NWG
living water

POLLUTION INCIDENT REDUCTION PLAN – CYCLE 2

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FOREWORD

At the heart of everything we do is a deep commitment to protecting and enhancing the environment for the communities we serve. As a water and wastewater provider for 2.7 million customers in the Northeast of England through Northumbrian Water (NW), and 1.8 million water-only customers in the Southeast through Essex & Suffolk Water (ESW), we recognise the vital role we play in safeguarding our rivers, coastal waters, and wildlife habitats.

Our vision is to be the national leader in the provision of sustainable water and wastewater services. A key part of achieving this is our Pollution Incident Reduction Plan (PIRP), which sets out how we will continue to reduce pollution incidents and protect the natural environment. This strategy is built on collaboration - with our customers, communities, and partners - and a shared ambition to create a better future

Through our strategic partnership with The Rivers Trust, we've delivered nature-based solutions that have significantly improved river water quality across Northumberland, Wear, and Tees. We have engaged with local delivery partners and experts to address regional challenges and enhance the water environment in ways that are both innovative and long-lasting.

We're proud of the progress we have made. Since 2000, the number of bathing water beaches within our region rated as Good or Excellent has increased from 8 to 33 today out of 35 and we've had no serious pollution incidents for three years.

Our Bluespaces programme, which covers both of our operating areas, has been a resounding success, with numerous projects delivered across these regions. By the end of March 2025, we will have met our target of improving accessible water environments. These projects have involved planting trees, engaging volunteers, creating wetlands and enhancing recreational facilities.

We successfully installed Event Duration Monitors (EDMs) on all our storm overflows, achieving 100% monitoring coverage. This milestone has allowed us to launch an interactive digital map, providing near real-time information enhancing transparency and accessibility for our stakeholders.

We continue to operate in a challenging environment in relation to managing the impact of climate change and across our entire asset base. This is reflected in both our Pollution Incident Reduction Plan (PIRP) Annual Return and our Cycle 2 PIRP publication.

Reducing the number of pollution incidents remains a primary environmental objective having achieved zero serious clean water pollution incidents (category 1 or 2) since 2020 or a serious wastewater incident since 2021, meaning we are industry leading. Our PIRP strategy outlines how we will maintain our leading status position in serious pollution and deliver continued improvement in our total pollution numbers (category 1 - 3).

We've also introduced the WATCH list (Wastewater Assessment for Treatment Compliance and Hazards), a first-of-its-kind tool that helps us prioritise high-risk sites and proactively prevent compliance failures.

Innovation is central to our approach. We are deploying AI-powered smart sewer networks - starting in Tyneside, which will become the largest of its kind globally - to manage wastewater flow in real time and reduce spills. These efforts are supported by our £1 billion investment plan for 2025–30, which includes significant funding for storm overflow reduction.

Looking ahead, we remain committed to delivering our pollution reduction strategy, collaborating with partners to create a better environment for our communities and future generations.

Heidi Mottram

Chief Executive Officer

EXECUTIVE SUMMARY

Our Pollution Incident Reduction Plan (PIRP) outlines our strategy for minimising pollution incidents between 2025-29 with a focus on reducing the impact from severe and named storms that result in power dips or total power outages. Between 2020-24 these power outages contributed to 30% of our wastewater category 1-3 events across all assets, and 42% of category 1-3 events recorded at our sewage pumping stations (SPS) and wastewater treatment works (STW).

Infrastructure resilience from our Distribution Network System operator (DNS) is not within our control. The physical location of many of our asset makes it incredibly difficult to provide mitigation to external infrastructure failures in storm events, however we are already taking significant action to reduce the impact of these events, including the proactive deployment of

tanker support and mobile generators to pollution incidents whilst we continue to discuss these challenges with our DNS.

Our PIRP is a key component in achieving our long-term target of zero pollution incidents from our assets and operations. It builds on our strong track record - achieving zero serious pollution incidents from clean water since 2021 and wastewater since 2022 - and reflects our ambition to lead the sector in environmental performance. In 2024, we delivered a 12% reduction in storm overflow spills and maintained 100% EDM coverage, supported by the launch of our near real-time digital storm overflow map.

While we've maintained our leading position on serious incidents, we acknowledge the rise in category 3 events in 2024 - largely driven by extreme weather and power outages. In response, we've implemented a tactical improvement plan, increased investment and introduced the WATCH list.

We achieved an industry frontier position during the 2017-20 period as illustrated in Figure 1. We have also successfully delivered zero serious pollutions incidents (category 1 - 2) from our clean water operations since 2021 and our wastewater operations since 2022 which reflects our commitment to the environment.

Throughout this document we reference our provisional 2024 pollution performance based upon current data which is still being validated by the EA. Our finalised 2024 pollution performance will be included in the 2024 Environmental Performance Assessment (EPA). We anticipate the EA publishing a summary of pollution results in July 2025, but the full EPA has been delayed until October 2025. Our PIRP Cycle 2 document will be updated following publication of the 2024 EPA results.

Figure 1 - Wastewater industry historical total pollution incidents category 1 - 3 (normalised based upon per 10,000km of sewer length rounded)

Water Company	2016	2017	2018	2019	2020	2021	2022	2023
Anglian	32	30	25	35	28	34	33	40
NWL	38	17	12	15	14	23	20	33
Severn Trent	30	30	31	26	21	22	21	26
Southern	35	31	39	110	102	94	90	59
South West	115	109	98	105	131	87	62	111
Thames	33	28	27	30	27	25	30	32
United Utilities	22	23	24	28	19	18	16	28
Welsh	30	28	28	26	21	23	25	30
Wessex	22	23	24	22	25	21	31	36
Yorkshire	46	43	44	35	24	27	22	26
Total	**403**	**362**	**352**	**432**	**412**	**374**	**350**	**421**

In developing our Cycle 2 PIRP strategy, we have considered the expectations of our regulators, customers, environmental non-governmental organisations (eNGOs) and other stakeholders with the objective to reduce the number of pollution incidents from both our clean water and wastewater assets.

Our strategy is also shaped by our £1 billion investment plan for 2025–30, which includes major upgrades to reduce storm overflows and improve treatment compliance. This is complemented by our pioneering use of AI-powered smart sewer networks - starting in Tyneside, which will become the largest of its kind globally.

Our Board and Executive Leadership Team (ELT) are committed to the delivery of this PIRP alongside existing monitoring and governance arrangements which contribute towards our vision of becoming the national leader in the provision of sustainable water and wastewater services to our customers.

This document reflects on our past pollution performance and details our strategic approach in delivering improvement within the 2025-29 period, having analysed the root cause of previous events to identify the introduction of additional control measures and interventions.

These interventions include scaling successful Business As Usual (BAU) activities and deploying new innovations such as smart sewers, AI-driven monitoring, and nature-based solutions. Our Bluespaces and Branch Out programmes continue to deliver measurable biodiversity and water quality improvements, supported by strong community partnerships. Our Purpose

Our Purpose is caring for the essential needs of our communities and environment, now and for generations to come. We do this by providing reliable and affordable drinking water and wastewater services for our customers. We make a positive difference by operating efficiently and investing prudently, to maintain a sustainable and resilient business.

As a water and wastewater provider serving 2.7 million customers in the Northeast of England as Northumbrian Water (NW), and 1.8 million water-only customers in the Southeast of England as Essex & Suffolk Water (ESW), our activities impact significantly on our rivers and coastal waters.

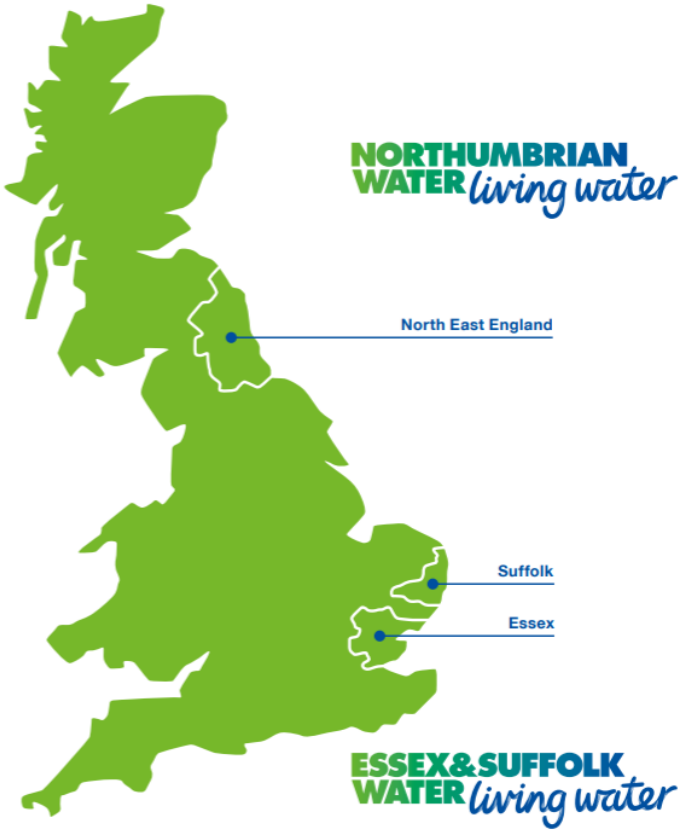
We are proud to be an ethical company, and we take our responsibility towards the environment very seriously which is reflected in our Ethisphere (global leader in defining and advancing the standards of ethical business practices) accreditation which has named NWL as one of the 2025 World's Most Ethical Companies**.**

Making sure we protect and enhance the environment in everything we do is a key part of our vision to be the national leader in the provision of sustainable water and wastewater services. We aim to manage our assets and operations to avoid environmental effects and to benefit the environment wherever possible.

