

Annual environmental performance report for Dŵr Cymru Welsh Water 2022

Prepared by the Water, Land, Biodiversity & Marine Regulatory Approaches Team

Introduction

Our purpose is to pursue the sustainable management of natural resources in all our work. This means looking after the air, land, water, wildlife, plants and soil to improve Wales' well-being, and provide a better future for everyone.

We monitor the activities of water companies to minimise the impact their assets and activities have on the environment. We do this by checking their environmental performance throughout the year in areas such as reducing pollution incidents, complying with permits and licences and delivering environmental improvement schemes.

We regulate Dŵr Cymru Welsh Water¹'s ("Dŵr Cymru") operations in Wales and the Environment Agency regulate Dŵr Cymru's operations in England; therefore, the Environment Agency have contributed to the performance assessment process and this report. All data reported in this report is for Dŵr Cymru's performance as a whole company so is combined for England and Wales, unless otherwise stated. We also assess Hafren Dyfrdwy's performance which you can find on our [website](#).

Report contents

This annual environmental performance report is in two parts. In the first part, we assess Dŵr Cymru's performance against the seven metrics in the Environmental Performance Assessment (EPA). The EPA is standardised across England and Wales. This allows the performance of the ten largest water and sewerage companies to be monitored and assessed in a consistent way by the environmental regulators. In the second part we monitor and assess the performance of other key work areas not covered by the EPA metrics. This report does not cover every aspect of water company regulation.

- Part 1: Dŵr Cymru's Environmental Performance Assessment Page [2-10](#)
- Part 2: Dŵr Cymru's wider environmental performance Page [11-19](#)
- Performance expectations for 2023 Page [20](#)
- Annexes Page [21-22](#)

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Part 1: Dŵr Cymru's 2022 Environmental Performance Assessment

The EPA metric thresholds are reviewed every five years to continually drive improvements. This report on 2022 performance is the second year we assess performance against the tighter and broader EPA metrics of the 5-year EPA period (2021-25). The changes to the metrics ensure we continue to press the water companies to meet their statutory obligations and ensure our expectation for the water companies to continue to push for improvement are clear.

In 2022 Dŵr Cymru achieved green status for three EPA metrics, amber status for three EPA metrics and red status for one EPA metric. This means the company achieved a 2-star overall company rating, which means the 'company requires improvement'. It is disappointing to see Dŵr Cymru's performance has dropped further from their 4-star 'industry leading' rating achieved in 2020 and 3-star 'good company' rating in 2021.

Here is a summary of Dŵr Cymru's performance:

EPA metric	2022 result	Comparison to previous years' performance
Metric 1: Total pollution incidents (sewerage)	25 (Amber)	Dropped back to amber after achieving green for 2 years
Metric 2: Serious pollution incidents (sewerage and water supply assets)	5 (Red)	Dropped to red after being amber last year and green for 2 years prior
Metric 3: Self-reporting of pollution incidents (sewerage and water supply assets)	69% (Amber)	Remained amber
Metric 4: Discharge permit compliance (numeric)	98.5% (Amber)	Remained amber
Metric 5: Satisfactory sludge use and disposal	100% (Green)	Excluded metric 2018-2020, green shadow metric in 2021
Metric 6: Asset Management Plan National Environment Programme Delivery	100% (Green)	Remained green
Metric 7: Supply Demand Balance Index	100 (Green)	Remained green
Overall company star status	2-star	Dropped to 2-star after achieving 3-star in 2021 and 4-star for the first time in 2020

Key: Metric status

Green	Performance better than target
Amber	Performance below target
Red	Performance significantly below target

Key: Overall company star rating

4-star	Industry leading company
3-star	Good company
2-star	Company requires improvement
1-star	Poor performing company

Headline performance messages

As summarised on page 2, in 2022 Dŵr Cymru achieved performance significantly below target for one metric, performance close to or below the target on three metrics and performance better than target on three metrics:

- Metric 1: The total number of sewerage pollution incidents (category 1-3) metric saw a deterioration in performance, dropping to amber. Pollution incidents increased by around 9% compared to 2021;
- Metric 2: There were five serious sewerage pollution incidents meaning performance for this metric also deteriorated, dropping from amber to red;
- Metric 3: Self-reporting of pollution incidents performance also saw a deterioration. This metric remained at amber, but self-reporting dropped by 7% compared to 2021;
- Metric 4: Compliance with numeric water quality permit conditions improved slightly but remained at amber;
- Metric 5: The satisfactory sludge use and disposal metric was 100% (green) after being excluded as a metric from 2018-2020, and reported as a shadow metric in 2021;
- Metric 6: 100% of Dŵr Cymru's Asset Management Plan improvement schemes were delivered. This metric has remained green;
- Metric 7: A Supply Demand Balance Index score of 100 was achieved. This metric has remained green.

It is extremely disappointing that one metric dropped to red (serious pollution incidents) and that three metrics were amber (total incidents, self-reporting of pollution incidents and numeric discharge permit compliance). The deterioration in performance has been in real terms and cannot be explained by the tightening of the EPA metrics which occurred in 2021.

Over the next few pages there is more detailed information on the seven EPA metrics.

Reference information on EPA

For more detail on the EPA methodology and a table of previous years' performance, please refer to these annexes:

- Annex 1 – page 21 – explains the methodology we use to assess the company's performance;
- Annex 2 – page 22 – shows how Dŵr Cymru has performed against the EPA metrics since 2012.

