

Anglian Water's Service Commitment Plan

November 2024



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Introduction

This plan responds to Ofwat's Water Company Performance Report for 2023/24. Each year of the Asset Management Period (AMP) we are assessed by Ofwat against 40 different measures. These measures, known as Performance Commitments, were set at the 2019 price review.

In the report, Ofwat focuses on the 16 largest water and wastewater companies in England and Wales across a subset of 12 common Performance Commitments. Ofwat produces an overarching assessment on water company performance, categorising companies as either leading, average or lagging. For 2023/24 (year four of AMP7 2020-2025) we were deemed as a 'lagging' performer by Ofwat, for the second year in a row. No companies are in Ofwat's 'leading' category again this year.



Our Service Commitment Plan provides context into how and why our performance fell short in 2022/23 and 2023/24, and our plans to address challenges. We explain each area of performance, the root causes of underperformance and the actions we are taking alongside where we have made improvements.

Throughout, we provide forecast data until the end of year five of AMP7 (financial year: 2024/25) or to the end of the calendar year, depending on how the measure is assessed. Performance beyond this AMP is reliant on the Performance Commitment Levels (PCL) Ofwat sets for AMP8 (2025-2030), alongside investment levels, which determines where we will be able to put resource and drive performance. This will be clearer once we receive the Final Determination from Ofwat in December 2024. Our aspirations for 2025 onwards can be found in our [AMP8 Business Plan proposal](#).



Our 2023/24 performance

We met or outperformed the PCL for five out of the 12 common Performance Commitments assessed by Ofwat. While this is a positive upward movement on 2022/23, where we met three, we are disappointed that we did not meet the levels we aspire to and that our customers rightly expect.

Performance Commitment	What it measures	Categorisation of 2023/24 performance	2022/23 performance	2023/24 performance	Actual performance improvement from 2022/23
Customer satisfaction	What customers think of our overall service and our response to requests for help	At or better than PCL 	78.8/100 (10th place)*	77.5 (7th place)*	Improved
Priority services	Identifying/supporting customers who would benefit from additional services or support	At or better than PCL	11.4%	12.7%	Improved
Leakage	Volume of water lost on our pipe network between water treatment works and the customer's tap	Poorer than PCL	6.2% reduction (against a 2019/20 baseline)	6.2% reduction (against a 2019/20 baseline)	No change
Per capita consumption	Average volume of water used by each household customer every day	Poorer than PCL	2.5% increase	2.2% reduction	Improved
Water supply interruptions	Average time customers are off water during the year	Poorer than PCL	14m 35s	9m 8s	Improved
Drinking water quality (CRI)**	Measure of our compliance with standards for drinking water quality	Poorer than PCL	2.92	3.57	Declined
Mains repairs	Number of times we have to repair water mains because they have burst (irrespective of the disruption to customers)	At or better than PCL 	173.2 per 1,000km of main	123.0 per 1,000 km of main	Improved
Unplanned outage	Temporary losses of water production from unforeseen or unavoidable events	At or better than PCL	1.91%	2.05%	Declined
Internal sewer flooding	Number of times customers' properties were flooded with wastewater	Poorer than PCL	1.69 per 10,000 properties	2.27 per 10,000 properties	Declined
Pollution incidents (category 1-3)**	Number of times polluting material escaped/spilled from our pipes, treatment works or pumping stations	Poorer than PCL	33.36 per 10,000km of sewer	40.16 per 10,000 km of sewer	Declined
Sewer collapses	An indication of the health of a company's wastewater network	At or better than PCL	5.19 per 10,000 km of sewer	5.43 per 10,000 km of sewer	Declined
Treatment works compliance**	Number of our water treatment works and water recycling centres which failed to comply with their environmental permits	Poorer than PCL	98.6%	98.4%	Declined

 Arrow indicates movement from poor performance against PCL in 2022/23, to being at or better than the PCL in 2023/24

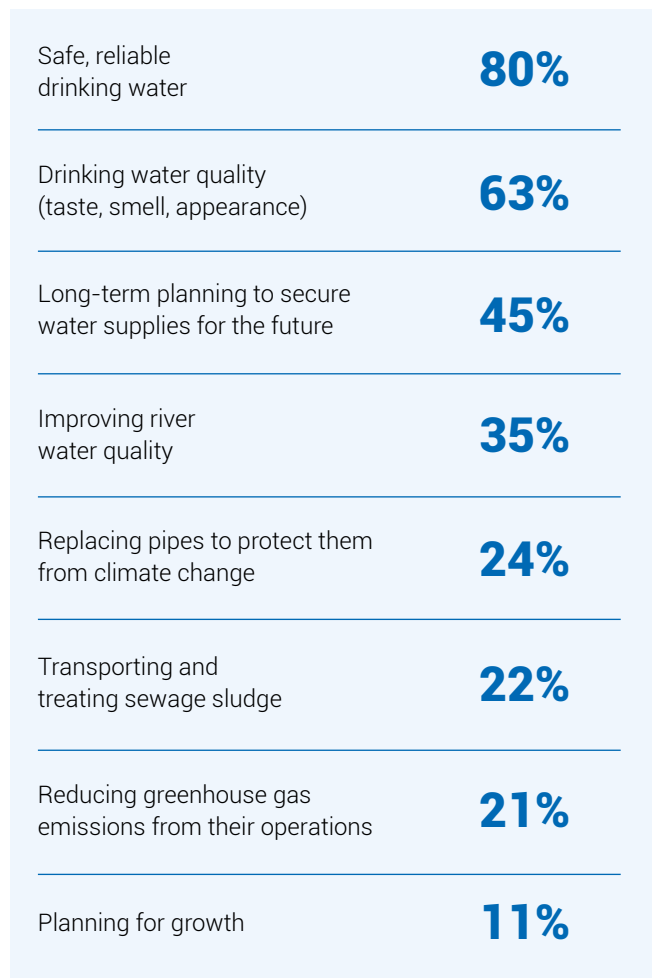
* This is a comparative measure

** The time period of these measures are calendar year, the rest are financial year.

Why we did not meet the levels we aspire to

It is vital that our plans respond to what is important to our customers and stakeholders. Our customers repeatedly tell us that they want us to prioritise safe, clean water, to secure resources for the future, to take care of the environment, and to support the most vulnerable in society.

Ranking of customer priorities for capital investment (customer survey 2022/23)



The Drinking Water Inspectorate uses a number of key performance indices and publishes an annual report every summer assessing water quality across the industry. Drinking water in England is amongst the most tightly regulated. Water companies consistently meet stringent standards for drinking water, with 99.97% of samples complying with the regulatory standards in 2023. Customers can be assured that drinking water quality in England and Wales is among the best in the world, with the Yale University Environmental Performance Index listing the UK as one of only 10 countries with the highest score for drinking water safety.

Compliance Risk Index (CRI) scores demonstrate how we manage water quality. The lower the score, the better. We achieved a score of 3.57 in 2023 against the industry average of 5.15. We missed our Ofwat target of 1.5. This is a risk-based measure and the Inspectorate does not expect a score of 0. Our CRI score was impacted by an increased number of water quality exceedances from our storage points and Water Treatment Works. We have instigated a programme that aims to reduce the number of water quality exceedances from our assets.

We also missed our Ofwat-related environmental targets: pollution incidents, treatment works compliance and internal sewer flooding. Our responsibility to the environment is integral to our Purpose. We acknowledge that our pollutions performance has not been to the standard we or customers expect. In 2023/24 alone, we invested nearly half a billion pounds in reducing pollutions and spills, utilising new technologies and instilling new ways of working to lay the foundations to improve our performance. We are disappointed and frustrated that our performance isn't moving fast enough. But we are realistic that there are no quick fixes. While we are moving forward with urgency and putting significant amounts of resource behind turning around our performance, we know the time it will take to yield results.

In 2023/24, we had the wettest winter on record. As a result, in 2023, we processed 25% more flow into our Water Recycling Centres, and our pumping stations were operating for double the amount of time, in comparison to 2022. Despite operating to maximum capacity and as designed, our sewerage network and pumping stations were inundated by hydraulic overload – where there is more water than there

are places to store it – placing upward pressure on pollution and flooding performance. A small number of our sites were entirely submerged and temporarily inoperable, even in locations with flood defences.

High intensity rainfall creates high groundwater levels over time, which is challenging for us to remove from the environment and leads to large volumes of excess rainwater being carried into rivers, ditches and storage. To put this into context, one home roof generates the same volume of water as 100 homes would use in a day. In a small town of 5,000 homes, this is like instantly connecting 500,000 homes to the sewer system. If other parts of the drainage system are not working as they should, this number can multiply rapidly, resulting in widespread and prolonged flooding. We are looking at the drainage system in its entirety. We welcome discussions with others and are leading the way by setting up multi-agency groups, which ensures that all operators of the drainage system work together to mitigate high-risk areas.

Extreme weather has always impacted how our assets function, with different patterns causing different challenges. For example, drought conditions lead to increased risk of water main bursts (in 2022), while this year's prolonged rain impacted our wastewater measures, and named storms led to interruptions to supply. While no spill to the environment is acceptable and we are disappointed to be off target, lead measures are showing improvements, demonstrating that the investment and action taken in line with our Pollution Incident Reduction Plan are paying off. For example, we had 13% fewer pollutions compared to 2021, another year impacted by wet weather.

In other areas, missing Ofwat targets is not always necessarily a true reflection of performance. Leakage and per capita consumption (PCC) are two good examples. Across the industry, leakage is at its lowest level in recorded history, and we remain sector-leading despite missing our Ofwat target. We have also made positive strides against PCC, with customers reducing their water usage by an average of five litres a day in 2023/24 in comparison to 2022/23 (on a three-year average basis), and we are a top four performer across the sector. In its Draft Determination, Ofwat proposed adjustments to companies' PCC figures to reflect the impact of the Covid-19 pandemic on this measure. If this adjustment was confirmed for 2023/24, we would have met our target.

Performance Commitments explained

All water companies operate in five-year cycles and performance against Performance Commitment Levels are assessed by Ofwat.

In our five-yearly business plans we propose the levels we can achieve for each Performance Commitment alongside the costs required to achieve those, bearing in mind what customers have told us about their willingness to pay for particular outcomes. For some PCLs, Ofwat sets water companies different targets based on its assessment of individual circumstances and the funding it has allowed, which makes direct comparison across the industry difficult.

We are incentivised to deliver levels of performance that stretch beyond the PCL, and incur underperformance payments where we do not meet the levels of service we committed to. The PCL therefore presents us with an economic incentive: we may not achieve a PCL if the cost of doing so exceeds the reward we would earn or penalty we would avoid.

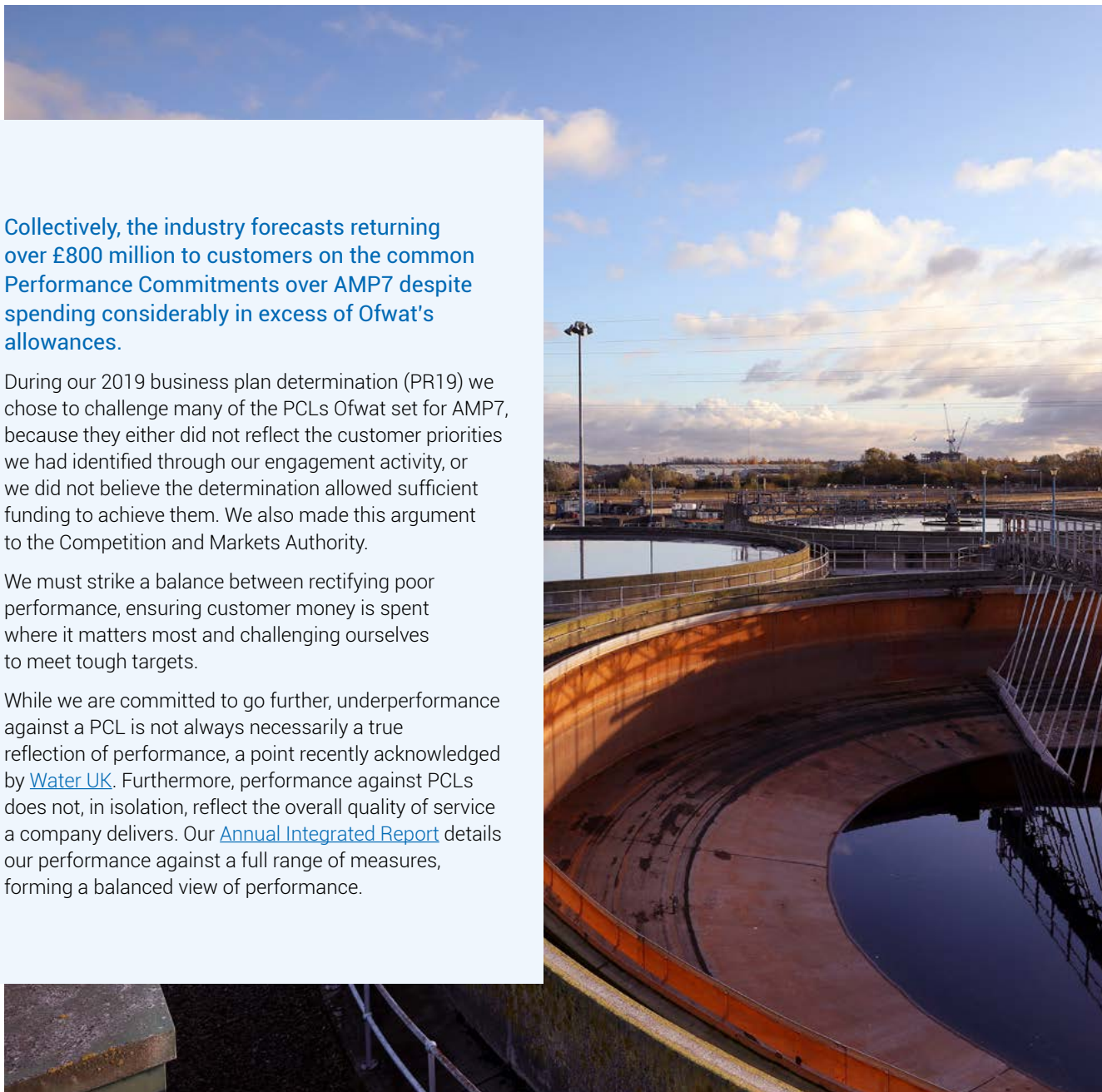
We have a lot to do to move from lagging to average, and on to leading. However, industry evidence suggests that many of the PCLs Ofwat set at PR19 are beyond what many companies expected to achieve.

