NORTHUMBRIAN WATER LIMITED ANNUAL PERFORMANCE REPORT

For year ended 31 March 2023

FOR NORTHUMBRIAN WATER LIMITED ANNUAL PERFORMANCE REPORT FOR YEAR ENDED 31 MARCH 2023

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UNRIVALLED CUSTOMER EXPERIENCE:

- Our customers tell us we provide excellent customer service and resolve issues quickly
- Our customers say they feel informed about the services we provide and the importance of water
- Our customers say we are a company they trust
- Our finances are sound, stable and achieve a fair balance between customers and investors.

AFFORDABLE AND INCLUSIVE SERVICES:

- Our customers say our services are good value for money and we work hard to keep water and wastewater services affordable for all

RELIABLE AND RESILIENT SERVICES:

- We are resilient and provide clean drinking water and effective sewerage services; now, and for future generations
- We always provide a reliable supply of water
- Our drinking water is clean, clear and tastes good
- Our sewerage service deals with sewage and heavy rainfall effectively

LEADING IN INNOVATION:

- We are an innovative and efficient company

IMPROVING THE ENVIRONMENT:

- We help to improve the quality of rivers and coastal waters for the benefit of people, the environment and wildlife
- We take care to protect and improve the environment in everything we do, leading by example

BUILDING SUCCESSFUL ECONOMIES IN OUR REGIONS:

- We are proud to support our communities by giving time and resources to their important causes
- We work in partnership with companies and organisations to achieve the goals that are most important to our customers

BOARD STATEMENT – OUR PURPOSE, VISION, AND PERFORMANCE

This statement outlines the Board's vision for Northumbrian Water Limited, detailing our goals for delivering services to customers and stakeholders – both now and in the future. It also covers our performance in achieving these goals and how we structure management rewards to encourage the fulfilment of our aspirations.

Guided by our Purpose and a long-term vision to become the leading provider of sustainable water and wastewater services nationwide, the Board sets ambitious goals for both itself and the company's employees. We strive to enhance our performance each year to meet and exceed our customers' high expectations. This entails consistently delivering exceptional service in our water and wastewater businesses while upholding the highest standards of environmental performance.

At the core of our mission lies the drive to surpass existing benchmarks. We recognise the significance of the current landscape, and we are keenly aware that it necessitates our unwavering commitment to raising the bar even higher.

How we set our aspirations

The aspirations we set for the current price control period 2020-25 were developed through extensive engagement and consultation with customers and other stakeholders throughout our business planning process. Through this engagement, the company agreed updates to our Outcomes for customer service, the environment, and the way we manage the business. For each Outcome, we agreed challenging Performance Commitments (PCs) which we use to monitor and report on our performance.

In this report, we set out our Outcomes and how we deliver these across our strategic themes, as well as through our Purpose and Values. We report on our performance against our Outcomes and PCs in this report.

However, to drive the year-on-year performance improvements necessary to deliver our Vision of being national leader, we set ourselves tougher, stretching targets within the business. These targets are reported internally through a balanced scorecard of key performance indicators which cover the full range of strategic themes that support our Vision. We re-set these targets each year, taking account of how other companies in the industry have performed and what our customers have told us about their priorities.

We also work closely with the Water Forum, which brings together expertise from a wide range of stakeholders. Our Independent Non-Executive Directors, and Executive Directors, regularly attend Forum meetings and workshops. This ensures that the Board directly understands the areas where Forum members are challenging us to improve performance and Outcomes for our customers and stakeholders.

To align the Executive Leadership Team's focus with the business Outcomes we want to attain, performance-related elements of pay are dependent upon the achievement of stretching internal targets from across our balanced scorecard of performance measures. Both short-term and long-term incentive plans are structured with 60% related to targets delivering benefits for customers and the environment and 40% related to financial targets. The Remuneration Committee Report is available within our Annual Report and Financial Statements and provides full, transparent detail on our directors' remuneration policy and how remuneration in the year has been calculated.

Performance in 2022/23

This report describes our performance in 2022/23 against our Performance Commitments (PCs) in detail.

We're delighted to have achieved our ambition to be in the top two companies for C-MeX (securing the number one spot), the measure for customer experience and are very proud to have scored significantly above average in many categories in the 2022 Water Matters Report carried out by CCW in relation to satisfaction with value for money, trust and customers saying we care about the service we give.