Pollution incidents

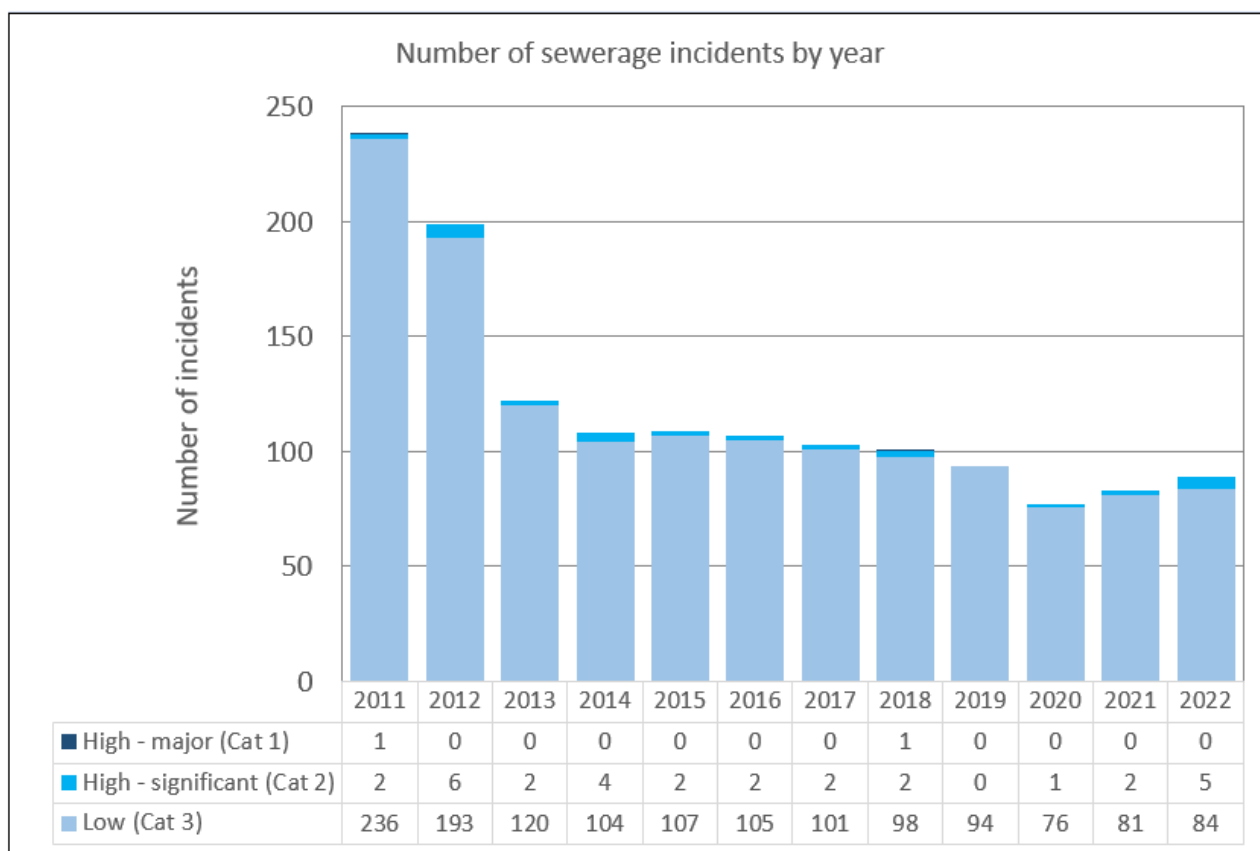
As regulators we respond to a wide variety of pollution incidents, some of which are from water company assets and networks. We report how many incidents each water company is responsible for. This is to drive continued reduction in the number of pollution incidents, aiming to reduce incidents to zero.

EPA metric 1: Total pollution incidents (sewerage)

In 2022, Dŵr Cymru had 91 High-Low (Category 1-3) sewerage pollution incidents; 86 had a Low (Category 3) environmental impact and five had a High-Significant (Category 2) environmental impact.

The EPA normalises incident numbers by the total sewer length the company is responsible for (36,249 km), therefore in 2022 Dŵr Cymru achieved amber for this metric:

EPA metric	Unit of measurement	What this metric means	2022 result (metric status)
Total pollution incidents (sewerage)	Category 1-3 incidents per 10,000 km of sewer	How many sewerage pollution incidents occurred, of Category 1-3, by sewer length	25 (Amber)



As the graph above shows, between 2011 and 2014 there was a steady decrease in pollution numbers. Then between 2014 and 2019 there was only a marginal decrease of 14 incidents over six years. In 2020 there was a significant decrease of 17 incidents, to

achieve green status for the first time, and continuing to achieve green status in 2021. In 2022 there has been an increase of eight incidents (from 83 in 2021 to 91 in 2022). It is disappointing Dŵr Cymru have not sustained their improvement in this metric from 2020.

We expect Dŵr Cymru to focus efforts on reducing incident numbers to achieve zero incidents. We expect Dŵr Cymru to use best practice from across the sector to continually drive down pollution and lead the way.

EPA metric 2: Serious pollution incidents (category 1 and 2 from sewerage and water supply assets)

This metric looks at the total number of serious pollution incidents. As shown in the graph above, there were five serious incidents in 2022 that had a High (Category 2) environmental impact. Since 2021, serious clean water incidents (from water supply assets) have been included in the metric, but all incidents for 2022 were sewerage related.

EPA metric	Unit of measurement	What this metric means	2022 result (metric status)
Serious pollution incidents (sewerage and water supply assets)	Total number of incidents (Category 1-2)	How many serious sewerage and clean water pollution incidents occurred, of Category 1-2, total number	5 (Red)

It is disappointing Dŵr Cymru had five serious sewerage pollution incidents in 2022 following three in 2021. This follows two years of good performance in 2020 and 2021. We expect Dŵr Cymru to push for improvement in this area and work quickly towards reducing serious incidents from sewerage or water supply assets to zero, using best practice, such as post incident reviews, to ensure any improvements are implemented promptly following any serious incidents.

Self-reporting incidents

As a regulator we want water companies to self-report as many of the pollution incidents as possible. This means we can be more confident the water company:

- understands their assets and networks better;
- continually looks for ways to improve how they predict pollution incidents, including using their own telemetry data to improve levels of self-reporting;
- use their data to identify hot spots and target high risk locations and specific asset types;
- attends and reacts to incidents quickly to stop any impact as soon as possible.

EPA metric 3: Self-reporting of pollution incidents (category 1-3 from sewerage and water supply assets)

As the graph below shows, Dŵr Cymru's performance in this metric continues to decline. In previous reports we have pushed Dŵr Cymru to aim to self-report at least 80% of their pollution incidents. In 2022 Dŵr Cymru failed to reach 80%, achieving 69%.