Collectively, the industry forecasts returning over £800 million to customers on the common Performance Commitments over AMP7 despite spending considerably in excess of Ofwat's allowances.

During our 2019 business plan determination (PR19) we chose to challenge many of the PCLs Ofwat set for AMP7, because they either did not reflect the customer priorities we had identified through our engagement activity, or we did not believe the determination allowed sufficient funding to achieve them. We also made this argument to the Competition and Markets Authority.

We must strike a balance between rectifying poor performance, ensuring customer money is spent where it matters most and challenging ourselves to meet tough targets.

While we are committed to go further, underperformance against a PCL is not always necessarily a true reflection of performance, a point recently acknowledged by [Water UK](#). Furthermore, performance against PCLs does not, in isolation, reflect the overall quality of service a company delivers. Our [Annual Integrated Report](#) details our performance against a full range of measures, forming a balanced view of performance.



Actions we are taking to improve our performance

Importantly, we know what has impacted our performance and we are already taking the necessary action.

We are using new technology to connect the dots between our long-term ambitions, drivers of performance, and the impact of interventions. Utilising root cause data, combined with subject matter expertise, we are prioritising activity and investments that will benefit multiple measures. For example, pressure monitoring on our water mains enables us to identify leaks and prevent supply interruptions. On pollutions and spills, we have identified priority areas for an additional investment of £100 million, funded entirely by shareholders.

While there are key areas within our control which we are supercharging action, we cannot ignore the impact of climate change and the growing demands on our region. We're operating a network that was built at a time when there were fewer customers and fewer products that cause blockages going into our sewers. There was also more green space to absorb rainfall and a more stable climate.

The duality of extreme heat and rainfall in successive years cannot be viewed in isolation, but as part of a broader pattern resulting from climate change. Our water environment is at the forefront of this change, with more frequent, extreme and localised rainfall events and shifting weather patterns pushing systems beyond what they were designed to do.

While we are working hard to turn around performance, we also need to work with others to find shared solutions to create a system that can meet these changing needs, alongside places and communities that are resilient to extreme events.

Annual average temperatures have increased in the East of England since 1884* with many of the hottest years occurring in the last few decades.



1884

2023

*Data: HadUK-Grid Climate stripes concept: Ed Hawkins

Performance reset

To put us on a solid footing for AMP8, we are undertaking a transformation programme which will see us corral efforts company-wide to the end of AMP7, supercharging seven key areas: serious and total pollutions, treatment works compliance, external and internal flooding, our Water Industry National Environment Programme (WINEP), spills, water supplies 24/7 and ensuring our people are safer every day. We've set up multi-team working groups across these seven areas to break down the priorities into manageable projects and resolve them at speed. We will do all of this without losing sight of customer support.

This plan is being led by our new CEO, Mark Thurston, and is supported by our shareholders, who this year, agreed an extra £100 million to accelerate progress across pollutions and spills, over and above Ofwat's allowances. Through this work, we aim to reset expectations on our operational performance and meet our internal performance targets by the end of AMP7.

For the measures described in this report, we shared our forecasts with Ofwat in our previous Service Commitment Plan and report progress quarterly. We remain committed to delivering the service customers expect, in line with what they have told us matters most.

Board oversight and transparency

The Board governs the necessary actions required to improve performance and fully supports our immediate and longer-term plans, including our transformation programme. The Board recognises that improving performance requires sustained commitment over time and is committed to monitoring progress on delivery of the Service Commitment Plan as part of its routine reviews of company performance.

We have implemented a new reporting sequence with our Board over the last year, with more trend data being shared on key risk indicators and leading metrics, enabling the

Board to better assess and predict performance. Current and forecast performance is routinely monitored by the Board, alongside reviewing operational performance including corrective action plans. These metrics are reported monthly alongside a quarterly performance dashboard, which contains a combination of Ofwat Performance Commitments and other metrics.

More recently, we have reset our governance structures to enhance awareness of performance further within the Executive Team. These changes were driven by our new Chair, Dr Ros Rivaz, and CEO, Mark Thurston.

The Board meets at least eight times a year – more frequently when required, such as during the development of the Business Plan for submission to Ofwat. At each meeting, the Board receives reports from the Chief Executive, which highlights key performance issues, the Finance Director, the Regulation Director and a routine performance report. The Finance Director's report tracks financial expenditure against budget, and the routine performance report tracks performance against internal targets in relation to Performance Commitments, forecasting a performance outturn at the end of the year. The Board oversees customer service standards and outcomes for vulnerable customers regularly.

We also work closely with our Independent Challenge Group and Customer Board, which is made up of representatives from various customer and regulatory bodies and provides scrutiny of our activity and plans. Both groups meet regularly with our executive team to share feedback. We will share this plan with them and provide them with regular updates.

Progress against the commitments we made in the 2022/23 plan is reported quarterly to Ofwat. We participate in regular engagement meetings with Ofwat and other regulators including Defra. We've also held a series of engagements with Ofwat, including deep dives on root causes, with a particular focus on water recycling.

To further facilitate transparency in 2025, we intend to publish a dashboard which demonstrates how we are delivering against our Purpose, to bring environmental and social prosperity to the region we serve through our commitment to Love Every Drop.

What impacts our water related measures?

This section covers the following measures: Drinking water quality, per capita consumption, leakage and water supply interruptions.

Every day we supply around 1.2 billion litres of drinking water to around 5 million customers, via 140 water treatment works and over 39,000 kilometres of water mains. Our customer research repeatedly tells us that their main priority is the delivery of safe, reliable drinking water. This is our top priority, and we work hard to ensure our water meets the high standards we and our customers expect.

Alongside supplying clean drinking water, the water side of our business covers abstraction of raw water, storage of potable water, the distribution of water to customers through our network of supply pipes and finding and fixing leaks.



Proactively managing asset health

We are committed to delivering a high level of service to our customers, through reducing leaks, minimising interruptions and ensuring our assets are operating as they should. To achieve this, we need to continually improve our understanding of what is happening in our supply systems. Intelligence on our assets allows us to take action on problems before they arise (a proactive response) rather than responding once it has occurred (a reactive response).

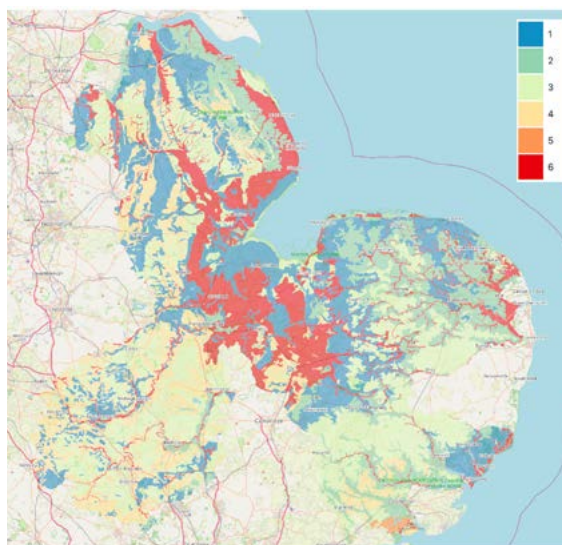
We are moving towards a proactive response through using asset performance data. In 2023/24, we reached our 2025 target of installing Enhanced Pressure Monitoring (EPM) in >80% of our district metered areas (DMAs)¹.

EPM data provides visibility across individual water systems and where we are experiencing pressure transients: fluctuations in pressure. Transients cause mini shockwaves in our pipes which can cause them to fracture, leading to leakage and supply interruptions. EPM data helps us to identify transients and remove them.

Through our EPM strategy, we anticipate a reduction across multiple PCLs: burst mains and subsequent supply interruption risk, a reduction in the background rate of leakage and improvements to drinking water quality performance.

We are also using Condition Based Monitors (CBM) to assess the condition of our assets, giving us early visibility of our operating conditions and potential early warning signs of any degradation before asset failure. We have made repairs following alerts, where previously, problems only surfaced when the asset failed. By proactively monitoring, we can implement preventative maintenance to reduce asset outage, supply interruptions, maintaining a calm, stable network.

In addition, asset upgrade and renewal will be vital to service our region now and in the future. Independent research has highlighted the risks and impacts of ageing water mains. Much of the land in our region is drained and rich in soils that are highly shrinkable, often chemically aggressive and structurally unstable. Extreme temperatures and heavy rain lead to shrinking and expanding of these soils, exacerbating ground movements that increase failures of ageing water distribution mains. Since 2014, we have partnered with Cranfield University and MapleSky, with research highlighting 8,241km of climate vulnerable mains in the East of England. Our AMP8 programme proposes renewing 668km of these climate vulnerable mains – c.8% of the total – working towards our long-term plan to renew 75% of these mains by 2060.



Shrink-swell classification over the Anglian Water (water supply) area. Sources: Infrastructure data © Anglian Water. Soils data © Cranfield University and for the Controller of HMSO, 2019.

Managing supply and demand

Another key part of our long-term strategy is managing supply and demand to ensure we have sufficient supplies to meet the needs of our fast-growing region. This is covered by our Water Resources Management Plan (WRMP).

Our WRMP is a regulatory framework which sets out how we will manage and develop water resources for the next 25 years. This includes supporting customers to reduce consumption, reducing leakage in our networks and customer supply pipes and increasing available water supplies through new infrastructure. It contains information on the delivery of our Strategic Interconnected Pipeline, abstraction and associated WINEP obligations.

We updated our published WRMP24 at the end of November 2024, to cover a re-based position for leakage and PCC alongside an update on the delivery of our strategic pipeline. In terms of the overall supply demand balance, the changes to leakage and PCC balance each other out, with a small net benefit in the first four years of AMP8, based on our central forecast from 2023/24 as a base year.

In addition, we have committed to a package of environmental mitigation measures, along with an enhanced demand management programme initially focussed on Colchester. With Ofwat's approval, the latter will include extension of our summer tariff trial.

Updating our WRMP24, reflecting the actual position we are in, will ensure regulatory alignment and evaluation of realistic performance levels for AMP8. The Environment Agency has verbally accepted our update, and we are awaiting written confirmation.

¹ A District Metered Area is a discrete unit of our entire pipeline network

Drinking water quality (CRI)

Year 4: 2024

Year 5 forecast: 2025

3.57

2.92

This is a calendar year measure

Compliance Risk Index (CRI) scores water companies on their ability to provide treated drinking water to required quality standards.

Overseen by the Drinking Water Inspectorate, the CRI calculates compliance failure at water supply zones, supply points, treatment works and service reservoirs every calendar year, taking into account: the quality parameter that failed, the culpability of the company for the failure, the company response and the number of customers affected.

A score is given for every failure and is totalled to create an overall annual score. The PCL is 0, indicating companies should aim for 100% compliance at all times. If our score exceeds 1.5 (a threshold known as the deadband), we make a penalty payment to customers. Most companies have a deadband of 2.

Figure 1

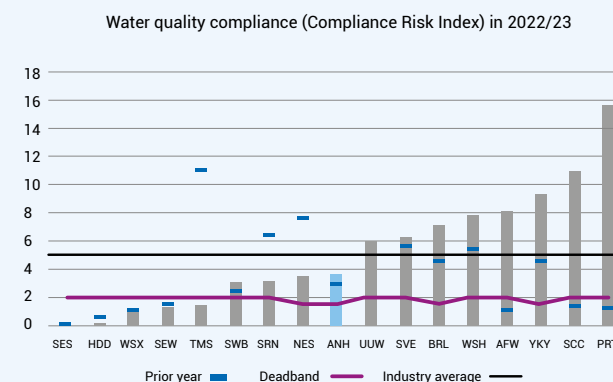
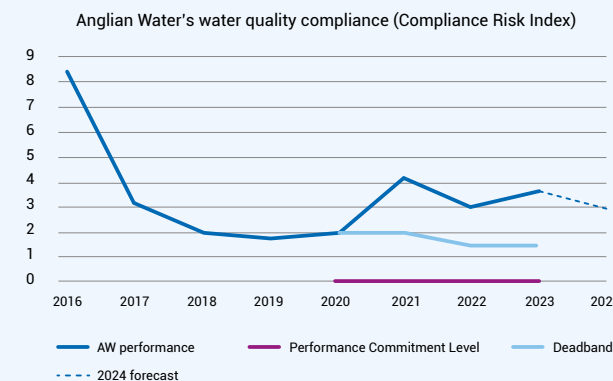


Figure 2



Where are we today?

Providing safe, clean drinking water is the number one priority for our customers and our foremost responsibility. The Drinking Water Inspectorate (DWI) uses a number of key comparative performance indices and publishes an annual report every summer. In 2023 our score was 3.57. This is higher than our 2022 score of 2.83, our PCL and deadband. Overall, we compare favourably to other water companies, with the sector average for CRI in 2022/23 being 5.15. Furthermore, we are one of four companies with a more stringent deadband of 1.5, meaning we fall into penalty sooner.

The DWI assesses any water quality sample failures and events and makes recommendations for improvement; these are the initial stage of regulatory intervention, in line with Better Regulation principles. We were pleased that in 2023, the DWI made fewer recommendations to us than expected for a company of our size. Any recommendations are regarded as crucial learning points, and we act on them rapidly.

CRI performance across the industry varies dramatically, as Figure 1 demonstrates. While our performance for 2023 declined slightly, for 2024 we are forecasting 2.73. This would be an improvement on 2023 and, we anticipate, keep us ahead of the industry average.

We aim to minimise risk to a pragmatic level in line with the DWI's expectations. The DWI recognises there is a residual risk associated with drinking water quality, even when companies are providing excellent quality drinking water. It is realistic to accept that residual risk exists at company assets and customer properties.

Figure 2 shows that our performance since 2016, when CRI was introduced, has improved significantly. The Yale University Environmental Performance Index lists the UK as one of only 10 countries in the world who have achieved the highest score for drinking water safety. The UK is the largest country in this group of ten, and consumers, including those supplied by Anglian Water, can be reassured that the safety of their drinking water is world-class.

What is influencing our performance?

Our CRI score was impacted in 2023 by an increased number of water quality exceedances and failures at our storage points and Water Treatment Works in comparison to 2022. Approximately 53.5% of our CRI score was attributable to bacteriological compliance failures at our assets. The remaining 46.5% is comprised of detections at customers' taps for iron, taste and/or odour, or low levels of bacteria.