Thanks to an innovative approach to partner working and data sharing we are helping more vulnerable customers than even before. We acknowledge the impact of the current cost-of-living crisis, which has led to a growing number of individuals experiencing water poverty. Regrettably, we have not achieved our ambitious target in addressing this issue. While we are disappointed with this outcome, it is important to note that we have made significant efforts to assist more people and have heightened our focus on raising awareness about the available support. Our commitment remains steadfast as we strive to innovate and proactively tackle the challenges arising from the broader socio-economic landscape.

Although we have received positive feedback from customers regarding taste, odour, and discoloration, we are disappointed to have fallen short of our own rigorous water quality standards. Our goal remains to achieve industry-leading levels of Compliance Risk Index (CRI), and we are actively implementing our long-term plans to meet this objective, working closely with the Drinking Water Inspectorate (DWI) to address any areas of concern.

Last year, we faced an extremely demanding operational environment due to the hot and dry summer, characterised by record-breaking temperatures in mid-July. These extreme weather conditions led to a substantial increase in burst mains and other asset failures, presenting significant challenges for our operations.

Despite our best efforts, reducing leakage in our NW region became exceptionally difficult under these circumstances, and as a result, our performance in addressing mains bursts was adversely affected. We recognise the importance of addressing these issues and are committed to implementing measures to improve our performance in such challenging situations going forward by prioritising how we respond to such extreme weather events.

We are on track for our ambitious goal to achieve Net-Zero status in relation to our operational greenhouse gas emissions by 2027 and are on track to achieve zero avoidable waste by 2025.

While attaining the 4-star rating in the Environmental Performance Assessment (EPA) has become increasingly challenging, we are pleased to report that our environmental performance has shown continuous improvement. Our company consistently surpasses average standards, achieving a commendable 3-star rating, which places us among the leaders in the sector.

Notably, we have achieved some of the lowest levels of serious pollution incidents compared to other companies. Additionally, an impressive 32 out of our 34 bathing waters have received good or excellent ratings, demonstrating our commitment to maintaining high standards of water quality.

We take pride in our strong environmental performance and will continue to prioritise sustainable practices and initiatives. Our goal is to ensure the long-term well-being of the environment while providing reliable services to our customers.

We have achieved significant progress in our internal sewer flooding performance, with an improvement of more than 30% compared to last year's reported figures. This success can be attributed to the ongoing development and effectiveness of our sewer flooding tactical plan, which was initiated in 2019.

We welcome the key role that the Water Forum play in providing challenge on behalf of our customers. As part of this process, we report to and discuss our performance with the Water Forum and they provide their independent commentary on pages 11-13.

Looking to the future

We have updated A Vision for our Coasts and Rivers, to set out the progress we have made against the nine pledges we have made to water quality and our programme of work to 2025 that will help us achieve our goals. They include reducing spills from our storm overflows to an average of 20 per year by 2025.

We place great importance on actively listening to our customers and gaining a comprehensive understanding of their present and future expectations. To facilitate this, we have implemented a tailored customer research and engagement program specifically designed for our PR24 business planning. Through this, we seek to gather valuable insights from our customers regarding crucial aspects of our future plans, including our long-term strategies.

We're pleased that the upcoming price review will focus on delivering greater environmental and social value as we already work hard to protect our rivers and beaches. In keeping with our commitment to our communities we have maintained our ambitious local spending goal of spending 60p in every £1 locally.

As a Board, our unwavering commitment persists in our drive to become the national leader. We are dedicated to consistently providing exceptional service to our valued customers and other stakeholders, not just in the present, but also in the years to come.

Signed on behalf of the Board of Northumbrian Water Limited:
By order of the Board

Andrew J Hunter Chairman	Heidi Mottram CEO	Alan Bryce Senior Independent Non-Executive Director

Dominic Chan

Non-Executive Director

H L Kam

Non-Executive Director

Duncan Macrae

Non-Executive Director

Jacquie McGlade

Independent Non-Executive Director

Bridget Rosewell

Independent Non-Executive Director

Richard Sexton

Independent Non-Executive Director

Peter Vicary-Smith

Independent Non-Executive Director

14 July 2023

CEO'S WELCOME

Our vision is to be the national leader in the provision of sustainable water and wastewater services. We are a purpose-led organisation and our purpose shapes all our plans and activities. We set out ambitious goals for the 2020-25 period, reflecting feedback from our customers, and I am pleased that once again we have been successful in achieving a high proportion of the targets we report in our balanced scorecard.

