

Storm overflow spill data report 2025

Introduction

This is Natural Resources Wales' (NRW's) fourth annual report on storm overflow spills. You can find previous reports for 2022, 2023 and 2024 [here](#):

[Natural Resources Wales / Storm overflow spill data reports](#)

The two water companies operating in Wales are Dŵr Cymru Welsh Water (DCWW) and Hafren Dyfrdwy (HD). DCWW also has storm overflows in England, but spills from these discharges are not included in this report.

We continue to work with Welsh Government, Ofwat, DCWW, and HD to deliver the actions identified by the Better River Quality Taskforce, to strengthen the management and regulation of overflows and drive rapid change and improvements.

As part of our commitment to the taskforce storm overflow action plan, we publish this report annually to share spill data provided by the water companies and our analysis. We know people across Wales are concerned about the number of spills and the possible impact on our rivers and coasts. Our aim is to improve transparency, inform the public and stakeholders, and drive better performance from water companies, through our compliance and enforcement work.

[View the Taskforce action plans on the Welsh Government website](#)

Event Duration Monitors

There are over 2,000 permitted storm overflows across Wales. These systems are designed to relieve pressure on the sewer network during heavy rainfall, when sewers can become overwhelmed. Each overflow needs a permit from us to legally discharge to the environment. The permits have conditions to protect rivers, streams, and coastal waters.

NRW were the first environmental regulator in the UK to require water companies to install Event Duration Monitors (EDMs) on all storm overflows, implementing this approach in Wales before similar requirements were introduced in England. These monitors track how often and how long each overflow discharges. Most EDMs were installed by 2020, and now over 99% of permitted overflows are monitored. In a few rare cases, we have agreed that EDMs are not required due to technical constraints at the site. DCWW also has a small number of EDM installations outstanding.

Water companies must submit EDM data to us every year by the end of February. This data helps us assess compliance and identify areas for improvement. They also publish this

information on their websites.

[View DCWW's EDM data web page](#)

[View HD's EDM data web page](#)

As part of the taskforce commitment to transparency, DCWW and HD launched near real-time storm overflow maps in 2025. These interactive tools use EDM data to show current overflow activity. This gives the public and stakeholders up-to-date information and helps them make informed decisions about water quality in their area.

[View DCWW's storm overflow map](#)

[View HD's storm overflow map](#)

Data quality

We require EDM data submissions to be timely, complete, and underpinned by accurate, consistent, and reliable data. High-quality data is essential for transparency, regulatory compliance, and environmental protection.

Following DCWW's 2025 submission, data validation issues were identified, leading to a corrected resubmission for a single site – Swansea Bay waste water treatment works Wastewater Treatment Works, permit number BP0236601. We agreed to accept the resubmission on this occasion in order to work with the most accurate information, but we have made it clear that their data quality and validation processes must improve.

We also expect both DCWW and HD to improve their performance against the 90% EDM time operational target, which is an agreed industry standard.

What the EDM data tells us

EDM data helps us identify storm overflows that are discharging too often or for extended periods. This allows us to focus where the environmental risk is highest and take action where needed.

The EDM data also feeds into our annual water company environmental performance reporting, which are available here:

[View DCWW's annual environmental performance reports](#)

[View HD's annual environmental performance reports](#)

Rainfall

Using analysis based on long term rainfall average in Wales (1991-2020), 2025 was an average year for rainfall, i.e. within the middle 60%. This was calculated using total rainfall across Wales from data NRW receive from the Met Office (HADUK).

Despite a dry summer, total rainfall for the year was still 97% of the long-term average (1991 to 2020). September and November were much wetter than average, recording 174% and 159% of the long-term average respectively.

Year	Wales rainfall
2021	Average year
2022	Dry year
2023	Wet year
2024	Average year
2025	Average year

Findings from the 2025 data

The tables below show EDM summary data from 2022 to 2025 for permitted storm overflows with EDM conditions, submitted by DCWW and HD.

DCWW's EDM headlines	2022	2023	2024	2025
Total no. of storm overflows listed in the annual return	1946	1982	2064	1972
Total no. of storm overflows with EDM commissioned	1942	1975	2060	1967
% storm overflows listed with EDM commissioned	99.8%	99.6%	99.8%	99.7%
Total no. of storm overflows with spill data	1886	1916	2051	1962
Average no. of spills per storm overflow with spill data	40.9	55.3	48.9	44.2
Average duration (hours) per monitored spill event	7.1	8.6	8.2	8.1
% storm overflows spilled 10 or less times	34.6%	26.9%	28.4%	28.2%
% of storm overflows listed with EDM in operation for at least 90% of the time	84.9%	86.1%	86.5%	93.7%

- DCWW's number of permitted storm overflows rose from 1,946 in 2022 to 1,972 in 2025. The drop from 2024 to 2025 is mainly due to permit surrenders or instances where storm discharge activities have been consolidated with other types of discharges. This meant previously that there was double reporting of spills, with some discharges appearing on the return twice.
- Almost all storm overflows now have monitoring equipment (EDM) installed, consistently at around 99.7%. We are following up with DCWW to ensure the small number of outstanding installations are completed. The drop of 0.1% is linked to the

drop in numbers of overflows as explained above.