Bacterial failures detected at customer taps are always thoroughly investigated. The majority of these are traced to hygiene issues at the customer tap itself. Things like washing raw meat, vegetables, or even washing hands, can cause harmful bacteria to contaminate taps and drinking water.

The predominant cause of iron failures is iron sediment usually from our cast iron water mains. A burst to a main can stir up these sediments. These iron sediments aren't harmful, but we appreciate the water might not look very pleasant. We have a maintenance programme for our network of water pipes, which flushes the water mains free of iron sediment, and have reviewed and re-targeted our planned preventative maintenance programme this year.

There are a number of issues that can cause taste and/or odour detections. We investigate any failures and any complaints thoroughly, of which the majority tend to derive from tap hygiene. We have a group focussed on compliance and have also put odour removal plans in place for a small number of our Water Treatment Works. Our AMP8 business plan includes investment for a small number of our Water Treatment Works.

For any issues and concerns with water quality we provide information through our website and our scientific team are on hand to answer any queries.

We comply with very strict regulations on drinking water quality, which means we report each of these failures to the Drinking Water Inspectorate. We also carry out a full investigation on each failing sample. Overall, 99.95% of our samples passed in 2023. We have instigated a programme that is aimed to reduce the number of water quality exceedances from our assets.



The action we are taking

Based on our performance in 2023, we are identifying additional areas of focus to further reduce risk. As part of our transformation programme, we are utilising a multi-team approach, bringing together teams from across the business to focus on key areas, with groups covering customer impact, reporting, data and administration and Water Treatment Works and storage points. The Water Treatment Works and storage points group ensures renewed focus using existing and new data, such as from our recently installed online bacteriological monitors, to inform actions and investigations at specific sites to mitigate risk.

In 2021, we started to develop our Storage Point Improvement Programme (SPIP). The programme aims to improve our risk visualisation at our water treatment works and storage point assets, so we can investigate and mitigate risk. This programme of work continues to develop, and we have started to embed a number of processes alongside improving our risk visualisation.

Through our external benchmarking work, we are understanding where we can develop efficiency in the delivery of our SPIP, to improve our inspection and remedial delivery process to improve asset health. Our centralised logistics centre supports efficient delivery of stocks, with remedial materials being stocked and distributed in a timely manner. It also provides a 24-hour lead time for materials where needed.

We are also utilising the multi-team approach in our delivery alliance, again with a focus on storage points. The group focuses on programme delivery and forms part of the change review process, providing governance to support an efficient and prioritised programme delivery.

We have also uplifted our investment in our storage points enabling us to plan our largest programme this AMP. A key focus of the programme is to reduce the number of our storage tanks that have not had an internal inspection for over 10 years.

Water quality monitoring strategy

We have installed enhanced water quality monitoring, using a combination of online bacteriological monitors at our highest risk CRI Water Treatment Works, pressure loggers at our highest risk CRI storage points and in-situ water quality monitors. This is supported by the development of a reporting platform and appropriate action triggers.

As an additional step, we continue to proactively include flow cytometry on all of our final water and storage point samples via our laboratory. This is enabling us to develop a more accurate picture of risk. Enhanced monitoring provides a proactive approach to data reviews and will inform how we prioritise further water quality monitoring and investigative equipment deployment.

Data-driven decision making: Risk visualisation

We have developed a Water Treatment Works and storage point water quality risk dashboard combining static and dynamic datasets in one place. The aims of the dashboard are to understand water quality risk at an asset level and allow proactive investigations to help reduce the likelihood of potential future microbiological failures. Further work will link upstream and downstream assets together to highlight any deviations.

Supported by our risk visualisation dashboards, we have also introduced a triage process, reviewing water quality data including our internal target standards and online monitoring with targeted investigations at our highest risk assets. Delivery of phase three of the dashboard reporting will further embed this process. In a recent meeting with the Chief Inspector of the Drinking Water Inspectorate, we were praised for our use of digital applications and our continuous development.

Asset inspections and data capture and visualisation strategy

We are creating an external inspection reporting dashboard alongside an external and internal inspection app to capture data. The internal app is undergoing further refinement to develop additional reporting links into the internal inspection reporting dashboard, which is under development.

Having successfully trialled the use of a specialist scanner, which allows us to create 3D scans of tanks, we are capturing accurate 3D models of our storage point assets aligned to the internal inspection programme. This allows for accurate structural issues to be documented, and deterioration of an asset to be tracked between inspections.

Future remedial work and investment requirements can be more accurately predicted, with measurements being taken from the scan. These developments provide greater visualisation of the asset health of our storage point assets and, along with the enhanced in-situ water quality monitoring, provide greater visibility of a change in risk position which will inform proactive investigations and/or interventions to help mitigate risk of failure. This information is enabling us to take a number of assets out of service.

Materials in Contact

A key area of focus is ensuring compliance with part of the water quality regulations which ensures that material or products that come into contact with water has satisfactory approvals and do not cause harm. Since 2021 we have been running a thorough company-wide programme to be proactive and forward-looking in this area. Through our Materials in Contact programme (MIC), we have created and worked through eight key workstreams which are now complete or nearing completion:

1. How we work with and manage our suppliers

We have reviewed and strengthened all new contracts with our suppliers, embedding MIC compliance into our buying and supplier frameworks. We are also liaising with all our current suppliers confirming requirements to supply us the information we require. This information is then all stored within our catalogue.

Anticipated finish date end March 2025

2. How we design our work

Written procedures govern our MIC compliance and are being updated to incorporate the changes and new requirements initiated by the programme. Additionally, FAQs will support our teams working in this area.

Due to go live in December 2024

3. How we purchase approved products

A new digital app has been built and is now live. The app allows delivery teams to submit their list of planned products for approval ahead of purchase, gain approval from scientific experts and proceed to procurement. Alongside this sits a catalogue of approved products that will automate over time with reference to key information such as approval expiry.

Complete, rolled out in September 2024

4. How we store products

As mentioned in our section about storage points, our Logistics team have been through a process of upskilling and have implemented a revised system to ensure items are approved, stored according to manufacturer's instructions and quarantined until cleared for use.

Complete

5. How we install and maintain products

Our MIC app has been further developed so that confirmation of products installed, is captured and evidenced.

Complete, rolled out in November 2024

6. How we manage and measure

We have made changes to the way we monitor and manage MIC including developing further performance metrics. A suite of reports to actively manage our performance end-to-end and allow continuous improvement are now in use.

Complete

7. External collaboration

We have been working alongside Energy and Utility Skills Group to develop a training programme that requires anyone working in this area to complete a course and pass an assessment before receiving a card to show they are qualified and registered. An industry group exists, and we use this to benchmark and share with other companies the work we are doing.

Anticipated completion by end March 2025

8. How we train and sustain

A full review and update of all training for MIC has been completed to ensure our people are set up for success. Changes to technical training have also been completed, to reflect the new app and ensure people understand what is expected of them and how to use the new tools.

We continue to challenge ourselves and continuously improve. A new MIC steering group monitors compliance, alongside a new technical advisory group made up of key internal stakeholders across the end-to-end MIC process. This group meets quarterly to discuss any challenges, gaps or improvements and action them.

The action we are taking in 2024/25 to continue improved performance

Root cause of underperformance targeted by action	Action	Action code	SMART Target	Estimated Performance Commitment benefit
Incomplete visibility of emerging risk	Data driven decision making	ANH-CRI-001	Phases 1 and 2 are complete. Phase 3 to be delivered following completion of scoping. Complete end December 2024.	High
Incomplete visibility of emerging risk	Asset inspections and data capture and visualisation strategy	ANH-CRI-002	Embedding of a proactive investigation process using the risk visualisation data, outputs and dashboard information. We will be undertaking an increased number of proactive investigations completing at least 10 by end March 2025. Further work will link upstream and downstream assets together to highlight any deviations or changes between those assets.	Medium
Incomplete visibility of emerging risk	Embed new ways of working	ANH-CRI-003	Outputs from the water quality group will feed into our understanding of opportunities to develop new ways of working, driving additional proactive water quality risk assessment approaches. Embedded by end April 2025.	Medium
Risk of ingress of untreated water into our storage points	Proactive maintenance	ANH-CRI-004	Inspect over 100 tanks to improve their asset health and re-mediate where necessary by the end March 2025.	High
We do not have all the information required under our new MIC programme	Materials in Contact Programme	ANH-CRI-005	All requested information received from our suppliers to ensure compliance with materials in contact requirements. Completion date end March 2025.	Low
New requirements of the MIC programme are not captured within our existing written procedures	Materials in Contact Programme	ANH-CRI-006	Procedural documentation and frequently asked questions updated and issued to our business. Completion date end December 2024.	Low
Relevant staff do not all have necessary levels of training in MIC issues	Materials in Contact Programme	ANH-CRI-007	Alongside Energy and Utility Skills Group, develop a training programme by end June 2025.	Low

Per capita consumption

Year 4: 2023/24

132.0 litres per person per day

Year 5 forecast: 2024/25

129.3 litres per person per day

Per capita consumption (PCC) measures the average volume of water used by each of our household customers every day. It is reported as litres of water per person per day.

Reducing domestic water consumption is a key part of our supply and demand strategy. By minimising demand, we can protect the environment and be better placed to meet future water needs.

Ofwat's regulatory framework assesses our average PCC over a rolling three years, reducing the impact a single year of atypical weather may have. Our PCL is measured against water usage in 2019/20.



Figure 3

Per capita consumption (litre/person/day) in 2023/24 in year

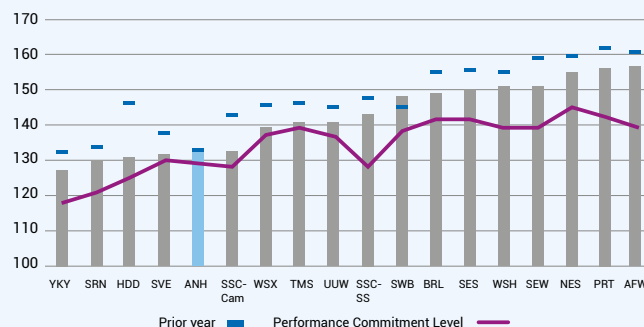
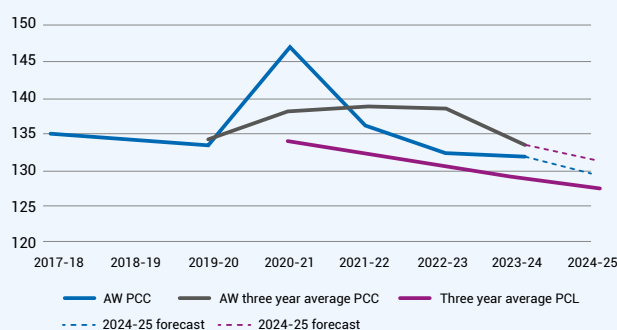


Figure 4

Anglian Water's per capita consumption (PCC)



Our 2024/25 forecast is a range based on modelling for both a mild and moderate winter. Both figures have not been adjusted by the factors proposed by Ofwat in its Draft Determination to reflect the impact of the Covid-19 pandemic. After application of Covid adjustment factors, we expect to meet the PCL for 2024/25, even if we outturn at the top end of our forecast range. As always, weather factors will play a large part in determining final outturn.

Where are we today?

We have one of the lowest PCC levels in the industry. Figure 3 demonstrates our performance across the industry. Figure 4 shows our performance since 2017/18. The three-year sector average for 2023/24 is 140.4 litres per person per day. In 2023/24, our three-year average PCC level was 133.4 litres per person per day, marking a reduction of five litres a day, compared to 2022/23 (138.4 l/p/d).

Our reductions are underpinned by our consistent work to encourage water efficient behaviours coupled with smart metering. We are on target to install over 1.1 million smart meters by end March 2025, alongside the additional 60,000 smart meters as agreed under Defra's Accelerated Infrastructure Delivery programme. By October 2024, we fitted our one millionth smart meter.

We have educated our customers about the challenges we face in our region, however, we know education and raising awareness isn't enough. We are evolving our behaviour change strategy to drive action and create sustainable change. We intend to continue with operational and digital customer journeys through metering and completing water saving home visits. We are also gathering evidence to support our WRMP24 and PR24 options to deliver savings for AMP7 and beyond.

We recognise that driving down consumption in our region is critical to long-term resilience. Demand management is a key element of our WRMP and our goal remains to offset the demand requirements needed to serve new housing and population growth through effective demand-side measures, including leakage control and PCC reduction.

The action we are taking

We are committed to reducing consumption through a range of initiatives, in particular, through the roll out of smart meters and our digital communication strategy. We have reviewed our AMP7 strategic approach for driving and sustaining customer behaviour change.

Our framework for shaping our water efficiency plan

Educate

Communicating the challenging water resources situation in our region as a result of climate change and growth alongside highlighting how we are working to futureproof water supplies and minimise waste.

Build intent

Develop customer understanding of the importance of individual action to reduce water consumption, growing motivation to change behaviours at home. Create a culture that values water as a precious resource to be preserved.

Behaviour change

Identify opportunities to create actual change that can support customers to use less water. Utilising both trusted and innovative devices to accelerate savings and compliment customer action.

Encouraging behaviour change is not new in Anglian Water, and we have seen success to date. Our objective is to educate, build intent and drive behaviour change connected to water use behaviours in the home.

Motivating customer action

In April, we launched our smart seasonal tariff trial for household customers in two areas in Lincoln and Norwich, equating to 14,818 households. With water companies being challenged to innovate around 'progressive' tariff structures, we worked with the Centre for Competition Policy to understand how tariffs can reduce demand and improve affordability. We developed a methodology and created a summer and winter structure, testing if paying a higher price for water between May and August would make a difference to usage. The trial was supplemented with digital communications to support behaviour change. We are awaiting feedback from other company household trials before taking our approach further, with plans to expand the trial. We are also working with the Centre for Climate Change and Social Transformation based at Bath University to measure attitudes and behavioural response for customers within the trial.

To help our customers use less water, we've partnered with Cenergist to trial a free water-saving device called a Control Flow regulator to 200 properties from October 2024. This device can reduce the amount of water used in home by regulating the flow and smoothing out fluctuations caused by pressure. Previous trials with other providers saw an average saving of around 20%. We're running this trial until end of March 2025, after which we'll use smart meter data to measure effectiveness. Both trials will continue to be monitored beyond April 2025 and will inform our demand management plans.