I am particularly delighted that we are first in the industry for customer service as we always strive to deliver an unrivalled customer experience. We have also continued to deliver good environmental performance with no serious pollution incidents and further reductions in sewer flooding. However, we recognise that customers' expectations are increasing, especially in relation to river and bathing water quality, and we are committed to delivering the nine ambitious pledges we set out in 'A Vision for our Coasts and Rivers' to improve our water environment.

Although our overall performance was strong, we were disappointed to fall short on water quality. We are working closely with the Drinking Water Inspectorate and have significantly increased our investment to improve performance in this area to the same level as our customer service performance. I am confident that with our remarkable team, shared vision, right level of investment and relentless pursuit to be the national leader, we will continue to build upon the strong foundation we have laid.

Customer

I am thrilled to be able to say we are the industry leader for customer experience, achieving top place for C-MeX, Ofwat's measure of customer service. This has been the result of a one team effort across our business to deliver world class service to our customers. I am also proud that we were joint top among water and sewerage companies (WASCs) for trust in CCW's Water Matters report.

We also know that it's really important to our customers that we keep our services as affordable as possible. The past three years have seen a period of significant economic upheaval, with the Covid-19 pandemic and high inflation creating a cost-of-living crisis. As a result we have seen more customers reaching out to us for financial support and have increased the number of customers receiving support by more than 50%.

Our data sharing arrangement with the Department for Work and Pensions (DWP) is just one of the ways in which we're taking proactive steps to identify customers who would benefit from support arrangements. We have clear plans in place to both expand, and increase awareness of, the support we can offer. We remain committed to having zero water poverty in our areas by 2030.

Environment

Our environmental performance remains strong and in North East England we have some of the lowest levels of pollution and cleanest rivers and beaches in the country. However, we know that customers and stakeholders are increasingly concerned about spills from storm overflows into rivers and the sea, and we know we need to do more.

We have recently updated 'A Vision for our Coasts and Rivers' on our website, to set out the progress we have made against the nine pledges we have made in respect of our water environment and our programme of work to 2025 that will help us achieve our goals. We are investing substantial amounts in the current regulatory price period towards reducing our use of storm overflows and upgrading our wastewater network and are already planning a massive environmental programme of around £1.7bn over the next few years to stop storm overflow spills and improve the environment, adopting nature-based solutions wherever possible.

This isn't the only area where we are making improvements though and I was very pleased that we had no serious category 1 and 2 pollution incidents in 2022. We have achieved further reductions in sewer flooding incidents continuing our trend of improvement in each year of this price control period. I was delighted that Bin the Wipe, one of our initiatives which has been pivotal to this improvement, has now been adopted across the industry and launched as a national campaign, approved by Parliament.

Water

In discussions with our customers, they consistently tell us their top priority is good quality water and we are in the middle of a five-year plan with the Drinking Water Inspectorate to improving drinking water quality across both of our operating regions, involving an increase in our capital investment programme. However, these investments can take a few years to deliver results and we were disappointed to not hit the high standards we aim for in the DWI's Compliance Risk Index measure of water quality, although we have achieved our best performance to date in our customer facing measures of the appearance, taste, and smell of water.

Maintaining resilient water supplies is another priority for our customers and work is underway on a £155m investment programme to upgrade and futureproof the water supply network across the south of County Durham and into the Tees Valley. We were also pleased to gain support for the acceleration of investment to improve the resilience of water supplies in our Suffolk operating area.

We had a mixed year weather-wise, with extreme conditions causing problems for our water network. The hot, dry summer saw record-breaking temperatures in mid-July 2022 resulting in a significant increase in burst mains and other asset failures. We then experienced a freeze/thaw event just prior to Christmas which caused further issues. Although we were pleased to achieve our leakage reduction target in our water-stressed Essex and Suffolk operating areas, we were unable to drive leakage down sufficiently to achieve our target in our Northumbrian area, despite increasing resources significantly.

We are continuing to drive innovation in this area and trialled a number of new and exciting technologies and techniques in the year. For example, we introduced a new 'No Dig' method of leakage repair and are now working to scale this up, and we're also leading on the development of a new National Leakage Research and Test Centre.

