage Task Group presented to the Corporate, Infrastructure and Regulatory Services (CIRS) Scrutiny Committee in March 2019 an updated Performance Dashboard Report has been produced. The intention of this report is to provide Members with an overview of the performance of the Highways and Traffic Management Team over the winter period.

2) Reactive Works

2.1 PIP (Public Interface Portal) Enquiries

The service has recorded a gradual increase in the number of public reports of potholes since November (see Appendix A), however there has been a reduction of 37% when compared to November, December and January of last year. The team of Highway Safety Inspectors are working hard to undertake assessments, using extended weekday and weekend working where resource allows. Some adjustments to the timings of formal inspections have been made to allow for greater level of inspector resource since Christmas, to deal with public reports.

The service will shortly be introducing a revamped suite of automatic comments that are sent to customers reporting defects, such as potholes, which should provide more consistency and clarity around the status of repairs, when no further action is to be taken or when consideration for non-safety or 'serviceability' repairs is to be given.

2.2 Safety Defects

For 2024/25 the service has recorded circa 48,000 pothole defects to 9th February 2025 either through the formal highway safety inspection programme or through reactive assessments in response to publicly reported defects.

Currently, through a combination of carefully optimised and balanced contractor resource and an accelerated programme of reactive patching, the Service is managing to contain the overall number of pothole defects across the network awaiting repair. Crucially, this has enabled the team to continue the proactive identification and repair of non-safety or 'serviceability' potholes and patches through what is historically a very demanding period, in recognition of the efficiencies in repairing these emerging defects, prior to further deterioration. The additional £7.25m of capital funding for serviceability work in 2024 has facilitated a significant increase in reactive patching since the summer to localised areas of deterioration at over 1,000 sites, totalling 60,000sqm. This is helping to reduce the peak of pothole reports typically seen over the winter months.

Following a comprehensive trial and upscaling of 'Elastomac' in the County over the last two years the system has now become a permanent maintenance option within the service. 'Elastomac' uses a flowable mastic asphalt which incorporates up to 70%-80% recycled materials and can be installed much more quickly than traditional patching techniques and with less disruption to the travelling public. The service has seen excellent longevity of the material at completed sites and has been able to continue its use throughout the winter months for larger scale patches but also in support of smaller, reactive repairs, right across the network hierarchy. In late 2024 a successful hybrid approach saw key route treatments undertaken in and around Exeter using a combination of Elastomac and traditional patching. This process will be further utilised the County in 2025/26.

The Dragon Patchers have patched more than 65,000sqm at numerous sites across Devon in 2024/25. While the winter weather conditions are less favourable, the machines have been tackling safety defects.

2.3 Winter Service

Numerous gritting treatments have taken place throughout January and into February. As of the 11th February the County has been treated the equivalent of 37 times (1,415 individual treatments). For comparison, in 2023/24 there were 38 Countywide equivalent treatments for the whole winter period (Appendix A).

Highways teams are diligently managing resources to ensure optimal winter service while minimising disruptions to operations. Additionally, the service has responded to four named storms so far, resulting in a substantial increase in response efforts across the network.

Further enhanced management of the winter service fleet (gritters etc.) supported by the use of data has enabled the team to achieve reductions in the maintenance costs of these vehicles, despite the high inflation rates associated with vehicle parts and labour. This has been a collaborative endeavour with Milestone's in-house workshop team.

The service is now in its second season of using Route-Based Forecasting (RBF) to support decisions to send gritters during freezing conditions. RBF provides a far greater level of detail in the route treatment selection (of which there are 37 primary routes) within the five weather domains in Devon, with associated cost, efficiency, environmental and carbon reduction benefits.

The service continues to draw national interest from leading research bodies, industry groups and other highway authorities in the treatment of cycleways and footways in Exeter. DCC is proactively sharing findings to assist in promoting more sustainable travel and helping to meet carbon reduction objectives.

The Council continues to explore sustainable and innovative winter maintenance options including electric vehicles and dynamic salt spreading.

3) Cyclical Operations

3.1 Gully Cleaning

It is anticipated the programme to clean 150,065 gully assets will be completed on time for the current financial year. There has been investment during the year in the refurbishment of the fleet which has had a positive impact in efficiency. There have been recent challenges around availability of operatives as a result of winter service commitments, however this is not expected to significantly impact the programme.

