Pollution Incident Reduction Plan

2025 – 2030

Foreword

I am acutely aware of the important role Thames Water has in responsibly treating the 5.1 billion litres of wastewater that our 16 million customers produce every day. We deliver this service 365 days a year, 24 hours a day, so life can flow smoothly for everyone.

However, it's clear to all that we currently have too many pollution incidents. This matters because it impacts the environment and the communities we serve. Improvements in some areas are encouraging, but we must deliver substantial and sustained improvements in all areas of our performance to see real change. Reducing the number of pollution incidents is a vital component of our turnaround plan and a key focus for everyone in the company.

Our assets have suffered from decades of under-investment, especially given the impact of population growth and climate change. To address this, we're investing record sums in upgrading our sewer systems and treatment works, and all of us are determined to find new and improved ways to avoid incidents. The need is clear, but there are no quick fixes. Addressing the challenges that we face will take many years and require money, consistent leadership and clear priorities.

This Pollution Incident Reduction Plan (PIRP) sets out how we're going to improve our environmental performance through a systematic approach based on three key principles:

1. Targeted initiatives to prevent pollution incidents at the source
2. Improved response to incidents to prevent and minimise any impact
3. A culture that encourages pollution-reducing behaviours among our colleagues and customers

Our PIRP sits alongside our river health strategy, which remains aimed at reducing harm to our environment and decreasing both discharges and pollution incidents.

I understand that none of this will mean anything until our ambition is matched by results, but setting out what we plan to achieve, and how, is an essential step towards the improved performance that our customers, regulators and the Government demand.

Chris Weston

Chief Executive Officer

You can find our latest river health plan here

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Understanding pollution in the context of our region

Our region and its challenges

Our region follows the iconic River Thames and stretches from Gloucestershire to Essex, covering countryside, villages, towns and London, our capital city. We have millions of customers to provide for and hundreds of communities to support, all within an environment struggling to cope with constant change. We need to adapt quickly and tackle these challenges to continue putting our Purpose into practice and address these challenges in our planning.

Our operational area map

Our services

Taking wastewater away from

16 million

customers every day

Pumping wastewater from our

5,144 pumping stations

to be treated at

353 sewage treatment works

from the largest in Europe in East London to community assets serving hamlets in the Cotswolds

Treating

5.1 billion

litres of wastewater every day and returning treated water safely back to our local rivers

Maintaining and enhancing

110,000 km

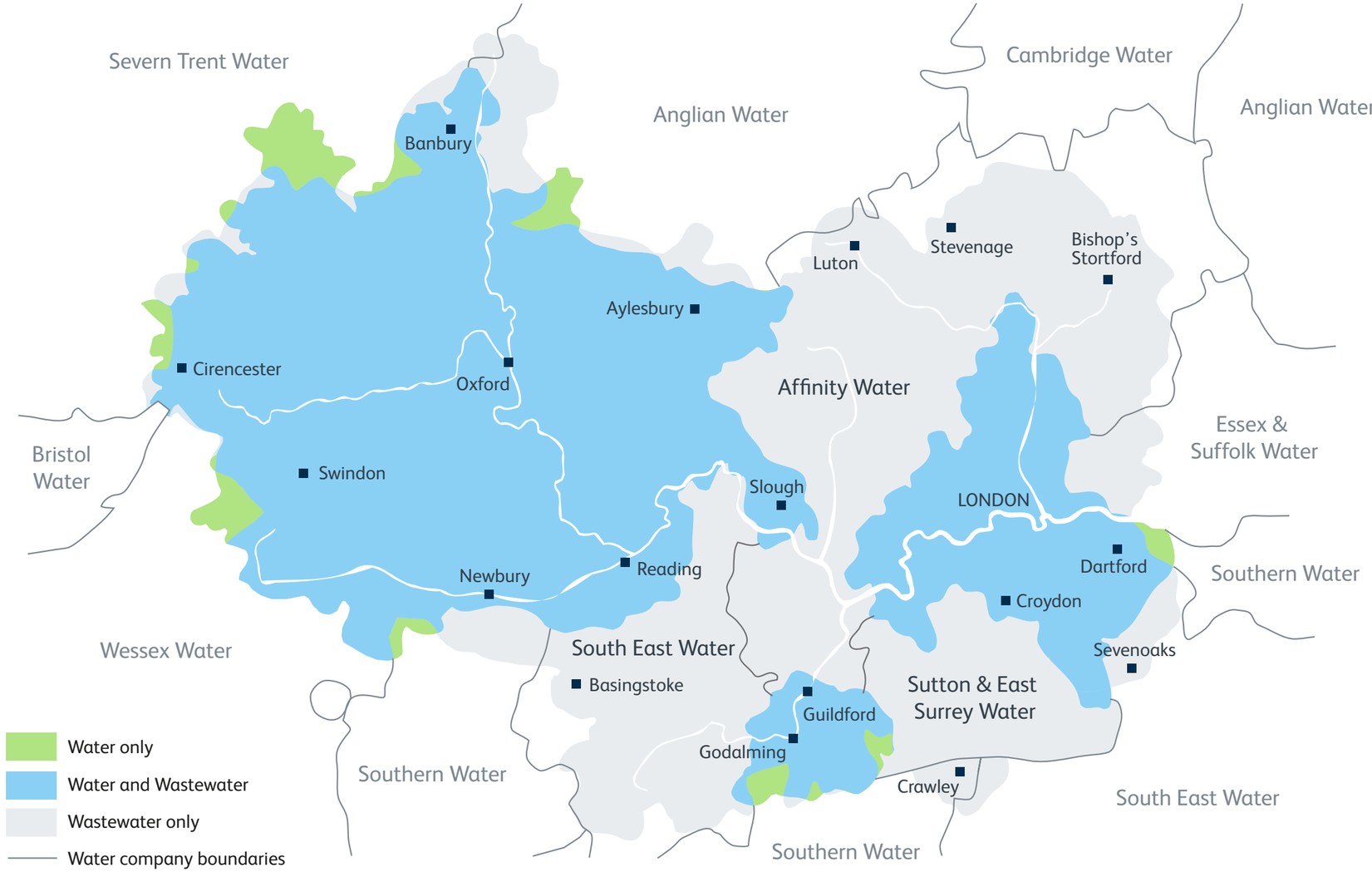
of sewers through

1.79 million manholes

Providing more green spaces for communities to use and enjoy across our region

Our challenges

- A growing population: Our region's population is set to grow by 2.5 million people by 2050 (that's the equivalent of more than everyone currently living in Birmingham, Glasgow and Liverpool moving into our region!), and we're going to have more tourists and short-term visitors needing our services too.
- A changing climate: Over the next 25 years, climate change will impact the weather patterns across our region. Extreme weather, such as heatwaves and flooding, will become more frequent and intense. We're already seeing changes in groundwater levels impacting capacity in some of our systems.
- A loss of green areas: We're losing more and more green areas to new properties, extensions and paving, which all tend to use impermeable materials. This leads to more rainwater entering our sewer network instead of naturally finding its way into our rivers and streams, which can cause property flooding and poor river water quality.
- An environment in need: We must protect and enhance our natural environment, particularly the health of our rivers and wetlands, while balancing the costs of meeting environmental standards and keeping customer bills affordable.


Severn Trent Water
Anglian Water
Cambridge Water
Anglian Water
Banbury
Luton
Stevenage
Bishop's Stortford
Aylesbury
Cirencester
Oxford
Affinity Water
Essex & Suffolk Water
Bristol Water
Swindon
Slough
LONDON
Dartford
Southern Water
Croydon
Newbury
Reading
Sevenoaks
Wessex Water
South East Water
Basingstoke
Sutton & East Surrey Water
Guildford
Godalming
Crawley
Southern Water
South East Water
Southern Water
Water only
Water and Wastewater
Wastewater only
Water company boundaries

What is a pollution?

Water pollution is the contamination of water bodies (such as rivers, lakes, ponds, groundwater or coastal waters) by substances or activities that degrade water quality, harm ecosystems or pose a threat to human health. This can include the introduction of harmful chemicals, waste or nutrients, as well as physical changes like sedimentation, that disrupt the natural balance of aquatic environments.

If our asset serves as a conduit for a polluting substance, we work with the Environment Agency (EA) to identify and address the issue at its source. In the water sector, an ‘asset’ refers to any equipment or infrastructure, like pipes, treatment plants or pumps, that helps collect, treat and deliver water or manage wastewater.

Types of pollutants

Signs of water pollution

Categorising pollution incidents

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There are two main types of pollutants from the water sector:

Wastewater

Wastewater is a broad term used to describe any discharge containing sewage. It may sometimes be mixed with rainwater (storm sewage), which dilutes its contents. Wastewater can cause visible discolouration, bad odours and sewer debris (like items that shouldn’t be flushed) to appear in the water. It also contains ammonia from decaying organic matter, which can be harmful to aquatic life at high concentrations. Wastewater discharges can be separated into two categories: pollution incidents, when our systems fail or a third party blocks our network, and storm overflows, when the system operates as it was designed to do.

Drinking water

This is treated water destined for customers’ taps. While the water itself is generally not harmful to water bodies and the small amount of chlorine quickly dissipates, the main environmental impact of drinking water pollution comes from the force and volume of water that can wash sediment into a waterbody or disturb the riverbed.

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Human waste or sewage water

Toilet paper, condoms or sanitary products

Soapsuds or a milky-looking discharge

Grey coloured water

Noticeable sewage smells

Dead or distressed fish

If you notice any of the above, please report it to us here. When incidents are reported directly to us, we can act faster and reduce the impact. We report all known pollution incidents to the EA.

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Types of pollutants

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Categorising pollution incidents

The EA in the UK classifies water pollution incidents using four categories based on the severity of the pollution and the potential harm to human health, wildlife and the environment. These categories help to determine the urgency of the response and the required actions to manage the pollution.

Category	Description
1	Major, serious, persistent and/or extensive impact on the environment, people and/or property
2	Significant impact on the environment, people and/or property
3	Minor or minimal impact on the environment, people and/or property
4	No impact on the environment

The EA assesses impact according to the:

- duration of the incident
- distance or area impacted
- impact on ecology through water quality
- level of harm to physical habitats
- disruption or closure of any amenities e.g. parks or green spaces
- proximity to drinking water abstraction
- impact on agriculture and or businesses
- impact on human health

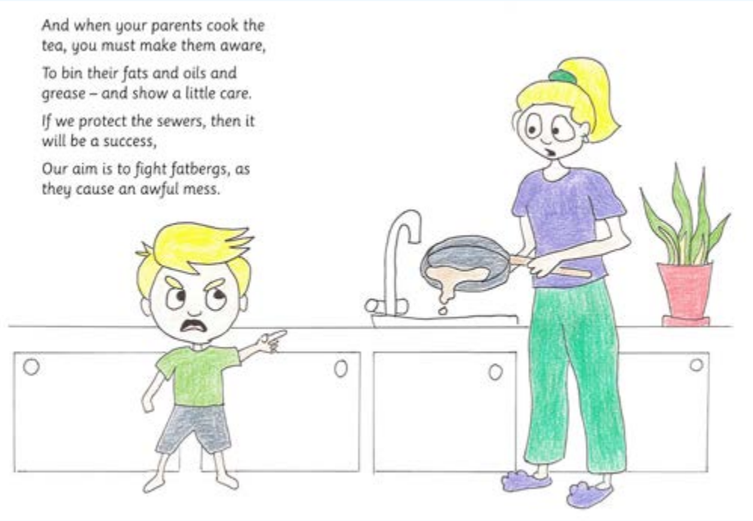
How you can help

One of the key reasons for river pollution is self-harm. Sewers were designed to carry the three Ps only (pee, poo and paper), but these days they get clogged up with all sorts of nasties that shouldn't be there. Too often, fats, oils and greases from cooking get casually poured down the sink and mix with wet wipes and sanitary products we should be putting in the bin. These congeal to form large fatbergs, which can block pipes. When pipes back up, the sewage can end up in homes, gardens and waterways. Here's how to do your bit:

1. Avoid pouring fat, oil and grease down the sink. It can harden in pipes and cause wastewater to back up – polluting the environment or your home. Instead, let it cool, pour it into a container and put it in the bin.
2. Don't flush anything other than the three Ps (pee, poo and paper) down your toilet, as this can cause serious blockages. Always put unflushables like wet wipes, tampons, nappies, cotton buds, razors and condoms in the bin.
3. Look out for misconnected drains (where waste pipes are plumbed into surface water drains) or poorly located and maintained septic tanks, as they can allow untreated wastewater to pollute local rivers and streams. Also, check that rainwater gutters are connected to surface water drains and not the foul sewer.
4. Protect your green spaces, add to them wherever you can and avoid choosing materials such as flagstones and tarmac for your home improvements, as these stop rainwater from naturally draining away.

As an industry, we'll continue to do our part by cleaning more sewers and increasing monitoring to spot issues before they cause harm, but as people, we all need to do our part too.

To help share this message, a creative colleague has designed Skidney the Pooperhero. Watch or read Sidney's adventure as he learns about the 3Ps and the importance of proper grease disposal. He transforms into a Pooperhero and embarks on a mission to tackle a fatberg blocking the sewer and spread awareness about responsible waste disposal. Through his heroic efforts, Skidney helps create cleaner sewers and healthier rivers, paving the way for a brighter future for all. Be a Pooperhero like Skidney!



Our pollution performance in 2024

Summary

In 2024, our pollution incidents (categories 1-3) totalled 478. This was a 37% increase from 350 in 2023 and was seen across all asset types. 34 of these were serious incidents (category 1 or 2). Our self-reporting for pollution incidents overall was 74%, and for those from our telemetered assets (our STWs and SPSs), we achieved 89%. Self-reporting measures the number of incidents we report to the EA before they notify us of potential pollution based on public reports. These are draft figures and are subject to change once we receive the final results from the EA.