In the North East of England, where we also provide sewerage services, wastewater is then collected from these properties via the sewerage network and treated at our sewage treatment works before it is returned to the environment as either clean water or sludge, which can be recycled as fertiliser or used to generate energy.

To provide this service we operate and maintain:

- **50 water treatment works**
- **388 water pumping stations**
- **304 water service reservoirs**
- **26,451km of water mains**
- **413 sewage treatment works**
- **966 sewage pumping stations; and**
- **30,237km of sewers.**



The importance of the environment is reflected in our Business Plan for 2025-30[i]. Ofwat have confirmed a Final Determination (FD) allowed allowance of £6.2 billion across the entire business, of which approximately £2.9 billion is associated wastewater (including bioresources) and a storm overflow allowance of £1.0 billion focusing on reducing the use of storm overflows.

To support our PR24 Business Plan we published our Environment Strategy that clearly states our ambition of ***"Together, we are restoring and regenerating our natural environment, creating a better place through our actions".***

We have broken down this journey into five priorities that work together to contribute to our ambition:

- Water management for the environment and people.
- Healthy catchments rivers and coastal waters.
- Effective climate action.
- Valuing resources and eliminating waste.
- Thriving nature and communities.

Improvement in our pollution performance impacts directly upon the environmental priority of ***Healthy catchments, rivers and coastal waters*** which can be evidenced in its focus area and headline commitments to deliver the following objectives: -

Focus Areas	Headline Commitments
Enhancing the quality of the water environment through regeneration of nature and catchments	Lead and support collaborative catchment stewardship, developing and implementing integrated plans for our 10 major catchments by 2030. Eliminate the detrimental impacts of our operations and assets on waterbodies as soon as is practical. Work with partners so that, where possible, waterbodies in our regions can achieve good ecological status. Zero serious pollutions now and always and reduce the number of category 1 – 3 pollutions by 50% by 2040 (from a 2022 baseline).
Supporting excellent bathing waters	All bathing waters at good or excellent status by 2030. Champion the growing movement for wild swimming and help establish at least two recreational inland bathing sites.
Significantly reducing the occurrence and impacts of storm overflows	Year on year reductions in the number of storm overflows operating more than ten times a year on average, and none doing so by 2050.
Helping to significantly reduce flood risk	Work in partnership across catchments to reduce the risk of flooding from all sources. Reduce external sewer flooding by 60% (from our 2024/25 performance levels) by 2050.

Our Environment Strategy[ii] and pollution performance are also fundamental in delivering our long-term plans, including our Water Resource Management Plan (WRMP)[iii] and Drainage and Wastewater Management Plan (DWMP)[iv]. These plans set out how we can deliver our services in the long term while addressing challenges such as climate change, population growth and environmental protection.

The Environment Strategy also builds on our commitments made in 'A Vision for our Coasts and Rivers'[v] which was first published in 2022 and updated every year stating a series of 9 ambitious pledges aimed at enhancing our water environment building on our long history of environmental stewardship. Our pledges are a testament to our dedication to maintaining and improving the positive trajectory we have established across our regions.

Nine Ambitious Pledges

1. We will work with the EA, Natural England, The Rivers Trust and Catchment Partnerships to identify, and have plans in place to eliminate, all impediments to our rivers achieving good ecological status caused by our operations.
2. We will invest in monitoring to provide 100% near real-time data on all Storm Overflows (SO's) by 2023.
3. We will introduce final effluent, in-river upstream and downstream monitoring to get a greater understanding of environmental impacts of treated water by 2030.
4. We will implement water quality monitoring at the highest priority SO locations by 2025.
5. We will reduce spills from SO's to an average of 20 per year by 2025.
6. We will work closely with The Rivers Trust through our strategic partnership and North East Catchments Hub to focus on river needs for investment through catchment and nature-based solutions, and to identify at least two inland bathing water sites where applications for designation can be made at the earliest opportunity. We are proud that already 95% of the North East population lives within an hour's drive from a beach with Good or Excellent bathing waters.
7. We will work with partners to achieve 100% of coastal bathing waters at Good or Excellent by 2030.
8. We will work in partnership to improve 500km of blue spaces (such as river banks and accessible water environments) for the public to enjoy in our regions by 2030.
9. We will double the number of our Water Rangers – our citizen scientist volunteers who are trained to help us monitor environmental conditions around rivers and take action to address wider river issues such as littering, fly tipping or signs of pollution.

INTRODUCTION TO PIRP CYCLE 2

What is the PIRP?

The first iteration (Cycle 1) of the PIRP was introduced by the Environment Agency (EA) in 2020 to help guide Water and Sewerage Companies (WaSCs) in documenting their progress, performance, and plans for reducing the number of pollution incidents.

Cycle 2 is the second iteration which aims to build on the foundations of Cycle 1 with additional expectations from the EA and contains several new reporting requirements across both our clean water and wastewater operations including (but not limited to) our performance, strategies, and interventions for reducing pollution incidents across our region.

What is a pollution incident?

A pollution incident is the introduction of a substance that has a harmful impact on the environment. Pollution incidents are defined in the EA's Common Incident Classification Scheme and are currently categorised based on their impact from category 1 to 4.

Serious pollution incidents are categorised as 1 or 2, having the highest impact on the local environment, wildlife and potentially putting public health at risk. They are defined in the Serious pollution incidents metric set out in the reporting guidance from the EA's water and sewerage company Environmental Performance Assessment (EPA)[vi]. Category 3 and 4 incidents are defined as those events having minimal or no impact.

Once identified, pollution incidents are managed and recorded on the National Incident Reporting Scheme (NIRS), which is owned by the EA.

The EA is currently carrying out a consultation on a revision to the EPA and environmental performance reporting. As part of this consultation the EA is proposing to expand and strengthen the requirements through the inclusion of new metrics and tightening existing pollution thresholds which are to come into effect from 2026. The conclusion of this consultation is due in the summer of 2025 and may lead to changes in how a pollution is categorised?

These new changes will incur additional funding associated with an increase in activity to investigate and report pollutions incidents. Based upon these new requirements a £13.5m Pollutions Enhancement Case was included within our PR24 business plan but was unsuccessful in securing Ofwat funding.

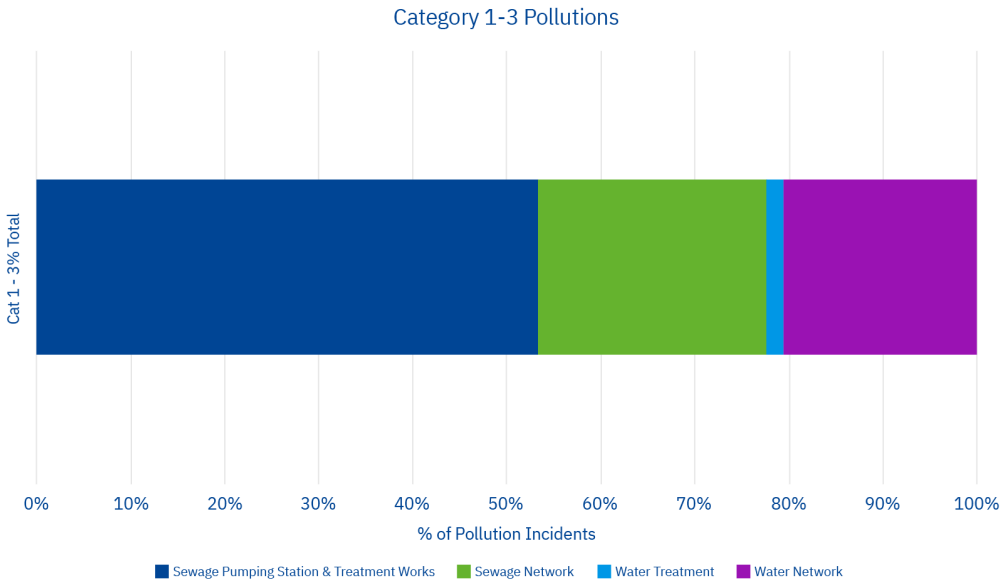
We have not had a serious clean water pollution incident (category 1 or 2) since 2020 or a serious wastewater incident since 2021, meaning we are industry leading.