Optimising smart meter data

We continue to harness water consumption data via our smart meters enabling us to track and measure performance more accurately. We are re-assessing our demand management options so we can build accurate demand forecasts, enabling us to increase resilience across our region. Our Customer Privacy Notice has more information about the data we collect, what we use it for, and how we look after it. We also have a Smart Metering Privacy Notice which provides more information about smart metering data.

Helping you to love every drop

With the tariff starting soon there's never been a better time to understand how much water you're using at home and in the garden. Most customers moving to a seasonal water tariff are already using MyAccount - it's the simplest way to track what you're using and see if that's more or less than similar homes near you. Around half of our customers think they're a top water saver and only use 50 litres each a day when really it's more than double that at 130 litres per person.

Log in or sign up at myaccount.anglianwater.co.uk or download the Anglian Water app to check your water usage on the go. You'll need your account number which is on the letter that came with this card.

Here's a little reminder of your seasonal water tariff rates from 1 April 2024 - 31 March 2025

01 May - 31 August: **£3.1008**

Outside these months: **£1.5593**

Charge is per 1000 litres or cubic metre

Your charges for next year will also include fixed charges for your water and sewerage services as well as a charge per cubic metre for sewerage services. This is typically based on 90% of the water you use. These rates will be the same as our standard tariff.

Simple steps to start using less water and reduce costs at home

- 1 Get started by signing up for MyAccount to keep track of what you're using.
- 2 Check your monthly comparison report to see if you're using less water than other homes in your area.
- 3 It's a good idea to keep your showers to a maximum of five minutes. Spending a minute less in the shower each day could save around 300 litres of water each month per person.
- 4 Use a watering can rather than a hosepipe in the garden especially in the warmer summer months. You'll save around 150 litres (or two baths full) vs a hosepipe which can use five times more water.
- 5 Even better, get a water butt which can fill up a watering can around 27 times for free saving you around 130 litres of water.

Just making these little changes could save you nearly 600 litres of water every month. And for even more water saving tips visit anglianwater.co.uk/save

Examples of our customer communications during our seasonal tariff trials in Summer 2024

Understanding water usage in the home

We continue to assess our customers' perceptions to inform and shape our water efficiency communication and engagement. As part of our monthly customer survey, overall, most customers (73% in our September 2024 survey) think it is important or quite important to reduce the amount of water they use on a daily basis.

The most common reasons customers give for saving water are environmental concerns, to save money and water scarcity. Most customers feel they are already doing their part. The most common steps taken were turning taps off, taking shorter showers, fixing leaks and preventing drips, using water efficient appliances and collecting and reusing water.

Smart meters will help to bridge the gap between customer perception of water use and actual consumption. In April 2024 we went live with the re-platforming of our MyAccount online tool, to enhance our smart meter experience and service.

Enhancing self-serve for customers to find and fix leaks at home

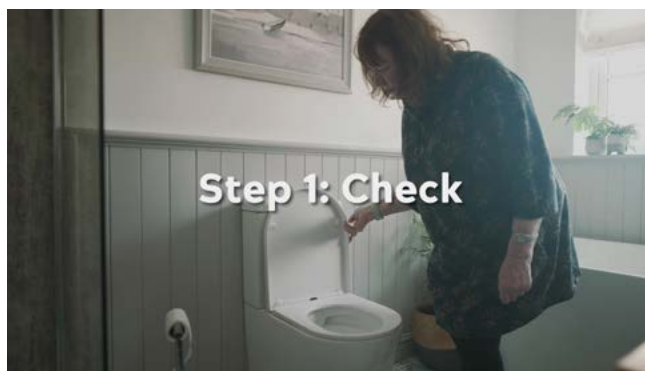
Smart metering supports customers to find leaks in their homes. However, for some of our customers, paying for these leak repairs is an impossible ask. That's why we've partnered with CET (part of the HomeServe group) to trial free repairs for some of our customers.

Of the repairs completed, 82% were some form of 'leaky loo', the remainder being issues with taps, or in the bathroom, with some leaks identified in lofts.

As well as covering the cost of repairs for customers, this has also resulted in over £800 in back-payments to customers in leakage allowances to cover the lost water. The free repair trial is ongoing to gather more insight and map out the approach to drive the most effective PCC savings.

Our digital campaign, aimed at customers, encourages behaviour change through educating customers on simple things they can do at home to save water.

A subset of this campaign on 'Leaky Loos' aimed to increase awareness to help customers find leaks in their home. We amplified 'Leaky Loo' content across paid channels, testing different statements to identify the most effective messaging for future targeting. Since July 2024, our 'Leaky Loo' campaign gained over 2.3 million impressions and over 535,000 video views.



Examples of our Leaky Loo campaign videos across social channels

Award-winning smart metering customer campaign

In 2024, we won DotDigital's 'Most effective cross-channel campaign' for our customer journeys for smart metering. We were thrilled to come away as winners. We were commended for the level of engagement we receive with our communications around smart metering and the scale of number of leaks our programme has helped find. We believe that to create successful behaviour change, technology is best paired with communication support.

Since 2023 we've sent nearly 7 million emails to our smart meter customers across the customer journey. Our smart meter monthly comparison email has the highest open rate from all touchpoints at 71%, and on average customers sent our monthly comparison emails use around 3% less water than other customers. So far through the leakage campaign, we've helped customers find and fix over 300,000 leaks at home. This equates to over 100 million litres of water we've stopped from going to waste – which would have added cost to customer bills.



Our team collect the coveted award at the November 2024 ceremony

The action we are taking in 2024/25 to continue improved performance

Root cause of underperformance	Action	Action code	SMART Target	Estimated Performance Commitment benefit
Motivating customer action	Following the launch of our seasonal tariff trial we will continue to send customers frequent nudging to help them stay in control of their household usage.	ANH-PCC-001	We will maintain on average a 62% email engagement interaction via the monthly email communications by March 2025.	Medium
Customer side leakage	Developing our support offering for customers with very long running small leaks. Trialling options to fix leaks for customers to reduce run time and save water.	ANH-PCC-002	Trial 200 customers with long running leaks to offer opportunity by December 2024.	High
	Enhancing our customer journey for households who have small leaks, by empowering them to fix their leaks quickly.	ANH-PCC-003	Since launching our new 'Checking for Leak' website page in July 2024, we are aiming to increase number of web page interactions by 20% by March 2025.	High
	Continuing to drive our large-scale marketing campaign to raise awareness about water wasted in homes due to leaky loos and supporting customers to check and fix their leaky loo quickly.	ANH-PCC-004	Aim to reach over 2.5 million impressions by March 2025.	Medium
Low perception of own usage	Development of our monthly comparison reports to show customers how much water they are using and nudging them to check their usage data with prompts for helping them use less.	ANH-PCC-005	Research delivered per quarter and actioned within a minimum six-week period. Aim for reduction in 3% consumption across the year by March 2025.	Medium
	New data analysis of customer usage to better understand customer behaviour and how water is used within the home.	ANH-PCC-006	Monthly data reports introduced to segment customer behaviour patterns to inform tailored engagement strategy June 2025.	Medium
Understanding water usage in the home	Using customer smart meter data to measure the impact of water efficiency support and adapt activity based on how effective it is.	ANH-PCC-007	Follow up a minimum of 5,000 in-home visits and partnerships to measure effectiveness and refine by March 2025.	High
	Developing a robust insight programme to feed learnings from research directly into our behaviour change activity to build on our scientific and data-led approach.	ANH-PCC-008	Quarterly customer insight slot with online community to provide actionable report and customers learnings implemented within a minimum six-week period. This is due for March 2025.	High

Leakage

Year 4: 2023/24

182 megalitres a day
(three-year average)

Year 5 forecast: 2024/25

182-187 megalitres a day
(three-year average)

Leakage measures the volume of water lost between our water treatment works and customer taps, and includes water lost from customers' own supply pipes. To reduce the impact of a single exceptional year, Ofwat assesses our leakage performance on a rolling three-year basis. Our target is set as a percentage reduction from the 2019/20 three year average (2017-2020). We report leakage in megalitres per day, expressed as MI/d.



Figure 5

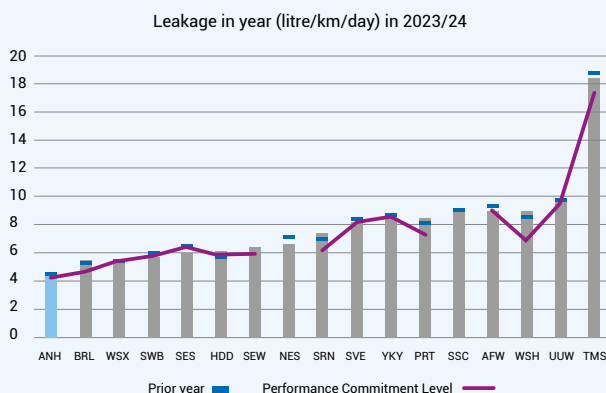
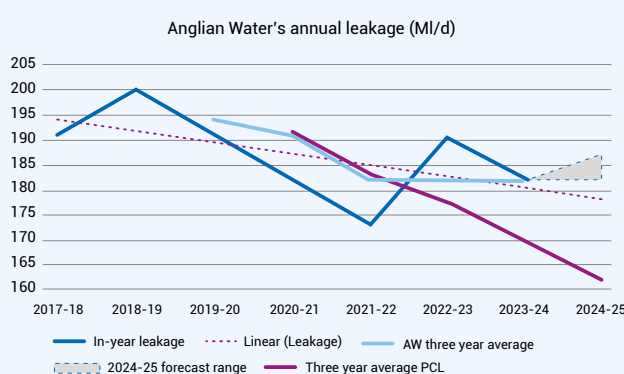


Figure 6



Where are we today?

Decades of investment have helped us achieve our long-standing track record on leakage from our own pipework and we are a frontier performer in the industry. In 2023/24, we achieved the lowest leakage in-year (per km per day), as Figure 5 demonstrates. Despite missing Ofwat's PCL, we achieved our lowest ever three-year rolling average, marking a 6.2% reduction from the 2019/20 baseline.

Figure 6 shows our performance since 2017/18, when a new reporting methodology was introduced by Ofwat.

Reducing water lost from leaks has long been a priority for our region – the driest in the UK – and one of the measures our customers care about most. This has enabled us to reduce leakage by 40% since privatisation and hold an industry-leading position since 2010.

Our PCL is the most challenging in the industry as we are starting from the lowest leakage level, meaning incremental gains are much harder to achieve. Going beyond our current position will require enhancement expenditure, a point explicitly acknowledged by the Competition and Markets Authority (CMA) in our PR19 redetermination. We are learning from international equivalents to improve our performance further.

What is influencing our performance?

In 2024/25, weekly leakage levels have reached all time low levels. However, our leakage target is assessed as a three-year average, meaning that for 2024/25, performance from years 2023/24 and 2022/23 are included. As these years were both above target, to meet our Ofwat target in 2024/25 would require a 68.1 MI/d (37%) reduction in one year. This is simply not deliverable in a single year. This reduction is more than double the reduction planned for the whole of AMP7. Despite this, leakage levels in 2023/24 improved on our three-year average. We expect to improve our in-year performance in 2024/25.

The action we are taking

We are using satellite technology to survey a further 5,000km of rural distribution and trunk mains to identify and prioritise sections of pipe for proactive leak detection and mitigation. In 2023/24, this technology saved over 320,000 litres of water that would have been lost to leaks – enough to supply 1,000 homes a day. We will also continue to leverage the benefits of the pressure monitors we have installed in our pipe network over the last few years. These monitors have improved the visibility we have of the condition and performance of our network, enabling us to proactively identify and address issues that may cause pipe failure. We say more about pressure management on page 8.

Smart metering is also a valuable tool to manage leakage, on both supply and customer-side. In October 2024, we installed our one millionth smart meter in our region, which means we are approaching 50% of our customers being on smart meters. Through our roll-out of smart meters, we are supporting our customers to better understand and reduce their usage and spot leaks. In 2023/24, we identified 136,000 continuous flows at both domestic and non-domestic properties and made 114,500 follow-ups with customers.

When we first install smart meters in an area, we typically find that 8% of measured domestic properties have continuous flow. By working with customers to get their leaks fixed,

a year after we have installed meters in an area, we see leakage levels reduce by around 5%. This results in an average saving per property of around 14 litres per day. This reduction approximately comprises 60% leakage and 40% plumbing loss.

By 2030, we estimate smart meters will save an additional 18.1 megalitres per day through encouraging water-efficient behaviours and by reducing leaks.

We also plan to install boundary boxes and smart meters on properties with shared supply pipes, for example, Victorian terraced houses. This will allow us to use data to identify and reduce leak run times on these shared services, and work with customers to repair the leaks.

The action we are taking in 2024/25 to continue improved performance

Root cause of underperformance targeted by action	Action	Action code	SMART Target	Estimated Performance Commitment benefit
High pressure and diurnal pressure fluctuations cause stress to pipes leading to failure. Pressure optimisation calms the network leading to less failures.	Pressure optimisation	ANH-LEA-001	18 new schemes and further optimisation of five existing pressure managed areas by end March 2025.	Medium
Customer supply pipes are old and fail over time. Smart meters do not change failure rate but do allow leaks to be picked up quicker and then repaired by customers.	Smart meter roll-out	ANH-LEA-002	We will fit approximately 290,000 smart meters in 2024/25, reaching our AMP7 target of 1,096,397. A further 60,000 meters are being funded through Defra's Accelerated Infrastructure Delivery Plan, which we have brought forward to deliver by end March 2025.	Medium
Pipe failure causing leaks that have not been reported by public or picked up through standard proactive detection.	Targeting areas with high leakage	ANH-LEA-003	27 people dedicated to the intensive leakage process by end March 2025.	Medium
Short duration pressure changes cause stress to pipes leading to failure.	Transient identification and reduction	ANH-LEA-004	Complete exploration phase by end March 2025.	Enabler
These leaks are hard to detect, leading to long leakage run times.	Using fixed hydrophone sensors to reduce leak run times	ANH-LEA-005	Team of 40 people dedicated to fixed sensor programme by end March 2025.	Medium
These leaks are hard to detect, leading to long leakage run times.	Using satellite imagery to identify leaks in rural areas and to target leaks in areas of higher supply demand balance risk	ANH-LEA-006	5,000 km mains surveyed per year by end March 2025.	Low

Water supply interruptions

Year 4: 2023/24

Year 5 forecast: 2024/25

9 minutes 8 seconds

7 minutes - 9 minutes 8 seconds

Most customers experience uninterrupted water supply. A few customers experience supply loss for a short time if, for example, a water main has burst. When this happens, we record how many customers are affected and for how long. To identify the average length of interruption per customer we divide the number of lost minutes per year by the number of customers we supply.