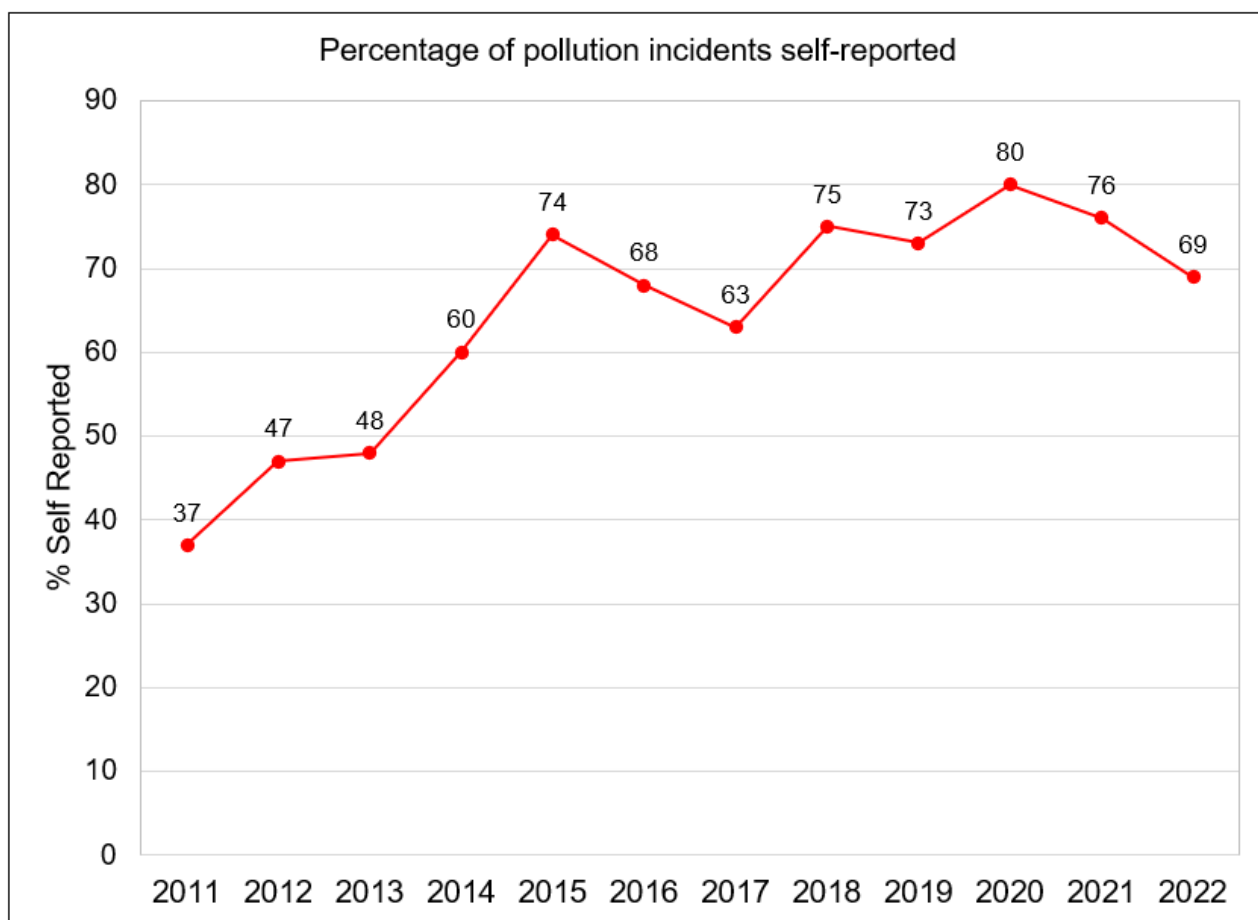
The company achieved their highest rate of self-reporting in 2020 (80%), but in 2021 the company dropped to 76% (amber). In 2022 it dropped further to 69%, remaining amber, but close to the red threshold of 65%, which is concerning.

EPA metric	Unit of measurement	What this metric means	2022 result (metric status)
Self-reporting of pollution incidents (sewerage and water supply assets)	%	Percentage of pollution incidents the company self-reported	69% overall 46% at STWs and PSs (Amber)

With the tighter EPA metrics, Dŵr Cymru can only achieve green status if they achieve 80% overall and also self-report 90% of all incidents at Pumping Stations (PSs) and sewage treatment works (STWs).

It is disappointing Dŵr Cymru's performance in this metric has deteriorated further this year, especially that they only self-reported 46% of incidents at PSs and STWs. We would expect these types of assets to have telemetry installed allowing early notification and self-reporting. The company need to make significant improvements at these two asset types, to be able to achieve 90% in 2023 and reach green status again.

We encourage Dŵr Cymru to consider other initiatives used across the industry to reverse their deteriorating performance in self-reporting.



Water discharge permit compliance

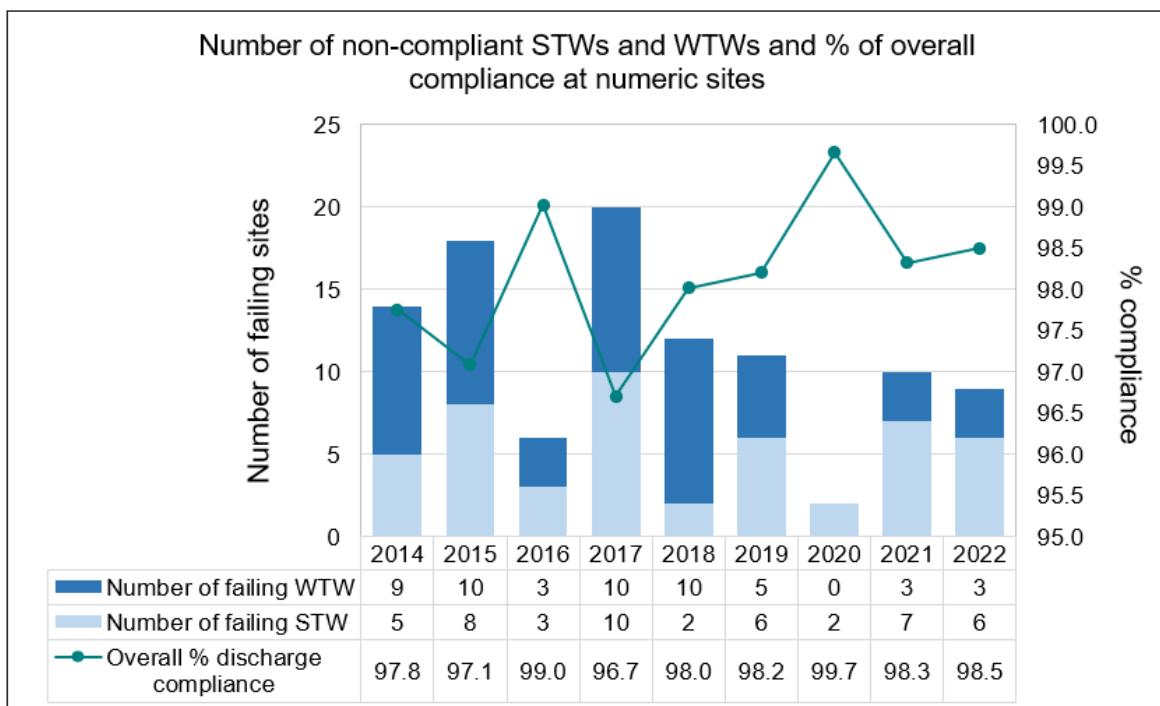
Natural Resources Wales and the Environment Agency issue permits for water discharges, including treated discharges from water company STWs and water treatment works (WTWs). The permits require the discharges to meet specific criteria to make sure there is no deterioration to the water environment. Water companies self-monitor their discharges and are required to provide data to us which we assess for compliance. We expect all permit conditions to be complied with.

EPA metric 4: Discharge Permit Compliance (STWs & WTWs)

In 2022, Dŵr Cymru achieved amber for this metric as they were 98.5% compliant with the water quality limits on their numeric permits for STWs and WTWs, which is very similar to the performance in 2021 (98.3%). In 2022 of the sites Dŵr Cymru operate there were six non-compliant STWs out of 562 and three non-compliant WTWs out of 34.

EPA metric	Unit of measurement	What this metric means	2022 result (metric status)
Discharge permit compliance (STWs & WTWs)	%	Percentage compliance of Sewage Treatment Works and Water Treatment Works with water quality limits on their discharge	98.5 (Amber)

As the graph below shows, Dŵr Cymru’s performance on this metric had fluctuated for several years, before the company achieved their best performance in 2020. It is disappointing Dŵr Cymru have not been able to reverse the deterioration in this metric.



We expect Dŵr Cymru to seek opportunities to monitor and proactively identify STWs and WTWs which may be dropping in performance in-year, with the aim of achieving 100% compliance with this metric. Whilst Dŵr Cymru have never achieved 100%, this target has been achieved by other companies in the sector.