What causes a pollution incident?

Most of the time, our infrastructure can fully treat and safely return effluent to our regions' water courses. However, there are occasions when issues occur or extreme weather events impact our operations, affecting the performance and ability of these assets to fulfill their duty, which can result in a pollution incident.

A large proportion of our category 1 – 3 pollution incidents across both our clean water and wastewater operations within the 2020-24 period have occurred at our sewage SPS, STW predominately associated with its pumping activity and rising mains (RM) at 53% (Figure 2).

Figure 2 - Overview of category 1 - 3 pollution incidents from clean water and wastewater assets (2020 - 2024).



The second largest cause of pollution comes from our extensive 30,237km sewage network at 24%. Certain customer behaviors have a considerable impact upon this value as flushing inappropriate items leads to blockages which we seek to address through our successful Bin the Wipe intervention. Infiltration of rain and surface water into our wastewater assets can also lead to blockages and discharges. These blockages, combined with the severity of named storms, can disrupt our network and cause pollution incidents.

Collectively water treatment assets and its network contribute to 23% of our pollution incidents. Bursts on water pipes lead to drinking water (that may contain chlorine and/or fluoride) discharging into watercourses, with the potential to have a negative impact on the ecology and wildlife living in it.

Climate change related pollution events continue to emerge as a considerable challenge for our northern operating area significantly contributing to incidents from our powered sites (SPS and STW) with flooding contributing to infiltration and hydraulic loading of our networks.

Information presented in our business plan 2025-30 using UK Climate Projections (UKCP - Met Office) indicates that NW and ESW regions are likely to be impacted more by windstorms, extreme rainfall, and floods outside of our control relative to the rest of the country in the future (Figure 3). UKCP is a recognised set of tools and data that shows how the UK climate may change in the future.

Figure 3 - Summary of climate hazards in comparison to the rest of the country

Hazard	North-East	South-East
Windstorms	Higher	Lower
Winter extreme rainfall	Average	Lower
Summer extreme rainfall	Higher	Higher
Floods	Higher	Lower

Full details of climate risk faced by the company can be found on our website (nes52.pdf).

The North East is particularly susceptible to these weather impacts from wind and extreme winter rainfall compared to some of the other regions of England. Extreme winter rainfall would increase as well, which together with the physical properties of the valleys would mean that the magnitude of floods would increase more than in other parts of England.

The Southeast would not be as impacted by storms, with modest or no increase in large-scale flood magnitudes. However, extreme summer rainfall associated with convective storms is expected to increase more than the UK average, potentially leading to more frequent or intense localised floods. Periods of hot weather can result in soil moisture deficit increases which means pipe bursts are more likely to occur.

Our pollution position

In 2015, we established the Pollution Best Practice Group (PBPG) and Pollution Management Plan (PMP) as transformative actions to significantly reduce pollution incidents. Our aim was to foster a culture focused on all aspects of pollution risk. This approach has led to considerable improvements in total pollution performance, particularly from 2017 onwards, resulting in an EPA industry-leading as a frontier company (4 - star status) in 2020 and 2021 while maintaining a Good Company status in 2022 and 2023. Our finalised 2024 performance will be included in the full EPA which has been delayed until October 2025 but anticipate a summary publication in July 2025.

These working groups have continued to develop and evolve on a monthly cadence, involving a multitude of teams from across the business, with an objective to understand the root causes of our pollution incidents. These discussions have allowed us to learn and implement interventions that contribute towards reducing the likelihood of a repeat occurrence or those which will deliver a reduction in pollution incidents.

Currently, as reflected in our 2024 PIRP Annual Return there are a total of 40 initiatives contributing to the **avoidance** of pollution incidents within our northern operating region including:

- Increased frequency of maintenance.
- Training.
- Improvements in equipment reliability and availability.
- Additional headcount targeting proactive tasks.

These successes have been reflected in more detail within our 2024 PIRP Annual Return building on our past successes to drive continuous improvement which is forecasting circa pollution avoidance of 170 incidents in the 2025 period compared to 95 incidents in 2024 (79% forecast increase in pollution avoidance).

Our stakeholders

Despite sector-side trust challenges, Northumbrian Water remains one of the most trusted water companies, with strong customer satisfaction scores. Our customers consider reducing pollution incidents to be one of the most important indicators of our performance, and continued pollution reduction received the largest support of any service area through our PR24 customer evaluation work.

Ofwat's common outcome delivery incentive (ODI) measure for total pollution requires that we meet our performance commitment, by setting the baseline at the median of all companies' average 2020-24 performance, which represents an 18% improvement from current performance across 2020-24[vii].

The EA and Natural England set out environmental performance requirements in their jointly published Water Industry Strategic Environment Requirements (WISER) [viii] document (updated May 2022). These include:

- Zero serious pollution incidents (category 1 and 2). At least a 30% reduction of all pollution incidents (category 1 to 3) by 2030 on current 2025 targets. To achieve this target those companies with a base line above the industry average will need to push the performance frontier.

- High levels of self-reporting of pollution incidents with at least 90% of incidents self-reported by 2030. More than 95% of incidents self-reported for STWs and SPSs (non-statutory).
- 100% compliance at wastewater treatment works and water treatment works with numeric limits and for storm overflows (statutory).

Defra expects Ofwat to challenge water companies to improve their environmental performance by significantly reducing pollution from wastewater assets, particularly focusing on storm overflow discharges.

Customer Council of Water (CCW) considers it important that consumers trust their water company and they are able to manage and operate their water and sewerage networks and treatment works responsibly and efficiently, minimising environmental impacts.

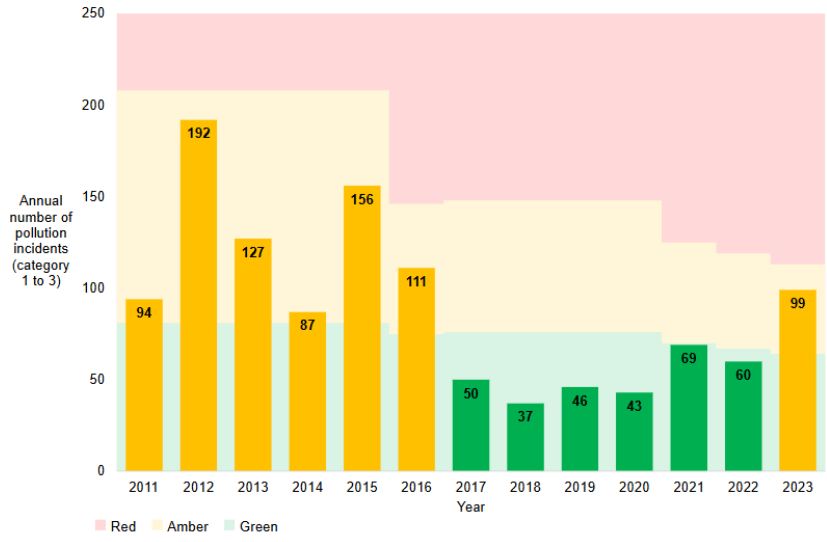
The Water Forum, Blueprint for Water and Our Catchment Partners continue to challenge us to become more ambitious and stop all pollutions of our waters by addressing issues at its source.

CURRENT PEFORMANCE

Wastewater performance – total pollution incidents

Illustration taken from the Northumbrian Water EPA data report 2023 (published 23 July 2024).

Annual number of pollution incidents (category 1 to 3) from Northumbrian Water sewerage assets, also showing EPA status and thresholds

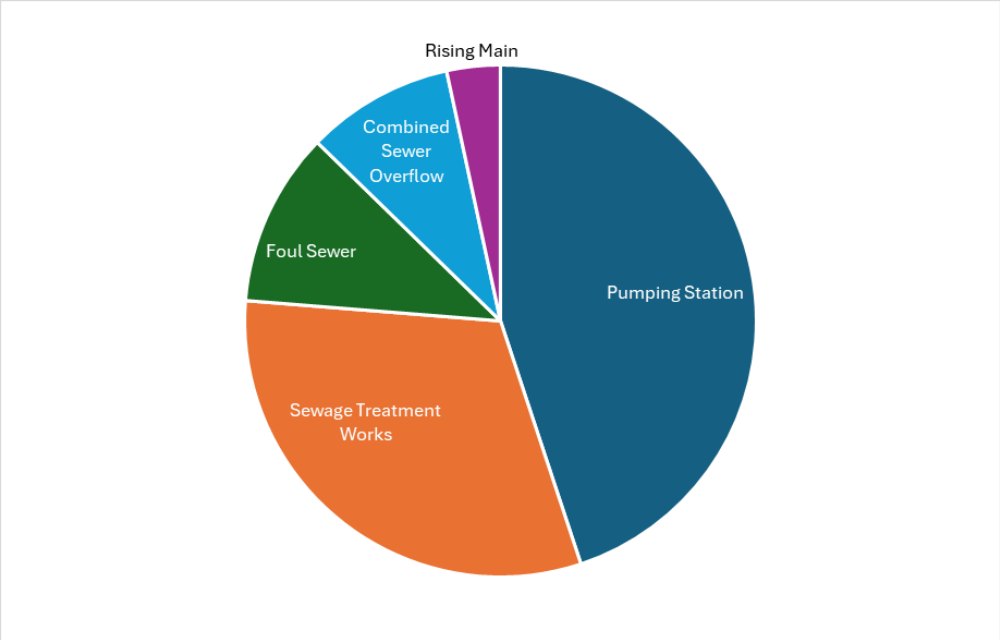


The graph above represents our wastewater incidents only for Total Pollutions (category 1-3). It excludes clean water impacts and currently our 2024 wastewater performance. Our current provisional 2024 forecast for Total Pollutions (category 1–3) is 117 incidents which is still being finalised and validated by the EA with its summary position due to be published in July 2025.