Figure 7

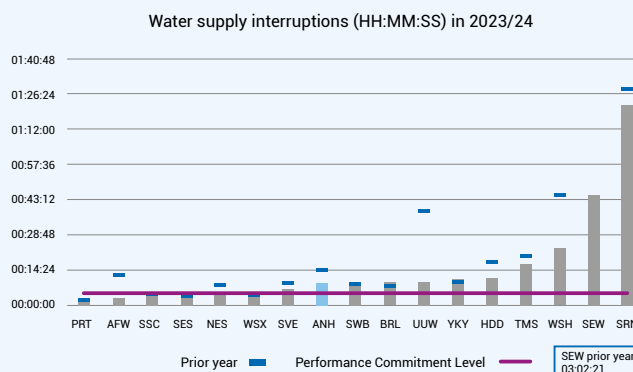
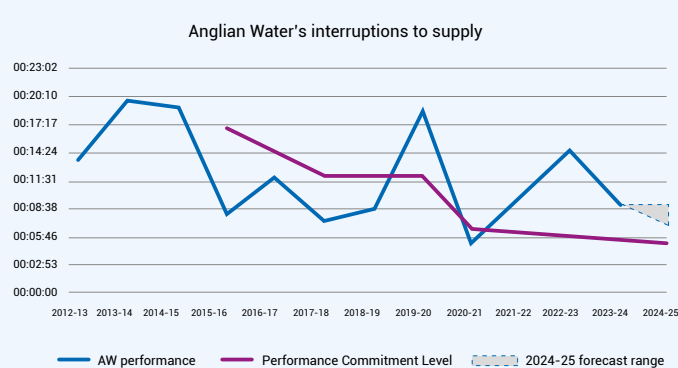


Figure 8



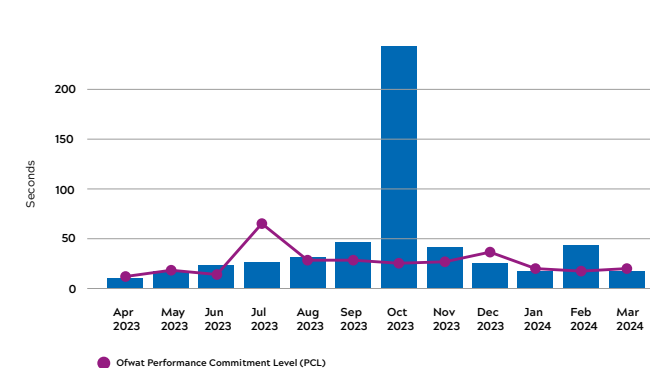
Where are we today?

In 2023/24 we stayed relatively close to Ofwat's PCL, excluding the event in October. Figure 7 shows our Performance Commitment compared to other water companies. Figure 8 shows our performance against this measure since it was introduced in 2012/13, demonstrating the volatility of this measure and how it can be impacted by one-off events.

In October 2023, Storm Babet brought heavy rains and flooding to parts of our region, resulting in two operational sites flooding, one in Ipswich and one in Stamford. Combined, these events totalled 3 minutes and 19 seconds where water supply was interrupted. All other events during the year scored 13 seconds or under. The October disruption is shown in Figure 9 below.

We finished this year with a lower average interruption time compared to 2022/23, ending the year with a total of 9 minutes and 8 seconds versus 14 minutes 35 seconds.

Figure 9: Interruptions to supply April 2023-March 2024



What is influencing our performance?

An investigation following the Ipswich event highlighted weaknesses in our flood defences and ability to access key valves. This resulted in a power failure at a water treatment works and subsequent interruption to supply. The Stamford event was related to the failure of a mechanical seal, leading to the flooding of a Water Treatment Works and site failure.

These events highlight the need to protect our assets from more challenging weather conditions. Many of our assets were built decades ago, when there was less demand and our climate was more stable. We are moving from a reactive to proactive response through better monitoring of our assets, alongside plans to invest to upgrade and renew our infrastructure.

The action we are taking

Our improvement strategy is focused on moving us to a more proactive and preventative approach. Our results this year-to-date show that we are on track to meet Ofwat's PCL for 2024/25. However, we are mindful of the risks as we enter the winter period, factoring this into our performance forecast.

Reducing risk across our assets

In response to the two failures experienced in 2023/24, flood defences and inaccessible valves have been reviewed across our vulnerable sites and mechanical seal surveys conducted across our supply sites. We are also using 'Smart Valve' technology to proactively control valve operations, increasing visibility of and reduce risk.

Across our network, improving data-driven decisions is key. We are increasing our situational awareness by using Water Infrastructure Serviceability Performance Assessments (WISPA) to improve our understanding of asset risk level based on age, pipe material and soil condition.

Proactive approach through pressure monitoring

Pressure monitoring is enabling us to analyse sudden changes in flow and pressures (transients) to understand areas of volatility that can cause pipe bursts. This analysis

enables us to understand areas of volatility that can cause bursts and interruptions to customers. By end March 2024, over 80% of our district metered areas had pressure monitors installed, providing data into the pressures within our network. The monitors give us real-time visibility of pressures within the network, key warning signs to leaks and water supply interruptions.

We are using data from our monitors to target programmes of work and manage pressure in areas experiencing high volatility. Over the past year, we have optimised 50 pressure management areas (24 were newly implemented), installed 168 new pressure management systems and upgraded a further 227. We have completed a further 13 schemes against our original plan of 75 between 2020-2025. In areas where we have been managing pressure, we have reduced the number of mains bursts, in particular, on PVC and iron mains. Alongside pressure monitoring, condition-based monitors are proactively alerting us to asset deterioration. As we progress into AMP8, we will use this data to move to a systems-based approach.

Root cause analysis

In 2023/24 we created a new role in the business with the sole focus of analysing and understanding the root causes behind large events. This resource is enabling us to conduct more detailed investigations into the causes of some of our larger events and generate immediate actions for improvements. In September 2024, we appointed a second role to analyse the root cause of interruption to supply events and understand proactive interventions. We will continue to grow our root cause capability in AMP8.

Enhancing resilience

We are using a new tool to minimise the length of time that customers are off water when an event occurs. 'Optimatics' uses algorithms and cloud computing to run thousands of simulations, and then evaluates the best course of action to reduce impact on customers. The platform is enabling us to identify priority areas for investment and to reduce/minimise impact in areas with low resilience.



The action we are taking in 2024/25 to continue improved performance

Root cause of underperformance targeted by action	Action	Action code	SMART Target	Estimated Performance Commitment benefit
Inability to fully control pressure fluctuation.	High pressure and diurnal pressure fluctuations cause stress to pipes leading to failure. Pressure optimisation calms the network leading to less failures.	ANH-I2S-001	18 new schemes and further optimisation of five existing pressure managed areas by end March 2025.	Medium
Inability to fully control pressure fluctuation.	Condition based monitoring.	ANH-I2S-002	Target 90 monitor installs per year since 2020. Target 450 by end of 2024/25.	Medium
Inability to fully control pressure fluctuation.	Smart Valve application – Controlled valve operation. Roll out of Smart Valve application across all network teams to enable controlled and visible operation of valves, reducing transients and contributing to a calm and controlled network.	ANH-I2S-003	Smart valve application rolled out to 100% of network technicians by March 2025 alongside a process for further enhancements and customisations.	Medium
Incomplete understanding of network resilience, time taken to create asset restoration plans from scratch.	Optimatics modelling tool – tool which seeks to generate proactive restoration plans to minimise the length of time that customers are off water when an event occurs. The tool provides scenarios to enhance and accelerate decisions on the most effective options.	ANH-I2S-004	Bespoke minimum viable product (MVP) by March 2025 for further exploitation in AMP8.	Medium
Incomplete visibility of emerging risk.	Improve situational awareness – Using statistical models, data from new smart technologies and dashboards, we get a better understanding of our water networks and early warning of potential weaknesses that could lead to supply interruptions.	ANH-I2S-005	50% delivered by end of 2025.	Medium
Incomplete visibility of emerging risk.	Root cause analysis. One additional resource required to dedicate to investigation of root causes of interruptions to supply events and work with the business to implement mitigations from learning.	ANH-I2S-006	1 additional person appointed (September 2024) tasked with creating a strategic overview of RCA of I2S events and near misses to enable embedding learning into the business by end March 2025 and ongoing into AMP8.	Enabler
Incomplete visibility of emerging risk.	WISPA – Being more data driven by improving our understanding of risk levels, due to age, pipe material and soil condition, across our network using Water Infrastructure Serviceability Performance Assessments (WISPA).	ANH-I2S-007	Summer and winter tactical plan to assess valve status' and restoration plans on our highest risk and vulnerable pipes as identified by WISPA, by end March 2025.	Medium
Short duration pressure changes cause stress to pipes leading to failure.	Transient identification and reduction.	ANH-I2S-008	Complete exploration phase by end March 2025.	Enabler

What impacts our waste water related measures?

This section covers the following measures: pollution incidents, treatment works compliance and internal sewer flooding.

We have heard loud and clear from our customers, communities, passionate river groups and our regulators, that we need to take action faster, to improve our pollutions performance. In 2023, we received a two-star rating from the Environment Agency (EA) under the Environmental Performance Assessment (EPA) and did not meet all of our related performance commitments. While this is frustrating, we are realistic that it will take time to yield the results we seek on pollutions. To go further and faster, our shareholders have committed an extra £100 million investment, over and above Ofwat's allowances, to directly tackle our highest occurring issues.

We are moving forward with urgency and in 2024/25, forecast to achieve the PCL for both treatment works compliance and internal sewer flooding. Furthermore, what is promising, is that given the extent and severity of the wet weather and groundwater flooding experienced during the 2023/24 winter, we have seen promising signs on our lead measures: we had the lowest level of sewer blockages in five years, the highest asset availability on pumping stations, the lowest levels of sludge stocks and best-ever performance on Mixed Liquor Suspended Solids control. We also now have 100% coverage of monitors on our storm overflows, giving us greater insight on work to be done. Importantly, our work over the past few years is moving us from a firefighting to a predictive response.

Our long-term aspiration is to achieve zero pollutions from our network. As we work towards this ambition, our AMP8 business plan proposal contains our largest investment for water recycling, which if approved by Ofwat, moves us closer to our goal.



Anwick Water Recycling Centre under water. Image credit: Paul Barham, Maintenance Support Technician.

The SMART activities across internal sewer flooding, treatment works compliance and pollution incidents are aligned to our Pollution Incident Reduction Plan (PIRP), which we updated in Summer 2024. The plan reflects our holistic approach to reducing pollutions. These activities span across Ofwat-related measures and measures assessed by the Environment Agency. In our previous Service Commitment Plan, we included a range of actions which are now complete but continue to be delivered as business as usual. For the purposes of this plan, we omit completed activities, but continue to track them in our PIRP.

The measures in this plan are interlinked, and the root causes often overlap. For example, the actions we are taking to reduce flooding (a root cause of pollutions) and improve compliance (similarly, a root cause) will impact pollutions, and vice versa – many of the actions to reduce pollutions will have a secondary impact on performance across a range of commitments. We have included a key showing the interrelated nature of these commitments. For a holistic overview on what we are doing to improve our water recycling performance, including what we submit to the Environment Agency as part of their Environmental Performance Assessment, refer to our PIRP.

Key: where actions benefit multiple measures

- Pollution incidents
- Treatment works compliance
- Internal sewer flooding

Internal sewer flooding

Year 4: 2023/24

Year 5 forecast: 2024/25

2.27 per 10,000 sewer connections

1.3-1.6 per 10,000 sewer connections

Our region is flat and has a large number of small, dispersed population centres. Rivers are slow moving through intensively farmed landscapes. This means we have to manage more related assets than any other water company in the UK. In total, we operate circa 76,000 kilometres of sewers – enough pipe to go around the world twice.

Our network of sewers carry used water from our customers' properties to our water recycling centres. Sometimes our sewers block or collapse, our pumping stations fail, our system capacity is overloaded by rainfall events, and sewage escapes from our assets into properties. We record the incidents and report the number to Ofwat. Our measure is the total number of incidents in the year, divided by the total number of customers' properties connected to the sewerage system. We forecast meeting the PCL in 2024/25.

Figure 11

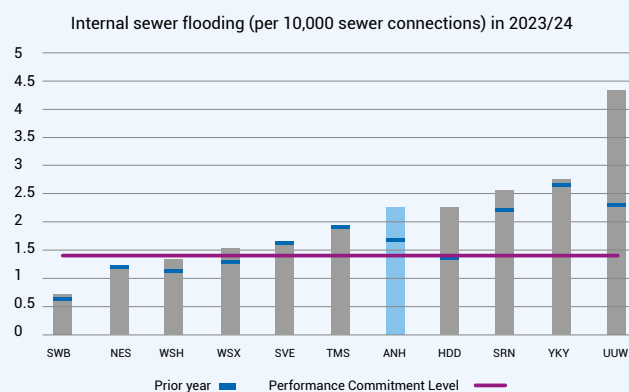
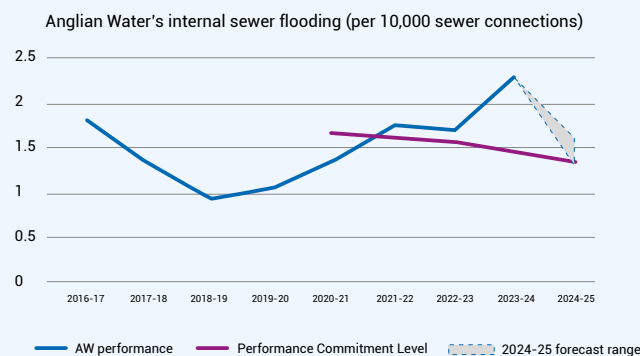


Figure 12



Where are we today?