The additional high pressure jetting resource is currently resolving approximately 500 recorded issues per month, primarily focused on the primary and secondary salting network. Over the past year, the backlog of outstanding jetting requests has increased by 1000, to 7,900, despite in excess of 6,800 issues being resolved over the same period.

The trial to record silt levels prior to programmed cleaning has been continued and expanded to include those cleaned annually and multiple times a year. The trial has identified that approximately 70% of the gullies inspected do not require cleaning. Typically a gully costs £13.00 to clean and £1.10 to inspect, therefore provides a significant financial efficiency. This has the added benefit of allowing the associated plant to be utilised where it is most needed, ultimately improving the overall effectiveness and efficiency of the service. This information is providing valuable information to review the necessary cleaning frequency and timing as we look to improve the efficiency of the service in the future.

3.2 Grips, Easements and Buddleholes

The 2024/25 programme to clear 111,594 grip, easement and buddlehole assets is currently running in line with the planned programme.

4) Tree Safety Management (including vegetation)

4.1 Expert Scheduled Inspections

The 2024 programme of scheduled expert tree inspections generated 301 records of defective trees compared with 503 records in 2023. This represents a decrease of approximately 40%.

4.2 Ash Dieback (ADB)

The total number of trees reported with ash dieback during expert scheduled inspections in 2024 was 569. This is a reduction of approximately 48% compared with last year when 1,084 ADB trees were reported.

At 56%, trees with ash dieback continued to represent over half of all expert inspection records in 2024.

It remains difficult to determine a trend in ADB from the data available. After the peak in 2020, it appeared from 2021 and 2022 inspections that numbers might be reducing. However, 2023 saw the second highest number of ADB trees ever reported after 2020. Although numbers have reduced this year compared with 2023, there were still significantly more than in 2021 and 2022.

4.3 Highway Safety Inspections

To the end of November 2024 Highway Safety Inspectors had referred 178 tree related defects to the Tree Safety Management Team for action. Refresher training on tree

assessment and risk features is being planned for Highway Safety Inspectors to be delivered in 2025.

4.4 Tree Inventory

A tree inventory system is being developed collaboratively with WDM.

4.5 Extreme Weather Impacts Multiple storms and two snow events this winter have resulted in an unprecedented volume of tree reports. To reduce the risk to the traveling public during this period of high demand, a risk-based approach to reports is being applied. This approach prioritises based on safety, maintenance hierarchy, verified reports, and ownership.

5) Delivery of the Capital Programme

5.1 Carriageway Assets

Delivery of planned maintenance work continues to go very well. In-house design teams, supported by external partners have worked hard to ensure that the highway maintenance budget is being invested appropriately to maximise the impact on Devon's network.

Cabinet agreed to increase the level of investment in the highways network in 2024/25 by £10 million. This much welcomed investment was targeted through resilience patching, road markings and improvements to drainage assets.

An upscaled resilience patching programme allowed for a targeted approach to be applied prior to winter and therefore lessened the anticipated spike of defects during the last quarter. The strategy appears to have had an impact with fewer reports of defects being received compared to the previous year.

As part of this additional funding a successful trial of route treatments was undertaken on a few highly trafficked main routes in Exeter, including Topsham Road, Alphington Road, Honiton Road, North Street, South Street and Cowick Street. Following the success of this trial a range of treatments will be employed to improve the resilience of other key corridors and routes across the county.

A separate drainage budget line was created to target and resolve drainage issues which have caused significant impact on the high-speed network, key sustainable transport routes and within communities.

108 drainage schemes were delivered using a range of design and delivery methods to ensure the most efficient and effective outcomes, including walk, talk and build and more traditional processes. The schemes have ranged in their scale from the significant drainage improvements at Red Post Cross, Sampford Courtney on the A3124 to smaller, yet equally significant works, on the key shared pedestrian/cycle route on Exeter Road/ Topsham Road Exeter

Part of the additional funding was also invested to improve the condition of the lining asset, targeting mini roundabouts and zebra crossings.

Nearly £6 million has been invested into the strategic A-road network, predominately through resurfacing and associated drainage refurbishment. Within this funding there is an additional programme of works that addresses locations of known risk of wet-road skidding following SCRIM (Sideway-force Coefficient Routine Investigation Machine) surveys. A number of high-profile schemes have been delivered, including the A3052 Harepath Hill and A3072 Marsh Lane, Crediton.