Our pollution incidents (both total and serious) and self-reporting performance form part of the EA's Environmental Performance Assessment (EPA). The EPA is a process used to evaluate and monitor the performance of a water company's environmental impact. It focuses on assessing how effectively water companies comply with environmental regulations, manage their environmental risks and strive to improve their environmental performance. Our performance in 2024 means we're forecasting red for our pollution incidents and amber for our self-reporting. We're disappointed by this. In 2023, our performance (32) was better than the sector average (36) for sewerage pollution incidents per 10,000km of sewer (results have not yet been published for 2024). This was consistent for the previous years in AMP 7 too, with performance better than the industry average and in some years close to the upper quartile.

Category	2020	2021	2022	2023	2024 draft
Cat 1	2	1	3	1	6
Cat 2	11	11	14	13[1]	28
Cat 3	279	259	314	337	444
Total	292	271	331	350[1]	478

Our performance has been impacted by a complex mix of factors, which we believe are important to call out to show what it's going to take to truly reduce pollution and improve river health. These include:

Impact of weather | More monitoring of our network | Regulatory environment changes | Increase in public awareness

The occurrence of incidents from our assets can be correlated to the high rainfall and groundwater levels witnessed in 2024. If the incoming flow exceeds the capacity of our treatment process, excess flows are stored in a storm tank until incoming flows subside enough to allow us to return the contents of the storm tank to the treatment process. If the tanks reach capacity and incoming elevated flows continue, screened but untreated stormwater is discharged to the environment to prevent flooding of homes and businesses. This can be caused by groundwater infiltrating into our sewers, misconnected surface water from roofs/driveways flowing into the foul network, and surface water inundation leading to additional flow into sewers through manholes. The EA state that the 2023/2024 winter was 'the wettest winter since records began'. 85 of the first 100 days of 2024 were above high groundwater. September was the wettest calendar month Oxfordshire has experienced in a series dating back to 1836. August 2023 to January 2025 was the wettest 18-month period on our record.

Date range		mm	% above long-term average
Calendar year	2024	1000	135%
18-month period	August 2023 to January 2025	1596	138%

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More monitoring of our network

Regulatory environment changes

Increase in public awareness

We've improved our sewage treatment monitoring with new equipment, making it easier to see how well our systems are working. This has helped us report problems ourselves, preventing nearly 100 pollution incidents, mitigating the impact of over 50 more and clearing over 4,300 blockages.

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More monitoring of our network

Regulatory environment changes

Increase in public awareness

Regulation changes have affected our incident numbers. Our regulator is applying existing rules more strictly, and new regulations expected in 2025 and 2026 will likely increase these numbers further. These include stricter definitions of 'category 3' incidents, new rules for dry day spills (when wastewater is released during dry weather) and higher proof requirements for third-party pollution.

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Impact of weather

More monitoring of our network

Regulatory environment changes

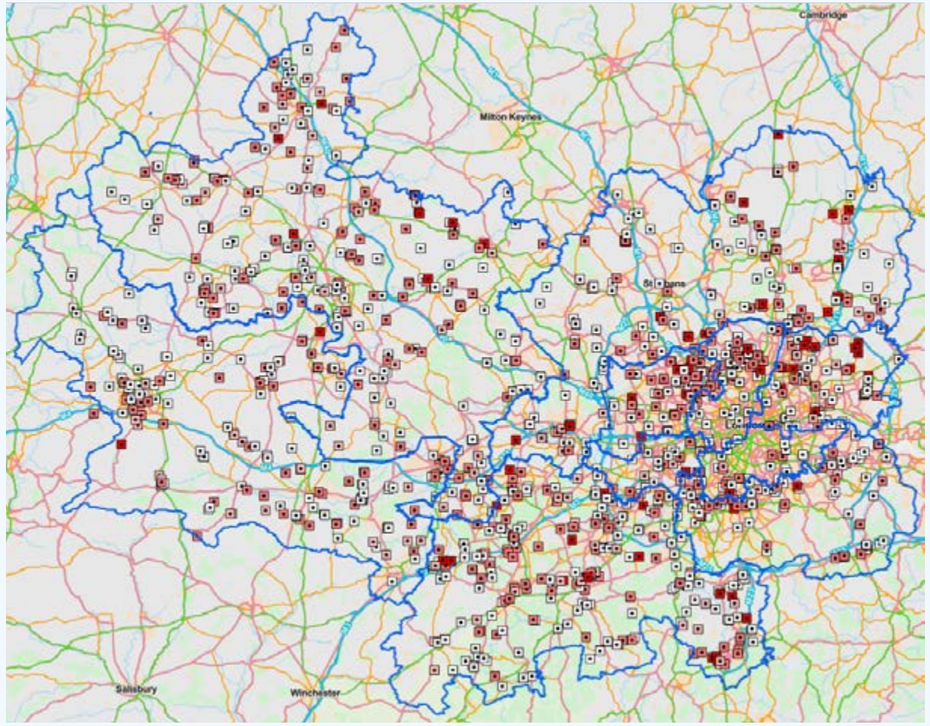
Increase in public awareness

More people are aware of environmental issues, leading to increased pressure from stakeholders.

This has resulted in more incidents being reported to us. While this means higher incident numbers, it also helps us address and manage these issues more effectively.

While we still need to improve, there's a positive story to tell about our underlying performance. To enable like-for-like comparisons with the previous year's performance, we analyse our incidents and calculate a baseline to understand what our underlying incident numbers are, excluding incidents associated with extreme wet weather and prolonged power outages. In 2024, hydraulic overload accounted for 13 % of incidents across all asset types, compared to an average of 5 % in the previous four years. Power failure caused 5 % of incidents, compared to an average of 2 %. Presenting data in this way helps us to understand the impact of our initiatives and what things might look like without the headwinds mentioned above. The underlying baseline shows we would have been approximately 5 % under our internal target on network and pumping, which is a positive result. For STWs, it shows we would have been over 30 percentage points lower – that's 65 % above our internal target, compared to 91 %, which demonstrates the positive impact our interventions are having. The higher treatment number is likely to be indicative of longstanding issues that have always been present, but which additional monitoring now gives us increased visibility of. Although it doesn't paint a positive picture, it's a good thing because awareness of these issues allows us to react quickly and prevent environmental harm.

The map to the right shows the distribution of our Cat 1-4 pollution incidents since July 2024 from our internal systems. It demonstrates the widespread distribution of pollution hotspots and the challenge we face in preventing and mitigating incidents.



Serious pollutions

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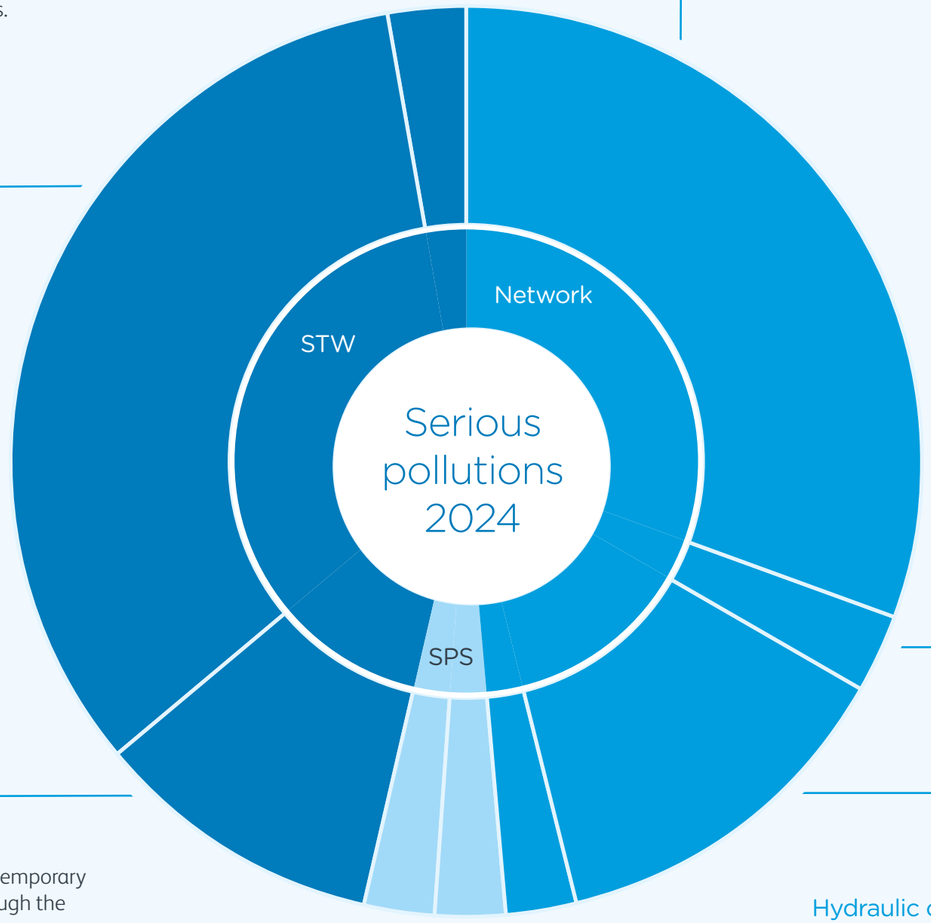

Third-party substances

These incidents were caused by an unknown substance entering our works, which impacted the biological process.

Blockages

Most blockages were caused by items that don't belong in the sewer, such as wet wipes or cooking fat. We're addressing this through targeted cleaning, increased sewer depth monitor availability and prioritised alarms. We're also intensifying our efforts to promote our 'bin it, don't block it' message to more customers.

Hydraulic overload

Infiltration incidents correlate to the high rainfall and groundwater levels witnessed year to date. The EA states the 2023/2024 winter was 'the wettest winter since records began'. 85 of the first 100 days in 2024 were above high groundwater risk threshold vs 0 days in 2022.

Asset conditions

These incidents were caused by poor asset conditions, which is why we're putting a huge emphasis on completing critical maintenance and planning to spend £5 billion to upgrade 100s of our STWs.

Third-party issues

These incidents were caused by private blockages and misconnections.

Structural issues

These incidents were caused by collapsed sewers and burst rising mains.

Telemetry and control

This incident was caused by the failure of a temporary comms unit for a site awaiting upgrade through the Outstation Obsolescence Replacement Programme.

Equipment failure

This incident was caused by the failure of a pump impeller and compounded by hydraulic overload.

Hydraulic overload

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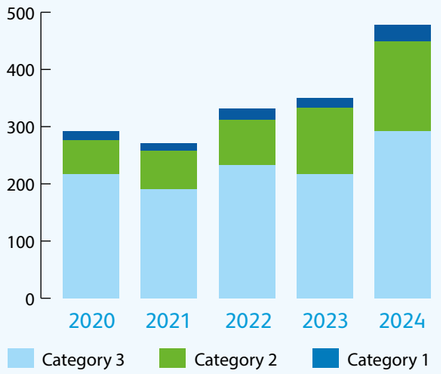
Total pollutions by asset type

The diagram below shows the breakdown of total pollutions (category 1-3) by asset type from 2020 to 2024 (AMP 7) as recorded by the EA. This visually shows you where in our process we see the most pollutions occur. 2024 saw an increase across all asset types, but most markedly for sewage pumping stations. Waste networks continue to be the biggest contributor, with 61 % of pollution incidents originating from this asset type. These numbers are an estimate, as we have not yet received the final performance figures from the EA for 2024. We'll update this document as soon as we receive them.

AMP7 category 1-3 pollutions



Root cause

Summary

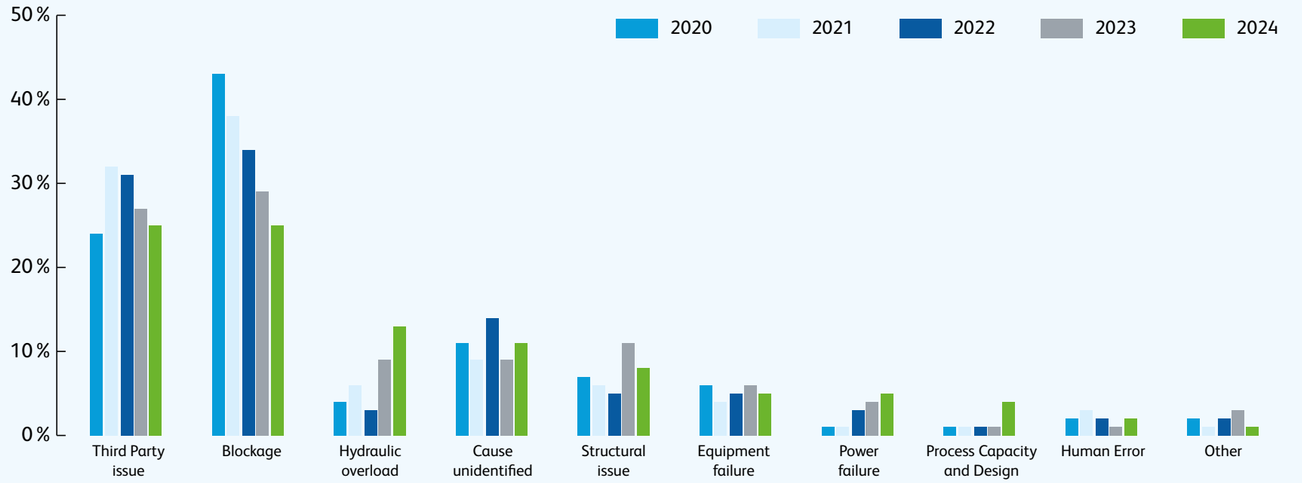
In 2024, we made significant improvements to the way we investigate and capture root cause analysis of incidents. This included:

- an updated list of root cause options to more accurately capture what went wrong and why
- additional oversight and governance to encourage peer review and senior management understanding of pollution drivers
- additional training and guidance to help with the identification and capture of what happened and why

We investigate the root cause of all pollution incidents, and in many cases, the cause is a complex mixture of factors influenced by several causal and contributory factors. For example, a pollution could've been caused by a blockage that was due to paper and rag that started because it got caught on tree roots that entered the sewer because of a join misalignment. While we capture this full richness and take learnings from all aspects of our investigations, for this document, we're sharing a high-level view of our primary causes across the AMP for category 1-3 incidents only. This shows that third-party issues closely followed by blockages were the main drivers of our pollutions in 2024. Over the last five years, blockages were the biggest cause, with 33 % of all pollutions in AMP 7 caused by a blockage.