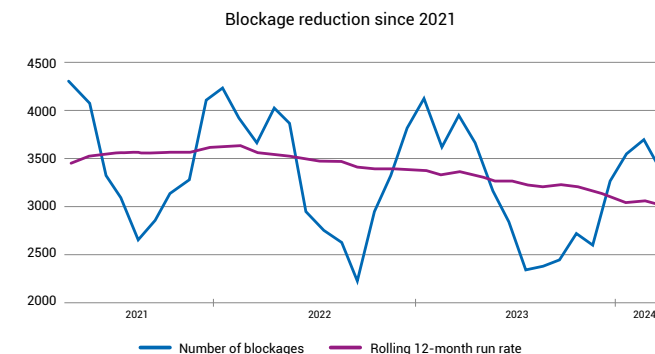
No escape from our assets is acceptable. We want our customers to know that we are investing in the right solutions to resolve this, taking a rigorous approach to understanding the root cause. The root causes are often similar across internal sewer flooding, treatment works compliance, and pollutions performance and the interventions overlap as a result. The root causes of internal flooding are primarily blockages or hydraulic overload.

In 2023, our end of year performance for internal sewer flooding was 2.27 properties that were flooded internally per 10,000 customer connections to the sewer. Figure 11 shows our performance across the industry, while Figure 12 shows our performance against the PCL.

What is influencing our performance?

Blockages are the primary cause of sewer flooding (60% in 2023). We have been driving down the number of blockages and have achieved our lowest levels in the AMP to date, demonstrated in Figure 13. We have achieved this by cleansing sewers, coupled with educating customers on what not to flush. This activity is driving reductions in blockages and this is creating the improvements that we are seeing in 2024/25 in internal sewer flooding. Activities to identify blockages early and predictive capability are also being developed to further enhance our ability to target blockages across our wide network.

Figure 13



Hydraulic overload is the second most significant root cause. High groundwater levels typically lead to flooding, by hydraulic overloading of the network through inundation (from the top e.g. manhole openings) and infiltration (from the bottom, through pipe gaps). This is why our sewer improvement programmes and the removal of surface water from our foul sewers are an important part of our response to reduce the risk of flooding. The open nature of the sewerage system in conjunction with the activities and accountability of other parties means we must work with other agencies and communities to manage groundwater and surface water risk in alternative ways.

The action we are taking

The expansive, rural nature of our sewer network requires us to have greater visibility of the network, which is why monitoring is so crucial. We continue to install new, and maintain existing, Dynamic Sewer monitors alongside refining our machine-learning predictive technologies. These actions are providing increased visibility of how our sewers and pumping stations are operating, to reduce the risk of a flooding incident occurring. We have matured in the targeting of locations across our network, resulting in the early identification of our highest risk areas.

Our Dynamic Sewer Visualisation tool and sewer monitors provide early warning of the likelihood of an unexpected condition in our sewers which may result in a flooding event. 47% of flooding relates sewers that were transferred to us in 2012 and largely serve customer homes, running through driveways and back gardens. Upgrading these transferred sewers, which have often not been maintained while in domestic ownership, is both costly but also disruptive. We are running a targeted cleansing and repair programme to improve them.

In 2023/24, we completed 4,039 metres of sewer-lining work in 13 villages, sealing our assets, to prevent entry of groundwater. We have also completed surface water removal schemes in five villages, mainly through the rectification of misconnections, where third parties have incorrectly plumbed the foul sewer into the surface water sewer (or vice versa), causing overloading.

Working with others to reduce blockages

We are working hard to reduce the likelihood of blockages at source. Working with environmental compliance experts ECAS, we continue to identify Food Serving Establishments (FSE) which are causing blockages by disposing cooking fats down the drain. We are working with them to reduce these avoidable materials clogging the sewers. In 2023/24 we made 9,421 visits to FSEs, with an estimated 1.78 million litres (1,663 tonnes) of fat, oil and grease diverted from sewers as a result. In addition, 834 FSE's have been signed off as compliant with a further 319 in the process of installing grease trapping equipment.

Hyper-local targeting in Bletchley, Milton Keynes

Over the past year in Bletchley, Milton Keynes, there have been two serious pollutions, 32 flooding incidents and 103 blockages. There are 229 Food Service Establishments (FSEs) in Bletchley, some of which are contributing to the problem by allowing fats, oils, grease and food debris to escape into the local sewer network. Through our partnership with ECAS, we are working with 60 FSEs in this area, encouraging positive behaviour change. As a result of our proactive work, we have reduced blockages in the area by 40%.

We have been collaborating with Northumbrian Water to adopt lessons learnt from their 'Bin the Wipe' campaign to educate the public about responsibly disposing sanitary items and wipes. We are piloting trials across key locations as defined through our internal flooding data and are rolling this out using a phased approach with communications and engagement first, bolstered with an enforcement programme to follow. We are revamping the former Anglian Water 'Keep it Clear' messaging to be clearer and more action-orientated to customers, benefiting from significant developments in behavioural change science, which we have applied to define impactful messaging and activity to drive change, starting with awareness and education.



Our upcoming 'Just Bin It' customer campaign will aim to improve customer education, using proven behavioural science, raising awareness that their small changes can make a real difference.

Working with others to reduce surface water from entering our networks

To address hydraulic issues, we are working to reduce surface water infiltration which can overwhelm our foul sewers.

Our resealing programme is an important part of our response to tackle flooding. However, the open nature of the sewerage system means we must work with others to deal with groundwater and surface water in other ways too. Flooding and drainage are complicated, with many different owners and responsibilities. We cannot solve the issue of flooding alone and are working closely with customers and the local Highways Authority to tackle these issues.

Flooding partners are engaged on many sustainable drainage and flood alleviation projects to combat this in urban areas where there is little space for rainwater to drain away naturally. Our partnership programme helps attract additional investment from other parties interested in reducing flooding.

In 2022/23, we invested £1.3 million and leveraged almost £3 million in partner funding to help deliver these projects at less cost to our customers.

For example, in partnership with Southend City Council, we are investing £500,000, alongside the Department for Levelling Up and the Regional Flood and Coastal Committee, in a £2 million project, to 'green' Southend seafront. The installation of new sustainable drainage systems will slow surface water from entering the sewer network, helping to prevent flooding and reduce storm spills.


Furthermore, this year, we have established nine Multi-Agency Groups (MAG) in hotspot areas. We are joining forces with local councils, the Environment Agency, Highway Authorities and Lead Local Flood Authorities, to develop catchment-level responses to flooding. Collectively, the aim of these groups is to enhance preparedness, response, and recovery efforts, related to prolonged wet weather periods to minimise risks to communities, infrastructure, and the environment.


Below, we demonstrate the actions we are taking to build on our already strong programme of work.



The proposals for Southend Seafront. Credit: Southend City Council

The action we are taking in 2024/25 to continue improved performance

 These actions are new and being funded by the extra £100 million investment

Root cause of underperformance	Action	Action code	SMART Target	Estimated Performance Commitment benefit
Repeat internal sewer flooding	Detailed root cause analysis and targeted interventions.	● ANH-ISF-001	<5% of flooding incidents caused by blockages in a rolling year is a repeat by the end of calendar year 2025.	Low
Internal flooding caused by misuse and blockages	Targeted roll out of 'Just Bin It' campaign.	●  ANH-ISF-002	Rollout of "Just Bin It" including communications and enforcement to one of our flooding hotspots by end March 2025.	Enabler

Treatment works compliance

Year 4: 2023

Year 5 forecast: 2024

98.4%

99.0%

This is a calendar year measure

Our Water Treatment Works and Water Recycling Centres treat and return water to the environment. We are required to comply with Environment Agency permits to ensure we return high quality water to the environment. On rare occasions we do not meet these high standards. Ofwat measures us on the percentage of Water Treatment Works and Water Recycling Centres whose discharges do not meet the water quality threshold. We expect to meet the threshold in 2024.



Figure 14

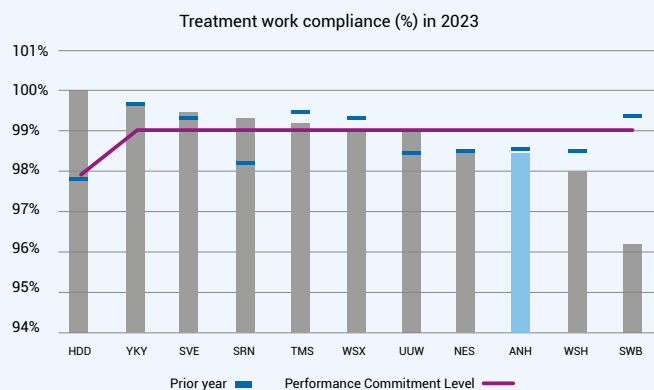
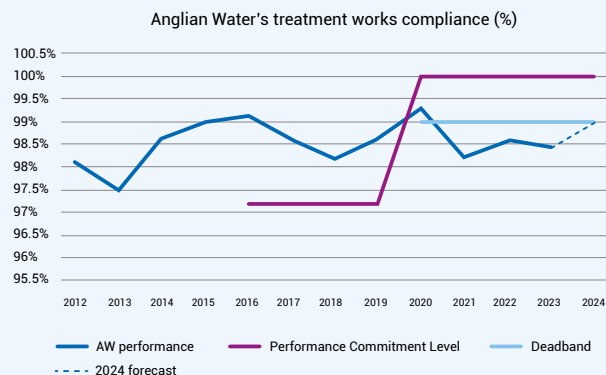


Figure 15



Where are we today?

In 2023, our treatment works compliance result was 98.4% compared to 98.6% in 2022. This is classified as Amber in the Environment Agency's Environmental Performance Assessment (EPA) and continues to be a significant area of focus. In 2022, we had 12 failing works and in 2023 we had 13, with prolonged wet weather putting pressure on our systems at the end of the year. This year we are forecasting to achieve 99% compliance – this is within the performance commitment deadband.

Figure 14 shows our performance against the industry, while Figure 15 demonstrates performance against the PCL.

What is influencing our performance?

Our performance on treatment works compliance remained stable between 2022 and 2023, and so far, our scores for 2024 are showing signs of improvement. This is due to the actions we set out in our 2023 Service Commitment Plan. Many of the interventions we are taking are strongly linked to the drivers of pollution, meaning there is a crossover into the actions outlined in our PIRP.

Sludge is the leading cause of Water Recycling Centre incidents, creating high volatility in compliance under extreme weather conditions, such as those we experienced during the 2023/24 winter. Sludge is a by-product of the water recycling process. It is a mix of the organic matter from human waste and food waste particles that need removing from water in order to treat it. Ensuring sludge levels are correct throughout the treatment process is critical to the effectiveness and compliance of our treatment works. We have completed a full review of our sludge management process and have processes in place to manage risk and increase visibility of sludge levels across our sites.

The action we are taking

Managing sludge levels

Sludge levels tend to peak during weather events, when there is pressure on our tankers to support operational issues in the water recycling network. It is critical to keep sludge moving through our water recycling processes: from removing water and thickening on site, to optimising the use of tankers and scheduling sludge removal from sites. To help us, we have a Sludge Monitoring Focus Group to manage sludge levels.

The Group has identified critical success factors including: increasing the thickness of sludge on sites, allowing more

sludge to be transported and subsequently optimising tanker movements and increased storage capacity. We have changed how we manage and prioritise sludge processes engaging our people to use new processes and management systems.

Addressing treatment failures


We are auditing the functions and processes of our Water Recycling Centres, with a greater focus on high-risk centres. We are continuing to explore smarter ways to proactively identify performance issues and have taken a root and branch review of operational excellence, to help our experienced teams share their knowledge across other sites.








We have implemented a 'Hypercare' approach for high-risk sites which includes detailed data analysis, a site visit with subject matter experts from across the business and an ongoing review of critical parameters to manage and mitigate the risk.

Process and management system inconsistencies

We are improving our processes by sharing internally the lessons learnt from failures or poor performance on our assets. We are collaborating through a central business platform, to ensure we are all learning from a shared invaluable source of data.

The action we are taking in 2024/25 to continue improved performance

 These actions are new and being funded by the extra £100 million investment

Root cause of underperformance	Action	Action code	SMART Target	Estimated Performance Commitment benefit
Treatment process failure	Phase 2: Environmental plans and root cause analysis 	ANH-TWC-001	Continuous review and development to ensure process is fit for purpose and root causes of failures are being investigated and shared by end March 2025.	Enabler
Treatment process failure	Fleet of temporary equipment 	ANH-TWC-002	Purchase of four temporary tertiary treatment units for deployment on sites at risk of compliance failure by end March 2025.	Medium
Treatment process failure	Hypercare Hit Squad 	ANH-TWC-003	Carry out in-depth visits to six high risk sites to understand the root cause of failure and short and long term actions required to prevent re-occurrence. Develop the process for embedding the approach into BAU to allow more sites to be visited, by end March 2025.	High
Processes and management systems	Phase 2: Operational control and communities of practice 	ANH-TWC-004	Continuous review and development of the Operational Control process to ensure risks are highlighted and cascaded through the sub-stream weekly.	Enabler
Sludge management	Sludge tank level monitors 	ANH-TWC-005	Complete installs of 1,125 sludge tank level monitors and integrate into a visualisation platform to enable risk based decision making by end March 2025.	Low
Processes and management systems	Water Recycling Operations 	ANH-TWC-006	Merge existing Water Recycling Treatment and Maintenance teams into Water Recycling Operations teams giving the Managers clearer line of sight to risks and increased accountability.	Enabler
Treatment process failure	Water Recycling Centre audit programme – phase 2 	ANH-TWC-007	Complete audits of 63 high risk sites, identifying possible modes of failure and recommending mitigation and action to prevent failure occurring by end March 2025.	Low

Pollution incidents

Year 4: 2023

40.16 per 10,000km of sewer

Year 5 forecast: 2024

52.4-62.8 per 10,000km of sewer

This is a calendar year measure

Sometimes wastewater escapes from our assets into our environment. When this happens, we report the incident to the Environment Agency who records the incident and assesses the severity. Our Ofwat measure is the total number of incidents in the year, divided by the total length of our sewer networks. We know that we need to go further to meet the expectations of our customers and regulators.



Anwick Water Recycling Centre under water. Image credit: Paul Barham, Maintenance Support Technician.