Devon has continued to invest in preventative carriageway maintenance techniques that not only offer whole life savings, but also significant carbon reductions when compared to resurfacing. These treatments are traditionally considered before serious deterioration has taken place with the aim to restore texture and protect the surface from further deterioration, thereby arresting the development of costly and disruptive potholes forming within the road surface. Programmes are delivered via the summer months to ensure effective embedment. This programme has seen 115 sites successfully delivered which equates to over 1.1M m² of carriageway treated.

By the end of the financial year it is anticipated that nearly £18 million of planned works will be delivered via the Local Asset Capital Programme. This programme aims to prioritise schemes for lower category local roads outside the A-road network. It is a process that brings different asset data sources and local knowledge together focusing on the holistic needs of the network, and therefore includes a range of different work types including resurfacing, patching, footways, drainage, cattle grids, etc.

5.2 Bridges and Structures

In addition to carriageway assets the bridges and structures capital programme has delivered bridge refurbishments, retaining wall reconstruction and routine maintenance projects to improve the resilience of the highway and public rights of way network.

This year has seen a number of bridge refurbishments including the replacement of a weak culvert on Woolbrook Road, Sidmouth and further scour protection to A379 Shaldon Bridge piers. Major refurbishment works have also started on the Iron Bridge in Exeter that will further protect this historic structure whilst providing better facilities for users.

Several pedestrian and cycle bridges have been replaced or refurbished including redecking of Meldon Viaduct supporting the Granite Way and the replacement of Ley Meadow Footbridge in Barnstaple.

Further progress has been made with improving our retaining wall assets with several retaining wall schemes carried out to rebuild the support to the highway that had become unstable or collapsed. Major works have also been undertaken to stabilise the rockface above the A39 Watersmeet, Lynmouth.

Bridge maintenance schemes this year have included the refurbishment of the Yeo Swing Bridge in Barnstaple and pier protection works to safeguard the bridge piers from fallen trees to Gunnislake and Greystone Bridges. Maintenance works also included parapet protection works at A377 Chenson, plus Umberleigh and Gara Bridges that both had been suffering regular damage from passing traffic.

The annual programme of planned bridge inspections and major examinations were completed to ensure the risk of failure of an asset is kept to an acceptable and manageable level. However four planned rail bridge schemes were not delivered due to the complexities gaining access to the railway line to undertake the works.

A number of storm and flooding events this winter has also resulted in a number of large trees blocking some major and minor river bridges. The work to remove these trees is ongoing due to the difficulties of working in flood waters and limited access for retrieval operations.

6) Street Lighting and Traffic Signals

The roll out of LED luminaires continues across the county, with the aim to reach 71,000 by the end of this financial year. By way of comparison the table below highlights the energy savings offered by this initiative.

| Financial Year | Energy Used (kWh) | Saving (kWh) |
|----------------|-------------------|--------------|
| 2021/22 | 14,439,652 | |
| 2022/23 | 13,187,867 | 1,251,785 |
| 2023/24 | 12,442,001 | 745,866 |

This trend has continued through 2024/25 but as the LED budget has ended the remaining LED conversions will take place over a longer timescale. However, the installation of the Central Management System (CMS) in approximately 80% (64,000) of the streetlights offers improved future dimming options, for which initial trials have taken place, and a full year trial is planned for 2025/26. Energy prices increased significantly in 2023/24, and while these have reduced in 2024/25, this piece of work has been critical in managing revenue expenditure.

In addition to energy savings, the LED roll out has an associated reduction in carbon, to note the figure has slightly increased due to a change in the carbon emission factor from 0.20871 to 0.22269 kg/kWh:

| Financial Year | Carbon Produced (t) | Saving (t) |
|----------------|---------------------|------------|
| 2021/22 | 3,303 | |
| 2022/23 | 2,752 | 551 |
| 2023/24 | 2,771 | +19 |

From a traffic signal perspective, the age of the asset across the network continues to be managed and replaced to ensure the age does not surpass 15 years. The Bus Service Improvement Programme continues to work towards introducing new innovative technology at junctions and pedestrian crossings to help buses reduce travel time on the main corridors into Exeter, Newton Abbot and Barnstaple, with Cowick Street in Exeter to be made live before the end of 2024/25.

7) Carbon Reduction Project

The use of hydrotreated vegetable oil (HVO) as a low carbon alternative to diesel has been extended to all areas of the county where vehicles are compatible.

The new method of collating data on carbon emissions is progressing and the council has received over 1000 returns in a 2 year period from contractors. These returns allow an estimate of the total carbon emissions associated with the works to be calculated.