Closely related to numeric condition compliance is descriptive condition compliance, which has improved in 2022 after two poor performing years in 2020 and 2021. It is important Dŵr Cymru comply with all conditions within their permits, so there is still work to be done to improve compliance here. See pages 9-10 for more detail on descriptive condition compliance.

EPA metric 5: Satisfactory sludge use and disposal metric

The satisfactory sludge use/disposal metric was suspended from 2018 to 2020 to review how we assess and report performance consistently across the water companies on this activity. In the 2020 annual performance report we included a narrative on the sector performance on satisfactory sludge use and disposal. For 2021 the metric was run as a shadow metric.

We have reinstated the satisfactory sludge/use disposal metric as a full reporting metric for the 2022 reporting year.

EPA metric	Unit of measurement	What this metric means	2022 result (metric status)
Satisfactory sludge use and disposal metric	%	Whether compliance with relevant legislation relating to the storage, recycling and/or disposal of sewage sludge is being adhered to	100 (Green)

Dŵr Cymru achieved 100% and green status for this metric. They achieved green every year before the metric was suspended. We expect them to maintain performance at 100%.

EPA metric 6: AMP National Environment Programme delivery

This metric looks at how Dŵr Cymru have delivered against their 5-year Asset Management Plan (AMP) period, April 2022-March 2023. It looks at the percentage of schemes delivered compared to schemes planned from 2020-2025.

EPA metric	Unit of measurement	What this metric means	2022 result (metric status)
AMP National Environment Programme Delivery	% of planned delivery	Whether the Asset Management Plan National Environment Programme is being delivered to plan	100 (Green)

In 2022/23 Dŵr Cymru delivered 19 schemes as planned – four improvement schemes, 13 investigation schemes and two monitoring schemes. The cumulative total of AMP NEP

schemes completed to date is 265. The improvements delivered by the programme will mean assets achieve higher standards and deliver water quality improvements. We expect Dŵr Cymru to maintain green status for 2023.

EPA metric 7: Supply Demand Balance Index

The Supply Demand Balance index (SDBI) metric measures how the actual supply demand balance has performed compared to what is set out in a water company’s Water Resources Management Plan (WRMP). We expect companies to have a score of 100. In 2022, Dwr Cymru had an SDBI score of 100, therefore the EPA metric is green:

EPA metric	Unit of measurement	What this metric means	2022 result (metric status)
Supply Demand Balance Index	SDBI score, max. 100	How the actual supply demand balance has performed compared to what is set out in their Water Resources Management Plan (WRMP)	100 (Green)

Metric – in development: water quality descriptive permit condition compliance

Following consultation, we are working to introduce an additional performance metric for Welsh companies only – descriptive permit condition compliance at STWs and WTWs. Descriptive conditions relate to non-numeric aspects such as maintenance, management and reporting. With descriptive condition performance noticeably lower than numeric condition performance, we wanted more scrutiny on descriptive conditions.

This metric is currently in development so we can ensure it is robust and reported accurately. We will continue to report on Dŵr Cymru’s performance against this ‘metric – in development’ annually. We expect to see improving performance year-on-year. We will aim to introduce red/amber/green performance thresholds from the start of the next 5-year EPA reporting period (2026-2030).

	Percentage of sites compliant with their descriptive conditions	Number of non-compliant sites
2020	63%	317
2021	87%	112
2022	91%	74

As the table shows, there has been a noticeable improvement in descriptive condition compliance at STWs and WTWs since the poor performance in 2020, increasing from 63% of sites to 91% in 2022. In 2022, 74 sites were non-compliant out of 854 STWs and WTWs (numeric and descriptive permitted sites). Whilst this is an improvement from the past two years, it is below our expectation of 100% compliance, so we expect to see continued improvement in 2023.

The majority of the 74 sites were non-compliant due to breaches related to monitoring, reporting and notification of Operator Self-Monitoring, Urban Wastewater and UV

monitoring programmes that we identified during our compliance assessment. The majority had non-compliances categorised as 3 or 4², with two category 2 non-compliances.

For descriptive condition compliance overall, we expect the company to:

- take swift and positive action to ensure that the root cause of the non-compliances seen in 2022 are rectified as soon as possible;
- improve their overall descriptive condition performance year-on-year aiming for 100% compliance;
- focus on stopping all Category 1 and 2 descriptive condition non-compliances as these have the potential for serious environmental impact.

Storm overflow permit compliance assessment

Through our normal incident response and compliance assessment work carried out in 2022, we found 170 permitted storm overflows (sewage pumping stations, combined sewer overflows and storm discharges from STWs) to be non-compliant for a variety of reasons. The three most common types of non-compliance are described below.

- 118 sites were non-compliant due to failing to supply information required by the improvement conditions in their permits by the date specified. Five sites were recorded with a category 3 non-compliance, with the majority (113) recorded as category 4.
- 21 sites were non-compliant for failing to submit their 2021 EDM data as required; all were issued with a Warning and all missing data has now been submitted.
- 16 sites have been evidenced as non-compliant due to discharging in non-storm or non-emergency conditions from issues such as sewer blockages and maintenance. One site had a category 2 non-compliance, the remainder were category 3; the majority were issued with a Warning.

² We use non-compliance categories to score permit or licence breaches. They are on a scale of 1-4:

- Category 1 – Major: potential to have a major, serious, persistent and/or extensive impact or effect on the environment, people and/or property;
- Category 2 – Significant: potential to have a significant impact or effect on the environment, people and/or property;
- Category 3 – Minor: potential to have a minor or minimal impact or effect on the environment, people and/or property;
- Category 4 – No impact: non-compliance at a regulated site that cannot foreseeably have any impact on the environment, people and/or property.