- The slight reduction in the number of overflows reporting spill data since 2022 reflects changes to the asset inventory, such as surrendered or reclassified overflows, rather than any decrease in EDM coverage.
- Overflows with spill data increased from 1,886 in 2022 to 1,962 in 2025.
- Average spills per overflow peaked at 55.3 in 2023, dropping to 44.2 in 2025, still above 2022 levels (40.9).
- Spill duration rose from 7.1 hours in 2022 to 8.1 in 2025, after peaking at 8.6 in 2023.
- Fewer overflows spilled 10 times or less in 2025 compared to previous years.
- EDM time operational improved significantly, with 93.7% operating at least 90% of the time in 2025, up from 84.9% in 2022. Over recent years, we have maintained a clear expectation that all monitors should achieve at least 90% time operation. Where this standard was not met, we issued non-compliant Compliance Assessment Reports requiring investigation and corrective action, and we continue to monitor progress and delivery of improvements.

HD's EDM headlines	2022	2023	2024	2025
Total no. of storm overflows listed in the annual return	49	49	50	50
Total no. of storm overflows with EDM commissioned	49	49	50	50
% storm overflows listed with EDM commissioned	100%	100%	100%	100%
Total no. of storm overflows with spill data	49	49	50	50
Average no. of spills per storm overflow with spill data	29.0	38.8	36.2	21.7
Average duration (hours) per monitored spill event	7.5	8.5	9.4	7.8
% storm overflows spilled 10 or less times	36.7%	22.4%	22.0%	36%
% of storm overflows listed with EDM in operation for at least 90% of the time	73.5%	83.7%	80.0%	98%

- HD's number of permitted storm overflows remained stable.
- All storm overflows have EDM monitoring in place, maintaining 100% coverage across all four years.
- Average spills per overflow decreased from 29.0 in 2022 to 21.7 in 2025.

- The average duration of each spill rose steadily from 7.5 hours in 2022 to 9.4 hours in 2024 and then dropped to 7.8 hours in 2025.
- An increase in overflows which spilled 10 times or less in 2025 compared to previous years.
- EDM time operational improved from 73.5% operating at least 90% of the time in 2022 to 98% in 2025. We issued Compliance Assessment Reports for those few sites which were below 90%, requiring investigations and corrective actions, and are currently monitoring progress.

We also looked at how frequently permitted storm overflows spilled for DCWW and HD combined. The data shows:

Percentage of permitted storm overflows in Wales that spilled:	2022	2023	2024	2025
0 times	12% (247)	8% (162)	7% (156)	8% (153)
between 1 and 9 times	21% (416)	18% (371)	19% (409)	19% (391)
between 10 and 39 times	26% (517)	25% (503)	28% (587)	29% (592)
between 40 and 99 times	27% (538)	27% (540)	30% (639)	32% (660)
between 100 and 299 times	10% (202)	19% (382)	15% (308)	11% (216)
more than 300 times	Less than 1% (5)	Less than 1% (8)	Less than 1% (2)	Less than 1% (3)
Unknown – no data provided	4% (70)	3% (65)	1% (19)	1% (18)

- In 2025, the number of storm overflows recording no spills fell, while the number recording 10 to 99 spills increased. Encouragingly, the number recording more than 100 spills decreased.
- While total rainfall varied from 2022 to 2025, the legitimacy of a storm overflow spill depends on the intensity and duration of individual rainfall events in the storm overflow's catchment, not just total rainfall.

Our regulatory action on storm overflows

We're taking firm and targeted action to regulate storm overflows and reduce their impact on Wales' rivers and coasts.

In July 2026, we issued updated guidance to water companies on how to classify storm overflows and ensure they meet required standards. We also published guidance on steps a water company should take when a storm overflow does not have an environmental permit. We've tightened the definition of legitimate spills, and water companies are developing methods using rainfall and EDM data to detect potential non-compliance. We will review and audit these methods to ensure they meet our regulatory expectations.

Based on this, DCWW and HD are carrying out assessments from 2025 to 2030 to help prioritise improvements.

Over 2025-30, DCWW is expected to deliver a 30% improvement to storm overflows supported by an expenditure allowance of £1.1 billion. It prioritises those that cause most harm to the environment and those with the highest number of spills.

Over the same period, HD is expected to deliver a 55% reduction in storm overflow spills compared to its performance in 2023-24 supported by an £11 million programme of investment.

NRW is strengthening our own regulatory approach, focusing on high-impact interventions. Our priorities include:

- **Stronger guidance**

We've clarified key definitions, such as what counts as a "heavy rainfall event" or a "dry day spill" to tighten regulatory controls and support enforcement.

- **More compliance checks**

We're increasing our regulatory activity year-on-year across all water discharge permits, with a focus on sites that pose the highest risk to the environment. This work is largely led by a new Water Compliance Team established in 2025. The team is working as a national function to provide a consistent approach to water discharge compliance assessment, data management and regulatory decision-making across Wales.

- **Enhanced auditing**

In 2026, we will deliver Operator Monitoring Assessment (OMA) audits and formalise our approach to auditing how water companies manage and report EDM data. These audits evaluate the management systems, processes and controls that support water discharge monitoring, helping to improve confidence that spill data is accurate, reliable and consistently reported.

- **Better data analysis**

We're improving our tools to check the accuracy and completeness of regulatory returns, helping us act more effectively on the data.

- **Public education**

Public awareness communications around sewer misuse and misconnected drains,

and what the public can do to help is essential.

- **New performance metrics**

From 2026, new Environmental Performance Assessment (EPA) metrics will further strengthen scrutiny on EDM data. Developed with Ofwat and the Environment Agency, they aim to ensure water companies achieve 90% time operational across all EDMs.

- **New legislation**

The Water (Special Measures) Act 2025, passed in February 2025, introduces stronger enforcement powers, including new civil and automatic penalties for certain water company offences. As the new legislation is implemented, failures relating to storm overflow monitoring and reporting may be subject to enhanced regulatory sanctions. We are working closely with regulatory and government partners to support development of the new arrangements and ensure they can be applied effectively in Wales.