The first collaborative supplier Carbon Plan has been developed for the Term Maintenance Contract. This document is data informed (from carbon portal data) and aims to continue to lead the journey on reduction of greenhouse gas emissions associated with maintenance operations.

The Service has invested in a further ten electric vehicles in 2024/5 financial year, bringing the total roll out to 27%.

In December 2024, an independent assessment was undertaken to help understand where Devon is with its decarbonisation journey. This was facilitated by the Future Highways Research Group as a critical friend and industry research organisation. The learning from this process is currently being digested and improvement plans will be considered using the learning points.

8) Legal Considerations

There are no specific legal considerations.

9) Social Value

The Devon Highways Social Value Plan continues to be closely monitored in partnership with Milestone. The plan aims to achieve 'value beyond financial gain' back to our communities through the Term Maintenance Contract. It focuses on

- Equality and diversity,
- Environment,
- Local economic prosperity and
- Targeted community integration

Examples of the positive actions include a further collaboration with Devon and Cornwall Police which saw 94 Christmas shoeboxes filled with essential items being delivered to war torn and poverty stricken countries around the world.

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Electoral Divisions: All

Cabinet Member for Highway Management: Councillor Stuart Hughes

Local Government Act 1972: List of Background Papers

Nil.

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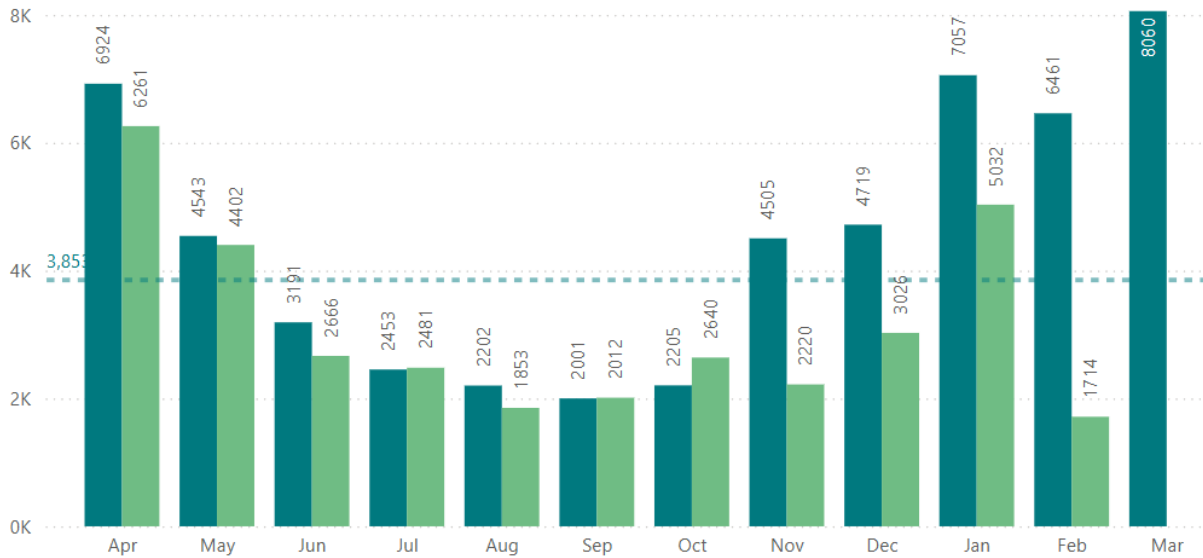
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Appendix A to CET/25/40