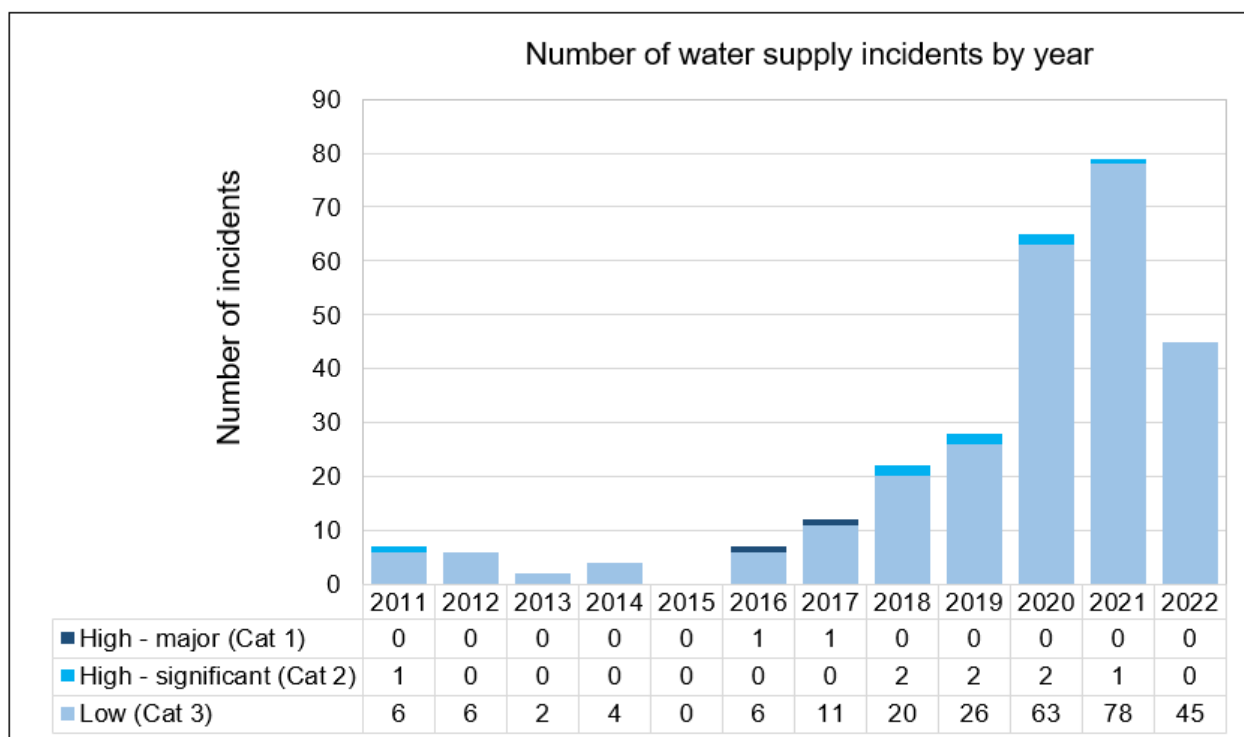
Part 2: Dŵr Cymru’s wider environmental performance

The seven EPA metrics are a subset of environmental performance. There are other areas of monitoring, reporting and regulatory work we carry out related to Dŵr Cymru’s activities, some of which are in Part 2 of this report. Some aspects are closely related to the EPA metrics, such as pollution incidents and compliance, whereas some are wider.

Pollution incidents (water supply assets)

As well as sewerage incidents, we also monitor the number of incidents from assets related to the supply of drinking water. Although they are not included in the pollution incidents (sewerage) EPA metric 1, they are an important aspect of environmental performance. These incidents often involve the discharge of partially or fully treated drinking water from water supply assets, such as WTWs and water distribution systems (water mains). The discharges have the potential to contain chemicals such as chlorine, aluminium or iron; they can often discharge at high velocity, so can cause pollution incidents related to silt in the watercourse.

In 2022 there were 45 clean water pollution incidents – all incidents were Low (Category 3), with no serious (Category 1-2) incidents:



The overall performance for water supply incidents improved significantly in 2022, following an unacceptable increase in incidents over 2020-21. We welcome the inclusion of serious incidents from water supply assets in the serious pollution incidents EPA metric 2 to bring more focus on this area of performance seems to have had a positive impact.

We expect Dŵr Cymru to reduce the number of all incidents (sewerage and water supply) to zero, so we want to see continued reduction in incidents from water supply assets.

Flow compliance at sewage treatment works

Dŵr Cymru provided Dry Weather Flow (DWF) data in accordance with their permit requirements. 22 STWs in Wales exceeded their Dry Weather Flow (DWF) permit limits. 13 of these were STWs with newly installed MCERTS flow monitoring. There were also 4 sewage treatment works sites in England where the measured Q90 dry weather flow (DWF) was greater than the permitted flow limit during 2021. In addition, four first time MCERTS sites were determined to have exceeded their DWF conditions as the Environment Agency were not able to load the data for these sites. These exceedances resulted in the sites discharging more treated sewage than permitted. Dŵr Cymru are required to carry out investigations and report the cause of the exceedance to us, and, where appropriate complete remedial action within an agreed timescale.

Fifteen STWs in Wales and seven in England were reported as having experienced data issues in 2021 which the company is working to resolve. We have requested this information be resubmitted.

23 sites in Wales are also being investigated by Dŵr Cymru due to queries over their flow to full treatment (FFT) permitted limits, which means they may not be treating the flow required by their permits.

Dŵr Cymru has made progress with their internal management system for MCERTS certification, a system which independently audits and certifies the suitability and accuracy of their flow monitoring equipment. All their sites in England and Wales were compliant with MCERTS re-certification requirements in 2021.

Late in 2021 the Environment Agency and Ofwat announced they would investigate potential non-compliances with FFT permit conditions from STWs in England. The investigations are analysing information submitted by water companies to regulators that highlight potential permit non-compliances.

In Wales, we do not plan to undertake a similar investigation at present, as we already have a compliance response in place. Dŵr Cymru has been sharing similar information with us since 2014. This work identified sites that needed investigation by Dŵr Cymru who then looked at the cause/s of non-compliance. We have worked with Dŵr Cymru to ensure the sites return to compliance with their permit at the earliest opportunity.

We will continue to monitor the investigations by the Environment Agency and Ofwat in England and are working closely with both organisations to understand the outcomes of the investigation. We will review our current regulatory approach in Wales, if necessary.

Permitted storm overflows – Wales only

Dŵr Cymru have installed event duration monitors (EDM) to monitor the number and duration of spills, on the majority of their permitted storm overflows in Wales. This means EDM will be installed on the following assets:

- storm overflows on the sewer network (combined sewer overflows);
- storm overflows from pumping stations;
- storm overflows at STWs.

In this section, we share data on permitted storm overflows only. For storm overflows currently operating without a permit, we have a significant programme of work underway to bring them within our regulatory framework, where appropriate.

More information on storm overflows can be found on our [website](#).

In 2022 Wales experienced an exceptionally wet February (the second wettest February in over 100 years), followed by a prolonged dry spring and a drought declared for much of summer and early autumn. March – August (combined) saw 57% of the expected rainfall for the same six-month equivalent period. Putting this into context, this six-month period was third driest on record in over 100 years. The late autumn and winter months were then characterised by normal or above normal rainfall. The year as a whole saw 86% of the annual average expected rainfall.

Unusually wet periods have the potential to result in increased spill frequency and duration, whilst dry weather has the opposite effect. We are working on a robust method to identify when spills are occurring in dry weather that will allow us to better assess storm overflow performance.

EDM data we are reporting

In this report, we have used the 2022 EDM summary data submitted by the water company in their annual regulatory return to NRW. EDM summary data from permitted storm overflows in England is not presented in this report.

To improve transparency, for 2022 data onwards, we asked water companies to provide more information in their EDM data submissions. For example, we now require the type of asset to be specified; this could be a storm overflow on the sewer network, at a wastewater treatment works or at a pumping station.

We are planning to provide more detail on EDM data aligned to the work in the Better River Water Quality Taskforce.

Dŵr Cymru listed 1,946 permits in their 2022 return. We have continued to issue EDM variations to storm overflow permits, with more issued during 2022 and 2023 to date. The small number outstanding have plans in place to install EDM by the end of 2023.