The data presented in this section is from our internal systems for category 1-3 incidents and not the EA's reportable incidents. In most cases, if sufficient evidence can be provided by us to the EA to demonstrate third-party cause, these third-party incidents do not count towards our pollution numbers.

AMP7 pollution causes



Waste networks

Waste pumping

Waste treatment

Clean water

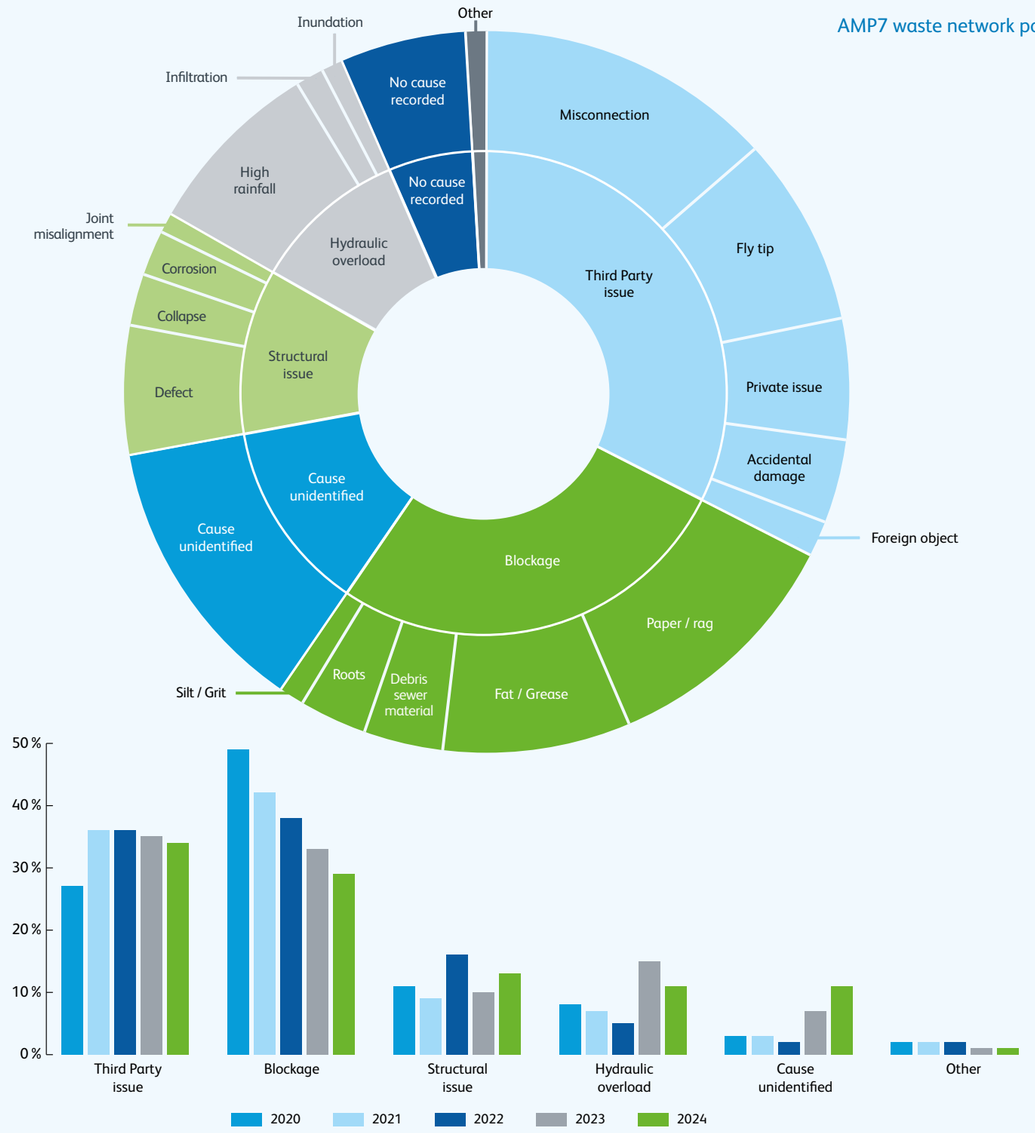
Waste networks

Our network is vast, with nearly 110,000km of sewers mapped – nearly long enough to stretch round the Earth four times. 61% of our incidents originate from our sewer network, with most of them being caused by third-party issues, closely followed by blockages. Less than 2% of our network causes 100% of our incidents. We've summarised some key insights for each of the main causes below:

- Third-party issue: 34% of our waste network incidents were caused by third-party issues, with the majority of these related to misconnections (where the waste pipes are plumbed into the surface water drains). Our Surface Water Outfall Programme aims to resolve misconnections, proactively identifying their source and working across different agencies to get them resolved.
- Blockages: The biggest cause of blockages is paper/rag. This includes things like wet wipes, sanitary products, nappies and other unflushables that shouldn't be put down the drain. Thanks to our network of ~20,000 sewer depth monitors (SDMs), we successfully identified and cleared over 4,300 blockages in 2024, contributing to the steady reduction in pollutions caused by blockages.
- Structural issue: Defects cause most of the pollutions related to structural issues. This is when a crack or hole in the pipe forms, which may lead to a sewage leak. These instances can come in the scale of large bursts or small leaks and mostly occur from our foul sewers and rising mains.
- Hydraulic overload: 2024 saw a significant increase in incidents caused by hydraulic overload – mainly due to high rainfall following the wettest winter (23/24) on record. This happens when the capacity of a sewer is exceeded due to excessive rainfall or other inflows. These incidents will take time and investment to resolve and will require a multi-pronged attack, including relining sewer pipes to prevent groundwater from infiltrating them, creating additional capacity for storm water at our STWs and disconnecting surface water drains from our network.
- Cause unidentified: As a result of improvements to our root cause analysis, we saw a decrease in cause-unidentified (previously no known fault) incidents. These are incidents where we haven't been able to pinpoint the exact root cause but have established it wasn't caused by a third party, and that sewage did enter the environment. They are closely monitored and investigated vigorously to ensure we identify all evidence and consider every possibility.

Find more here on how we're going to tackle these pollution drivers

AMP7 waste network pollution causes



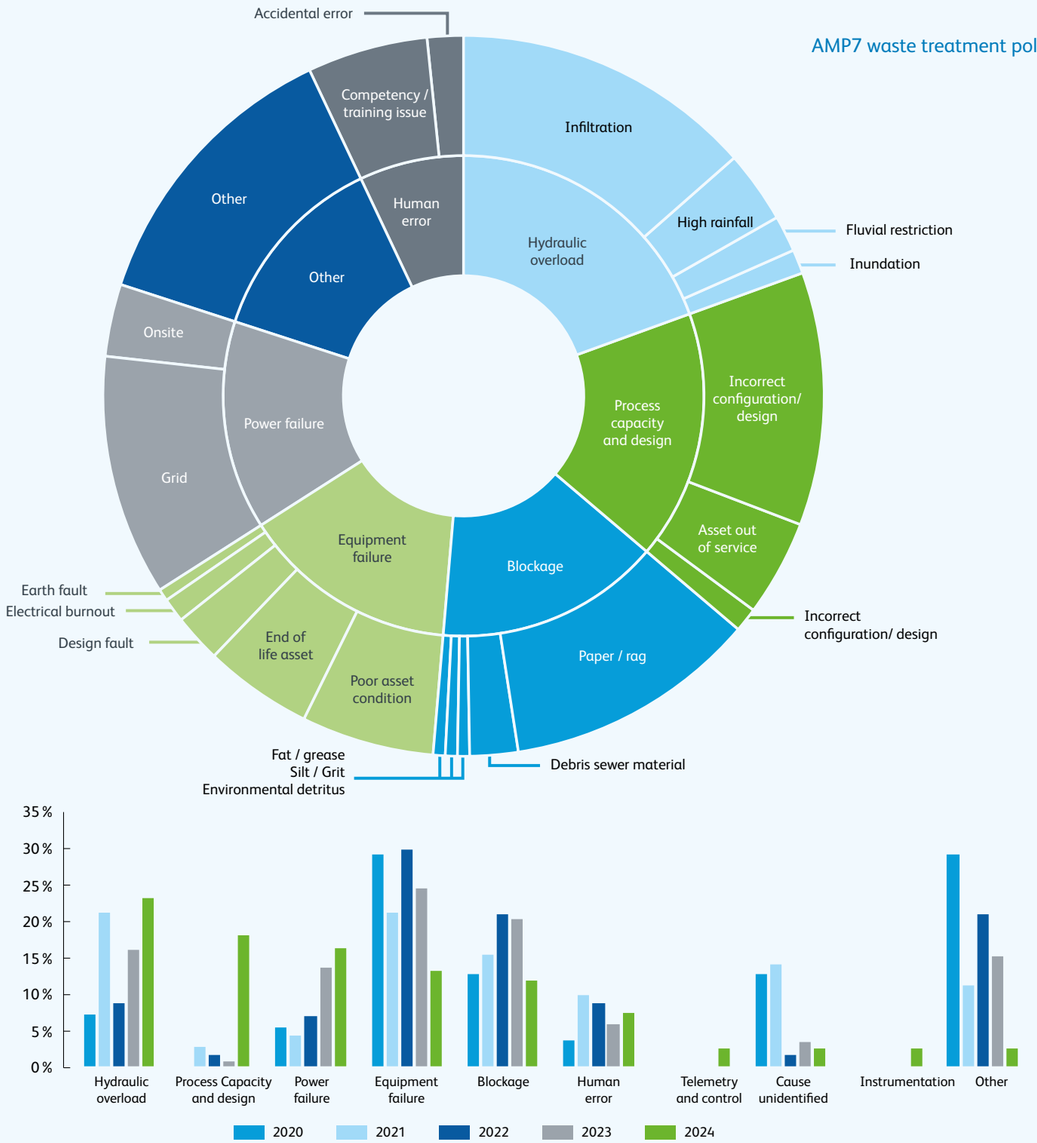
Waste treatment

We have 353 STWs, from the largest in Europe in East London to community assets serving hamlets in the Cotswolds. Every day they treat 5.1 billion litres of wastewater. In 2024, 33% of our pollution incidents originated from our STWs, with most of them being caused by hydraulic overload. We've summarised some key insights below:

- Hydraulic overload: 2024 saw a significant increase in the proportion of incidents caused by hydraulic overload due to the wettest winter (23/24) on record. These were mostly due to groundwater infiltration, which happens when groundwater enters our pipes below ground, overwhelming our STWs and preventing them from fully treating the incoming flow. These incidents will take time and investment to resolve and will require a multi-pronged attack, including relining sewer pipes to prevent groundwater from infiltrating them, creating additional capacity for storm water at our STWs and disconnecting surface water drains from our network.
- Process capacity and design: 17% of STW incidents were due to issues with process capacity and or design. Most of these were due to incorrect asset configuration or design at the site, meaning that an asset wasn't set up or being operated as it was designed to. Resolving these incidents often requires a large-scale project to upgrade the site, costing significant time and money.
- Blockage: Blockages don't just cause pollutions in our network – they also lead to incidents from our STWs. 15% of incidents in 2024 were caused by blockages. Most of these were caused by paper/rag, which includes things like wet wipes and sanitary products.
- Equipment failure: This has historically been the biggest cause of incidents at our STWs. In 2024, it caused 15% of all STW incidents, mostly due to poor condition or end-of-life assets. This demonstrates the importance of an effective maintenance plan and why it's one of our operational grip KPIs.
- Power failure: Power failure issues or power problems led to 14% of our incidents, with most of these caused by power cuts or voltage fluctuations from the grid. Creating more resilience to power problems is an important focus for us, and we can do this by installing backup generators, using automatic restart switches and running power cut drills to test the site's ability to recover from a power cut/blip.
- Human error: 7% of our incidents were caused by human error. While we need to address this, we're encouraged to see incidents logged under human error, as it demonstrates an open and learning-focused culture. Our training and culture initiatives strongly focus on supporting our colleagues to do their jobs well.