Pollution incident numbers have decreased significantly since the introduction of our Pollutions Best Practice Group in 2015 but have increased in the latter part of the illustrated period. While we remain an industry-leading performer and a frontier company - recording zero serious pollution incidents (category 1–2) from our wastewater assets since 2021 - our provisional 2024 data indicates a rise in category 3 incidents to 117, largely driven by storm-related power outages.

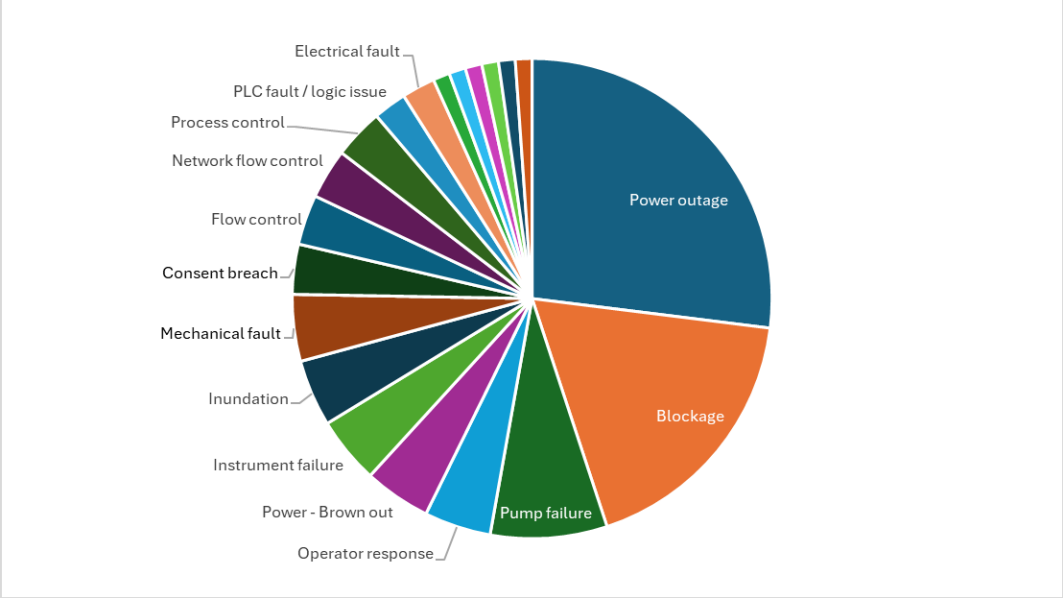
The asset classes predominately contributing to our provisional 2024 wastewater pollution performance are Sewage Pumping Station (SPS) at 45% and Sewage Treatment Works (STW) at 31% illustrated in Figure 4.

Figure 4 – Provisional wastewater pollution incidents (category 1 - 3) by asset type for 2024



The primary root causes across both assets (SPS & STW) were related to power outages and blockages as illustrated in figure 5.

Figure 5 – Provisional 2024 category 1 – 3 primary route cause (SPS and STW only)



We continually experience the impact of severe or named storms upon our pollution performance. In the UK a storm will be named when it has the potential to cause disruption or damage which could result in an amber or red warning. This is based on the National Severe Weather Warnings service, which considers a combination of both the impact the weather may have, and the likelihood of those impacts occurring.

Prior to 2024, pollution events from severe or named storms, which are demonstrably outside of our control would have been considered by the EA to be discounted from our EPA pollution results; however following the EA issuing its position in an Information Letter to all water companies in November 2023, such instances are now included.

Our operations experienced 9 named storms within the 2024 period. Storm Darragh alone in December 2024 resulted in 22 pollution incidents within our region, contributing to 26% of our 2024 total pollution events (Cat 1–3). In total 51 pollution incidents were recorded during named storm events (44% of total Cat 1-3 recorded) in 2024 which clearly illustrates the challenges associated with climate change and where our intervention priorities are focused.

During the period between 2020 – 24 a total of 42 storms have been named by the Met Office which in many instances contribute considerably to our pollution performance. Mitigation in reducing the likelihood of impact from these severe and named storms was included in our PR24 business plan where we requested a programme submission associated with wastewater power resilience of £59m.

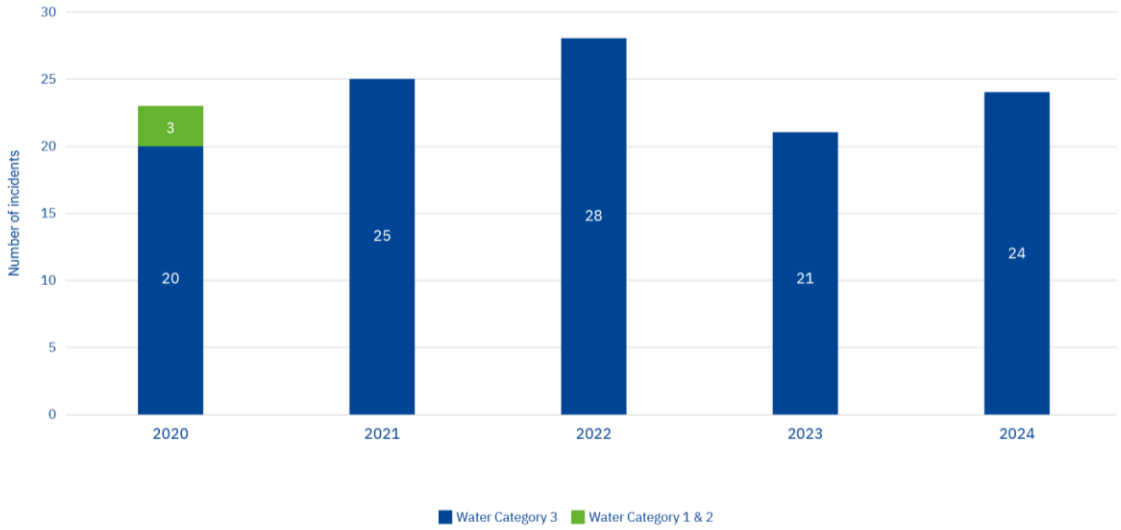
This request was to protect high criticality wastewater SPS and STW targeting assets which are at either high risk or repeat power failures from severe storm or high wind events. Our PR24 Ofwat Final Determination only allowed funding for £11.6m being 20% of requested funding to address the pollution challenges storms continually have upon our pumped assets (SPS and STW).

Ofwat stated that our DNS has already received funding from Ofgem to address outages that affect our operations from severe storms and therefore additional funding would risk duplication of allowances. The Ofgem allowances, which were provided following the Storm Arwen re-opener, targeted improvement in limited stretches of high voltage infrastructure and faster restoration after outages which clearly does not improve power resilience at local level. Our DNS has confirmed that delivery of Ofgem's funding will not result in the level of resilience we require.

Clean water performance - pollution incidents

Over the last five years we have seen a sustainable decrease in the number of category 1 and 2 pollution incidents from our water treatment works (WTW) and water distribution system assets (Figure 6). In 2020, we had three category 2 pollution events but since then we have zero category 1 or 2 pollutions, establishing us as a leading performer and frontier company. The number of category 3 pollution incidents has remained generally consistent over the last five years, ranging from 20 to 28 incidents.