We used the data as received from the water company to produce the graphs and percentages below. We will continue work to improve the data completeness and accuracy for the storm overflow data.

Data completeness

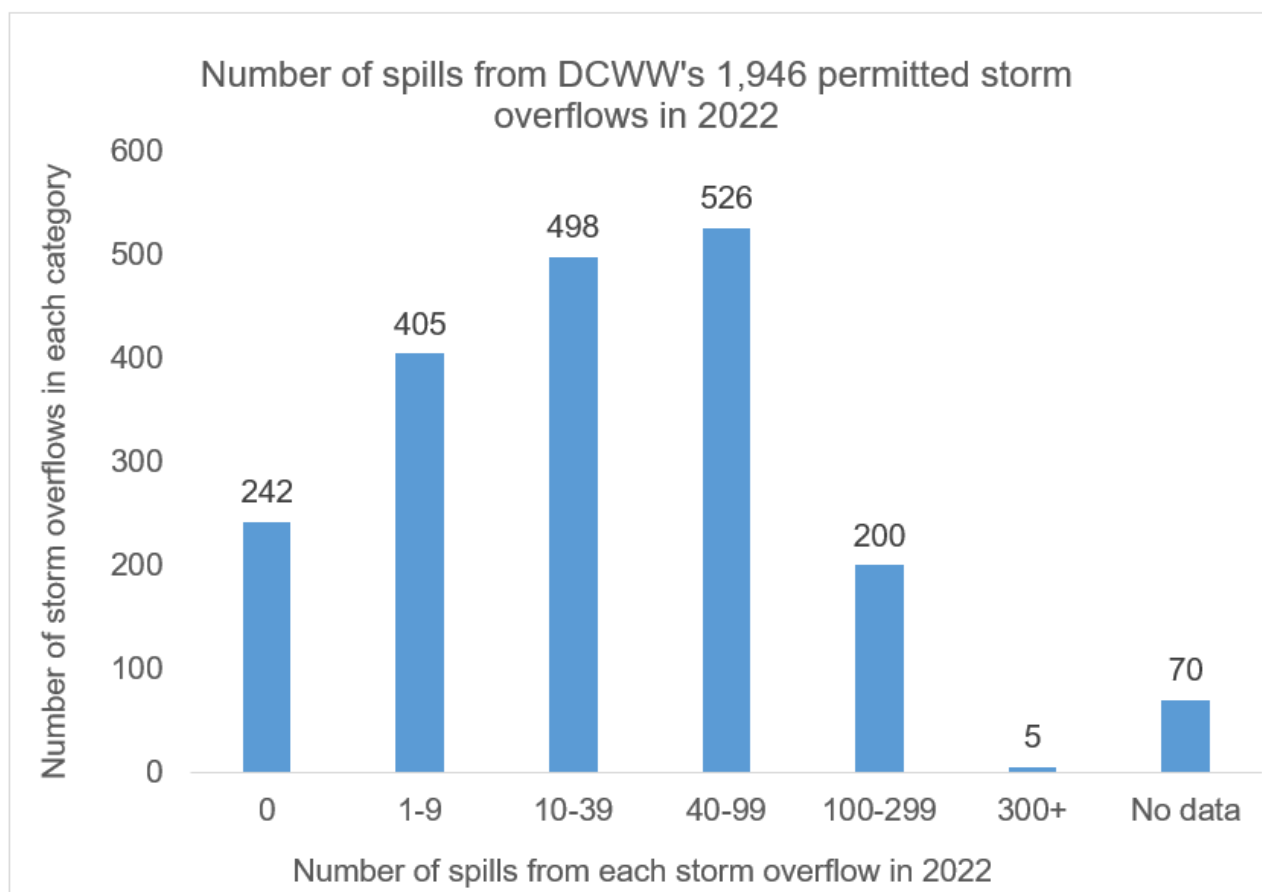
In 2022, 283 (15%) of the water company's EDMs were in operation for less than 90% of the year, which is below the agreed industry standard. We expect the water company to improve EDM operability so that all EDMs are operating for at least 90% of the time as soon as possible.

Number of spills

The 2022 EDM data for 1,946 of Dŵr Cymru's permitted storm overflows, on the number of spills (using the block counting methodology³), tells us:

- 4% (70) had no data provided;
- 12% (242) had 0 spills;
- 21% (405) spilled between 1 and 9 times;
- 26% (498) spilled between 10 and 39 times;
- 27% (526) spilled between 40 and 99 times;
- 10% (200) spilled between 100 and 299 times;
- Less than 1% (5) spilled more than 300 times.

The graph below displays this data:



³ The block counting methodology used to count spills from storm overflows is the 12/24 counting method:

1. Start counting when the first discharge occurs.
2. Any discharge (or discharges) in the first 12-hour block are counted as one spill.
3. Any discharge (or discharges) in the next, and subsequent 24-hour blocks, are each counted as one additional spill per block.
4. Continue counting until there's a 24-hour block with no discharge.

For the next discharge after the 24-hour block with no discharge, you begin again with the 12-hour and 24-hour block spill counting sequence.

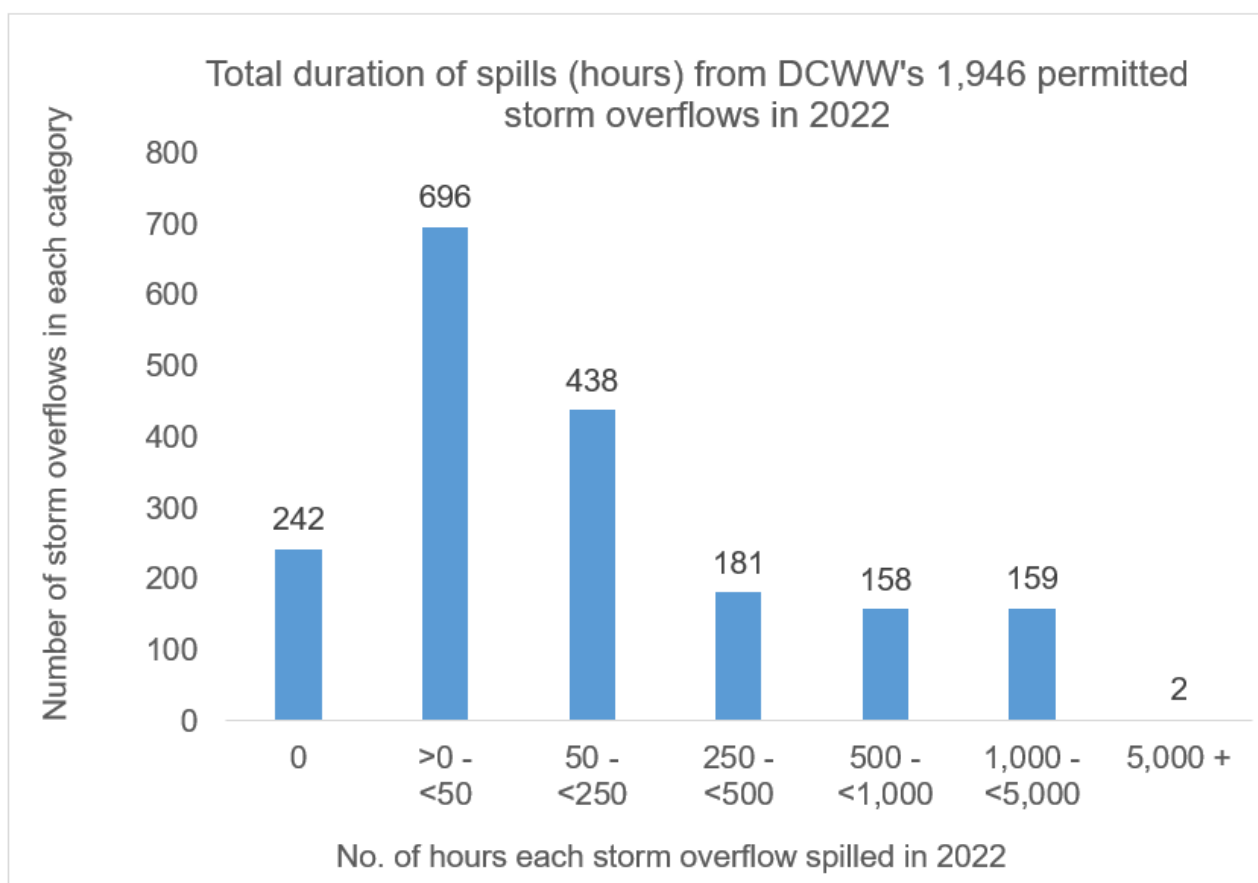
NRW and the Environment Agency use this same approach for consistency across water companies.

