

CET/23/22

Corporate, Infrastructure and Regulatory Services Scrutiny Committee
23 March 2023

Highways Performance Dashboard – Winter 2022/23

Report of the Director of Climate Change, Environment and Transport

1) Introduction

In response to the recommendations of the Planned & Reactive Maintenance: Potholes & 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

Since April 2022 the Highway Safety Inspection team have assessed over 27,000 reports of potholes from members of the public. Around 63% of these have resulted in no further action, with the primary reasons being duplicated reports or reports of defects not meeting investigatory criteria, as per our Highway Safety Inspection Policy. Over 10,000 reports were received and assessed in January alone (Appendix A), with as many as 500 reports received per day. This process has continued to ensure repair gangs are supplied with quantified actionable safety defects so that efficiency can be maintained - critical when faced with the extremely challenging high volumes. Throughout January and February inspectors have been working additional hours, including weekends, to help meet demand.

2.2 Safety Defects

In January 2023 we recorded 7,400 potholes, the highest in a single month for 3 years. This number was largely driven by the cycle of very wet weather followed by very cold spells (i.e., freeze-thaw cycle). The number of potholes waiting for repair with our contractor peaked at almost 3,000 at the end of January, however through the use of additional and carefully coordinated resources this number reduced significantly on a day-to-day basis, with as many as 2,200 potholes being repaired each week. This has been achieved by doubling the number of pothole gangs across the network from 20 to 40, as well as additional hours and weekend working. Other 'non-pothole' defect numbers have remained typical when compared to previous years.

2.3 Winter Service

Following a relatively mild November, which saw very little in the way of gritting treatment, the extended cold snaps in December and January has seen the use of

over 15,000 tonnes of salt (until 9 February) across 2,094 runs (the equivalent to 56 full, countywide treatments on our Primary Salting Network). The average across the last four winter seasons for the same period has been 8,919 tonnes and 1,597 runs. A number of treatments also took place on our Secondary Salting Network during the prolonged freezing spells.

The service has developed a 'severity index' that attempts to grade the cold weather by placing a score by banding minimum temperatures. This winter has seen temperatures falling below -5°C on 16 different nights and below zero °C 39 times with the coldest temperature recorded at the Rundlestone weather station at -9.4°C on the 15 December. The Severity Index can be seen in Appendix A.

So far this winter there have been 1,100 reports of empty/damaged grit bins that have been responded to. This is 590 more than the whole winter season for 2020/21 (the next highest volume).

A trial involving the treatment of some of the more well-used cycleways around Exeter remains ongoing, following a brief pilot last winter, and is being met with very positive responses. Further information (including a map of the route) can be found here: [Cycle routes being treated in winter trial - News \(devon.gov.uk\)](https://www.devon.gov.uk/news/cycle-routes-being-treated-in-winter-trial)

The latest seasonal forecast from the Met Office, issued at the end of January suggests that: *"Impacts from cold weather are less likely than earlier this winter. For February to April overall, there is an increased likelihood of mild conditions"*.

3) Cyclical Operations

3.1 Gully Cleaning

The increase in the winter service operations has impacted the delivery of the gully cleaning programme due to driver availability and access to assets obstructed. The table in Appendix B shows that 76% of the assets have been cleaned despite being 83% of the way through the year.

In terms of defective drainage assets recorded on the network, to the end of January:

5448 defects which required jetting have been cleared
1195 broken covers have been replaced
571 seized covers have been released
3167 sites have benefitted from road ploughing.

The progress with the resolution of drainage assets referred for additional maintenance has slowed in the last few months to support the corporate financial challenge. However, the resolution of over 10,000 defects so far in the current financial year clearly demonstrates the benefits of funding a focused programme of drainage asset defect identification and resolution. The additional budget identified in the next financial year will help support this programme of work.

3.2 Grips, Easements and Buddleholes

At the time of writing the grips, easements and buddleholes cleaning programme is 75% complete despite being 83% of the way through the year. The main road element of the programme is complete, and the programme will accelerate as a result in the reduced need for positive traffic management, increased mechanisation, and an adjustment of resources to support areas of the programme which are behind programme. Timely completion of the programme has been challenged by the impact of network flooding, and operative availability being affected by the delivery of winter service.