Innovation

Innovation is one of our core values and we have been working for many years to create a thriving innovative culture. It is always pleasing to see ideas being developed into practical use. One example of this is the National Underground Asset Register, an interactive, digital map of underground pipes and cables, which will revolutionise the way we install, maintain, operate, and repair our buried infrastructure. This idea came out of our Innovation Festival in 2018 and we were extremely proud to see this being launched by the Geospatial Commission in April 2023, initially covering North East England, Wales and London ahead of a national roll out over the next two years.

We are open to innovative ideas from any sources and, as well as continuing to have great success through the Ofwat Innovation Fund, we encourage ideas from our own people. One such idea is the use of microalgae to treat industrial effluent and generate biogas. This was successful in our internal InvestQuest competition, and we are currently upscaling it for operational use.

Our People and the Communities we serve

I firmly believe that the success of any company lies in the strength of its people, and I am surrounded by a team that embodies our core values and shares a common passion for excellence. We've embedded our TIDE (Together for Inclusion, Diversity and Equity) Strategy over the last year, fostering an environment where everyone's voices are heard, ideas are valued, and diverse viewpoints are respected. We were once again awarded Great Place to Work Certified Employer status, further increasing our already high internal engagement and trust scores, and our Living Well approach to wellbeing offering has been recognised nationally with several awards.

We've been named the world's 'most ethical' water company for the twelfth time in the World's Most Ethical Companies list, compiled by Ethisphere, and are one of only two UK companies on the list. For the second successive year, we were also the only water company awarded the Good Business Charter, which involves demonstrating good practice across a number of areas including employment practices, environmental responsibility, fair tax and procurement.

Our annual report serves as a testament to our collective achievements, as we have strived to provide safe, clean, and sustainable water solutions to our communities while facing the increasing effects of climate change. The impact of our work extends far beyond numbers and figures; it lies in the positive influence we have on our local economies, where we have achieved our goal of spending 60p in every £1 we spend locally, the environment, and the prosperity of the regions we serve.

Looking forward

We have completed three years of our current five-year price review period and have made significant progress towards the ambitious goals we set in Our Plan. We will continue to drive this forward over the coming years, building on our strong foundations in areas such as customer service and environmental performance. Equally we must improve our performance across water quality and leakage and continue to invest in the resilience of our assets, as well as preparing for the challenges of the next period.

Our planning for the period 2025-30 is well advanced, ahead of submission in October of this year. Our business is inherently long term, and we are developing our plan in the context of our long-term strategy to 2050 and the areas where we will need to make new investment to ensure sustainable water supplies, protecting the local environment, deliver Net Zero and maintain resilience.

We make sure our customers are at the heart of every decision we take and have consulted extensively to ensure we understand what is important to our customers and stakeholders. We know that will be undertaking a huge increase in capital investment, including to address storm overflows, which will need to be funded through a combination of borrowing, shareholder equity and increases in customer bills. Getting the right balance between investing in our services, environmental improvements and the affordability of customer bills is not easy, and it's important to us that the views of our customers inform those decisions.

We are proud of our achievements to date, but we are never complacent and will continue to invest in further improvements over the coming years.

H Mottram

H Mottram CBE, CEO

WATER FORUM STATEMENT

Each year, members of the Water Forum, which is Northumbrian Water Limited's (NWL) Independent Challenge Group (ICG), have the opportunity to review the company's results against the promises made to its customers in the 2020-2024 business plan it agreed with Ofwat.

This review covers the 12 months to the end of March 2023: a period during which the water industry has often been under critical spotlight, and UK economy has experienced levels of inflation not seen in a generation, fuelling a cost-of-living crisis that affected residential and business customers alike. It has also been a period during which the impacts of climate change continued to be observed and felt by all. These factors are likely to continue to be extremely influential in the year ahead, so have been front of mind when considering the comments and challenges offered below.

In parallel with our review of this year's performance, we are providing independent challenge to NWL as it develops its next business plan, from which customers' water and wastewater prices will be set for 2025-2029. Current performance has been key in our considerations and challenges to the company as we look ahead to this time horizon and beyond.