Duration of spills

The 2022 EDM data for 1,946 of Dŵr Cymru's permitted storm overflows, on the duration of spills, tells us:

- 4% (70) had no data provided;
- 12% (242) had 0 hours of spills;
- 36% (696) spilled for more than 0 but less than 50 hours;
- 23% (438) spilled for at least 50 hours but less than 250 hours;
- 9% (181) spilled for at least 250 hours but less than 500 hours;
- 8% (158) spilled for at least 500 hours but less than 1,000 hours;
- 8% (159) spilled for at least 1,000 hours but less than 5,000 hours;
- Less than 1% (2) spilled for more than 5,000 hours.

The graph below displays this data:



Better River Water Quality Taskforce

On 5 July 2022 the Better River Water Quality Taskforce published action plans alongside its storm overflow roadmap on our [website](#). These set out objectives and measurable outcomes for delivering improvements to the management and environmental regulation of overflows in Wales. We are a partner on this taskforce alongside Welsh Government, Ofwat, Dŵr Cymru and Hafren Dyfrdwy, which is independently advised by Afonydd Cymru and Consumer Council for Water.

As the action plans in the roadmap set out, we are developing our regulatory framework to ensure water companies address the environmental impact of spills from storm overflows.

Future reporting

We are continuing to develop our regulatory approach in how we verify, assess and use the EDM data the water companies submit to us. This includes developing a robust way of identifying storm overflows which are failing to comply with their permit conditions.

We will continue to develop how we monitor and report performance on storm overflows in line with our actions detailed in the storm overflow action plans, working closely with the Better River Water Quality Taskforce.

We are also progressing work to enable us to share EDM summary data from the regulatory return on our public register.

Water resources licence compliance

In 2022, we carried out seven compliance assessments of six different Dŵr Cymru water resources licences. Five compliance assessments were assessed as compliant. However, we found breaches of licence condition during two compliance assessments at the same site, where there was a loss of statutory minimum compensation flow in June and September. We recorded a Category 3 and 4 breach respectively for these breaches and issued the water company with a Warning.

Drought planning & Water Resources Management Plans

Water companies have a duty to maintain water supplies in their area, without damaging the environment or affecting the needs of other water users. There is a statutory requirement for water companies to prepare, maintain and publish Water Resources Management Plans (WRMPs) and Drought Plans. The latest draft WRMP was published and consulted on in 2022 and expected to be finalised in Autumn 2023. The latest Drought Plan was published in March 2021. The plans are published every five years. For the latest information on Dŵr Cymru's WRMP and Drought Plan, please see their website:

- [Water Resources Management plan 2024](#) (draft)
- [Drought Plan 2020-2025](#)

Please also have a look at our webpages for more information on these topics:

- [Water Resources Planning](#)
- [Drought](#)
- [Drought plan guidance](#)

Leakage and water use

Water companies submit a wide variety of data to us and Ofwat, which includes leakage rates and water use. Dŵr Cymru recently announced that it has experienced issues with their leakage and per capita consumption data for 2020-2022. Ofwat has launched an enforcement investigation into the issue and we are in discussion with both Dŵr Cymru and Ofwat on this matter.

The revised leakage rates and water use information for 2022/23 should soon be available at www.discoverwater.co.uk.

Drought experience in 2022

During 2022, drought was declared across all parts of Wales. In terms of public water supply – Dŵr Cymru declared drought in one of its water resource zones and implemented water use restrictions (temporary use bans) in Pembrokeshire and parts of Carmarthenshire for the first time in decades. In other parts of Wales, they called for people to save water, enhanced leakage control and took operational measures to help manage water supplies and avoid other drought measures.

Dŵr Cymru has assessed lessons to learn from the 2022 drought event, which has identified a series of recommendations to improve drought preparation, management and response. This drought experience has been accounted for in their latest WRMP and any wider changes to water company planning, such as guidance, is being considered by ourselves, the Welsh Government and the Wales Drought Liaison Group.

Waste permit compliance

Water companies operate a variety of waste activities ranging from biowaste treatment, landfill, biogas combustion, sludge incineration and transfer stations. For permitted activities we assess compliance against permit conditions and score any non-compliances. We carried out compliance assessments at three different sites in 2022. We identified a total of sixteen breaches of permit conditions during six separate assessments.

Ten of the non-compliances identified were classed as category 3 and six as category 4. Although these are lower categories of environmental risk, we expect to see improvements to ensure full compliance.

Enforcement (higher than a Warning)

Within the English part of DCWW operations, there was one enforcement action taken higher than a Warning during 2022 – an enforcement undertaking of £50,000 linked to non-compliances at three STWs.

There are numerous open enforcement investigations in Wales but no compliance work was concluded in the 2022 calendar year.

Reservoir Safety

Dŵr Cymru manages 134 large, raised reservoirs; 100 of which have been designated as high-risk which is a legal definition. High-risk reservoirs are large, raised reservoirs which we designate as high-risk because we think human life could be endangered in the event the dam fails, causing an uncontrolled release of water. More information can be found on our [Risk Designation webpage](#).

We recorded two non-compliances at two reservoirs during 2022. The first table shows the number of non-compliances recorded for each indicator.