Find more here on how we're going to tackle these pollution drivers

AMP7 waste treatment pollution causes



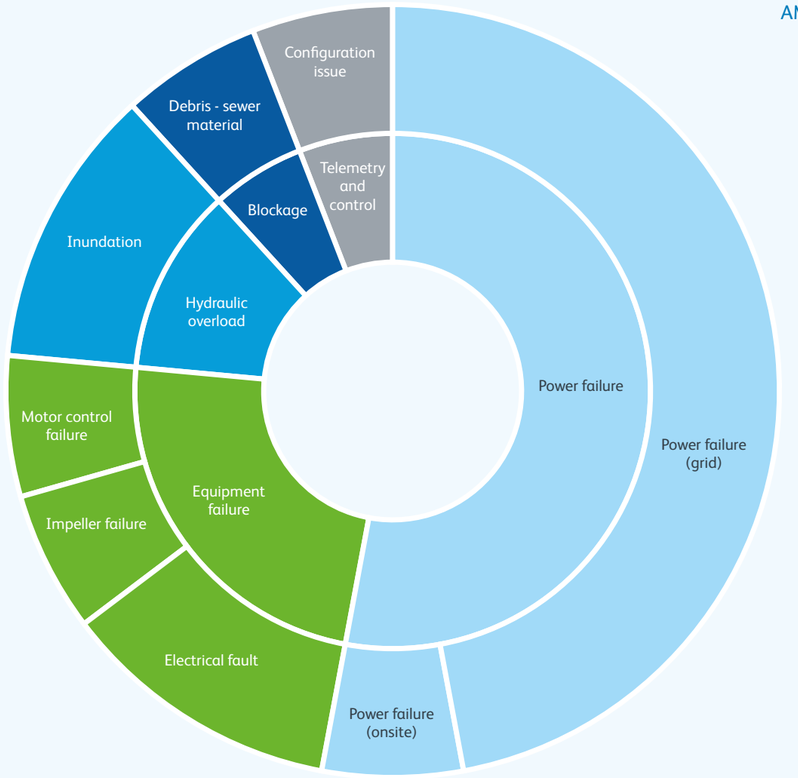
Waste pumping

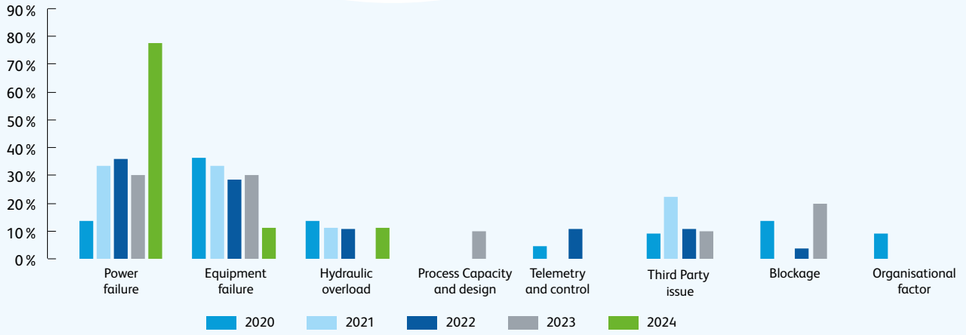
We have 5,144 pumping stations (SPSs), which help transport 5.1 billion litres of wastewater to our STWs every day. Problems at SPSs caused 5% of our pollution incidents in 2024, with power failure from the grid causing the most. We've summarised some key insights for each of the main causes below:

- Power failure: Power failure issues or power problems led to 53% of our incidents, with most of these caused by power cuts or voltage fluctuations from the grid. Creating more resilience to power problems is an important focus for us, and we can do this by installing backup generators, using automatic restart switches and carrying out 'black start testing', which tests the site's ability to recover from a power cut/blip.
- Equipment failure: Equipment failure led to 11% of SPS pollution incidents, all of which were caused by motor control failure. This happens when there's a failure or issue with the control system for the motor (e.g. for a pump). This demonstrates the importance of backup control systems and effective maintenance plans, our Asset Improvement Programme and why our operational group KPIs for SPSs focus on on-site maintenance.
- Hydraulic overload: 2024 saw a significant increase in the proportion of incidents caused by hydraulic overload across all asset types caused by the wettest 6-month period recorded in England since 1871. For SPSs, these were mostly due to high rainfall or snowmelt exceeding design capacity. These incidents will take time and investment to resolve and will require a multi-pronged attack, including relining sewer pipes to prevent groundwater from infiltrating them, creating additional capacity for storm water at our STWs and disconnecting surface water drains from our network.
- Third party: The proportion of incidents cause by third-party issues in 2024 decreased, with only one being caused by fly tipping. The substance found in this instance was a form of fuel that someone had incorrectly disposed of into the watercourse.
- Telemetry & control: The proportion of incidents caused by telemetry and control issues increased in 2024, with only one for SPSs compared to zero in 2023. This was caused by a configuration issue with the control system.

Find more here on how we're going to tackle these pollution drivers

AMP7 waste pumping pollution causes





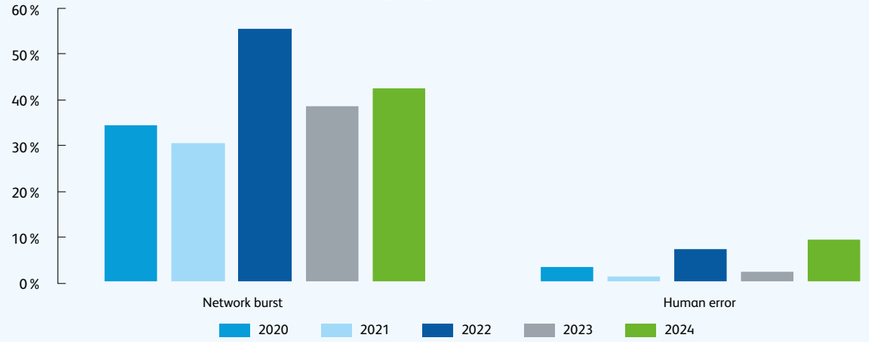
Clean water

We have 88 water treatment works supported by 35,000km of water network, which to put it in context, is further than the distance from London to Sydney and back! While category 3 pollutions don't count towards our performance commitment set by Ofwat, they make up 10% of our incidents and we continue to focus on reducing their impact. Most of our incidents from clean water assets are caused by bursts from our network. We've summarised some key insights for each of the main causes below:

- Network burst: 80% of incidents were because of a network burst. Such an event may take the form of a long-running leak or a catastrophic failure event (such as a trunk main burst). As a matter of course, we identify and report events thar lead to a pollution, pinpointing the failed asset. Under most circumstances, it's impossible to go beyond this to pinpoint the exact root cause of an asset failure, especially that of a pipe. However, a failure can happen because of many highly localised issues that lead to a particular asset failing at a particular location and time. The water network is buried, and catastrophic burst events can be highly destructive to the pipe and its surroundings, losing much of the evidence our team needs to do their analysis.
- Human error: Incidents caused by human error, more specifically, inadequate containment or control, led to 20% of our incidents. This describes a situation where the measures to prevent potable water from entering the watercourse, such as sandbags or silt socks (long, mesh fabric tubes filled with material such as wood chips, compost or gravel used to prevent sediment pollution), are insufficient or ineffective. As a consequence of the continued focus on pollution awareness with our clean water teams, we expect these numbers to continue to rise as our frontline colleagues improve their understanding of the impact of clean water on river health. We'll continue to harvest learning from these incidents to understand how we can better apply containment and control strategies.

Find more here on how we're going to tackle these pollution drivers

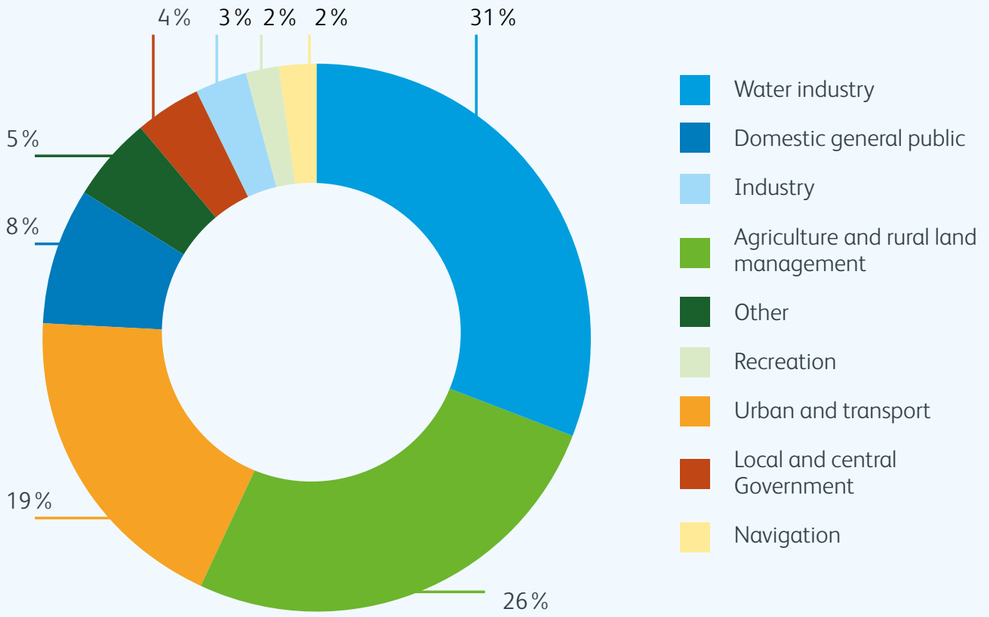
AMP7 clean water pollution causes



Pollution performance improvement plans

Our strategy

River health in the UK has been deteriorating, with many rivers failing to achieve "Good" ecological status. A key contributor is the water industry, particularly due to frequent storm overflows and inadequate investment in infrastructure to keep up with population growth and climate change.



Reasons for less than good river water quality status in the Thames river basin

As shown in the graph to the left, in the Thames region, we're the largest contributor to poor river water quality at 31%, closely followed by agriculture and rural land management at 26% and urban and transport causes such as road run off at 19%. We must take a leading role in addressing the issue. Our approach focuses on three key actions: 'speak up' to highlight the problems, 'open up' by providing transparency on storm overflow discharges and 'clean up' by taking swift and efficient action to improve the situation.

We were one of the first UK water companies to accept our accountability and confirm that sewage discharges to the environment are unacceptable. We reinforced our strategy to 'open up' by being the first to publish live information on our website as to when all our sewer overflows were discharging. Healthy rivers are essential to our operations, and we're committed to ensuring wastewater is treated properly before being released, aiming to improve river health through more effective treatment and management. To improve river health, we're going to:

Discharge higher quality treated effluent

- Monitor our STWs to make sure they treat incoming flow to the required standards
- Work with local authorities to upgrade STWs in line with their housing projections
- Focus on reducing nitrates and phosphorus levels from an increased population

Reduce potentially polluting discharges to our rivers

- Continue work on the Thames Tideway Tunnel to reduce spills in London
- Reduce pollution incidents through our pollution incident reduction plan (PIRP)
- Meet government targets, prioritising overflows in the most sensitive catchments

Work with partners to improve river quality

- Share data with our event duration monitoring (EDM) map and Open Data API
- Work collaboratively to identify and address polluted surface water outfalls
- Trial a more collaborative approach with our smarter water catchments (SWC)

By 2050, our ambition is to have reduced our storm overflows by a minimum of 80% and eliminated pollution incidents from our asset base, while working with third parties to address all causes of poor river water quality.

Our pollution reduction activity is focused on the following three themes:

- Prevention: Launch targeted initiatives to reduce the number of operational events that historically are at higher risk of causing a pollution incident, typically through asset investment and changes to our ways of working
- Mitigation: Improve our response to incidents to prevent and minimise any impact on the environment and our communities
- Culture and behaviour: Educate, train and motivate employees throughout all levels of our organisation to identify risks to the environment and act urgently to prevent impact, all while developing and maintaining a culture of openness and prioritising the best environmental outcome. Educate our customers on the impact of their behaviour on river health and work together to reduce blockages

Self-reporting is one of the key measures on our annual Environmental Performance Assessment (EPA). Self-reporting is defined as when a water company reports a pollution incident from one of its assets to the EA before a member of the public or third party does. The metric measures the percentage of pollution incidents from both sewerage and clean water supply assets that were self-reported to the EA in a calendar year. It applies to incidents assessed as having a minor, significant or major (category 1 to 3) impact on the water environment and has been an environmental KPI since 2012. While this plan doesn't go into detail about all our self-reporting improvement initiatives, we wanted to share our high-level strategy. Through a programme of activity, we're aiming to:

1. Make it easy to report pollutions directly to us. Our vision is that customers find it simple and quick to report pollutions directly to us via a channel of their choice with the option for ongoing updates on the potential incident. This includes upgrades to our online reporting tool and contact centre journey.
2. Increase awareness that pollutions should be reported directly to us. Our vision is that all members of the public know that they should report suspected pollution incidents relating to sewage directly to us and how to do it to allow for a faster response and quicker mitigation and resolution. This includes the installation of signage and marketing campaigns.
3. Create a 'think pollutions' culture internally to encourage efficient and transparent reporting of pollutions to the EA. Our vision is that all colleagues know what to look out for and how their role fits into the wider pollution reduction strategy, meaning decisive and efficient action is taken for reports of potential pollution. This includes training for our frontline operational teams and regular reviews for all non-self-reported incidents.

Targets

Type	2025	2026	2027	2028	2029
Total Pollutions	384	365	355	341	322
Serious Pollutions	29	28	28	27	25

Asset Type	Cat 1-3 2025	Serious 2025
Waste Network	241	17
Waste Treatment	124	11
Waste Pumping	19	1
Clean Water	52	0
Total	384*	29

* Clean water pollutions not included in total as not included in the regulatory total pollutions target

Our pollution targets are documented in the tables above. These are from our business plan and are shown for Year 1 (2025) by asset type and for the full AMP for total and serious pollutions. We're aiming to achieve a 30% reduction in total pollutions and a 25% reduction in serious pollutions by the end of AMP 8 from our Year 5 outturn position. Although category 3 clean water pollution incidents don't contribute towards our performance commitment or EPA targets, we continue to demonstrate the focus on these incidents by sharing our internal targets. The water industry strategic environmental requirements (WISER) set out performance expectations for the self-reporting of incidents in the period 2020 to 2025. Water companies must achieve high levels of self-reporting – at least 80% of incidents self-reported by 2025 and more than 90% for just STW and PS (telemetered assets) combined. All these targets have been based on current reporting methodology, which may be subject to change in AMP 8. They are also based on us experiencing a year of average weather not akin to those we've experience in recent years.

Pollution reduction interventions

The tables over the next few pages summarise the actions we're taking in Year 1 to improve our pollution performance. The format highlights the causes each initiative addresses, providing clarity on how we're tackling the specific drivers of pollution. For more details on the root causes and the work being done, please refer to the relevant sections. It's important to note that many of the initiatives we list are reliant on the successful navigation of additional funding processes.