Figure 6 - Clean water pollution incidents (category 1 - 3) between 2020 - 2024



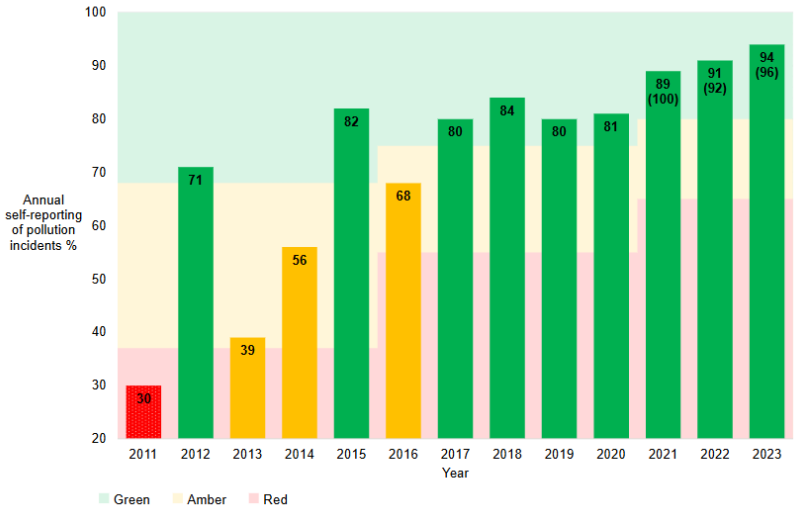
Recent wastewater actions have been reviewed and aligned allowing us to build on our existing clean water tactical plans with the continuous development of interventions to improve the pollutions performance in the PR24 (2025-30) period.

Clean water and wastewater performance - self reporting

One proactive activity that all WaSCs must report on as part of their EPA is the self-reporting of pollution incidents to the EA. This practice helps in understanding the root causes of incidents and demonstrates effective management protocols. We have performed well against these criteria since 2017 continuously remaining above the green threshold.

Illustration taken from the Northumbrian Water EPA data report 2023 (published 23 July 2024).

Annual self-reporting of pollution incidents (category 1 to 3) from Northumbrian Water sewerage and water supply assets, also showing EPA status and thresholds



From 2021 this reporting has also included a new performance requirement of self-reporting of both pumping stations and sewage treatment works shown in brackets. As can be seen NWL has continued to achieve the green threshold status since 2017.

Our provisional 2024 self-reporting performance (which is with the EA to validate) is 90% Category 1–3 incidents and 92% for self-reporting of SPS and STW Category 1-3 incidents remaining within the green threshold. We continue to understand key learnings from this reduction in performance compared to 2023 and implement actions for improvement.

OUR 2025-29 PIRP DEVELOPMENT

Our pollution management approach to date has driven a transformation in performance since 2015. We continue to focus on developing and embedding existing improvement actions while introducing new proactive strategies - such as changes to the auto-resetting of key equipment following power dips and increased tanker deployment - to mitigate the impact of extreme weather and power outages.

Our aim is to remain adaptive and build on previous interventions and strategies to improve our pollutions performance across our entire asset base, considering the emerging environmental challenges identified during the 2020-24 period (wind, rain, heat, snow).

Building on the methodologies developed in Cycle 1 we're introducing an enhanced level of pollution reduction forecast that will evolve throughout the business period. We have also strengthened our operational capacity by increasing the people in our operations and maintenance teams and appointing a dedicated Pollutions Manager to lead continuous improvement across our wastewater asset base. These actions are already generating additional insights into root cause analysis and enabling more targeted interventions.

In parallel, we are aligning and integrating our clean water strategies and interventions into our new way of working for capturing interventions and forecasting their impact using a new benefits ratio principle (PIRP Calculator). This recent progression from our previous working methodologies will be launched as a live document in 2025. This will enable efficient tracking and updating of various interventions, their current status, and the anticipated pollution avoidance across the 2025-29 period.

Future performance targets

We currently lead the industry on serious pollution performance. Our aim is to continue to reduce the number of total pollution incidents from our clean water and wastewater activities continuously adapting to the challenges ahead.

Our regulatory performance commitment for total pollution incidents for the common EPA measure has been set by Ofwat to ensure we continue to improve pollution performance for each year of the investment period 2025-29.

Total pollution incidents are reported to the EA as the total number of pollution incidents (categories 1 to 3) in a calendar year emanating from a discharge or escape of a contaminant from a water company wastewater asset affecting the water environment, per 10,000km of sewer length from wastewater assets for which the company is responsible. This is referred to as the normalised value and outlined in the EPA version 11 methodology. (Environment-Agency-Environmental-Performance-Assessment-methodology-v11-3.pdf

Figure 7: PR24 (AMP8) regulatory targets for total pollution and serious pollution incidents

Year	2025	2026	2027	2028	2029	Comment
Normalised total pollution Incidents (per 10,000 km of sewer length)	**25.02**	**23.42**	**21.82**	**20.23**	**18.63**	Wastewater Only
Absolute total pollution Incidents Target (rounded)	**76**	**71**	**66**	**61**	**56**	Wastewater Only
Number of serious pollution incidents	**0**	**0**	**0**	**0**	**0**	Clean Water & Wastewater

Serious pollution incidents are reported as the total number of serious pollution incidents (categories 1 and 2) in a calendar year emanating from a discharge or escape of a contaminant from a water company sewerage asset or water supply asset affecting the water environment as absolute numbers.

Continuous improvement of our approach

In 2015, our pollution performance for wastewater incidents was ranked one of the highest in the industry. This was unacceptable given our environmental aspirations and customer outcomes.

We created a dedicated project team as part of a zero-tolerance approach to pollution. The project team was focused on developing and then implementing ideas to improve pollution performance across our whole wastewater network and assets.

We identified 26 activities for an initial trial improvement programme. Following these successes, the programme has developed and matured in identifying new interventions encompassing customer engagement, innovation, data intelligence and analytics.

Our commitment to reducing pollution drives us to consistently review our performance data and challenge the root causes of pollution events. As a result, we currently have 40 live initiatives that will deliver substantial pollution avoidance benefits throughout the 2025-29 period as part of our strategic tactical plan. These interventions delivered circa 95 benefits (avoidance of a pollution incident occurring) in 2024 with a forecast avoidance benefit of 170 in 2025 as they mature and are embedded into the business.

Continued development of our tactical plan and applying the new PIRP forecasting tool across 2025-29 period is still being assessed and profiled against our regulatory performance

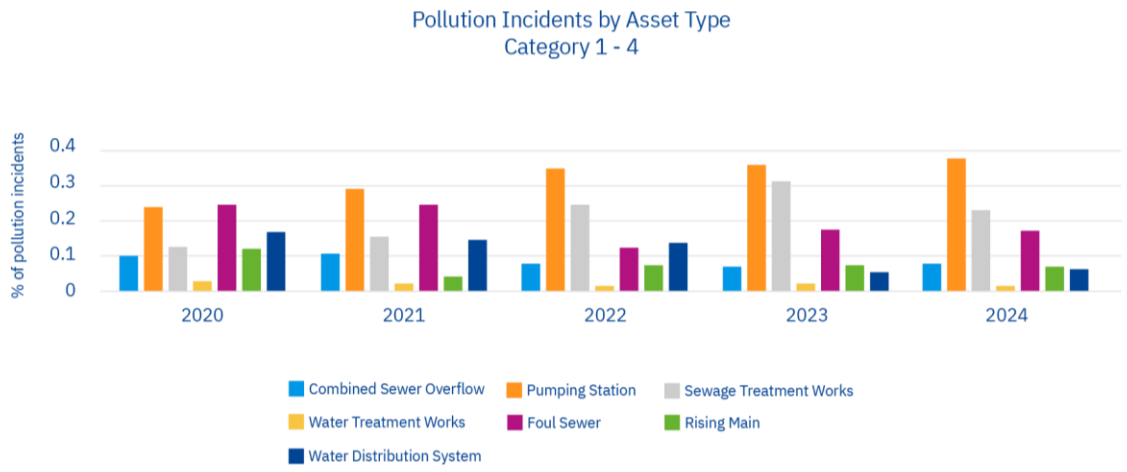
objectives, with the anticipation that the current interventions will deliver nearly 1,000 pollution benefits (avoidance of pollution incidents) across the entire 2025-29 period.

Root cause and tactical plans

We continue to focus on developing existing and new interventions for inclusion in our tactical plan based on assessment of root cause analysis. Since 2023 this work has continually developed, now allowing detailed 'deep dives' to be completed across category 1 - 4 incidents to understand the true root causes at primary, secondary and tertiary level and identify new opportunities for interventions targeting specific issues.