Figure 16

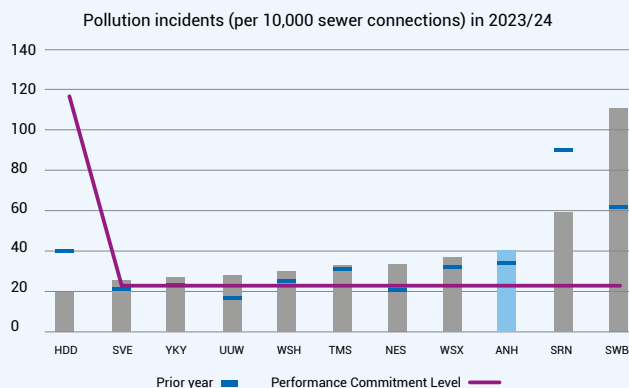
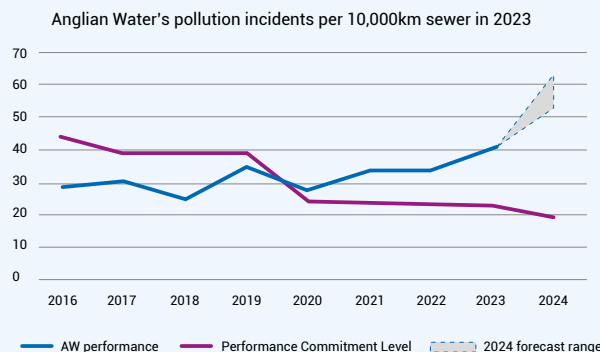


Figure 17



Where are we today?

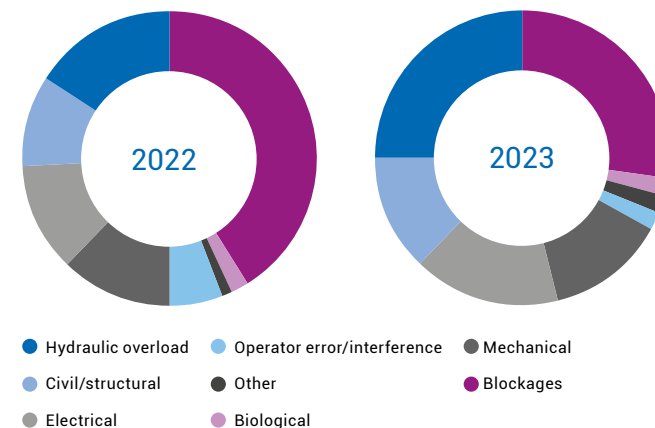
In 2023, we had 40 pollutions per 10,000km of sewer network. Figure 16 shows our pollution incidents performance across the industry, while Figure 17 shows our performance against the PCL.

The wet winter impacted our performance. Our Water Recycling Centres experienced 25% more flow, and our pumping stations operated twice as long compared to during usual conditions, but we were still inundated. In response, we declared a company-wide incident and deployed our comprehensive plan, using a J-Cell military planning method. Despite this, our overall performance did not meet the levels we aspire to.

Despite the significant amount of resource we are putting behind reducing pollutions, we regrettably do not forecast meeting the PCL in 2024. This is owed to the continued impact of high groundwater levels and water tables in our region.

As shown in the root causes chart below, the impact of hydraulic overload was up 9% on 2022.

Figure 10: Variance in root causes on pollutions 2022 vs 2023



Since Autumn 2023, our region has been characterised by saturated ground and high groundwater levels meaning that we have had high volumes of excess water in our sewers. We have observed a 100% increase in the average operation of our pumping stations compared with usual levels.

Extreme weather has always impacted how our assets function, with different patterns causing different challenges. For example, drought conditions lead to increased risk of water main bursts (as seen in 2022), while this year's prolonged rain has meant we've had to contend with additional spills and flooding. For this reason, it's not always practicable to compare results year-on-year to understand if the work we are undertaking is having an impact.

The challenging conditions in 2023 are comparable to early 2021, where we also saw an increase in pollution events due to the combination of high groundwater and heavy rainfall. The lessons learned in the previous period enabled us to be better prepared. As a result, we returned to our operational baseline more quickly, demonstrating our investments into asset monitoring are working. Had we not undertaken this extensive programme of work, our total pollution and serious pollution numbers would have been far higher.

Importantly, our work over the past few years is moving us from a firefighting to a predictive response. Across the wastewater side of the business, we have made improvements across our operations and processes, investing in new technologies which means we are much better sighted on our performance. We are realistic that it will take time for actions to translate these into sustainable results.

What is influencing our performance?

Hydraulic overload

Hydraulic overload significantly impacted our performance in 2023, where we saw c.65 additional pollution events due to this root cause, compared to our underlying run rate. In 2023, hydraulic overload accounted for 26% of total in-year pollutions and is expected to account for 30% in 2024.

Although difficult conditions affected the entire Anglian Water region, some areas experienced this more acutely. There were 24 pollution incidents attributed to hydraulic overload in Norfolk alone, as an example. Widespread flooding of the Norfolk Broads and high groundwater levels on the North Norfolk coastline led to some communities suffering with loss of facilities for extended periods. As another example, Anwick Water Recycling Centre was overcome by fluvial flooding, despite Environment Agency flood defences and our own flood resilience. The site was inoperable due to loss of power and water within site components. Surface water inevitably became contaminated with foul sewage, due to flooding.

Hydraulic overload is the most complex root cause to address as it requires us to work with all drainage owners to prevent ingress into our system. Asset enhancement alone will not deal with the issue.

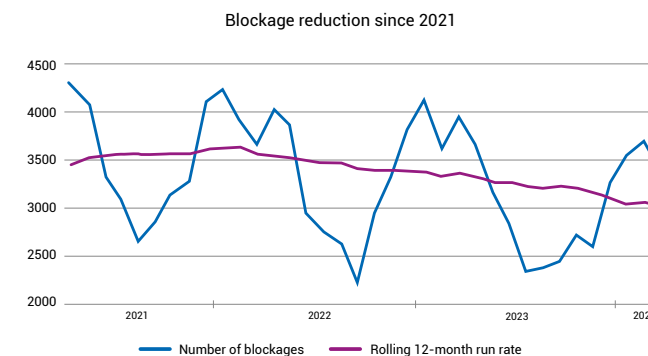
This remains a material risk given how high groundwater levels have remained going into the winter of 2024 which impacts not only infiltration but also ingress risk from water on the surface. Two new projects – one involving reviewing asset strategies and the other being our work with multi-agency groups – are starting to deliver benefits, giving us the confidence to turn this into a business-as-usual approach.

Blockages

Blockages were another considerable contributor to our 2023 pollutions. We clear over 40,000 blockages every single year, caused by wrongly flushed items, including a build-up of fats, oils and greases. This equates to one blockage every five minutes – of which 80% are avoidable.

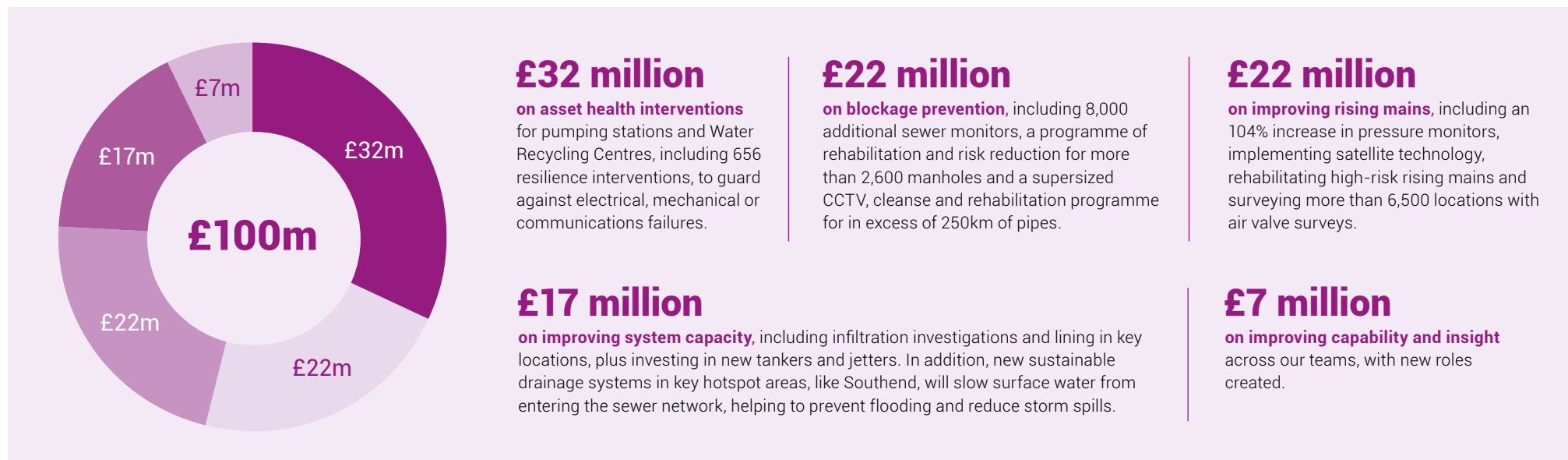
We have made good progress in this area, with our 2023 total pollutions data showing a 14% reduction in pollutions caused by blockages, compared to 2022 levels. In a typical year, blockages account for over a third of pollution events. Blockages on our foul sewer network have reduced to their lowest levels in five years and we have seen a year-on-year reduction of more than 10%. Reducing blockages is underpinned by our substantial data and analytics programme, alongside our customer education campaign which educates the public on their role in keeping sewers clear. See more in 'Internal Sewer flooding'.

Figure 18



The action we are taking

To go further and faster, our shareholders have invested an extra £100 million to tackle pollutions and spills. With this funding, we've built in many more workstreams and we are targeting the significant drivers of pollutions. The diagram below shows where our investments are going.



£32 million

on asset health interventions for pumping stations and Water Recycling Centres, including 656 resilience interventions, to guard against electrical, mechanical or communications failures.

£22 million

on blockage prevention, including 8,000 additional sewer monitors, a programme of rehabilitation and risk reduction for more than 2,600 manholes and a supersized CCTV, cleanse and rehabilitation programme for in excess of 250km of pipes.

£22 million

on improving rising mains, including an 104% increase in pressure monitors, implementing satellite technology, rehabilitating high-risk rising mains and surveying more than 6,500 locations with air valve surveys.

£17 million

on improving system capacity, including infiltration investigations and lining in key locations, plus investing in new tankers and jettors. In addition, new sustainable drainage systems in key hotspot areas, like Southend, will slow surface water from entering the sewer network, helping to prevent flooding and reduce storm spills.

£7 million

on improving capability and insight across our teams, with new roles created.

Our investment of £100 million is targeting risk reduction activities. We expect to see the risk reduction benefits come to fruition at the end of 2025. Our investments cover five key areas: system capacity, rising mains, blockage prevention, capability and insight and asset health. 80% of the work is related to risk reduction and will be delivered in 2024/25, with the remaining, more complex standalone schemes within 2025/26. The plan also includes a number of new roles, boosting resource in this area.

A highlight of some of the key investments we are making include:

- Infiltration investigation and sewer relining in nine locations
- 104% increase in Syrinix pressure monitors
- Mitigation or rehabilitation of 27 rising mains

- 8,000 additional sewer monitors
- Sewer CCTV, cleanse and rehabilitation programme in excess of 560km
- 18 asset health investigations on our Water Recycling Centres and 656 resilience interventions to guard against electrical, mechanical or communications failure.

The new investment above is in line with the five core areas that we continue to implement actions in line with our Pollution Incident Reduction Plan, which include:

- Enhancing the assets we have, assessing where improvements can be made and rolling out targeted maintenance and resilience programmes to ensure the entire asset base is reliable.
- Bolstering blockage detection to identify potential problems before they happen.

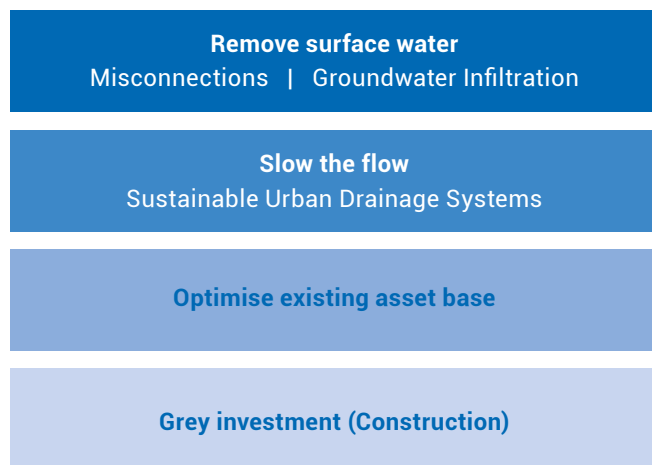
- Ensuring the proactive monitoring we have embedded as business as usual is delivering maximum value; helping us to make informed decisions, alongside implementing new monitoring technologies to further support our efforts.
- Delivering consistent operational control standards and procedures, to ensure we remain focused on robust continuous improvement.
- Improving operational excellence, identifying areas we can improve and making changes as a result.

These core areas are supported by our zero pollutions mindset, which we are embedding right across the business. Alongside this, we are putting additional governance and processes in place.

Hydraulic overload

Each catchment we operate in is different, and requires a range of interventions. For example, there is a much higher risk of hydraulic overloading in flooding zones. We are working hard to decouple asset performance from rainfall, which requires complex and highly innovative work, but in the long-term, this is the right answer.

Hierarchy on activity to reduce hydraulic overload. 52% of our infrastructure is within a Flood zone 2 or 3 (medium and high risk)



Asset performance

We have completed mitigation work on all 2023 repeat burst rising mains. Rising main pressure monitoring through technology such as Syrinix and predictive analytics Ovarro is enabling us to better detect risk and take action. Similar to the work we are doing on water mains, WISPA modelling is allowing us to investigate the relationship between rates of bursts and environmental factors. We are using satellite technology from Asterra, which is helping us identify potential sewage leaks in soil, on a total of 9,312km of assets including rising mains and sewers in high-risk locations. To support, detection dogs are sent to further investigate prior to intrusive investigations.

Case study: Yaxley

The Yaxley catchment is particularly vulnerable to the risk of flooding. Making up part of the Fens Basin, it is only a few metres above sea level, with limited natural capacity for excess water to soak into. In recent years, we have relied on tankers to soak up and take away excess water from the area. However, this solution is costly, disruptive and only provides a temporary fix.

Over the long-term, Anglian Water is investing £1.3 million into relining part of the sewer network in the area to prevent infiltration – an area where we can make a difference. Since last winter, our teams have used CCTV technology to carry out investigations across 25km of sewer network within Yaxley, Stilton and Folkestone. Our investigations have highlighted specific locations where infiltration increases the risk of a pollution as well as external flooding.