We'll secure funds though Ofwat's gated allowance process, a mechanism used to manage and allocate funding for specific AMP8 projects across the water industry. We'll need to pass through stages or 'gates' to demonstrate to Ofwat how we'll spend the conditional funding. We're establishing internal processes to make sure that we pass through the gates as efficiently as possible, but it's important to note that there could be delays or changes to the delivery of our initiatives as we move through the conditional allowance process. We've set out our full ambition below to improve pollution performance, irrespective of whether funding has yet been achieved.

Waste networks

Cause	Initiative	Description	Yr 1 Target	Yr 2 Target	Yr 3 Target	Yr 4 Target	Yr 5 Target
Blockage	Sewer depth monitors response •	We're using smart tools and new processes to respond to sewer depth monitor alarms with appropriate prioritisation, enabling a swift and efficient response.	Enhance smart tools to improve blockage identification and target our speed of response	TBC (based on Yr 1 output)	TBC (based on Yr 1 output)	TBC (based on Yr 1 output)	TBC (based on Yr 1 output)
	Targeted catchment investigations (TCIs)	The Targeted Catchment Investigation (TCI) process aims to predict and prevent pollutions by investigating areas with recent blockages. The process includes thorough desktop and field investigations to identify and fix underlying issues. The TCI process will start with a fast-track trial in specific regions, requiring additional crews and office support.	Complete pilot	Deliver up to 1500 TCIs (subject to change based on pilot outcomes)	Deliver up to 1500 TCIs (subject to change based on pilot outcomes)	Deliver up to 1500 TCIs (subject to change based on pilot outcomes)	Deliver up to 1500 TCIs (subject to change based on pilot outcomes)
	Planned sewer cleaning	Planned sewer cleaning refers to a proactive maintenance procedure where sewer systems are cleaned on a scheduled basis to prevent blockages. This process typically involves using specialised equipment such as high-pressure water jets or mechanical devices to remove paper/rag, grease, tree roots and other build up that can accumulate over time in pipes and drains. Our focus remains on targeting those areas where we'll see the most pollution benefit.	1500km	1500km	1500km	1500km	1500km
Hydraulic overload	Investigate high-frequency spilling combined sewer overflows	We're planning widespread investigations to establish what design standards are needed to prevent ecological harm from occurring from our storm overflows by 2027. We'll also investigate any other overflows that newly qualify under the Storm Overflow Assessment Framework (SOAF) and any subsequent revisions that are implemented. SOAF is a structured approach used to assess the performance and environmental impact of storm overflows in sewer systems, which are designed to release excess rainfall and diluted wastewater into water bodies during heavy rainfall. We expect that any revisions required to SOAF will be announced by the Environment Agency in March 2025.	TBC (based on SOAF revisions due to be announced by EA in March 2025)	TBC (based on SOAF revisions due to be announced by EA in March 2025)	TBC (based on SOAF revisions due to be announced by EA in March 2025)	TBC (based on SOAF revisions due to be announced by EA in March 2025)	TBC (based on SOAF revisions due to be announced by EA in March 2025)

Pollution reduction theme key: Culture & behaviour | Prevent | Mitigate | • Indicates an initiative targeting a reduction in serious pollutions

Structural issue	Rising main replacement •	We're proactively repairing or replacing the rising mains that cause the most problems in our system. A rising main is a pipe within our waste network that carries wastewater under pressure, typically from a lower point to a higher one, such as from a pump station to a treatment facility. Unlike gravity-fed pipes, rising mains rely on pumps to push the flow upwards or over longer distances.	14km	14km	14km	9km	9km
	Network mapping	This is a transformative solution to fully map the sewer network quickly, accurately and cost-effectively. By inferring the network using a smart system, we can figure out exactly where everything is, and map manholes and pipes by analysing aerial images. Unmapped areas with the highest network performance risk will be prioritised.	Procurement framework: 100% complete Aerial imagery: 5% complete Sewer inference model development: 50% complete	Aerial imagery: 55% complete Asset detection: 33% complete Sewer inferencing: 25% complete Sewer inference model development: 100% complete	Aerial imagery: 100% complete Asset detection: 85% complete Sewer inferencing: 75% complete	Asset detection: 100% complete Sewer inferencing: 100% complete Corporate use: 100% complete	n/a (complete in Yr 4)

Pollution reduction theme key: Culture & behaviour | Prevent | Mitigate | • Indicates an initiative targeting a reduction in serious pollutions

Third-party issue	Resolve misconnections at surface water outfalls	When appliances are incorrectly plumbed in, or 'misconnected', into surface water drains, their wastewater ends up in our rivers. Our Surface Water Outfall Programme aims to significantly improve surface water outfalls through the identification and resolution of misconnections in pollution hotspot areas.	30 outfalls submitted	40 outfalls submitted	45 outfalls submitted	45 outfalls submitted	40 outfalls submitted
	Non-household customer education •	Our network protection team visits food service establishments (FSE) to provide education on how to manage grease and food waste responsibly to avoid blockages. We check compliance and then work with them to improve processes. For example, this could be by installing appropriate grease management systems. There is a staged escalation process. If an FSE is persistently misusing the sewer, our team can prosecute. We'll recover costs for damage to the network and associated maintenance work.	2475 compliant food service establishments	1988 compliant food service establishments	1988 compliant food service establishments	TBC	TBC
	Household customer education •	This intervention involves contacting customers who reside close to where at least one blockage has occurred. They receive educational content to inform them of the negative consequences of inappropriately disposing of unflushables or fats, oils and greases down the drain. Further correspondence is sent if blockages continue to occur. Alongside this, we're expanding the use of 'hedgehog' style equipment that helps us to identify the exact source of the problem. This enables conversations directly with the right customers and, if the problem continues to persist, we can recharge costs or in the most serious cases pursue prosecution.	Continue to proactively share educational content to customers close to where a blockage has occurred Customer enforcement targets TBC (based on TCI outcomes)	TBC	TBC	TBC	TBC
	Customer education marketing campaign 'Bin it – don't block it' •	Our 'bin it – don't block it' campaign encourages people to dispose of household waste responsibly so they can prevent blockages in sewers. The campaign focuses on raising awareness about the negative impact of putting items like wipes, cooking oils and sanitary products down the toilet or sink, which can cause serious blockages and damage to the sewer system. By urging people to 'bin it' instead of flushing, we hope to reduce blockages and prevent pollutions.	Complete annual campaign	Complete annual campaign	Complete annual campaign	Complete annual campaign	Complete annual campaign

Pollution reduction theme key: Culture & behaviour | Prevent | Mitigate | • Indicates an initiative targeting a reduction in serious pollutions

Waste treatment

Cause	Initiative	Description	Yr 1 Target	Yr 2 Target	Yr 3 Target	Yr 4 Target	Yr 5 Target
Power failure	Improving power failure resilience	We're reducing the impact of power problems at our STWs by installing auto-reset devices and back-up generators.	Install 50 auto-reset devices and 3 generators	TBC	TBC	TBC	TBC
Process capacity and design	STW investment •	We're undertaking significant investment at a number of our STWs covering scope from various programmes, including: • Waste asset assurance programme (WAAP): increasing treatment capacity and making improvements to achieve discharge permit requirements. • Pollutions resilience: investing to reduce the risk of pollution incidents. • Growth: investing to provide treatment capacity for predicted growth up to 2036. • The Water Industry National Environment Programme (WINEP) includes actions to protect water quality, improve wastewater treatment and address issues like stormwater overflows.	TBC	TBC	TBC	TBC	TBC
Telemetry and control	Outstation Obsolescence Replacement •	This is a programme to replace legacy outstations and communications links, which will improve the operation of our STWs and make outstations more resilient and reliable. An outstation is a remote device or unit that collects and sends/receives data to a central system for monitoring and or control.	151 STW outstation replacements	Work completes in year 1	Work completes in year 1	Work completes in year 1	Work completes in year 1

Waste pumping

Cause	Initiative	Description	Yr 1 Target	Yr 2 Target	Yr 3 Target	Yr 4 Target	Yr 5 Target
Power failure	Improving resilience to power problems	We're increasing the resilience at sewage pumping stations that are impacted by power problems by installing back-up generators.	5 sites	TBC	TBC	TBC	TBC
Telemetry and control	Outstation Obsolescence Replacement •	This is a programme to replace legacy outstations and communications links at pumping stations and enhanced pumping station controllers (EPSC), which will improve their operation, increase pump efficiency and make them more resilient and reliable. An outstation is a remote device or unit that collects and sends/receives data to a central system for monitoring and or control. An EPSC unit is a device used for advanced monitoring and to manage and remotely intervene in respect of the performance, optimisation and reliability of the pumping station and its associated assets.	78 enhanced pumping station controllers 95 Sewage pumping station replacements	Work completes in year 1	Work completes in year 1	Work completes in year 1	Work completes in year 1
	SPS Asset Improvement Programme •	We're improving our remote monitoring for a specific set of SPSs that have older thought not yet obsolete technology. This will further support our proactive approach to use operational data as a key evolving contributor to risk reduction.	Commission 100% SPS sites with equipment installed	TBC	TBC	TBC	TBC

Pollution reduction theme key: Culture & behaviour | Prevent | Mitigate | • Indicates an initiative targeting a reduction in serious pollutions

Business wide

Cause	Initiative	Description	Yr 1 Target	Yr 2 Target	Yr 3 Target	Yr 4 Target	Yr 5 Target
Hydraulic overload	WINEP Storm Overflow Reduction Programme •	Our storm overflow programme focuses on investigating and improving stormwater systems to meet the goals set in Defra's Storm Overflow Reduction Plan. By 2030, the plan aims for 38% of high-priority sites and 14% of all sites that need improvement to meet the target performance standards. The improvements include increasing treatment capacity at sewage treatment works, adding storage for heavy rainfall, reducing excess ground / surface water entering the system and treating stormwater separately from the main treatment process. Additionally, the programme will improve a storm overflow located upstream of two designated bathing areas affected by our operations.	Deliver 108 schemes (AMP target)				
Human error	Internal training and culture improvement activity •	We continue to be colleague-focused and deliver essential pollution awareness training for colleagues across the organisation, plus management of wastewater training and Masters upskilling for treatment teams. We're fully investigating pollution incidents and sharing incident learning to prevent repeat incidents. We're also running our inclusive Environmental Guardian programme for all colleagues to monitor outfalls.	90% completion pollution awareness training	TBC	TBC	TBC	TBC
Enabler	Consequence Modelling •	We're improving risk-based decision-making with consequence modelling for failure. This project uses advanced tools, including hydraulic modelling and automated spatial analysis, to predict where wastewater would flow if it escaped from our systems and what environmental receptors, such as rivers, designated sites and properties, it might affect. By applying this method to millions of assets, such as pumping stations, rising mains and gravity sewers, we can quantify the consequence of failure to better understand risk and make smarter decisions for both day-to-day operations and long-term investments.	Sewage pumping stations and rising mains complete	Gravity sewers complete	TBC	TBC	TBC
	Smart Waste Innovation	The vision for Smart Waste is to create an intelligent ecosystem of smart products that enhances our understanding of wastewater asset performance in AMP 8. This allows us to implement the most effective interventions at the right time and place, transitioning from a reactive to a proactive approach. We'll focus on the quality and quantity of our data, increasing our insights into our systems and thereby improving interventions to prevent or reduce pollution impact.	Build better structure and access to our water quality data by river catchment	TBC	TBC	TBC	TBC

Pollution reduction theme key: Culture & behaviour | Prevent | Mitigate | • Indicates an initiative targeting a reduction in serious pollutions

Clean water

Cause	Initiative	Description	Yr 1 Target	Yr 2 Target	Yr 3 Target	Yr 4 Target	Yr 5 Target
Network burst	Air valve maintenance programme	This is a plan to regularly check and maintain air valves so we can reduce the number of pipe bursts on the main water lines. Air valves are devices used in water and sewer systems to allow air to enter and/or exit pipes. In water systems, air valves allow trapped air to escape the system during normal operation and filling of the pipe, and they also let air back in when water levels drop.	600 maintenance attendances	600 maintenance attendances	600 maintenance attendances	600 maintenance attendances	600 maintenance attendances
	Calm Systems Strategy	We're taking a data-driven approach to improve how the end-to-end water supply works holistically by reducing sudden pressure changes and keeping pressure levels steady to reduce the number of pipe bursts each year.	55 leaks/ bursts	55 leaks/ bursts	55 leaks/ bursts	55 leaks/ bursts	55 leaks/ bursts
	Distribution mains valve repairs	We're fixing or replacing distribution valves to make sure we can quickly shut off the water when a pipe bursts, reducing the volume of water that could flow into a watercourse. Distribution valves are devices in water systems that control the flow of water through pipes. They help manage the distribution of water to different areas by opening, closing or adjusting the flow. When there's a problem like a burst pipe, distribution valves allow the system to be isolated quickly so the affected area can be fixed without impacting the rest of the water supply.	1500 valve repairs	1500 valve repairs	1500 valve repairs	1500 valve repairs	1500 valve repairs
	Smart Valve	We're delivering new technology that will help our technicians easily identify water network valves and dynamically monitor valve movement. This will improve the speed of response and promote CALM network operation to reduce bursts.	Embed new tool and transition to BAU	n/a (complete in Yr 1)	n/a (complete in Yr 1)	n/a (complete in Yr 1)	n/a (complete in Yr 1)
	Trunk main leakage programme	We're proactively identifying and resolving leaks on main water pipes to maintain the system and prevent major bursts where drinking water can enter watercourses.	120 leaks	TBC	TBC	TBC	TBC
	Trunk Main Valve Check Programme	We're completing valve checks on all valves needed to control and maintain the trunk main network. This will make sure we can respond quickly if a burst occurs, reducing the flow of drinking water that could potentially flow into a watercourse.	8500 valve checks	8500 valve checks	8500 valve checks	8500 valve checks	8500 valve checks

Pollution reduction theme key: Culture & behaviour | Prevent | Mitigate | • Indicates an initiative targeting a reduction in serious pollutions