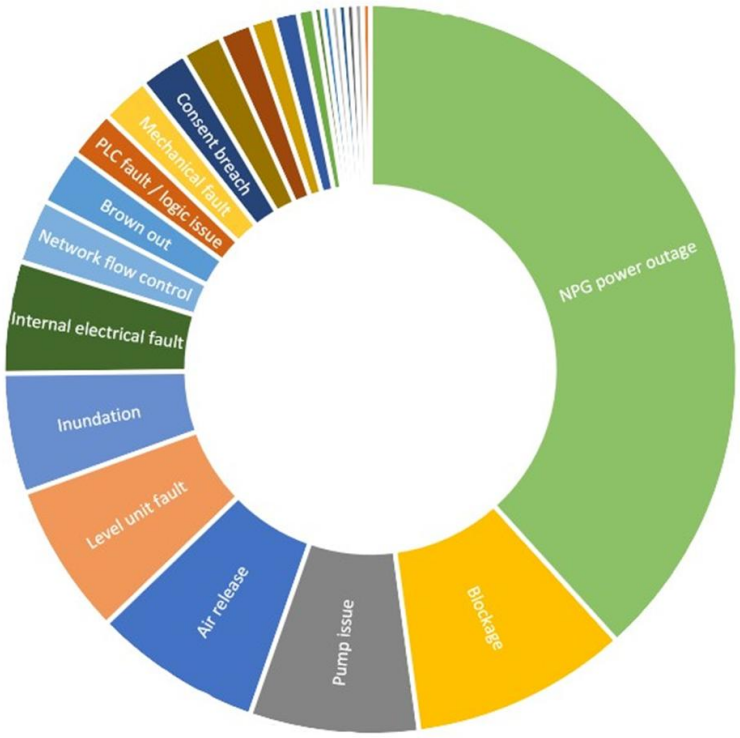
This root course analysis (RCA) can now be completed across the entire wastewater asset base and is reviewed in the monthly Pollution Root Cause Deep Dive meeting. The base data is now available to be analysed and dissected as required to allow an informed understanding of all wastewater pollution incidents which are illustrated within this section (Figure 8 & 9). We have begun to integrate clean water incidents into this process.

Figure 8: Wastewater pollution incident by asset type (category 1 - 4) between 2020 - 2024



The above graph illustrates our pollution incidents including category 4 for the 2020-24 period and asset type that was associated with that event. Sewage Pumping Stations (SPS) and sewage treatment works (STW) have been prominent in pollution incidents and illustrates the impact of climate change on our wastewater assets due to power dips or total power outages which is reflected in Figure 9.

Figure 9 – Category 1 - 4 primary RCA of pollution incidents at wastewater SPS and STW pumping assets (Jan 2023 – Dec 2024)



As can clearly be seen from the Figure 9 analysis, power outages associated with our DNS is the primary root cause of category 1 - 4 pollution incidents across our powered assets of SPSs and STWs. In addition, these impacts also contribute to our internal electrical faults which when combined over 2020-24 contributed to 42% of pollution incidents (category 1-3) and 45% of pollution incidents (category 1-4) across our powered asset base (SPS and STW).

To mitigate and reduce the risk of this impact, several interventions have been implemented, including the strategic pre-deployment of tankers and generators ahead of storm events, as well as ensuring their reactive availability during and after storms. Additional candidates have been identified but not launched as they need to be prioritised through a value-based decision-making framework to secure funding.

Although these events are predominately a third-party liability and out of our control, we continually engage with our DNS to try to influence the prioritisation of failures and replacement of their key infrastructure. Despite continued discussions, its operating priorities, and planned investment in infrastructure cannot be relied on to improve our pollution performance position.

Based upon past analysis across all incidents we are increasing headcount by more than 60 people across our wastewater and maintenance operations, targeting a programme of proactive actions which includes the appointment of a new Pollutions Manager.

Changes in operational practices are also being delivered including escalation protocols, investigation tasks (find and fix), elevated customer contacts via our Bin the Wipe teams, and the use of proactive analytics focusing on our SPS and SOs.

We continue to build on our successful Bin the Wipe pilot which originally ran for an initial four months in 2020 targeting 1.1k households using a small, dedicated team. Since the launch of the campaign, we have now sent letters to 899 thousand customers, educating them about the damage wipes are causing to the environment. These excellent outcomes have caught national attention and Water UK, the industry body representing water companies across the country, introduced a national Bin the Wipe campaign, inspired by our success and with the backing of MPs.

In summary, our current tactical plan will deliver pollution reductions across our entire wastewater asset base through a multitude of solutions including improvements in our tangible assets and through improvements in our systems, protocols and behaviours.

Planned interventions - wastewater

We continuously review all pollution incidents (categories 1 - 4) through our internal process, identifying primary, secondary, and tertiary root causes where applicable. Using this data, we identify improvement opportunities across all assets to mitigate and reduce the risk of future pollution incidents. These interventions are either short-term, targeted actions (1 - 2 years) or, following successful trials, are integrated into our day-to-day operations and established as business-as-usual practices.

Through the development of our new PIRP calculator, actions have been captured and classified as business as usual (BAU), live (has been recently launched and is delivering benefits) and pending. Pending are viable candidates that have not been launched, requiring authorisation to implement and approval of funding.

These have all been assessed establishing an impact reduction on pollution incidents across 2025-29 applying a benefit ratio methodology. This reviews the action / task to be completed and then estimates how many times the intervention will be applied to realise an avoidance of a pollution.

An example of this logic is as follows: simply placing a standby generator at an asset does not automatically prevent a pollution incident. For the intervention to result in pollution avoidance, a storm would need to occur at that specific location, coinciding with a failure of our DNS infrastructure. Additionally, our operational team would not be able to reach the site in time to connect the generator at which stage a pollution event takes place.

Although this example is a proactive activity a benefit ratio of 15:1 has been applied to the forecasting model which means a pollution reduction of 1 incident will be delivered for every 15 proactive deployments of generators.

Currently we have a total of 40 wastewater interventions as BAU and live which are forecast to deliver considerable pollution benefits across the next business. The assumption is that these interventions will deliver a category 1 - 3 benefit. Details of these benefits can be found in our 2024 PIRP annual return (14 March 2025).

Figure 10 – Cumulative Forecast benefits from current BAU and live interventions across the 2025-30 period

Forecast benefits from current BAU and live interventions across the 2025-30 period	2024	2025	2026	2027	2028	2029
	95	170	184	213	209	202

The table above illustrates the cumulative benefit of the launched interventions. It is forecasted that these will deliver an additional 75 pollution avoidances in 2025 compared to 2024. As new interventions mature and are embedded into the business their impact on avoiding pollution incidents have been forecast to increase due to the number of actual activities increasing (2025-27). However, at the same time some of our interventions which have a specific time period associated with funding etc may stop, however their benefit continues in future years but at a reduced impact (2027-29).

We anticipate that some of those interventions currently categorised as pending could receive funding allowances through our base expenditure (existing budgets) requiring the need to prioritise through a value-based decision-making framework. This considers the financing of all new wastewater investments based on total benefits, priority and risk and therefore does not guarantee that all of the 29 pending candidates will become live during the 2025-29 period due to budget constraints or identification of new interventions that can deliver a higher benefit. These candidates also include some new innovative solutions to proactively target storm events and improve our power resilience at our pumped assets (SPS, STW). Our PR24 submission included an Enhanced Pollution business case which was unsuccessful in securing funding from Ofwat.

Below is a consolidated overview of the of interventions that are currently live and delivering pollution avoidance.

Figure 11 – Overview of 2025 interventions

Foul sewers		Storm overflows
Installing network monitors		Deploying real time analytics
Find and fix surveys		High spill investigations
Asset rehabilitation		Manhole surveys
Infiltration reduction plan		River pledge 5
Asset inspection programmes		Proactive cleaning and inspection
Expanding Bin the Wipe		Flow control inspection
Rising mains		Identifying unconsented SO assets
Installing burst sensors		**Sewage pumping stations**
High risk site surveys		Reactive third party tankers
Proactive maintenance		Deploying proactive strategic tankers
Sewage treatment works		Deploying generators
Telemetry projects		New pumping station team
Developing digital twin site		Enhanced proactive wet well cleaning
Proactive assurance activities		Increase maintenance teams
Asset improvements		Duty pump failure response
Avoiding power outages		Priority investigations

Compliant bioresources activities		SPS fail safe modes / operations
Company wide		Hire pump strategy
Enhanced levels of alarm assessment		Strategic spares
Employee training (NVQ level 3)		Remedial asset improvements
Appointment of Pollutions Manager		Best operational practices
Improved communication protocols		**Forecast 2025 pollutions benefit in the region of 170 incidents**
Weekend alarm review		

Several new interventions have been launch (those in green) based upon the evidence from our RCA data. Some of these interventions will have an immediate impact at their full potential whilst others will take some time to fully embed. Using our newly developed PIRP calculator we have established the following pollution avoidance profile across the different wastewater assets for the 2025-29 period:

Figure 12 – Pollution avoidance forecast by asset type (2025-29)

Asset Type / Pollution Avoidance	2024	2025	2026	2027	2028	2029
Foul Sewers	46	71	67	65	63	58
Combined Sewer Overflow	15	19	15	13	11	9
Rising Mains	5	3	3	3	3	3
Sewage Pumping Station	17	43	65	98	98	98
Sewage Treatment Works	10	9	9	9	9	9
Company Wide	2	25	25	25	25	25
Total pollution avoidance	**95**	**170**	**184**	**213**	**209**	**202**