4) Tree Safety Management (including vegetation)

4.1 Expert Scheduled Inspections

As of mid-September 2022, our programme of expert tree inspections on the major road network was complete. Overall numbers of defective trees identified from these inspections were down on the previous year – 274 records were created in 2022 compared to the 404 in 2021. The number of individual trees identified in these inspections as having Ash Dieback (ADB) was also down on the previous year's numbers – 274 trees compared to 470 in 2021. Trees with ADB constituted a lower percentage of all defective trees identified during these inspections, compared to the previous year's – 43% compared to 49%.

4.2 Ash Dieback (ADB)

Extrapolating the likely trajectory of Ash dieback disease in Devon is complicated by a number of factors. Firstly, climate variations from year to year (2022 being a particularly dry example) are likely to impact on the number of trees requiring intervention in any one year whilst inspectors can also vary in their assessment of trees, with some taking a more proactive approach than others. It might also be argued that the switch to a more regular annual inspection regime allows inspectors to retain trees where in the past when the inspection periods were longer they may not have been happy to do so. Noticeably since moving to annual inspections the numbers of all trees reported, not just ash, has declined which suggests the reduction is, in part at least, related to factors other than ash dieback.

It would be helpful to understand with some confidence the spread of ADB across the county however this is heavily reliant on having sufficient data to support it, unfortunately we are not yet at that point and more data will be required before we can be confident of a consistent trend. Our current prediction model from the independent scientific research group FERA science indicates that the period 2023-2025 is expected to be the peak for ash die back across Devon as a whole, but with some Districts peaking before others. After that date there is expected to be a slow decline until 2032, when the model predicts the disease will have stabilised at low levels.

4.3 Highway Safety Inspections

Whilst Highway Safety Inspections (HSIs) are primarily inspections of the highway itself, as opposed to inspections of trees, they also identify defective trees, including those with ADB. The HSIs on the minor road network are all carried out during the summer months, in order to more easily identify dead and dying trees. By the end of September 2022 all these inspections were completed. Overall numbers of defective trees identified from HSIs was up at the end of 2022 compared to 2021 – 325 were identified from April to December 2022, compared to 291 for the same period in 2021.

4.4 Private Trees

The overwhelming majority of trees adjacent to the highway are in private ownership. For the privately-owned trees identified during both the expert scheduled inspections and our HSIs, in about 71% of cases, we have successfully traced the landowner and obtained their written confirmation that they will take the appropriate action with their trees, a very positive figure. We continue to work very hard to ensure that landowners are aware of their responsibilities regarding their trees and are seeking to improve our approach to ensure an even better success-rate in this regard.

4.5 Public Reports

The majority of reports of tree defects come from members of the public. For 2022 as a whole, there were some 1,370 reports from members of the public, more than double the total of 638 records arising from the scheduled expert inspections and HSIs. While there are a variety of outcomes that might arise from such a public report, it's worth noting that 832 orders were placed with tree surgeons in the whole of 2022.

4.6 Tree Inventory

Trials have been taking place utilising the new National Tree Map dataset, which provides accurate information on the location, height and canopy spread of highway trees. An App has been developed that will work in conjunction with the data, which will be held on our integrated highway management system, to build a detailed inventory of our highway trees. The trials are nearing completion, after which the data and App will be rolled-out for widespread use. This represents a significant step forward in understanding the authority's tree asset, which will allow us to improve the efficiency with which it is managed. Opportunities are being explored to use the tree inventory to estimate the carbon sequestration and storage, ecological and social wellbeing benefits that they offer. Other applications for the data that are being considered include the management of cyclical tree works, interaction with drainage and street lighting and targeted communications campaigns.

4.7 Overgrown Vegetation

Building on the trials that were run last year, processes are being developed which take the successful outcomes from those experiences, including the use of qualified arboricultural contractors, to create efficient and pragmatic ways of managing overgrown vegetation. This will provide clarity and consistency between teams, and provide effective options when action is necessary to ensure the best outcomes.

5) Customer Engagement Project

The first service; vehicle crossings went live on the 31 January 2023. This included a revised online application form which feeds into a back-office case management system. This will allow those who manage the applications, to start moving away from mailbox management which will improve our ability to keep customers data secure and provide much greater understanding of demand across the Service.

The second service; scaffold licence applications, will follow the same approach and is programmed to go live at the end of February. Alongside this, design work has started focussing on adding functionality to the case management system, by doing so the system will evolve into a Customer Relationship Management (CRM) system. This will enable teams to move away completely from mailboxes and manage applications, including internal and external communications, within one system.

The skip licence application process will be delivered at the same time as the functional CRM. Vehicle crossings and scaffold licence applications will also be moved to sit within the CRM.