Customer Service

For two years the Water Forum challenged NWL to improve its contact centre's provision of customer service. We are therefore very pleased to note that the company finished top in the industry overall in *Ofwat's Customer Experience Measure* and also rated as giving best overall customer service in the Consumer Council for Water's latest research (the **2022 Water Matters Report**). These results show what NWL can achieve when it applies a lot of management focus on an issue, and we challenge the team to sustain the improved position and to adopt the same ethos for reducing the *response time to written customer complaints* as well as the other areas we highlight below.

Water Poverty

There is some good news in NWL's performance results – we see the number of customers being reached regarding Priority Services has substantially increased although there is more to do in this area, and the company exceeded its targets for the *satisfaction of those customers who receive additional financial support*.

However, demand for support has soared and is likely to continue to do so in the coming year – having achieved an improving trend in the percentage of households living in water poverty in previous years, unfortunately we see a reversal in last years' results.

Given that we believe this is due in no small measure to the national cost-of-living crisis, we are very surprised to see that the results for *awareness of additional financial and non-financial support available* measures have remained stubbornly low and below target. In our view, this indicates that NWL needs to use substantially different tactics for making customers aware of what is available to them. We therefore challenge the company to focus on and think innovatively about what form a radically different approach could take.

Environment and climate change resilience

Water Forum members are pleased to note NWL's commitment to and performance in its *water environment improvements* measure – the initiative has been an excellent way of enabling customers to connect with the natural environment.

We are encouraged by the direction that the company is taking in its Vision for Coasts and Rivers, although there is much to do to achieve the ambitions it contains. Getting more customers and communities involved in their local environment, through initiatives such as Water Rangers will be important for success in this area.

We welcome NWL's strong performance overall in relation to the environment. That noted, it is going to be increasingly challenging to maintain this level of performance and environmental reputation. Not only have the compliance criteria been tightened, but the company has already addressed the more straightforward issues, which leaves the trickier, more complex ones to tackle. We note this latter point also applies to the future reductions in *greenhouse gas emissions* measure, for which NWL substantially and positively exceeded its target this year.

We note that NWL narrowly missed its performance target for *mains repairs* and attributes this to record summer temperatures and winter freeze-thaw events. In our view, such weather events should now be considered as the norm due to climate change. This measure is therefore likely to remain challenging, so the preventative modelling and other actions described in this report will be essential tools in endeavouring to meet targets next year.

Our comments on the *interruptions to supply* measure are of the same nature, in particular the need to increase the water network's operational resilience in the event of a power outage – most notably in the Northumbrian Water region where most of the power supply is above ground. We do, however, welcome the work the Company is doing to address such issues.

Pollution incidents, including those caused by Storm Overflows, are high on the public interest agenda. We are therefore encouraged to note that pollution incidents were better than target and compared to the previous year, albeit that they remain higher than in 2020/21 and need additional focus in the years ahead.

Sewer Flooding

We are pleased to see that NWL delivered a good performance on its *internal sewer flooding* and *repeat sewer flooding* measures, with a substantial reduction in the number of customers who were faced with this very undesirable situation in their homes. We note the company's acknowledgement that in parallel with sustaining this positive progress (and they note that the drier weather has had a more positive impact on their performance), it needs to put an increased focus on preventing *external sewer flooding* incidents too, for which the target was missed.

As noted in our report last year, customer behaviour plays a key role in achieving improvements in sewer flooding measures. We are therefore delighted that through Defra's Plan for Water the industry has adopted a national campaign based on NWL's data-led 'Bin the Wipe' initiative and look forward to seeing industry data on its effectiveness.

Water resources

In last year's report, we commented that for its Water Resource Management Plan (WRMP) to succeed, there is a real need for NWL to engage holistically and comprehensively with the public on the nature of the water resource challenge and the part that both the water company and its customers can play – including on *leakage* (which had a mixed result this year across the two operating areas) and *consumption*.

Our challenge holds true this year and arguably is even more relevant given the levels of investment that will be needed to ensure sufficient water is available for current and future generations. We note that the Company is engaging well on strategic water planning and water resource groups. We suggest that the industry also engages well with customers to make the link between levels of water consumption, investment required and the size of water bills, and how reducing the former will have a corresponding effect on others.

Drinking Water Quality

As we noted last year, NWL is undertaking a large transformation programme with the Drinking Water Inspectorate to improve its *Compliance Risk Index* (CRI) score. The benefits of this work are yet to flow through into the results, as is clear in this report, underlining its long-term nature. Our members will continue to stay close to this area, which is of fundamental importance to customers.