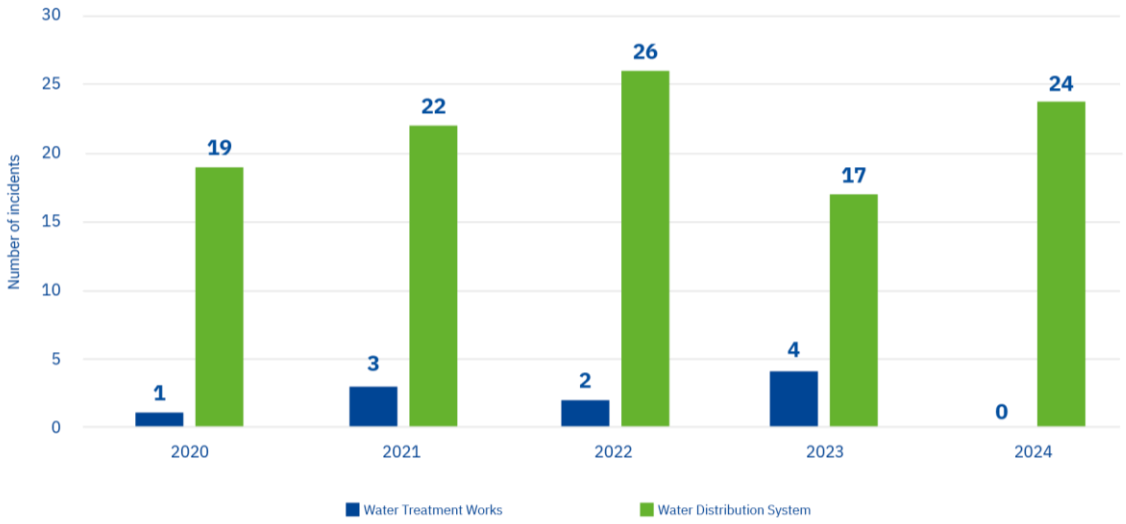
As can be seen some interventions will stop or decline in their delivery of pollution avoidance with projects being completed. We do have an additional 29 candidates identified but these will need to be prioritised through a value-based decision-making framework and are therefore not guaranteed funding.

This pollution avoidance forecast is based upon our current analysis and will continually change and adapt was we gain a greater understanding of actual benefits against forecast benefits with the desire to promote candidates where funding is successful.

Planned interventions - clean water

The number of pollution incidents from our WTWs and water distribution system assets from all our water supply regions has remained fairly consistent since 2020. However, over the last 12 months we have seen a reduction in the number of pollution incidents from our water treatment works, with pollution numbers reducing from four in 2023 to zero in 2024 (Figure 13).

Figure 13 - Water category 3 pollution incidents by asset type across all our water supply regions, 2020 - 2024



The clean water root cause analysis is now adopting the wastewater methodology along with PIRP calculator principle of identifying interventions and forecasting their benefit across 2025-30 but this is still early in its transition.

Based on root cause analysis several interventions have been initiated, one of these was an improved training programme across water operations to make sure all operational employees consistently apply processes, procedures and protocols to avoid incidents. This has proved to be a successful improvement initiative. Through our internal pollution best practise training programme, 752 internal colleagues and external contractors have been trained between 2019 – to date.

This training programme has now been enhanced by the introduction of our new E-Learning Pollution Refresher Course. Launched in 2024, this annual refresher allows our colleagues in water distribution to keep up to date with changes in regulation and best practice.

We have also introduced a quarterly Environmental Toolbox Talk. These talks are used to review feedback from the EA and for deep dives into key pollution related topics. Previous talks have focused on the impacts of chemical and chlorine pollutions, what's reportable and what isn't reportable. These discussions generate a greater understanding of how to reduce the impact of pollutions and allow space for best practises to be shared.

We have put in place measures to reduce or manage risks, such as improving our response times or carrying out maintenance work. One example is investing in over 200 extendable water sampling poles, which help our Distribution Technicians safely access remote areas without having to bend down or stretch, reducing the risk of injury.

We have also invested in the implementation and roll out of ArcGIS Field Map online application. This new technology allows our colleagues in water distribution to streamline their field activities, aiding in identifying and assessing risks in the area.

Following the success of our original WTWs pollution prevention audit, in 2024 we reviewed and refreshed the scope of the audit to ensure it was up to date and captured all potential pollution risks. With the original audit focusing on site drainage systems, the refreshed audit now includes permit compliance, pollution risks and environmental risks, for example, sludge treatment and storage onsite. We are currently in the process of systematically reauditing all our WTWs.

Since 2021, we have been developing a suite of site-specific standard operating procedures (SOPs) for processes carried out on a WTWs. These documents detail the operating requirements and best practices to operating equipment onsite WTWs safety and effectively. Examples include:

- Receiving a bulk chemical delivery - Lime / Ferric.
- Operation of waste stream - sludge centrifuge unblocking.
- Operation of waste stream - sludge thickener manual blanket checks.

Also, since 2021, we have also developed a suite of standard procedures (SP) to detail the operating requirements and best practice that should be performed on WTW. Examples of these are:

- Coagulation dosing.
- Fluoridation.
- Toxic gases.
- Environmental discharge.

We continue to focus on a range of activities and interventions in our water pollution management and reduction plan to develop a zero-tolerance approach to pollution, implementing best practice in our response, and driving a culture of continuous improvement.

We will continue to develop and implement a range of interventions across our water directorate. We have identified the following as part of our plan for deployment for 2025-29:

- Continue to improve our response and awareness of mitigation tools, such as in their deployment to avoid or contain potential incidents. Improve water discharge management, such as from trench water or scour, and embed updated processes in field teams.
- Continued training, front-line pollution event learning, and implement proven best practice with regular feedback to field teams and contract partners.
- Continue to conduct regular performance review meetings and review against current practice towards refinement of business process.
- Complete updated pollution prevention audits on all our WTWs.
- Continue to review new technologies, innovative solutions and learn from industry best practice.
- Review and develop standard operating procedures and standard procedures for activities undertaken in the water distribution system.

Monitoring and assessment of our plan

Our wastewater Pollution Best Practice Group will oversee the implementation of our interventions and monitor the benefits they deliver, ensuring full alignment with our tactical planning function through monthly reviews. This involves tracking the progress of implementation against current pollutions performance, emerging trends from root cause analysis, updates on EA communication and future forecasting.

Our water management team continue to align to wastewaters protocol and will track delivery of the improvements being made within the water directorate against planned interventions as outlined above.

Monthly Pollution Root Cause Deep Dive meetings are held across departments who can influence an improvement in pollution reduction. These meetings review every category 1 - 4 incident and establish the primary, secondary and tertiary root cause to allow new reduction opportunities to materialize, and to check current launched interventions address the failure cause.

Although this is the first PIRP Cycle with the inclusion of clean water pollutions, work has already started to align and embed both directorates reporting as one, which will also include a harmonisation of best practice and learning.

As clearly stipulated within the EA's Cycle 2 expectations, our Board is fully supportive of the Cycle 2 submission and will review progress against the plan on a recurring six monthly period.

Collaboration

We are committed to our collaborative approach, and work in partnership with our stakeholders to reduce pollution incidents from our assets and operations, to respond and manage any incidents in an exemplary manner.

Environment Agency

We have a very strong relationship with the EA's area teams and work closely with EA colleagues to manage all aspects of pollution. This includes our self-reporting protocol, monthly pollution review meetings to discuss incidents, issues and incident classification, and strategic level review of our approach.

Industry

We actively benchmark pollution performance, management processes and interventions across the industry to benefit from new ideas and allow best practices to be adopted and share our learning with others including participation in the National Pollution Group discussions.

We openly share our approaches with other companies and recently we hosted Severn Trent Water to share our ongoing challenges and potential interventions to mitigate pollution risk, showcasing our proactive analytics trial (Storm Harvester) which has successfully been

deployed to our SPS and SO, providing real time data and trend analysis. The system collects data from an extensive network of sensors and uses machine learning to understand the normal operating thresholds for that site which it can then recognise and highlight anomalies in near real time.

In addition, we will participate in the newly formed Pollutions Working Group which currently includes five water companies participating in sharing best practice and successes.

Catchment approach

In 2024, a new Catchment Monitoring Team was introduced into the business, showing our commitment to gathering river water quality data and evidence to inform action and investment. This team has already collected more than 2,000 samples from rivers and streams across the region and continues to engage with the wider communities and partnerships.

Thriving Catchments and Integrated Catchment Planning - our strategic partnership with The Rivers Trust - enables us to understand how we can best support the Catchment Partnerships and work together with local delivery partners to enhance the Catchment Based Approach (CaBA) movement across our region.