6) Delivery of the Capital Programme

The Service is delivering approximately £55 million of planned maintenance improvements through the capital settlement received from the Department for Transport and capital receipts. The significant areas of expenditure are noted below.

Approximately £6 million of this total is delivered through short notice, planned works including minor hand patching and dragon patching. All of which are identified through centrally managed inspections and delivered via a rolling program.

A further £9 million is invested in our strategic A-roads, typically resurfacing and associated drainage. These works are delivered through the Term Maintenance Contractor (TMC) and locally based framework contractors.

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.

At the time of writing the majority of A-road surfacing schemes have been delivered with the A379 Kenton programmed for completion in March.

Approximately £13.5 million of planned works are scheduled to be delivered via the Local Asset Capital Programme. This is an emerging way of prioritising schemes for local roads outside of the A-road network. It is a process that brings different data sources and local knowledge together focusing more on the needs and therefore includes a range of different work types including: resurfacing, patching, footways, drainage, cattle grids, etc. Delivery has progressed well, with a large proportion of the works already delivered ensuring that the window before winter was fully optimised. The remainder of the schemes are in programme, however due to the impact of winter service and number of reactive potholes delivery of this work is being balanced against wider priorities and availability of resource.

Approximately £6.4 million of planned works are programmed to be delivered by specialist contractors, including surface dressing (SD), high friction surfacing (HFS) and road restraint systems (RRS). The vast majority of this value is allocated to SD which is a preventative treatment recognising the authority's asset management approach to lifecycle planning and long-term value for money. Due to being summer maintenance activities the SD programmes are now complete with the successful delivery of over 1million square metres of carriageway now sealed and with increased skid resistance.

Over £9 million is planned to be spent on bridges and structures. The majority of this programme has been delivered, with Shaldon Bridge still planned to be complete this financial year subject to weather and resource availability.

Finally, approximately £2 million is programmed to be spent maintaining the public right of way and cycle network, with works allocated and planned for delivery this financial year.

7) Street Lighting and Traffic Signals

Stated priorities of DCC's latest Strategic Plan include responding to climate change and helping communities to be safe, connected and resilient. This is set against the backdrop of DCC declaring a Climate Emergency and the subsequent commitment to achieving net-zero carbon emissions by 2030. At a national level, the scrutiny around creating safer streets has also never been greater. Street lighting and traffic signals are pivotal to DCC's contribution to all three of these agendas and are essential to meet these stated aims. Some of the key development areas are as follows:

- LED Roll Out – The programme to replace all lanterns with low-energy LED units is continuing at pace and is now nearing completion
- Central Management System – In some areas, street lights are now linked to a Central Management System (CMS). The CMS allows remote switching, dimming and fault detection, thus giving much greater flexibility to adjust street lighting provision. At present, over 15,000 lanterns are linked and opportunities for additional funding to expand this programme are being investigated.
- Bus Service Improvement Programme (BSIP) – Following last year's Department for Transport announcement of £9 million grant (profiled across three financial years) in capital funds to improve bus service provision, there

have been improvements to street lighting provision at bus stops and the surrounding areas. Equally, the Traffic Signal Team have been working closely with multiple stakeholders to explore options for bus priority at signalised junctions.

- Safer Streets – The team continue to work with partner organisations (e.g. Exeter City Council, Exeter University etc.) to light previously identified ‘dark spots’ with the stated aim of creating safer streets, with a specific focus on the safety of women at night.

Asides from public safety, the combined impact of these workstreams is perhaps best demonstrated in terms of energy consumption. In 2016/17 the street lighting asset used circa 31 million kWh of electricity per annum and 13,600 tonnes of CO₂, in 2021/22 with approximately 70% LED conversion this was reduced to 14 million kWh and 3,300 tonnes of CO₂.

8) Carbon Reduction Project

The carbon reduction project aims to reduce carbon in both highway maintenance and new construction works. The vision is to set up a reporting system that enables understanding of supply chain carbon performance through shared data. This will in turn be used to develop a decarbonisation strategy.

Since the webform (with guidance videos) went live last summer we have received 233 carbon data submissions from contractors. Carbon emissions are then automatically calculated and will be displayed on live digital dashboards.

The next step is to verify and test the system calculations before publishing dashboards in the spring of 2023.

9) Special Report – Utility Companies working in Devon

Permits – The background

The County Council moved from a noticing authority (utilities registering an intention to work on the highway) to becoming a permitting authority (utilities applying to access the network) in March 2020 following communication from the DfT to all non-permitting authorities nationally.