Trust and reputation

We see that customers' *perceptions of trust* have declined this year, although we are advised that broader data provides a richer picture. Trust very much remains a crucial issue for a range of reasons, not in the least if the company is to meet its targets for reducing the amount of water each person uses (*per capita consumption*).

We believe that good performance against targets is a very important factor in rebuilding levels of trust, so look to the NWL team to explore what else it can do to meet and exceed its targets for 2023 and beyond. In particular, delivering against its enhancement programme will be key to building confidence in the company's ability to deliver the huge investment programme that the industry has been mandated to deliver in 2025-2029 and beyond.

In conclusion, last year's performance in a number of areas is certainly not where customers would expect it to be and we call on NWL to ensure it applies the necessary focus and resources to deliver its recovery plans quickly and to deliver its targets for 2023-24. Further, with more people than ever before in water poverty executive pay and shareholder dividends need to demonstrably reflect performance from customers' perspectives and be openly and honestly explained. This should contribute to building the levels of trust that will be so important in enabling NWL and the wider water industry to rise to the substantial challenges that lay ahead for it, including capital investment programmes. We call on the industry to be creative in how it does this in a way that minimises the burden on customers and the growing number of those in vulnerable circumstances, for whom affordability of water is such a pressing issue.

Melanie Laws, Water Forum Chair

WHO WE ARE

Northumbrian Water Limited provides:

- Water and wastewater services to 2.7 million people in North East England, trading as Northumbrian Water, and
- Water services to 1.8 million people in Essex and 0.3 million people in Suffolk, trading as Essex & Suffolk Water.

OUR PURPOSE

Our Purpose is caring for the essential needs of our communities and environment, now and for generations to come.

We do this by providing reliable and affordable water and wastewater services for our customers.

We make a positive difference by operating efficiently and investing prudently, to maintain a sustainable and resilient business.

OUR VISION

Our Vision is to be the national leader in the provision of sustainable water and wastewater services.

OUR VALUES

As important as what we do is how we do it. Our Values define how we work to deliver our Outcomes and achieve our Vision.

CUSTOMER FOCUSED

We aim to exceed the expectations of our external and internal customers.

RESULTS-DRIVEN

We take personal responsibility for achieving excellent business results.

ETHICAL

We are open and honest in meeting our commitments, with a responsible approach to the environment and our communities.

INNOVATIVE

We continuously strive for innovation and better ways to deliver our business.

ONE TEAM

We work together consistently, promoting co-operation, to achieve our corporate objectives.

OUR OUTCOMES FOR 2020-25

UNRIVALLED CUSTOMER EXPERIENCE:

- Our customers tell us we provide excellent customer service and resolve issues quickly.
- Our customers say they feel informed about the services we provide and the importance of water.
- Our customers say we are a company they trust.
- Our finances are sound, stable and achieve a fair balance between customers and investors.

AFFORDABLE AND INCLUSIVE SERVICES:

- Our customers say our services are good value for money and we work hard to keep water and wastewater services affordable for all.

RELIABLE AND RESILIENT SERVICES:

- We are resilient and provide clean drinking water and effective sewerage services; now, and for future generations.
- We always provide a reliable supply of water.
- Our drinking water is clean, clear and tastes good.
- Our sewerage service deals with sewage and heavy rainfall effectively.

LEADING IN INNOVATION:

- We are an innovative and efficient company.

IMPROVING THE ENVIRONMENT:

- We help to improve the quality of rivers and coastal waters for the benefit of people, the environment and wildlife.
- We take care to protect and improve the environment in everything we do, leading by example.

BUILDING SUCCESSFUL ECONOMIES IN OUR REGIONS:

- We are proud to support our communities by giving time and resources to their important causes
- We work in partnership with companies and organisations to achieve the goals that are most important to our customers

OUR STAKEHOLDERS

We provide an essential service that is relied on by our customers and communities. Understanding their experiences, needs and expectations is therefore vital to our business success in the short and long-term. To achieve this, it's critical for us to engage with the representatives and organisations who share and help to advance their interests, including in relation to the environment in our regions.

We engage proactively with a wide range of stakeholders to understand their views, insight and expertise, and work with them to provide an unrivalled customer experience and deliver our business Outcomes.