We have included investigations in our Business Plan for 2025-30 as part of our Water Framework Directive (WFD) Urban Pollution Investigations, which will see us understanding the impact of intermittent discharges and other urban sources of nutrients to river water quality in six urban waterbodies across the North East. This will help provide more information on the role of storm overflows and misconnections as sources of urban pollution.
WFD catchment investigations - our investigations for phosphorus across 30 water bodies linked to 31 STWs and carried out in parallel to the urban investigations above, will provide additional information on catchment pollution issues and inform river water quality management activities by ourselves and others.

MANAGEMENT SYSTEMS AND PROCEDURES

The EA in conjunction with Natural Resources Wales (NRW) have started a consultation review of reporting requirements and EPA methodology targeting a start date of 1 January 2026.

The objectives of these proposed amendments are to provide a greater understanding of company activities and review some thresholds to ensure WaSC's meet the EA's and the publics' expectations.

Until its conclusion, we continue to follow the EA's current operational instruction 16_02 Guidance for recording and categorising water industry self-reported pollutions incidents. This entails reporting every discharge according to the guidance and is summarised in the Pollution Incident Matrix. Through this approach, we continue to have a good relationship with our local EA colleagues with monthly meetings to review incidents, their classification and evidence collected, such as for no-case reports.

Our Pollution Management Information System (PMIS) is used as part of our pollution process and procedures to record information on all pollutions within the company. This was developed in-house so that it can be modified or updated as and when required.

The PMIS provides a chain of custody for incidents with owners logged and investigation pro-forma (IP) documents completed. Email alerts are also generated so that incident owners and managers can monitor the timely completion of IPs.

Our ongoing company-wide accreditation to ISO 14001 Environment Management standard, provides the assurance that our systems and procedures are fit-for purpose. To make sure we comply with all environmental regulations whilst continuously improving in reducing our impact on the environment.

Asset management

The improvement in asset management plays a significant role in the achievement of many of our performance commitments, including pollution incidents. The way we manage our asset base and consider its asset health is pivotal in identifying future operational risks and development of targeted interventions to reduce pollution incidents.

Pollution-related interventions currently being delivered include assets surveys, rehabilitation programmes, delivery of key strategic spares and a considerable increase in Maintenance Reliability Engineers (MRE) headcount.

We have had company-wide accreditation to ISO 55001 Asset Management since 2015, demonstrating that we follow best practice in the long-term management of our assets. In Ofwat's 2024 Asset Management Maturity Assessment, we scored first out of the 16 water companies that were assessed. Our processes and procedures around asset management continue to mature which is stated in the recent 2024 ISO 55001 audit:

- The effectiveness of asset management within the company has improved to a large degree in the last 12 months, this can be seen on multiple fronts. Progress has been made on the transformation projects, asset intelligence and the work on asset health.
- Planning in asset management from both a strategic and tactical perspective is now becoming very good.

FUTURE PLANNING AND GOVERNANCE

Future planning

In preparation for PR24, we identified the need for a new Service Planning Function (SPF) comprising strategic planning, tactical planning, quality and performance teams under both water and wastewater operational directorates through the implementation of a new target operating model. Through its delivery our pollution reduction plan is iterative and responsive, and informed by the implementation of the SPF and the ability to complete detailed RCA.

In addition to the business wide strategies previously mentioned pollution performance will also be supported by both the Drainage and Wastewater Management Plan (DWMP) and the Water Resource Management Plans (WRMP)[ix] implementation and our Asset Management strategies.

Our DWMP is our long-term strategy for managing and improving drainage and wastewater services across our region. It sets out how we will maintain, enhance, and adapt our sewerage and drainage systems over at least the next 25 years to meet growing demand, address the impacts of climate change, and protect the environment. Through the DWMP, we assess risks to our infrastructure and the environment, identify priorities for investment, and outline the actions we will take to ensure resilient and sustainable wastewater services now and in the future. Following the publication of our first statutory DWMP, we will review the plan annually and update it at least every five years, in line with statutory requirements.

The guidelines[x] for statutory DWMPs state that we should reflect the immediate (current – within the Asset Management Period, or AMP) actions planned and taken as part of our PIRPs. The DWMP will also form the evidence base for all our drainage and sewerage investment needs ahead of each Price Review, including measures to reduce pollution incidents, within the context of our short, medium, and long-term investment plans to address performance challenges.

Water Resource Management Plans (WRMPs) are prepared every five years and reviewed annually. The latest WRMP was published in October 2024, following approval from Defra and the EA. The plan covers the next 25 years from 2025 to 2050 and sets out how we intend to maintain a secure supply of water for our customers, while protecting and enhancing the environment. The plan also includes ambitious programmes to reduce leakage and water consumption. One of our ambitious targets included in the plan is to reduce leakage by 50% by 2050. With leakage being one of the contributors to clean water pollution events in the network, investment in this area is key to driving down pollution numbers.

Governance

The NWL Board has a long-term vision for the company to become the national leader in the provision of sustainable water and wastewater services. This requires us to provide outstanding service to customers across our water and wastewater operations whilst maintaining the highest levels of environmental performance.

The Board has an oversight of our pollution plan and is fully supportive of our Cycle 2 PIRP strategy and will receive regular updates to monitor intervention progress and our pollution performance forecast.

Our Executive Leadership Team (ELT) monitors performance towards achieving our long-term vision through mechanisms such as the company scorecard. A detailed pollution performance report is presented monthly to the ELT by the Wastewater Director, Head of Wastewater Compliance and Performance and Head of Wastewater Treatment and Bioresources. These leaders also have overall responsibility for delivering against company targets.

Integration of clean water incidents, mitigation and alignment to wastewater protocols will continue with these being included in our overall monitoring of pollution performance.

We actively engage with colleagues in the EA Northeast and Essex and Suffolk Water areas to provide updates and liaison on our environmental performance, including pollution. The EA / NWL Pollution Review Meeting occurs monthly providing oversight of and receiving regular reporting on the PIRP.

At a strategic level, our Wastewater Director and the EA's Northeast Area Director meet quarterly, along with other senior leads from both organisations. Written progress updates will be provided to these meetings setting out progress in delivering this PIRP.

GLOSSARY

AMP - Asset Management Period - The water industry develops plans on a five year basis. Each five year period is called an AMP, thus AMP7 covered 2020-25 and AMP8 will cover 2025-30.

EA - Environment Agency - The environmental regulator.

EDM - Event Duration Monitor - These monitors have been installed on our storm overflows so we can report the number of times and duration of time they spill to the environment to the Environment Agency

ELT - Executive Leadership Team - NWLs internal Executive Leadership Team

EPA - Environmental Performance Assessment - an assessment framework used by the Environment Agency each year to report on environmental measures in the water sector.

FOG - Fat, oil and grease - Blockages are the main root cause of serious pollutions, and 80% are completely avoidable - made up of unflushables and FOG.

GIS - Geographical Information System.

NIRS - National Incident Reporting Scheme - Where pollution incidents are managed and recorded, a list jointly owned by the EA and NWL.

ODI - Outcome Delivery Incentives - A performance mechanism set by Ofwat which allows companies to earn rewards if they beat targets and be penalised if they fail targets.

Ofwat - Economic regulator for the water sector.

PC - Performance Commitment.

SO - Storm Overflow - An asset that acts as a relief valve when the sewerage system is at risk of being overwhelmed, such as during heavy downpours when a lot of rainwater runs into drains and the sewerage system in a short space of time.

PR24 - Ofwat‘s Price Review which took place in 2024, covering the Business Plan Period 2025-30.

PSWO - Polluted Surface Water Outfalls - Where water from a drainage system, typically collecting rainwater runoff from streets and surfaces, discharges into a body of water like a river or lake, but is contaminated with pollutants like sewage, chemicals, or debris due to improper connections or system malfunctions.

Pumping Station or Sewage Pumping Station (PS or SPS) - An asset that moves sewage forward towards a water recycling centre for treatment when gravity cannot be used.

Rising Main - A sewer which is pressurised using pumps to move sewage along the flat landscape or uphill.

Sludge - The organic waste matter from sewage and used water.

Transferred Sewer - Small sewers that serve individual or small groups of properties. Until 2011 these were the responsibility of homeowners and as such not all have been well maintained. In 2011 a new law was passed to move these into water company ownership and responsibility.

WISER - Water Industry Strategic Environmental Requirements - The strategic steer to water companies on the environment, resilience and flood risk for business planning purposes.

WINEP - Water Industry National Environment Programme - A set of actions that the Environment Agency have requested all 20 water companies operating in England to complete between 2020 and 2025, in order to contribute towards meeting their environmental obligations.

WFD - Water Framework Directive - A legal directive that outlines the accepted standard for water bodies in England and Wales

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