	Q1	Q2	Q3	Q4
Construction	--	--	--	--
Inspection	--	--	--	--
Safety measures	1	1		1

The table below shows the compliance, per reservoir, as a percentage of all Dŵr Cymru's registered reservoirs:

	Q1	Q2	Q3	Q4
Construction	100%	100%	100%	100%
Inspection	100%	100%	100%	100%
Safety measures	99.3%	99.3%	100%	99.3%

Dŵr Cymru's compliance is very high, and higher than that measured across all large, raised reservoirs.

The non-compliances recorded in Q1 and Q2 relate to the same safety measure at the same reservoir. Compliance was regained in July without use of our enforcement powers.

The non-compliance recorded in Q4 is not yet resolved. There were initial delays linked to summer water supply conditions when the service reservoir was needed to provide resilience to public water supply. We received advice from the independent qualified civil engineer who confirmed there was no immediate risk to reservoir safety and that delays were being minimised and managed well. The reservoir is currently drawn down and completion of the work is expected by autumn 2023.

For each non-compliance, Dŵr Cymru drew our attention to delays before the statutory deadlines, water levels were reduced and managed at a level to protect safety and advice sought from the independent qualified civil engineer.

Flood Risk Management

Under the Flood and Water Management Act 2010, water and sewerage companies are defined as risk management authorities. They are required to act in a manner consistent with the National Strategy for Flood and Coastal Erosion Risk Management (FCERM) in Wales and the National Flood and Coastal Erosion Risk Management Strategy for England. They have a duty to cooperate with other risk management authorities in England and Wales.

Every few years we produce a report for the Welsh Ministers about how the National FCERM Strategy is being implemented across Wales and we include examples of best practice through a range of case studies that may include water and sewerage company initiatives . We do this on behalf of all Risk Management Authorities who operate in Wales and therefore include Dŵr Cymru. The next report is due in October 2023 (three years from the publication of the Welsh Government National Strategy for Flood and Coastal Erosion Risk Management in Wales) and every two years thereafter. Please see our [Flood and coastal erosion risk in Wales](#) webpage for more information.

Performance expectations for 2023

Challenges for EPA

As we continue to progress through the new 5-year EPA reporting period (2021-25), we expect Dŵr Cymru to make positive progress across all seven metrics. The EPA metrics will continue to tighten over this EPA reporting period (2021-25) ensuring targets are challenging for the company. We expect them to implement measures to regain and maintain high company status as we progress through the new EPA reporting period (2021-25). Specifically:

- reduce the total number of sewerage incidents year on year – aiming for zero;
- stop all serious pollution incidents (both sewerage and water supply) in the short-term;
- improve numeric water quality compliance – to achieve 100%;
- reverse the decline in self-reporting of pollution incidents, with a specific focus on significantly improving self-reporting at PSs and STWs;
- maintain performance on satisfactory sludge use and disposal
- maintain 100% of AMP NEP scheme delivery;
- maintain performance on the SDBI.

Challenges for wider environmental performance

As set out in Part 2 of the report, there are several other areas of environmental performance which need improvement and attention focused, namely:

- continue to reduce pollution incidents from water supply assets;
- continue to improve descriptive condition compliance (EPA metric – in development);
- improve flow compliance;
- reduce the impact of storm overflows by delivering their actions in the storm overflow roadmap action plans;
- reduce leakage across the water distribution system.

Annex 1: Methodology

Performance assessment methodology we used

Water company performance reporting is carried out annually on a calendar year basis.

Since 2011, we have used the same Environmental Performance Assessment (EPA) metrics and methodology as the Environment Agency. This means we can consistently report and benchmark the performance of Dŵr Cymru against the other large water and sewerage companies in England.

We combine our performance data in Wales with data the Environment Agency provide to us for the Dŵr Cymru area that lies in England. This report therefore reports on performance for Dŵr Cymru as a whole.

The EPA metrics measure performance associated with:

- reducing pollution incidents and increasing company reporting of incidents;
- complying with discharge permits for sewage treatment and water treatment plants;
- compliance with legislation relating to storage, recycling &/or disposal of sewage sludge
- delivering environmental improvement schemes;
- delivering secure supplies of water (SDBI).

The EPA is set for the duration of the water companies' current AMP period which runs from April 2020 to March 2025. The metrics are absolute rather than relative. All companies measured against EPA metrics should therefore be able to achieve 4-star industry leading company status.

Future reporting

We worked with the Environment Agency to review the EPA metrics for 2021 onwards and consulted externally (including with all the water companies). We adopted the same metrics in Wales as those in England to allow us to continue to benchmark Dŵr Cymru against the other large nine water and sewerage companies in England, and we follow the same methodology "Environment Agency water and sewerage company: Environmental Performance Assessment (EPA) methodology (version 10) for 2021 to 2025". We have decided to include a new EPA 'metric – in development' for Dŵr Cymru since 2020 (see pages 9-10) on descriptive condition compliance as we had concerns in Wales regarding performance in this area.

Annex 2: Summary of Dŵr Cymru's EPA performance 2012-22

The table below shows how Dŵr Cymru has performed against the seven metrics since 2012:

	2012	2013	2014	2015	2015 E ⁴	2016	2017	2018	2019	2020	2021	2022
Pollution incidents (sewerage) Category 1-3 incidents per 10,000 km of sewer	110	66	59	59	30	30	28	28	26	21	23	25
Serious pollution incidents (sewerage & water supply assets) Total incidents (Categories 1 & 2)	3.3	1.1	2.2	1	0.6	0.6	0.3	0.8	0	0.3	3 ⁵	5
Self-reporting pollution incidents %	47	48	60	74	74	68	63	75	73	80	76	69
Discharge Permit Compliance (STWs & WTWs) %	98.6	97.7	97.8	98.6	97.1	99.0	96.7	98.0	98.3	99.7	98.3	98.5
Satisfactory Sludge Use/Disposal %	100	100	100	100	100	100	100	N/A ⁶	N/A ⁶	N/A ⁶	N/A ⁶	100
AMP National Environment Programme delivery % of planned delivery	116	100	100	100	100	100	100	99	100	100	100	100
Supply Demand Balance Index (SDBI)	N/A	N/A	N/A	N/A	100	100	98	100	100	100	100	100
Company star rating	3-star	3-star	3-star	3-star	3-star	3-star	2-star	3-star	3-star	4-star	3-star	2-star

Key: Company star rating

4-star	Industry leading company
3-star	Good company
2-star	Company requires improvement
1-star	Poor performing company

⁴ The column headed 2015E refers to the 2015 dataset which has been assessed using the EPA criteria (2016-2020). This has been included for comparison purposes only. Every five years the Red/Amber/Green thresholds are reviewed.

⁵ Under the tighter and broader EPA metrics of the new 5-year EPA period (2021-25), the serious pollution incidents metric now includes serious clean water incidents (from water supply assets).

⁶ We suspended reporting of the sludge metric from 2018-2020 while we reviewed how we assess and report performance consistently across the water companies on this activity in the future. The sludge metric was reinstated as a shadow metric for the 2021 reporting year (2022), and as a full metric for the 2022 reporting year (2023).