STAKEHOLDERS / WHY WE ENGAGE WITH THEM	HOW WE ENGAGE	KEY ISSUES COVERED
Customers Understanding customer priorities and preferences, as well as their experiences, is vital to delivering world class services today and preparing for the future.	• Focus groups / deliberative workshop groups, including via digital platforms • Co-creation workshops • Email surveys • SMS surveys • Social media • Community Portal • People's Panels • Customer Zone at Innovation Festival • Telephone and door-to-door interviews	• PR24 business planning • Long-term strategies • Drainage and Wastewater Management Plan • Water Resource Management Plans • Water environment improvements • Social tariffs • Non-household priorities • Metering • Billing
Colleagues Our colleagues deliver daily the activities and services that enable us to achieve our ambitious goals. Our success is dependent upon their engagement, collaboration and innovation. Therefore, it's essential to understand their needs and invest in them.	• 'Heidi Live' question and answer session via broadcast with CEO • TeamTalk business update events with Leadership Group and cascaded to all colleagues • Company-wide Roadshows • Internal communication channels – The Source intranet, weekly interactive newsletter, email newsflashes, digital screens, Yammer • Leadership Conferences • Company-wide employee surveys • Internal networks and forums	• Company performance and scorecard updates • Reinforcing our Company purpose, vision and values • Health, safety and wellbeing campaigns • Diversity and inclusion strategy and campaigns • Innovation projects and ideas • Survey feedback and resulting focus areas
Ofwat As our economic regulator, Ofwat plays a key role in setting the conditions for us to fulfil our statutory duties and meet customers' expectations.	• Responding to consultations • Peer to peer contact and meetings • Site visits • Annual Performance Report (APR)	• PR24 business planning process • DWMP and WRMP • Ongoing performance and compliance discussions • Affordability support • Engagement with Ofwat's innovation competition • Response to incidents
Environment Agency We are committed to delivering excellent environmental outcomes and work closely with the Environment Agency to ensure we consistently achieve high standards.	• Responding to consultations • Annual and monthly performance reviews • Management reviews • National strategy and practitioner networks • Industry task and finish groups • Joint working group on pollution incidents and monthly pollution review group meetings • Site visits • Regional and local partnerships and groups, including Regional Flood and Coastal Committee, Northumbria Integrated Drainage Partnership (NIDP) and Catchment Partnerships • Provision of training to local EA officers on request	• Compliance and performance, including pollution and bio-resources • Event duration monitoring • PR24 business planning • WINEP development and delivery • Drainage and Wastewater Management Plan • Water Resources Management Plans • Infrastructure investment and nature-based solutions • Net zero target and regional climate initiatives • Nutrient neutrality • Strom Overflows Discharge Reduction Plan • Data transparency •