Waste networks

Historic intervention performance

The below table provides a view of our performance for initiatives that were featured in our PIRP last year:

Cause	Initiative	Description	Yr 5 target	Yr 5 actual	AMP 7 actual
Blockage	Install blockage alarms (sewer depth monitors)	We're increasing the estate of monitors from the original AMP7 target of 18,500 to 19,500, focusing on the most vulnerable water courses by mapping historic pollutions and blockages to sewers that are near sensitive water courses (SLAM).	2500 monitors installed	TBC	TBC
	Sewer cleaning	• We're maintaining the amount of sewer cleaning, surveying and CCTV activity we're completing to deliver circa 1500km/year for the remainder of AMP7. • We're enhancing the model that underpins the cleaning programme to ensure a pollution focused programme is developed. • We're optimising programme delivery to prioritise the highest priority pollution risk and ensure the correct vehicle mix and contractor incentives.	1500km	TBC	TBC
	Smart Waste Programme: Mogden catchment rollout •	We're installing additional monitoring, connecting our data and its use in Mogden catchment, with a focus on protecting Wealdstone Brook – an ongoing hotspot/focus for river health with a high frequency of pollutions caused by blockages.	Continuing to release the value from monitor installations utilising our Sewer Level Alert Manager (SLAM) tool.	TBC	TBC
Third-party	Customer education (household and non-household)	• We're working with food service establishments to install correct grease management, including restaurants, pubs, cafes, care homes, hospitals and educational facilities. • We're educating customers in hotspot areas of sewer abuse and encouraging behavioural change through social media and our new targeted communication approach. • We're carrying out an annual marketing campaign to encourage behavioural change around the correct disposal of unflushable items. Measuring customer engagement has changed from a small campaign to social media.	• 1500 compliant food service establishments per year • Continue to use social media to reach more customers • Continued delivery of our new Household Customer Enforcement process (Yr5)	TBC	TBC
	Resolve misconnections	We're running a Surface Water Outfall Programme (SWOP) to resolve misconnections into the surface water sewers in hotspot catchments. Our AMP cumulative target is 200.	31 outfall signoffs	TBC	TBC
Structural failure	Sewer rehabilitation	We're using our data-led approach to identify and rehabilitate additional lengths of the high-risk sewer through patch lining.	16km of rehabilitation	TBC	TBC
	Rising main replacement •	We're proactively rehabilitating/replacing the most problematic rising mains in our asset base.	• 14.2km over 2 years (17.7km in total over the AMP)	TBC	TBC
	Rising main air valve maintenance programme •	We're identifying and maintaining air valves in line with our Asset Management Strategy to reduce the risk of failure and associated environmental impact, using a risk-based approach to best utilise resources.	• Continue to inspect and maintain air valves on high-consequence rising mains.	TBC	TBC

Pollution reduction theme key: Culture & behaviour | Prevent | Mitigate | • Indicates an initiative targeting a reduction in serious pollutions

Hydraulic overload	Investigate high-frequency discharging combined sewer overflows	We're continuing to inspect and maintain air valves on high-consequence rising mains.	TBC	TBC	TBC
	Reduce Infiltration •	We're using the Storm Overflow Assessment Framework (SOAF): Investigation into high frequency discharging combined sewer overflows (CSOs).	9 SOAF v.1 site to be completed at all stages.	TBC	TBC
All	Mitigation response •	We're ensuring that we have appropriate mitigation responses to environmental incidents within our incident management.	• Establish technical leads for pollution incidents • Develop consistent essential knowledge (including site-specific and scenario-specific playbooks) • Increase pollution response reporting and review mechanisms • Increase the use of Thames Water assets and resources • Centralise management of third-party suppliers	TBC	TBC

Alongside our formal PIRP initiatives, we've also made good progress with new or complementary activities that form part of our company turnaround plan. Some of the key highlights include:

SDM availability

9% increase from 70% pre-TAP

New maintenance process established

Network mapping

91km additional sewers inferred

APEM & 1 spatial sewer mapping trail completed

Improved triage

50% success rate vs non waste VT

New waste triage team and process established

FoW implementation

28% pollution FOW backlog reduced

New pollution blitz process established

Environmental sampling

15 Cat 1-3 incidents additional data provided in first month

OHES sampling hours increased

Sewer cleaning

81% riskiest sewers cleaned TAP Y1

Sewer cleaning plan optimised

Improved triage

A key area for improving pollution performance has been enhancing our ability to quickly and effectively triage pollution reports, creating capacity in our frontline teams to focus on pollution activity, increase our speed of response and capture timely and accurate data. This ensures we respond to the most urgent jobs with the right level of priority. As part of this initiative, we improved our 'Report a Pollution' online tool and introduced new technical capabilities to review incoming reports.

Report a pollution online tool

- Our View and Report a Problem Online (VARPO) tool was launched in 2023 with an improved ability to triage reports and report new issue types (pollution and sewer flooding) and a mobile-friendly design.
- As of December 2024, VARPO now allows customers to add photos when they submit a problem report relating to pollution or sewer flooding.
- This will benefit both office and field staff who can use these photos to assist in the triage process, allowing them to understand both where they need to attend as well as the nature of the issue.
- Early customer engagement with this feature has been seen, with around 300 photos per week being uploaded on average since its launch in mid-December 2024.

Virtual technicians

In October 2024, we introduced two new virtual technicians into our Virtual Triage team in our Operational Contact Centre to help triage our pollution incidents. When a pollution is reported to us, either online or via a call, our virtual technicians investigate further to determine the urgency and prioritise accordingly. Since October, ~60% of our jobs have been re-prioritised by our triage team following further investigation once pollutions have been reported. This enables us to create capacity in our frontline teams to respond more effectively to genuine pollution incidents. An additional two virtual technicians are currently in training and will join the team in February 2025. We're already starting to see the impact of increasing the proportion of pollution reports that are triaged by our virtual team and will be expanding to other areas such as flooding.

Sewer cleaning

We optimised our planned sewer cleaning programme to more effectively target pollution reduction.

What we found	What we changed	Initial results
28% of pollutions were from areas identified on the planned cleaning programme but had not yet been cleaned	Increased incentive to 500km / quarter on summer cleaning when reactive job volumes are low and resources are available	1,700 – (11.4%) fewer blockages in FY25 vs FY24 (Apr-Jun)
Contractor was not being held to account for achieving targets monthly	Development of the programme based on areas with the highest risk based on historical information	21 pollutions* have been caused by a blockage in FY25 – compared to an average of 48 over FY22-24

Note: *Category 1-4 Pollution

Environmental Guardians

We've continued to expand our Environmental Guardians initiative, a volunteer scheme leveraging employee commitment to reduce pollution, launched in early 2024. Employees volunteer their time to monitor outfalls, collect baseline data and identify potential pollution events, which are then reported to our operational teams. Drawing from our Surface Water Outfall Programme with the Zoological Society of London, volunteers receive training, briefing materials and access to a digital platform. This platform includes an interactive map for adopting outfalls, a mobile app for field data collection and a community space for sharing ideas. As of March 2025, we have nearly 200 volunteers adopting over 561 outfalls, who have proactively completed over 1,100 (500% increase from March 24) individual outfall assessments and identified 13 potential pollutions.

Future plans

One of the most significant causes of wastewater network pollution incidents continues to be blockages, at nearly 29%. This is largely due to sewer abuse – essentially items flushed into the sewer network that it was never designed to manage, including wet wipes and fats, oils and greases. For this reason, most of our interventions are tackling the pollution drivers of blockages and third-party issues. The proportion of our network that causes pollution incidents is tiny, with less than 2% of sewers causing most of our incidents. Moreover, approximately 33% of our network had blockage, flood and pollution issues over the last three years. Because there are thousands of blockages that could potentially cause a pollution, it's difficult to predict and intervene where the next pollution will occur. This provides a challenging context for how we invest in pollution reduction activity to provide the best value and most effective impact. Historically our ambition was to cover more of the network with planned interventions such as monitor installation, sewer cleaning and rehabilitation. However, what we've learnt from AMP 7 is that we can have more of a positive impact on pollution performance by optimising these initiatives to better target the problematic parts of the network. This has been an important lesson, and while it may appear on the surface that our volumes are not ambitious enough, they're actually having a more powerful impact because we're targeting the right areas better.

See here a detailed view of our interventions, including descriptions and targets. This is our most ambitious plan yet, with many initiatives setting out to achieve higher volumes than ever before. Our rising main replacement programme is aiming to replace 60km worth of replacement in AMP 8, which is nearly three times the amount completed in AMP 7. We've increased the target of our non-household customer education initiative by 33% in Year 1 and 65% in Year 2. We've also added three new initiatives to bolster our pollution reduction activities. In this section, we explore some of our plans in more detail.

Targeted catchment investigations (TCIs)

This is a new initiative that features in our plan this year following trials in AMP 7. The Targeted Catchment Investigation (TCI) process aims to predict and prevent pollutions by investigating areas with recent blockages. The process includes thorough desktop and field investigations to identify and fix underlying issues. When the model has been run against historical pollutions, there has been a good correlation between the areas of interest identified and where previous pollutions have occurred. The hypothesis is that running the model to identify areas of interest will enable work to be carried out to prevent future pollutions. A more detailed desktop study will now be done before fieldwork, focusing on past issues and network configurations. Field crews will be better equipped to handle blockages and misuse investigations. The TCI process will start with a fast-track trial in specific regions, requiring additional crews and office support. The goal is to fully implement the process in Year 1 to improve pollution performance.

Sewer mapping using remote sensing and predictive modelling to improve performance

A new focus in our Year 1 PIRP is sewer mapping. At Thames Water, about a third of our sewer network is estimated to be unmapped, contributing to 30-45% of blockages, flooding and pollution incidents. This situation arose in 2011 when 200,000 km of mostly unmapped private sewers were transferred to the water industry, with 40,000 km coming to us. Traditional methods like CCTV inspections and manual mapping are slow and would take around 70 years to complete. Unmapped sewers create challenges for proactive programs and increase costs due to manual data capture.

To tackle this, we've started using high-resolution aerial imagery to identify manholes, soil stacks and misconnections. We then use predictive mapping tools to infer the locations of unmapped sewers. This approach was tested in pilot sites, showing high accuracy and identifying over 500 misconnections. It's faster, more cost-effective, and is now being rolled out in areas with the most pollution and flooding. We're also testing deep learning algorithms to automate asset detection, leading to improved sewer cleaning, better customer service, fewer penalties and overall operational efficiencies. We're excited to see the impact of this new initiative.

Customer education

Our educational activities on preventing sewer blockages span from widespread publicity campaigns to community-level programmes, including engaging with individual customers and Food Service Establishments (FSEs).

In March 2023, we joined Water UK's 'Bin the Wipe' campaign to raise awareness of how wet wipes can block pipes when flushed. We also continue to run our successful campaign 'Bin it – don't block it' to educate customers on the impact of disposing of fats, oils and greases (FOG) and unflushable materials such as wet wipes down the drain.

Our activities in the local community span across a wide range of stakeholders and settings. We continue to work with our partnering agencies on the Junior Citizenship Scheme. This event is aimed at year 6 children to provide guidance and education around sewer misuse and the potential consequences to future generations. We also continue to work collaboratively with other UK water companies sharing best practices and learnings at the Network Protection Forum and the Sewer Network Abuse Prevention (SNAP) group.

In terms of our engagement with households, we send written communications to inform customers on how to avoid blockages, escalating to an educational visit from a Thames Water employee if blockages continue. We're also trialling a new approach to better target blockage hotspot areas (a location within our wastewater network where blockages occur frequently). We launched this process in the summer of 2022 and since then, we've sent over 950,000 notifications to 750,000 households. Alongside this, we're expanding the use of 'hedgehog' style equipment that helps us to identify the exact source of the problem. This enables conversations directly with the right customers and, if the problem continues to persist, we can recharge costs or in the most serious cases pursue prosecution.

We also engage proactively with FSEs to educate them on grease management within their kitchens. We inspect FSE kitchens to ensure that grease management equipment, such as a grease trap or grease removal unit, is installed and maintained. In AMP7 we visited over 53,000 businesses, with over 6,000 of those installing grease management equipment for the first time as a direct result of our engagement.

To address non-cooperative FSEs or FSEs that create a significant operational incident, we created a dedicated enforcement team in May 2023, which will expand in 2025. Our focus is on working with FSEs to make voluntary rectifications, with a target of zero prosecutions. However, if required, we'll look to exercise our enforcement powers against offending FSEs that persist in sewer misuse.

Pipeline activity: Rising main tactical plan overview

Rising mains have seen an increasing number of bursts/collapses throughout the AMP that can subsequently result in pollution incidents. While we have a rising main replacement programme in our AMP8 plan, we're aiming to further reduce the impact and frequency of these incidents through improved operational responses and enhanced telemetry solutions. A rising main tactical plan has been produced that focuses on the ancillary components of rising mains such as air valves and maintenance. Our existing systems and processes have been independently reviewed by engineering consultants through stakeholder interviews, and analysis and key opportunities have been identified.

One key area being explored is what operational improvements can be gained from the cleansing of rising mains. We're trialling a technique known as 'ice pigging', an innovative and effective method for cleaning sewer pipes. It involves using a slurry of ice, known as an 'ice pig', which is pumped through the pipes to remove unwanted materials such as sediment, biofilm, fats, oils and grease. A second area is what telemetry and early warning systems we can implement to improve our proactive response and mitigation when bursts do occur. We also explore how we can improve missing attribute data about rising mains that can impede response efforts (e.g. finding hatch boxes or valving) and the maintenance and or inspection of all air valves. We expect that the progression of these new opportunities will help create a pipeline for future PIRP initiatives and further enhance our pollution reduction performance.

Waste treatment

Historic intervention performance

The below table provides a view of our performance for initiatives that were featured in our PIRP last year (the results from these will be published in an updated version 2 of this document once FY24/25 has been closed out).