Where noticing was free, permits have a fee applied which varies depending on the type of highway to be entered and the nature of the works to be undertaken. Permits offer Highway Authorities improved control activities on the network but it does not reserve a right to unreasonably deny a statutory undertaker access to the highway.

Under the New Roads & Street Works Act 1991 (NRSWA), utility companies or ‘Statutory Undertakers’ (bodies authorised to provide gas, water, electric, communications) have legal rights to access, repair, maintain and remove their apparatus in the highway. They have a duty to cooperate with the street authority (County Council) when it is carrying out its own duty to coordinate street works activity on the road network.

When undertaking pre-planned works the utilities are required to submit permit applications which are assessed by the street authority and these are either granted, refused or a request made to modify. Where a utility's service fails or is compromised, they are immediately allowed to enter the highway to restore that service and prevent danger to persons or damage to property (including the highway) only needing to notify the street authority within the first 2 hours of commencing work.

The County Council is required to coordinate activity and should, where it is both reasonable and possible to do so, enable street works activity to take place to help facilitate utilities meeting their statutory obligations set by their regulators (Ofwat, Ofgem, Ofcom). The authority may use a suite of statutory permit conditions to help in managing the network and so contribute to delivering its Network Management Duty to secure the expeditious movement of traffic on its network as far as practicable. Fixed Penalty Notice fines (FPNs) can be used to enforce when utilities do not meet the permit conditions. These conditions include working without a permit, failing to display a permit board on site or breaching permit conditions. Fines can vary from £500 to £120 with discounts if paid early.

2019	£4,080
2020	£25,590
2021	£29,110
2022	£94,976
2023 – to date	£19,780

Fig 1 Fines levied against Statutory Undertakers – Note Permit Scheme commenced in March 2020

The significant rise in the 2022 figure was due to targeted work around a lack of site registrations. Statutory Undertaker's were given a set period in which to ensure outstanding sites were registered after which we issued FPNs. This was a one-off exercise, however there is an increasing focus on the data set held in the DfT's Street Manager system which will lead to improved use FPNs to support improved compliance with issued permits.

Other enforcement options are available where reinstatements fail or do not meet the required standards. Sites can be defected and referred back to the relevant utility for remedial action. Coring of utility reinstatements is undertaken relative to the volume of works undertaken by any one utility for which payment is made. Core samples are identified and obtained by the Network Enforcement Officers then submitted to the County Council's materials laboratory for analysis. The results of the core samples are provided to the utility and the failures result in remedial action being required at those sites identified for attention.

There are a number of forthcoming changes to key codes of practice that are currently under national consultation. It is clear that current requirements are seen by some as 'restrictions' or 'red tape' hindering the delivery of activity, in particular the roll out of fibre communications infrastructure. The lifting or rescinding of certain restrictions will make delivery of the Network Management Duty more challenging. As an example, a requirement to submit a permit if works without excavation required the use of any form of temporary traffic control has been rescinded. This

will now allow 'cable pulling' activities by communications providers to be undertaken with temporary traffic control without a permit. While detailed evaluations of data are currently being undertaken ahead of any adjustment, changes to legislation will soon influence our future traffic sensitivity considerations which can no longer include data relative to events, gritting routes or those to holiday destinations.

Meg Booth

Director of Climate Change, Environment and Transport

Electoral Divisions: All

Cabinet Member for Highway Management: Councillor Stuart Hughes

Local Government Act 1972: List of Background Papers

Nil.

Contact for enquiries:

Name: Robert Richards

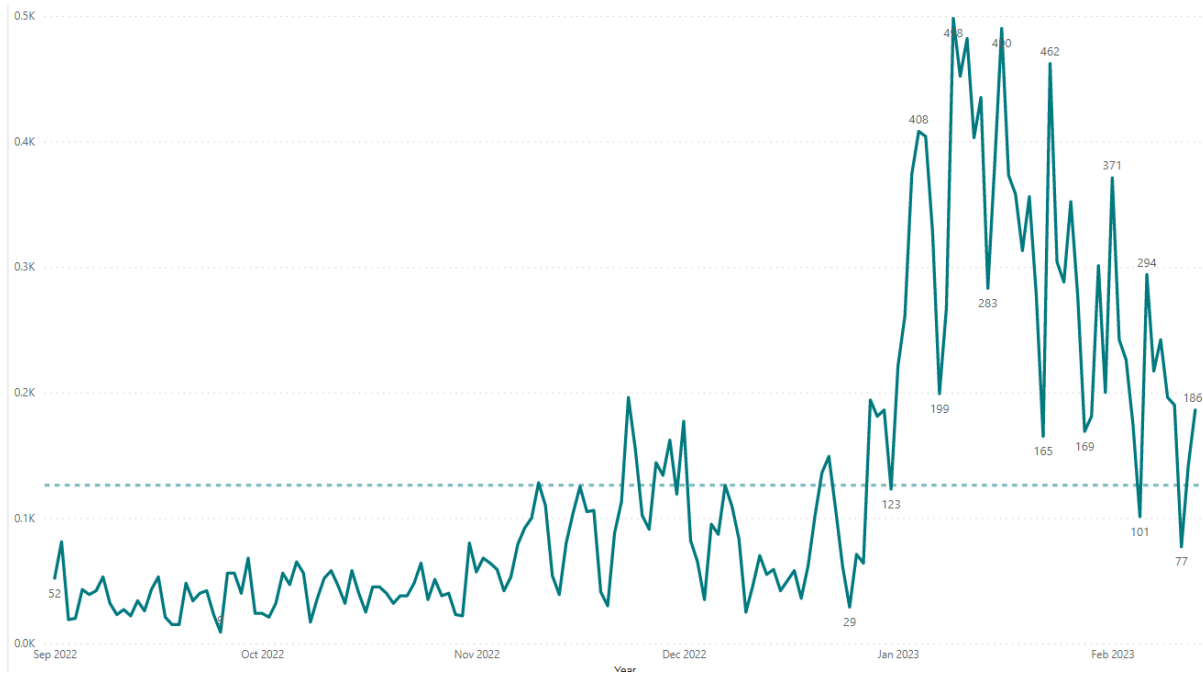
Telephone: 01392 383000

Address: County Hall, Exeter. EX2 4QD

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Appendix A to HIW/23/22

Public reports of potholes received since September 2022

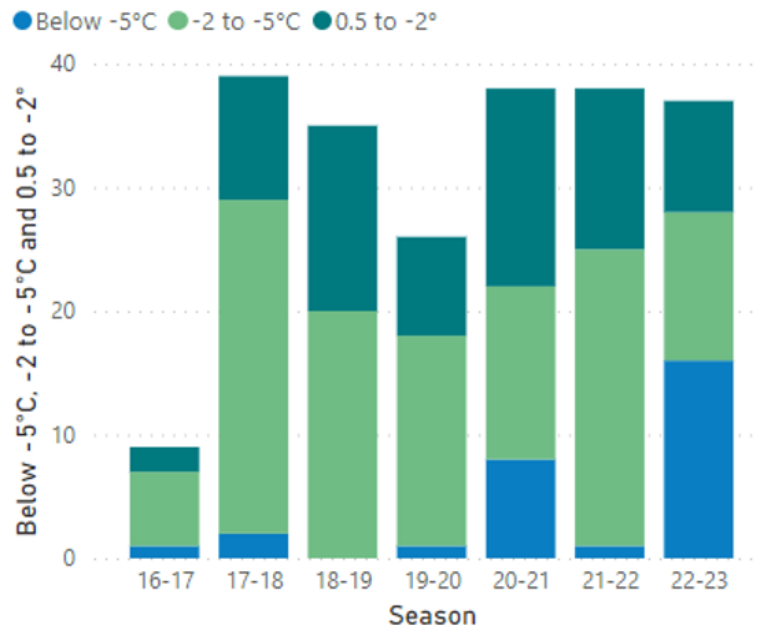


Number of potholes recorded across the Devon network per month/year to 23 Feb 2023