Public reports of potholes received to 9th February 2025

Enquiries by Date

Financial Year ● 23-24 ● 24-25

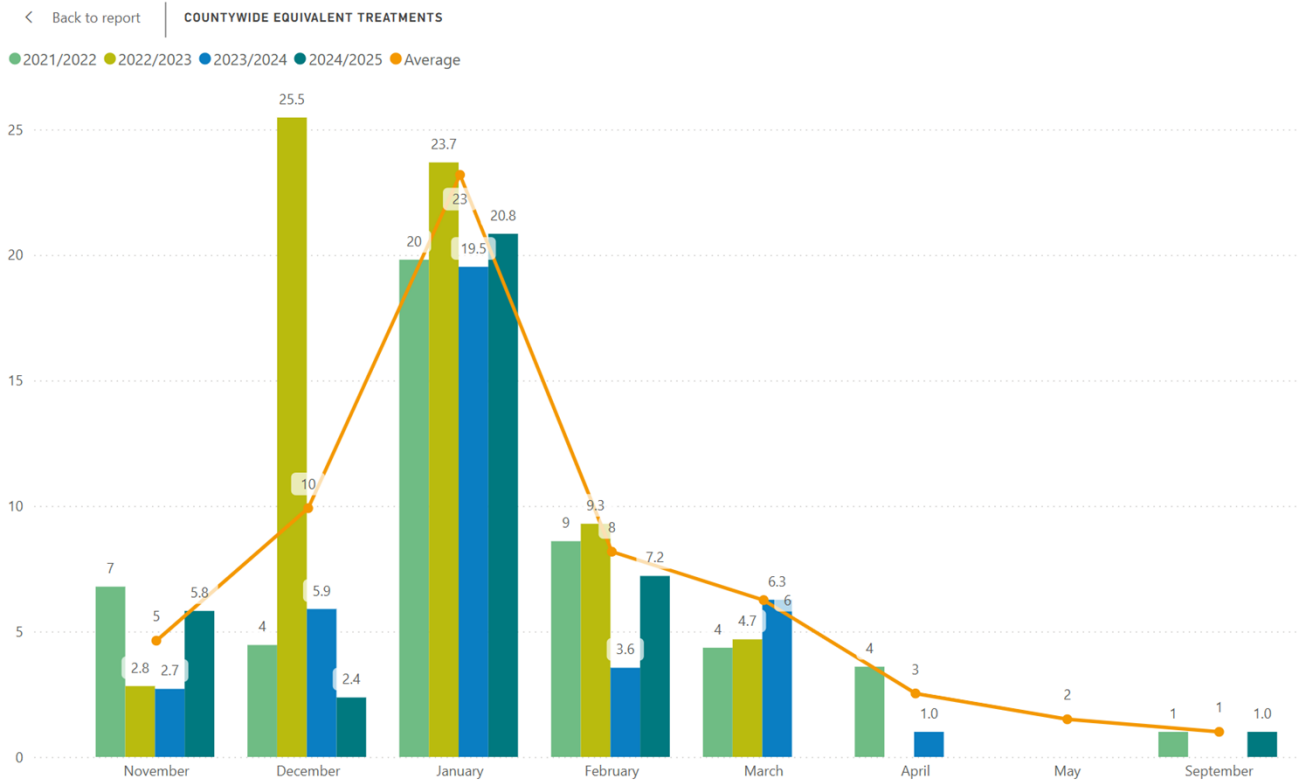


Number of potholes recorded across the Devon network per month/year to 9th Feb 2025

| | 18/19 | 19/20 | 20/21 | 21/22 | 22/23 | 23/24 | 24/25 | Avg |
|--------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| April | 9,499 | 3,629 | 6,372 | 3,832 | 2,924 | 4,598 | 8,422 | 5,611 |
| May | 6,163 | 3,289 | 4,704 | 4,188 | 3,450 | 4,161 | 5,816 | 4,539 |
| June | 5,041 | 3,671 | 5,070 | 5,688 | 2,909 | 3,711 | 4,839 | 4,418 |
| July | 5,160 | 2,651 | 3,994 | 4,270 | 2,746 | 3,458 | 4,975 | 3,893 |
| August | 4,359 | 2,011 | 3,036 | 3,822 | 2,329 | 3,736 | 3,600 | 3,270 |
| September | 3,344 | 2,672 | 3,261 | 2,810 | 2,106 | 3,633 | 3,354 | 3,026 |
| October | 3,071 | 2,938 | 2,406 | 2,493 | 1,466 | 2,793 | 3,649 | 2,688 |
| November | 3,369 | 3,846 | 3,265 | 2,663 | 2,614 | 4,856 | 2,977 | 3,370 |
| December | 3,456 | 3,333 | 2,409 | 2,670 | 2,417 | 3,528 | 3,548 | 3,052 |
| January | 5,636 | 6,571 | 5,079 | 3,446 | 7,284 | 5,532 | 5,245 | 5,542 |
| February | 5,005 | 5,177 | 5,511 | 2,938 | 4,277 | 6,850 | 1,538 | 4,471 |
| March | 6,528 | 7,773 | 6,062 | 4,851 | 4,853 | 6,683 | | 6,125 |
| Total | 60,631 | 47,561 | 51,169 | 43,671 | 39,375 | 53,539 | 47,963 | 49,130 |

Appendix B to CET/25/40

Countywide equivalent gritting treatments vs average



Lowest recorded temperatures across DCC's weather station network this winter