Cause	Initiative	Description	Year 5 Target	Year 5 Actual	AMP 7 Actual
Process capacity and design	Improve flow compliance	Waste Asset Assurance Programme: This Pathfinder programme delivers compliance with specific aspects of environmental permits across 157 sites of concern.	Targeting improvement at c42sites	TBC	TBC
	STW site investment	We're using a programme for capital investment at the 13 + 13 STWs identified as most polluting on historical data.	Conducting investigations into the remaining 13 sites and initiating prioritised delivery	TBC	TBC
Equipment failure	Smart Waste Programme: Install storm tank monitors	We're installing flow monitors to our storm tank inlet and outlets to seek better data on their use and respond to early filling events.	13 sites	TBC	TBC
	Critical asset maintenance of inlet screens	We're replacing or refurbishing inlet screens – a critical asset group – to ensure effective screenings removal and reduce blockages throughout the site.	52 screens	TBC	TBC
	Routine planned preventative maintenance	We're focusing on achieving the delivery of planned maintenance activities based on equipment criticality.	Asset performance is improved with fewer failures	TBC	TBC
	Smart Waste Programme: Optimise and respond to Discharge alert manager (DAM)	We're using certified inlet flow meters, storm tank filling and discharging information to respond to discharges to the environment. This is not a pollution reduction initiative but highlights potential incidents.	Stabilise, optimise and respond to insights from DAM tool (Discharge Alert Manager - system that helps us draw insight regarding discharges from our storm-related assets)	TBC	TBC
Human error	Culture, training & pollution awareness •	We're expanding training programmes into all operational areas, including: • Pollution identification and prevention • Managers to undertake management of wastewater treatment training (MoWWT) • Improved incident learning and communication • Business-wide pollution awareness campaign	• Incident reporting roll-out to waste teams • Pollution awareness and response training across all operational teams. Roll out in waste treatment and develop for clean water • Continuation of MoWWT	TBC	TBC

Pollution reduction theme key: Culture & behaviour | Prevent | Mitigate | • Indicates an initiative targeting a reduction in serious pollutions

Alongside our formal PIRP initiatives, we've also made good progress with new or complimentary activities that form part of our turnaround plan. Below is a view of our key highlights:

Alarm and generator

82%

testing complete

Up to 55% at December 2023

Critical PPM

86% 1130 jobs completed

vs 627 Nov 23

Maintenance program updated for pollution focus

24/7 Pollution desk

24/7 availability

Pollution desk available increase to 24/7

Power resilience

2 auto-resets compleed

9/10 remaining auto-rests on track

STW & network

Op Grip improved

Leading KPIs, RCA, learnings and reporting

CPACs

24%

CPAC submitted above target

Closure reports have increased efficiency

We've employed six new colleagues to double up our efforts covering our pollution management desk overnight. This ensures that we can have the right response to any reports of incidents and monitor our STW performance overnight in more detail. This is mirrored in our independent sampling teams, who now work up until 10pm too.

We've continued to improve, update and train our people on STWs in the importance of risk-assessing any work involving removing treatment equipment from service, whether that be a planned or unplanned activity. Internally we refer to this process as a compliance process assessment check, or CPAC for short. We've made the system easier to use based on feedback from the teams using it, and we monitor and report on system usage to senior managers. We're maturing the use of the system, focusing on quality as well as quantity, introducing a peer review approach and feeding back to colleagues where there could be room for improvement.

In 2024/25, we had an accelerated asset investment programme of ~£13 million for our most polluting STW assets, alongside a power resilience investment programme (i.e. auto resets and generators). These activities have been fully scoped and are in delivery.

Future plans

In 2024, pollution incidents from our STWs were mostly due to hydraulic overload and issues related to process capacity and design. Our main initiative tackling the causes of hydraulic overload features in the business wide section. Go here for a detailed view of our STW interventions including descriptions and targets. One of the biggest challenges we face at our sites is the state of our assets. This in part stems from decades of under-investment, during which customer bills were kept down by deferring maintenance and renewal of assets. To demonstrate this, we've shared some images that highlight some of the issues we're seeing. This is our most ambitious plan yet with the largest level of investment since privatisation across wastewater. To give a sense of scale, it includes over £5 billion worth of investment at hundreds of STWs. We've also added two new initiatives to bolster our pollution reduction activities. In this section, we explore some of our plans in more detail.

STW investment

As mentioned, our AMP 8 plan for STWs is our most ambitious ever. It's made up of various programmes with different purposes and scopes. To take advantage of efficiencies and minimise disruption to the site, we're reviewing opportunities to deliver this as a streamlined site-by-site plan that will cover all aspects in one project. We're also considering opportunities to deliver a project in isolation sooner to reap the benefits earlier. Programmes include:

- WAAP: Our waste asset assurance programme (WAAP) is making improvements at certain STWs identified as requiring investment to improve performance against some of their permit conditions. We're increasing treatment capacity and making improvements to achieve discharge permit requirements.
- Pollution resilience: We're investing to reduce the risk of pollution incidents.
- Growth: We'll invest in a number of sewage treatment works, providing treatment capacity for predicted growth and helping to future-proof our assets for the growing demand.
- WINEP: The Water Industry National Environment Programme outlines environmental commitments and requirements for water companies in England, ensuring that they meet environmental standards and regulations. This includes actions to protect water quality, improve wastewater treatment and address issues like stormwater overflows.

Concrete degradation on tank

Bent shaft on penstock

Roof failure on buffer tanks

Asset maintenance

While not a formal PIRP initiative, asset maintenance forms a critical part of our operational grip key performance indicators. From our in-depth root cause analysis, we drilled down our focus on asset maintenance as part of our turnaround plan, and we could see that there was scope to improve the prioritisation of assets that are the most critical to both permit compliance and pollutions. Our maintenance strategy and work planning teams helped to implement this. We've been reporting on the completion of high criticality asset maintenance to highlight where we could make improvements. This has driven a step change in critical asset maintenance over 2025.

In addition, our root cause analysis highlighted specific asset types that were more likely to cause a pollution if they failed, so we've been increasing their criticality scoring and the maintenance plans that sit behind them to reduce the likelihood of them causing incidents in the future. This has included scoping proactive maintenance plans in AMP8. We still have more work to do in the space, but it's in progress.

Pipeline activity - Inlet Works - Screens Tactical Plan Overview

We recognise the importance of fully completing preventive planned maintenance (PPM) for inlet works (the initial stage where incoming wastewater is first received and pre-treated before it undergoes further treatment processes – the key elements include screening and grit removal). Thorough and robust maintenance plans and delivery reduce reactive maintenance costs and equipment replacements as well as mitigate any risk of pollution incidents. To improve the performance of our inlet works, we're developing and implementing a comprehensive PPM program for inlet screens. To do this, we'll review our current plans identifying immediate and short-term actions required to achieve 100% and determine the root causes of incomplete PPM activities.

Initial findings have identified that a step change is required to fully complete all inlet work PPM activities. Work is underway to understand what the operational requirements are and provide an action plan to implement. Using agile principles, a proposal is being considered to continuously review the existing programmes of maintenance under operational and capital plans and recommend adjustments to further improve. We expect that the progression of these new opportunities will create a pipeline for future PIRP initiatives and further enhance our pollution reduction performance.

Waste pumping

Historic intervention performance

The below table provides a view of our performance for initiatives that were featured in our PIRP last year (the results from these will be published in an updated version 2 of this document once FY24/25 has been closed out).

Cause	Initiative	Description	Year 5 Target	Year 5 Actual	AMP 7 Actual
Equipment failure	SPS Stressed site reporting	Proactive identification of deteriorating site telemetry metrics (energy profile, backup control usage) to identify underlying performance issues and stage an intervention before asset failure.	85% triage completion on stressed sites	TBC	TBC
Telemetry and control	SPS Outstation and Enhanced Pump System Controller replacement	A programme to modernise outdated outstation and EPSC units to improve SPS operating control, pump efficiency, station resilience and reliability.	• 268 enhanced pump system controllers. • 398 outstation replacements	TBC	TBC
Power failure	SPS Power Failure Investment	Increased funding for local power resilience (standby generators) at high-risk sites.	5 sites	TBC	TBC
	SPS Asset Improvement Programme	Backup control, power resilience and wet-well levels. Capital programme to improve the resilience of SPSs to power-related faults, backup controls and auto-restart modifications.	Deliver 70% of the programme	TBC	TBC

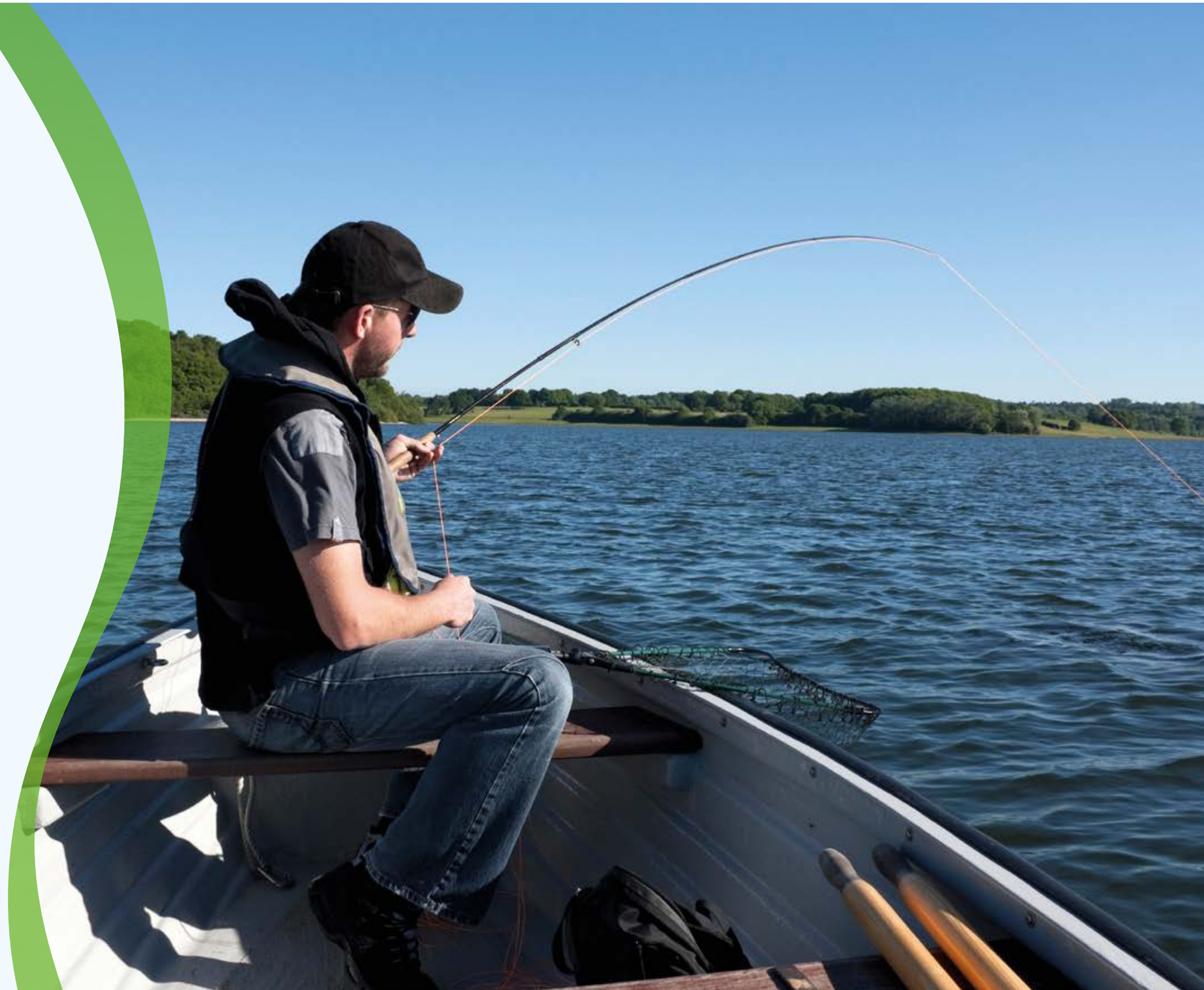
Future plans

We have 5,123 pumping stations that help transport 5.1 billion litres of wastewater to our STWs every day. Less than 1% of these sites caused pollution incidents, which demonstrates the strong operational grip we have on pollution performance at our SPSs. In 2023 (2024 not yet published) our performance was industry-leading, with our incident numbers outperforming the rest of the industry in terms of total numbers, which is impressive given the scale of our operation (we had 17 incidents compared to the average of 52). When this figure is normalised per 10,000km of sewer, we achieved performance of 1.56 compared to an industry average of 12.53. This is because of consistent investment and management of our sites. Our sewage pumping station interventions remain focused on improving resilience against power and asset failure, with these continuing to be key contributors to our pollution incidents for this asset type. See here a detailed view of our interventions including descriptions and targets. In this section, we explore some of our plans in more detail.

Improving the resilience of our sites to power problems remains a key focus, with it being a core driver of SPS pollutions. We monitor sites with higher-than-expected failure rates, as well as their potential impact of failure, to create business cases to install new or replacement standby generators if needed. We've been doing this activity for several years and have fixed standby generators over 250 of our highest-risk sites. Alongside this, we also monitor business-as-usual maintenance activity and KPIs, including inspections, testing and maintenance. We've also installed 175 automatic restart switches to help sites return to service without any intervention, giving them better resilience to cope with a wide range of power issues.