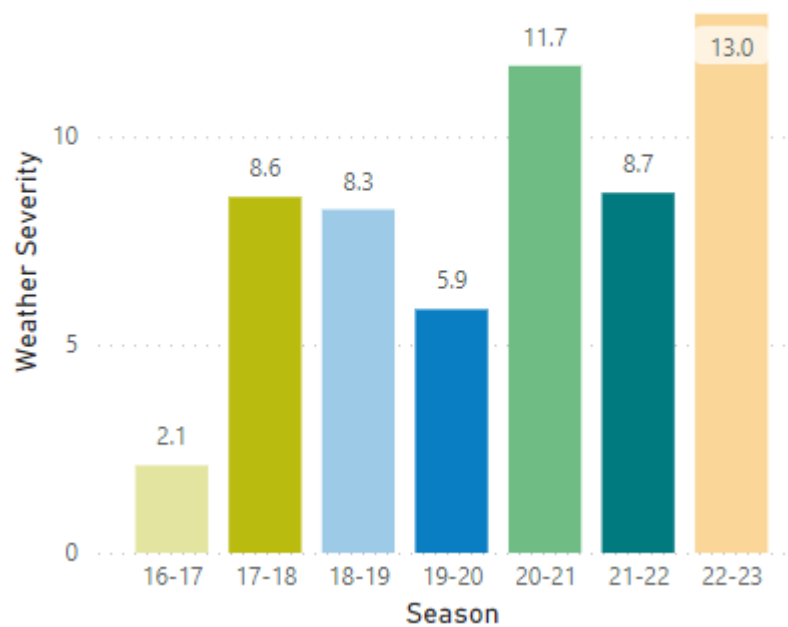
	17/18	18/19	19/20	20/21	21/22	22/23	Avg
April	3,489	9,782	3,741	6,505	3,904	2,981	5,067
May	4,329	6,339	3,344	4,764	4,248	3,493	4,420
June	3,293	5,120	3,713	5,179	5,743	2,948	4,333
July	3,148	5,225	2,719	4,040	4,301	2,758	3,699
August	3,352	4,423	2,041	3,071	3,845	2,343	3,179
September	2,831	3,378	2,745	3,297	2,874	2,132	2,876
October	3,750	3,137	3,013	2,465	2,545	1,477	2,731
November	4,316	3,434	3,931	3,349	2,697	2,645	3,395
December	3,766	3,533	3,393	2,465	2,723	2,430	3,052
January	7,408	5,770	6,694	5,181	3,494	7,376	5,987
February	7,687	5,121	5,269	5,619	2,972	3,616	5,047
March	8,523	6,706	7,884	6,190	4,917		6,844
Total	55,892	61,968	48,487	52,125	44,263	34,199	49,489

Count of occurrence of minimum temperatures by banding and subsequent 'Weather Severity' score

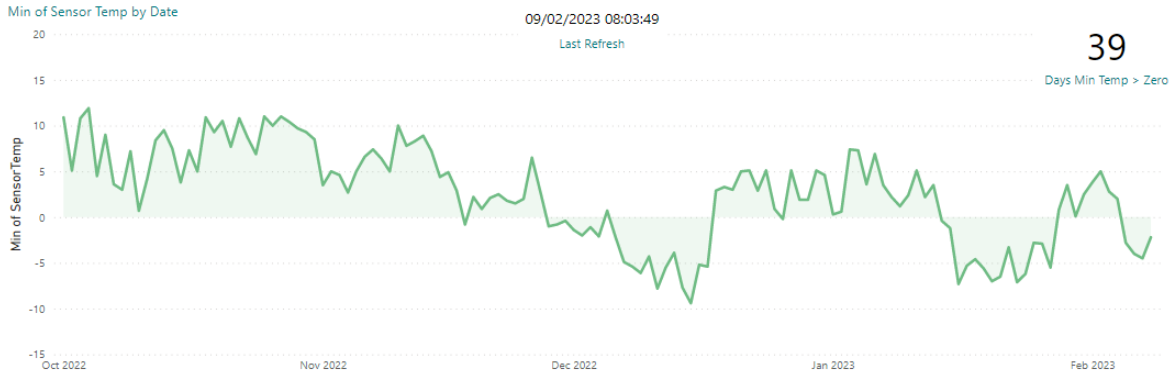
Min Temperatures (by Band)



Weather Severity by Season



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



Appendix B to HIW/23/22

Gully Cleaning Programme

As of 29/01/2023 (83% through the financial year)

	Total Programmed	Gullies Attended	Remaining	% Complete Overall
East Devon	24,762	19,372	5,390	78%
Exeter & Mid Devon	38,338	30,021	8,317	78%
Teignbridge	23,265	22,050	1,215	95%
South Hams	17,074	16,465	609	96%
West Devon	19,167	16,888	2,279	88%
Torrige	11,970	11,642	328	97%
North Devon	20,663	14,743	5,920	71%
	155,239	131,181	24,058	85%

Grips, Easements and Buddlehole Cleaning Programme

As of 29/01/2023 (83% through the financial year)

	Total Asset Programmed	Total Assets Cleaned	Left to Attend	% Complete
South Devon	12,536	10,042	2,494	80%
North Devon	14,375	11,236	3,139	78%
West Devon	16,082	15,014	1,068	93%
Torrige	27,320	17,549	9,771	64%
East Devon	41,723	30,177	11,546	72%
	112,036	84,018	28,018	75%