- In Yaxley and Stilton alone, our survey identified a large proportion of misconnected rainwater pipeline. The wastewater flowing through this pipe would be enough to fill approximately 1.2 Olympic-sized swimming pools every hour.
- Surface water misconnections. This is where downpipes from homes or highways road drains have been wrongly connected to the foul sewer, reducing its capacity and resulting in flooding. The amount of rain that runs off an average roof is equivalent to sewage produced from 100 homes.

- Around 1,000 points of infiltration. Sewers are not designed to be completely sealed systems. When heavy downpours hit already saturated ground, excess water gets into our sewer network through holes, cracks and joints. This results in the pipes becoming overwhelmed and causing flooding.

We have already been able to resolve some of the issues highlighted by our survey. We are putting in more natural drainage solutions across the area to help soak up excess water and prevent it from entering the system. In other places, misconnected drains from private properties or the highways are harder to fix and require input from customers and the local highways teams.

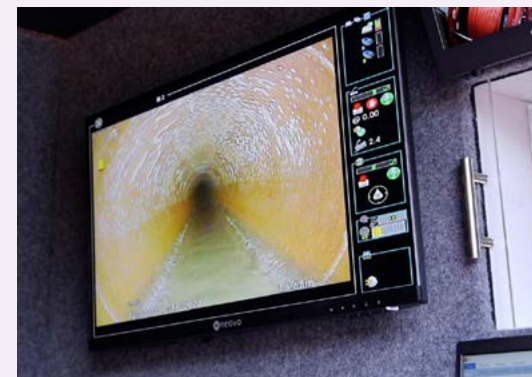

















Image: Anglian Water's CCTV technology gives visibility of issues in the sewer network



A detection dog helping us to identify potential sewage leaks





The action we are taking in 2024/25 to continue improved performance

 These actions are new and being funded by the extra £100 million investment

Root cause of underperformance	Action	Action code	SMART Target	Estimated Performance Commitment benefit
Enabler only	We're improving visibility of assets which are offline for repair or replacement and driving to reduce the time these assets take to be brought back into service. This helps ensure that we have resilience across our asset base.	ANH-POL-001	100% of equipment online or with full mitigation plan in place by end March 2025.	Enabler
Enabler only	CCTV vehicles will support us in delivering additional sewer survey work. Equipped with CCTV, the new vehicles will allow us to camera lengths of sewer and capture images which allow the assessment of the sewers condition. 	ANH-POL-002	Four vehicles mobilised by end March 2025.	Enabler
Enabler only	We are implementing additional resource to support the upfront triage of work to assess pollution risk. 	ANH-POL-003	Three staff in post by end March 2025.	Enabler
Enabler only	We're continuing work on our alarm estate to enhance what is presented to our alarm handlers to ensure the correct priority is against each alarm. We've already made great progress in moving towards being compliant with the industry standard (EEMUA).  	ANH-POL-004	4000 average alarms per week (rolling 12 week period). This is an ongoing action.	Enabler
Enabler only	Enhanced root cause resource: dedicated roles to supporting with asset owner root cause analysis and facilitate root cause sessions for more complex/systemic issues and wider catchment based issues. These roles will ensure timely and high quality root cause analysis supporting remedial actions and reduction of future risk.   	ANH-POL-005	Two staff in post by August 2024.	Enabler
Enabler only	Enhanced Storyboard: Storyboards are our mechanism for sharing information with the Environment Agency when we have a pollution event. We're enhancing these to improve the quality and detail of information we provide.	ANH-POL-006	95% of Storyboards completed to deadline and passing quality checks by end March 2024.	Enabler
Enabler only	We are employing environmental technicians to support our frontline teams in the assessment of impact in the event of a pollution. The samples, photographs and information they collate will support our assessment of the severity and ensure that the correct mitigation and controls are able to be deployed. 	ANH-POL-007	24 staff in post by end March 2025.	High
Enabler only	Ingoldmells additional Final Settlement Tank (FST).  	ANH-POL-008	100% completion and commission of the additional FST at Ingoldmells by July 2025.	Enabler
Enabler only	Installation of further ammonia monitors on WRCs (sites with ammonia consent less than 5mg/l with no exiting monitoring). We're installing further ammonia monitoring on our sites. Tighter consents are typically on our sites which discharge into more sensitive watercourses. This monitoring will enable early intervention where there is a deviation in the quality of final effluent to help protect water quality. 	ANH-POL-009	18 monitors transmitting data (onboarded) by end March 2025.	Enabler
Enabler only	Tanker and jetter resource: The supply of tanker and jetter vehicle resource to support our additional activity to survey, clean and rehabilitate sewer lengths.  	ANH-POL-010	28 tankers and jettors mobilised by end March 2025.	Enabler
Biological	We are implementing additional sludge thickeners to reduce water content within our sludge. This reduced the number of tanker movements required supporting management of our sludge stocks.  	ANH-POL-011	50% reduction in tankering by end March 2025.	Low

Root cause of underperformance	Action		Action code	SMART Target	Estimated Performance Commitment benefit
Biological	Sludge blanket detection review.	●	ANH-POL-012	100% of sites with sludge blanket detectors confirmed as working sensor to screen (availability).	Low
Biological	Sludge tank level monitors: Similar to our sludge blanket detection, our sludge tank level monitors provide another crucial control point. We are committing resource to complete an end-to-end review of these assets to ensure they record accurately to prevent spills from these assets and maximise storage.	●	ANH-POL-013	500 sites with installed VEGA monitors and implemented use of VIS (Vega Inventory System) to enable real time visualisation of sludge levels by end March 2025.	Low
Blockage	ECAS: We're educating food serving establishments through proactive visits on grease management in kitchens. We're extending these visits to domestic customers to complement our widespread 'Keep It Clear' campaign.	● ●	ANH-POL-014	1,595 tonnes of fat, oil and grease prevented from entering the sewer network in financial year (based on average assumptions and actual activity undertaken) by end March 2025.	High
Blockage	We've added enhanced maintenance to screens at the start of the treatment process to prevent unflushables and large debris getting into other part of the process and causing blockages.	●	ANH-POL-015	98% average screen availability (for assets in framework) by end March 2024.	Low
Blockage	Sewer Monitors and DSV: We're installing monitors on 11,000km of our highest risk sewer lengths and applying technology to help us identify forming blockages early so that we can address them before they cause an escape of sewage.	●	ANH-POL-016	70% of successful alerts from monitoring to avoid event (12 week rolling period) by end March 2025.	High
Blockage	Targeted proactive sewer cleansing: In addition to our regular sewer cleansing programme, we've instigated a programme of targeted cleansing based on analysis of our highest risk sewer lengths.	●	ANH-POL-017	100% delivery of the sewer cleansing programme (financial year) by end March 2025.	High
Blockage	Wet well cleanse enhancement: We're investing in the cleaning of pumping station wet wells to help prevent pumps clogging with unflushables and fats, oils and greases.	●	ANH-POL-018	100% delivery of planned wet well cleanse programme (in financial year) by end March 2025.	High
Civil/Structural	Air valves on our rising mains allow the release of air to maintain the design pressure parameters within the main. Where air valves are inoperable or faulty there is an increased risk of a burst. This work will locate, inspect and as needed reinstate air valves on key rising main lengths.	🗨️	ANH-POL-019	Zero bursts on assets associated with air valve rehabilitation by end March 2025.	Low
Civil/Structural	Dual manhole surveys and rehabilitation: these manholes provide access to both surface and foul water sewers. As a result of their duality, there is a risk of cross contamination of sewage into surface water lines in the event of a blockage. Where possible, separating or isolating the foul from the surface reduces this risk.	🗨️	ANH-POL-020	100% of surveys completed by end March 2025.	Medium
Civil/Structural	Future mitigation of rising main failure: Our Syrinix pressure monitors can help us to understand pressure patterns and fluctuations on our rising mains. Negative pressures or significant variation in pressure can increase the risk of a burst. With this information, we can work to smooth out these fluctuations, for example by adjusting the regime of the pumping station or retrofitting further air valves. We are also carrying out exploratory work to enable us to better detect leaks from rising mains using satellite technology.	🗨️	ANH-POL-021	50 transient reports completed by end March 2025.	Low

Root cause of underperformance	Action		Action code	SMART Target	Estimated Performance Commitment benefit
Civil/Structural	Public sewer survey: We are undertaking additional surveys of sewer lengths to uncover any defects or issues such as splits or dropped joints which can lead to escapes or act as snag points for debris.		ANH-POL-022	100% of surveys completed by end March 2025.	Low
Civil/Structural	Rising main rehabilitation: We are investing further in the rehabilitation of rising main lengths, using the information provided by our Syrinix monitors to direct us to the best solution. We will be targeting mains which have a burst history and a high risk of an escape reaching a watercourse or receptor.		ANH-POL-023	27 true positive interventions (number of rising mains rehabilitated without a future burst) by September 2025.	Medium
Civil/Structural	Sewer rehabilitation: We are investing in the rehabilitation of sewer lengths which have been identified through our survey work. This activity could range from patch lining through to replacement and covers both gravity and pumped (rising) mains.		ANH-POL-024	Zero collapses on rehabilitated sewer lengths until AMP8 by end March 2025.	Low
Civil/Structural	Sewer rehabilitation on complex sewerage assets: We are investing in the rehabilitation of complex sewer lengths which have been identified through our survey work. This activity could range from patch lining through to replacement and covers both gravity and pumped (rising) mains.		ANH-POL-025	Zero collapses on rehabilitated sewer lengths until AMP8 by end March 2025.	Low
Civil/Structural	Syrinix: We've already deployed 660 pressure monitors which, with Syrinix technology, can alert us to a burst or abnormal pressure on a rising main which needs further investigation. We're extending this programme and using the outputs to mitigate and prevent future bursts.		ANH-POL-026	45 true positive interventions on monitored rising mains since implementation of technology by end March 2024.	Medium
Electrical	Cotton Valley inlet power upgrade.		ANH-POL-027	100% completion and commission of the Cotton Valley inlet power upgrade by end March 2025.	Low
Electrical	Programme Logical Controller replacement Lowestoft.		ANH-POL-028	100% completion and commission of the Programme Logical Controller at Lowestoft by end March 2025.	Low
Electrical	Whitlingham transformer failure.		ANH-POL-029	100% completion and commission of the Whitlingham transformer failure by end March 2025.	Low
Hydraulic overload	Emerging infiltration: Investigative work to understand points of entry of surface and groundwater into our assets.		ANH-POL-030	Qualitative update only by 2035.	Low
Hydraulic overload	Surface and Groundwater management: Investigation work to understand ground and surface water impacts on our assets and our customers. This work will support decision making with other authorities responsible for water management.		ANH-POL-031	Qualitative update only by 2030.	Low
Mechanical	Cotton Valley inlet screw pumps.		ANH-POL-032	100% completion and commission of the inlet screw pumps at Cotton Valley by end March 2026.	Low
Operator	Zero pollutions mindset: We are committed to protecting the environment. Our zero pollutions mindset takes this further and ensures that consideration for the environment is woven into everything we do.		ANH-POL-033	Qualitative update only. This action is ongoing.	Enabler

Root cause of underperformance	Action	Action code	SMART Target	Estimated Performance Commitment benefit
Multiple	Condition Based Monitoring Equipment: Root cause analysis has shown that a significant number of pollutions are caused by failure or rotating assets (screw pumps and rotors). Condition Based Monitoring will allow us to understand the condition of the assets and repair or replace them prior to failure, preventing a pollution from occurring.	 ANH-POL-034	100% of monitors transmitting data (onboarded) by end March 2025.	Low
Multiple	General water recycling centres and sludge treatment centres (WRC/STC) asset health interventions (creation, refurbishment or replacement of assets). We are investing in identified environmental risks across WRCs and STCs. These aim to tackle multiple root causes and increase resilience on these sites.	 ANH-POL-035	28 interventions completed, aiming for end March 2025.	Low
Multiple	We are investing proactively in pumping stations to improve their resilience to possible failures. For example, installing more brown out timers and auto pump reset systems that will return power and normal pump operation following power fluctuations without the need for attendance.	 ANH-POL-036	20% reduction in the number of pollutions with a root cause of asset failure from named sites (NB: Asset not included in measure until remedial work carried out) by end March 2025.	High
Multiple	We are investing in sites which our data and our teams have identified as at risk of causing harm to the environment should a failure occur. These investments will tackle multiple root causes and reduce the risk of future failure.	 ANH-POL-037	20% reduction in the number of pollutions with a root cause of asset failure from named sites (NB: Asset not included in measure until remedial work carried out) by end March 2025.	Medium

Conclusion and next steps

We have a lot to do to move from lagging to average, and on to leading. Although our annual performance is not where we want it to be, we are supercharging action right across the business to put us on a solid footing as we enter AMP8. This report demonstrates the extensive resource and investment we are putting behind turning our performance around.

Next year, we forecast to be on track for the two out of three 'lagging' measures related to wastewater. However, we are realistic that sustainable, positive changes will not happen overnight. Many of our assets were built many decades ago, and in that time, the region we serve has experienced significant social and economic growth alongside extreme events, driven by climate change. Alongside ensuring our assets are fit for the future, we operate as part of a broader system, and we need to collaborate with others in order to deliver environmental and social prosperity in the long-term.

Our transformation programme is our short-term plan to turn around our performance and our Board fully supports our immediate and longer-term plans. Although the next steps will be challenging, we will not lose focus on the long-term.

Overall, all of the work we are doing today is in pursuit of our future ambitions, where pollutions are consigned to history, where flooding is managed in ways that benefit entire catchments and works with rather than against our unique environments, and our water quality continues to be world-leading. We want to achieve all of this alongside building on our support for our most vulnerable customers, unlocking growth in the region and delivering environmental benefits.

To find out more about the work we are doing in more detail, please refer to our suite of reports and long-term strategies.

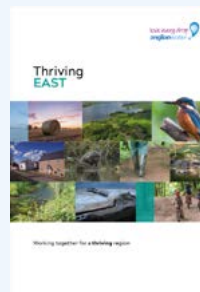
PR24 Draft Determinations

Our AMP8 investment plan is double anything we have previously delivered. This summary provides an overview of our Draft Determination business plan for the regulatory period 2025-2030.



Thriving East

Thriving East is research, commissioned with Capital Economics, on the region served by Anglian Water. Our PR24 Business Plan was built to deliver on the needs of the region.



Annual Integrated Report

As described in this report, performance against PCLs does not, in isolation, reflect the overall quality of service a company delivers. Our Annual Report details our performance against a full range of measures.



Pollution Incident Reduction Plan

Our plan sets out the actions we are taking to 2025 to improve our pollutions performance.





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