We'll continue to deliver our Asset Improvement Programme, which aims to improve the resilience of sites against equipment and power failures. This includes the installation of equipment that allows sites to detect voltage fluctuations and react appropriately, rather than tripping the site backup control systems to mitigate the failure of primary control instruments and increasing the scope and quality of our operational data to improve our predictive intervention process. Alongside this, we have an Outstation Obsolescence Replacement programme, which replaces legacy outstations and communications links at pumping stations and enhanced pumping station controllers (EPSC) to improve their operation, increase pump efficiency and make them more resilient and reliable. An outstation is a remote device or unit that collects and sends/receives data to a central system for monitoring and or control. An EPSC unit is a device used for advanced monitoring and managing the operation of the pump control system. It uses data gathered from the asset and the process to support the optimal and efficient operation of the equipment. Several advanced features reduce the number of asset failures and process failures, i.e. auto reversing of pumps to clear blockages and airlocks as an example.

Clean water



Historic intervention performance

The below table provides a view of our performance for initiatives that were featured in our PIRP last year (the results from these will be published in an updated version 2 of this document once FY24/25 has been closed out).

Cause	Initiative	Description	Year 5 Target	Year 5 Actual	AMP 7 Actual
Network burst	Trunk main leakage (TML) programme	Active leakage control on trunk mains is an essential component of asset maintenance to reduce the likelihood of catastrophic failure and manage water losses from the network.	100 repairs	TBC	TBC
	Calm Systems Strategy	We're taking a data-driven approach to deliver calmer water supply operations, focusing on mitigating pressure transients and high-pressure variance to reduce the number of bursts per year.	75 leaks/bursts	TBC	TBC
	Trunk Main Valve Check Programme	We're undertaking valve checks on all valves required to isolate and operate the trunk main network. These include isolation, flushing, emptying and hydrant valves and may not necessarily be directly on the trunk main asset itself.	8000 valve checks	TBC	TBC
	Air valve maintenance programme	This programme proactively maintains air valves to reduce burst frequency.	600 air valves	TBC	TBC
	Distribution mains valve repairs	We're repairing or replacing distribution valves to ensure rapid isolation when bursts occur.	2500 valve repairs	TBC	TBC
	Smart Valve	We're considering the roll-out of technology to assist valve operators when ensuring valve operations do not harm the network.	Commence system integration of Smart Valves	TBC	TBC

Future plans

As network bursts are still the biggest cause of our clean pollution incidents, we're continuing to focus on burst reduction (see here for a detailed list of clean water initiatives). We also recognise the importance of behaviour when it comes to pollution reduction across all asset types. As part of our business-wide training and culture initiative, we've been running pollution awareness training across all our water business areas. Over 90% of our Water Distribution and Water Production teams have now completed their training and this will continue to be a focus in AMP 8.

As a result, we'll likely see more forward-thinking reports based on potential environmental impact. While this may mean more incidents are reported in the short term, it also shows a growing understanding and awareness of the risk factors, which will boost river health long term. We recognise that there is more we could do to mitigate clean water bursts when they do happen, and this is why we have a renewed focus on understanding the cause. We're working closely with our clean water operational colleagues to uncover future opportunities in this space using our updated root cause analysis, which can help us truly learn from previous incidents. This may lead to the introduction of new interventions into our plan in future years.

Case study

Improving water quality in Glassmill Pond (Bromley)

Background

Glassmill Pond, located near Bromley town centre, is a historic millpond that dates back to the Domesday Book and is one of the oldest features in the area. Over recent years, it has faced issues of silting, increased flood risks and creating challenges for wildlife. In collaboration with several stakeholder organisations, a restoration project was launched. The project involved constructing a new river channel to carry sediment away from the pond and adding cobbles and gravel to the riverbed to improve conditions for fish migration.

Water quality issues

The pond has been affected by water quality issues, mainly from three surface water outfalls that we manage. These outfalls discharge into the pond, contributing to the pollution problems. To address this, we completed work on the Mill Vale outfall in 2022 and are currently managing projects to improve the Bromley Park outfall and the Glassmill Culvert outfall.

The River Ravensbourne is culverted for over 3km, with 43 hidden outfalls along its course. As part of the Surface Water Outfall Programme (SWOP), we planned manhole lifts and worked to address pollution at these outfalls. Of the 43 outfalls, 17 were added to the programme, with 15 now signed off. This has led to the identification of pollution sources from 105 properties and 292 misconnected appliances. Six properties still have unresolved issues, and enforcement action has been referred to Bromley Council.

Outcome

The restoration and pollution control efforts have led to a 20% sign-off for Year 4 of the programme contributing to improved water quality. Strong partnerships have been built with stakeholder groups like the EA, Bromley Council, and the Friends of Bromley Parks and Gardens. Monthly meetings with these partners are helping to improve enforcement and drive progress. The image to the right shows the River Ravensbourne separated from the Glassmill Pond after the works. While pollution issues are not always visible in hidden watercourses, they remain a critical focus for improving water quality in the area.

Governance

Our Pollution Incident Reduction Plan is a live portfolio of work with associated monitoring and governance processes where the performance of interventions is robustly monitored against the plan. Strategies are continuously reviewed and adjusted to ensure interventions are delivered as outlined and progress is communicated regularly internally to the executive and board as well as externally to stakeholders.

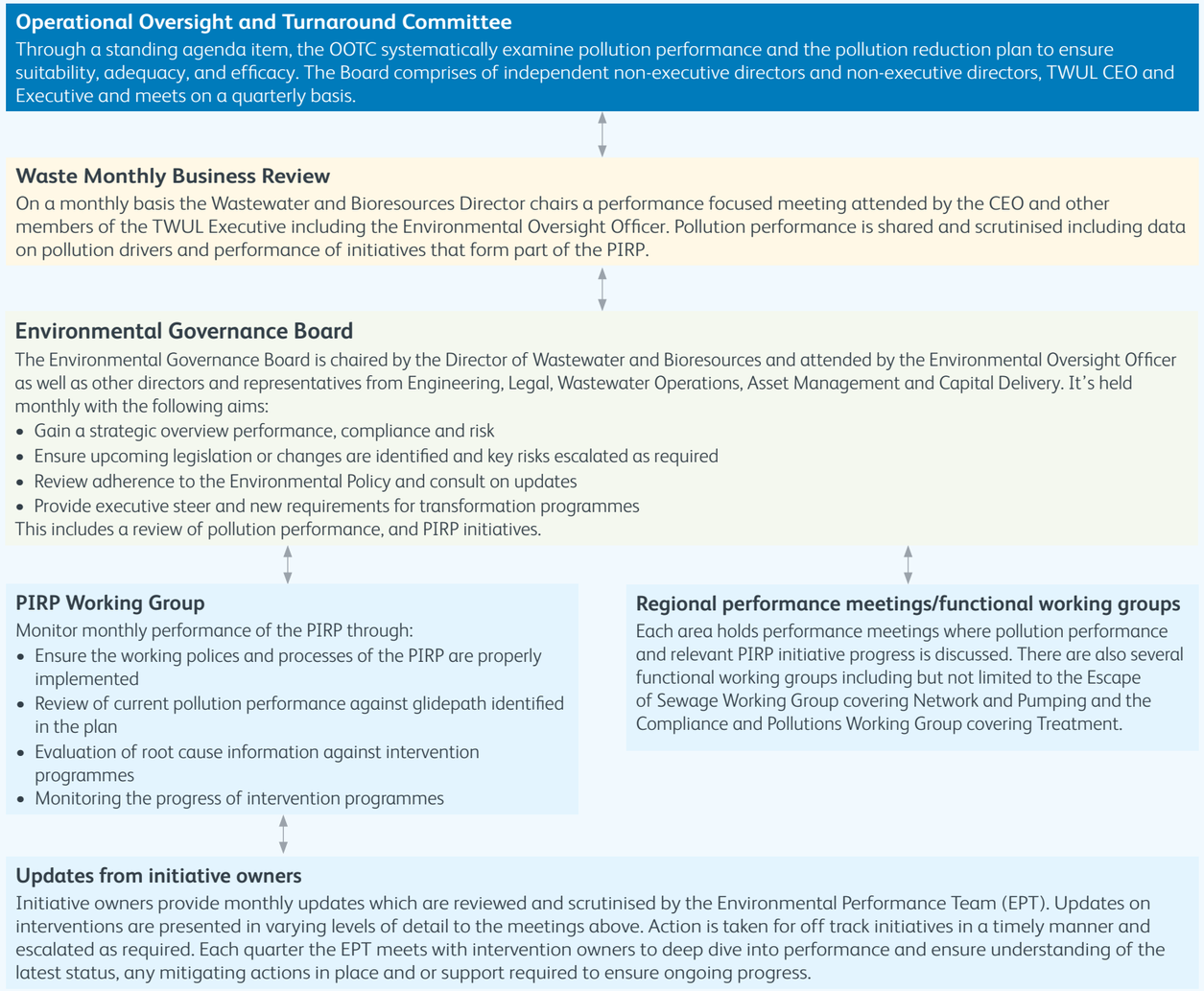
Dedicated working groups, steering boards and committees collectively monitor the progress of the PIRP. Our whole board get visibility and oversight of the PIRP through the Operational Oversight and Turnaround Committee report and the CEO report quarterly allowing them to monitor performance and hold the management team accountable against identified milestones and targets. The figure on the right shows an overview of our PIRP governance.

Our Strategy and External Affairs Director provides additional oversight in her role as Environmental Oversight Officer providing visibility of PIRP performance to the TWUL Executive. Our Waste and Bioresource Director and Sponsor of Waste Programmes, Asset Planning and Sponsorship alongside our Water Director are jointly accountable for the delivery of the PIRP.

Overall performance is monitored at the joint EA and Thames Water quarterly operational performance and strategic meeting. Progress and effectiveness of the plan will be reported to the EA Account Manager and Regional Lead Officers on an annual basis. Additionally, a copy of the plan is published on our external website.

The performance of the plan, particularly the outcomes of interventions against general targets, is shared with other water and sewage companies through the National Pollution Reduction Task Force. This group meets monthly and has been set up to ensure the sharing of best practices and knowledge across the industry to reduce pollution incidents. Recognising that all wastewater companies are striving to tackle similar challenges, we routinely engage with others to learn what new ideas have worked for them and consider their application to our own business.

As a result, we launched our Environmental Guardians initiative in early 2024. This volunteer scheme seeks to leverage the commitment of our employees across the business who want to get actively involved in helping reduce pollution. Many of these employees live within our catchments and are keen to see our pollution performance improve. The scheme involves employees volunteering their own time to proactively monitor outfalls, collect baseline information about outfall activity and spot the telltale signs of possible pollution occurrences. When a potential pollution event is identified, this information is swiftly passed to our operational teams to investigate via existing pollution investigation processes.



Glossary

AMP	Asset Management Period, which is the five-year funding period. AMP 7 was the seventh asset management period planned by the UK water industry and ran from 2020 to 2025. AMP 8 is the eighth period and runs from 2025 to 2030.
Category 1 pollution	Major, serious, persistent and/or extensive impact or effect on the environment, people and/or property.
Category 2 pollution	Significant impact or effect on the environment, people and/or property.
Category 3 pollution	Minor or minimal impact or effect on the environment, people and/or property.
Category 4 pollution	No impact on the environment.
CSO	Combined sewer overflows are used to prevent sewers from flooding our homes, gardens, and streets. They act as a safety valve, diverting some of the rainwater and foul water into watercourses.
DAM	Discharge Alert Manager - a system that helps us draw insight regarding discharges from our storm-related assets.
EA	The Environment Agency is a non-departmental public body, established in 1996 and sponsored by the United Kingdom Government's Department for Environment, Food and Rural Affairs, with responsibilities relating to the protection and enhancement of the environment in England. They regulate our environmental performance.
EDM	Event Duration Monitors use sensors to monitor the level of flow in a tank or sewer. They're installed on storm overflows. The sensor triggers an alert when a certain level is reached, indicating a storm discharge is happening. EDM monitors measure the start and end time of any flow. They don't measure the volume of the flow itself.
FOG	Fat, Oil and Grease – substances which shouldn't be disposed of down the drain because they cause blockages.
MoWWT	The Management of Wastewater Treatment training course is a level 5 award in understanding wastewater treatment, helping candidates to improve their knowledge and understanding of regulatory compliance requirements and best practice in wastewater treatment.
Ofwat	Ofwat is the Water Services Regulation Authority, an economic regulator for the water and sewerage sectors in England and Wales. Its role is to ensure that water companies provide a reliable service to customers at a fair price while maintaining the sustainability of water resources and protecting the environment.
PIRP	Pollution incident reduction plans are a regulatory requirement that all water companies must have, outlining the actions being undertaken to improve pollution performance.
Rising main	A rising main is a sewer that's pressurised using pumps to move sewage uphill.
Serious pollution	A pollution event categorised by the EA as either category 1 or category 2.
SLAM	Sewer Level Alert Manager - a system that uses data from level monitors installed in our sewer network to target interventions.
SDM	A sewer depth monitor (sometimes referred to as a sewer level monitor or SLM) is a device used to measure and monitor the depth of wastewater within sewer systems. These monitors are essential for managing and maintaining sewer networks, as they provide real-time data on the flow and level of sewage.
SOAF	Storm Overflow Assessment Framework is an initiative that investigates high-frequency discharging combined sewer overflows (CSOs).
SPS	Sewage pumping stations (sometimes referred to as waste pumping) pump wastewater from pipes in the network to a sewage treatment works.
Storm discharge	A storm discharge is a mixture of rainwater and untreated sewage, released by storm overflows into watercourses. This happens during heavy or continued rain to prevent sewer flooding.
STW	Sewage treatment works are designed to treat and clean sewage and wastewater before they are released into the environment.
WINeP	WINeP stands for the Water Industry National Environment Programme. It's a program that outlines environmental commitments and requirements for water companies in England, ensuring that they meet environmental standards and regulations. This includes actions to protect water quality, improve wastewater treatment and address issues like stormwater overflows. WINeP sets out a series of specific projects that water companies must carry out to meet environmental goals, such as reducing pollution, improving habitats, and complying with European Union and national environmental laws.
WISER	Water industry strategic environmental requirements. A document providing strategic steer to water companies on the environment, resilience, and flood risk for business planning purposes.


Thames
Water