Drinking Water Inspectorate Our commitment to providing clean, clear, great tasting water requires us to understand and meet the DWI's expectations for best practice.	• Responding to consultations • Quarterly operational and transformational liaison meetings • Senior leadership strategy meetings • Chief Inspector's report launch meetings • Consultation and negotiation via Water UK groups at board, strategic and policy levels • DWI laboratory liaison groups • Water safety planning forums • Reviews of regulatory commitments • Industry task and finish groups • On site collaborative investigations and audits	• Company compliance assessments • Dissemination of company incidents and agreed learning points • Technical audit feedback • Progress with agreed programmes of work • Internal water quality communication strategy • Collaboration opportunities • National legislation changes • Research outputs
Water Forum Our Water Forum plays a critical role in challenging us on how we improve outcomes and delivery for customers, including through our approach to customer research and engagement.	• Formal meetings, sub-groups and task groups • Deep dive reviews • Meetings with senior managers, Executive Leadership Team, and Board members • Consultation processes	• PR24 development • Company performance • Customer engagement activity and performance • Financial support for customers • DWMP and WRMP • Drinking water quality improvements
CCW CCW helps us understand how we can continue to develop world class customer service and deliver against increasing customer expectations.	• Responding to consultations • Sharing material for review • Quarterly liaison meetings • Attendance at regional public meetings • Bespoke engagement sessions • Industry working groups and best practice forums • Customer Service Network PAGs	• Complaints management and best practice • Water Matters tracking research • Tariffs, including social tariffs and tariff innovation • Customer engagement • Social purpose • PR24 business planning • Future service provision • Affordability and inclusivity • Sewer flooding • Visible leaks • Demand management • Dealing with adverse weather events
Supply chain partners Our supply chain is vital in enabling us to deliver our services. It is also a significant part of the economic impact we deliver in our regions, through our goal of spending 60p in every £1 with suppliers in our operating areas.	• Joint Framework Governance Groups • Safety, Health and Environment Forum • Integrated programme delivery teams • Joint conferences and workshops • Joint recruitment and development of employees • Leading and participating in industry bodies • Partner participation in our Innovation Festivals	• Innovation and best practice solutions • Sustainable operations including environmental challenges • Stakeholder engagement and customer service improvement • Capex programme delivery • Regional economic development • Community investment initiatives • Responsible procurement approaches
Government and policy makers Politicians, civil servants, and policy makers have a significant influence on the conditions within which we operate. They also have an interest in understanding how we serve our customers and communities.	• Briefings • Site visits • Face to face meetings • Attendance at key forums • Speeches and events • Responding to consultations	• Environmental performance and net zero commitment • Water demand • Storm Overflows and river water quality • Incident response and resilience • Eradicating water poverty • Innovation activity
Local authorities Local authorities are important partners in delivering services within their areas. They also have a deep understanding of the communities we operate in.	• Regular meetings with senior officials and lead councillors • Technical input and support on planning matters • Participation in consultations and steering groups relating to environment or economic development issues	• Asset investment schemes • Local campaigns and customer engagement initiatives • Environmental performance • Local economic benefit • Regional plans, including economic development and environmental initiatives • Eradicating water poverty • WRMP and DWMP • Community investment initiatives

NGOs and charities We're committed to positive outcomes in our communities and environment. Working with organisations that share this passion and have deep knowledge and expertise enables us to deliver more effectively.	• Sponsorship and donations • Just an Hour volunteering programme • Innovation and development support • Governance support • Meetings and forums • Partnership schemes and collaboration	• PR24 business planning • Environmental activities and investments • Water for health campaigns • Eradicating water poverty • Education initiatives • Regional policy support
Media and opinion formers Media and other influential voices in our regions and industry help us to communicate important messages about our services and understand the impact they have on our audiences.	• News releases • Briefings • Events	• Critical incidents • Investment schemes • Key campaigns, including Bin The Wipe • Environmental initiatives • Water saving / usage advice • Water safety advice • Customer service support • Community initiatives
Investors Our investors ensure we have access to the funding we need to deliver services and invest for the future. They also provide important feedback and insight to inform our business practices.	• Periodic reporting • Investor update on new issuance • Credit investors portal • Credit agency meetings and publications • Engagement with banks	• Financial results • Regulatory and operational performance • Funding, hedging and liquidity • Regulatory environment • Capital programme update • Euro Medium Term Note Programme

ASSURANCE SUMMARY

Within this Annual Performance Report, we publish a range of information about our services and performance, including how we're performing against the commitments we made in our 2020-25 Business Plan. This helps to provide our customers and stakeholders with assurance that we're delivering what they've told us they need and want from us.

It's important that we have robust assurance arrangements to make sure this information is accurate, clear, and transparent.

We focus a significant proportion of assurance activity on making sure that the information we publish in our Annual Performance Report is of appropriate quality. We've published a Data Assurance Statement alongside this Annual Performance Report. This details how we decide what level of assurance should be applied to our data (i.e. who should provide the assurance), and whether this has been completed during the year. It also details key findings and, in conclusion, confirms that there were no significant issues to report.

INTRODUCTION

This report summarises our performance against our Outcomes during the regulatory year ending 31 March 2023. This is the third year of us delivering our 2020-25 Business Plan.

Our drive to be the best is supported by six strategic themes: Unrivalled customer experience; affordable and inclusive services; leading in innovation; reliable and resilient services; improving the environment and building successful economies in our regions. Our Outcomes are aligned to these themes and set out what we aim to achieve. They represent what our customers have told us they value in the long-term. They are our commitments, or promises, to our customers.

Our 14 Outcomes were developed with our customers and stakeholders. Everything we do is driven by an Outcome for our customers.

To track performance against our Outcomes we have clear metrics with associated targets – our Performance Commitments (PCs). For delivering better performance in certain measures, we could earn a financial reward. Conversely, poor performance in certain measures could incur a financial penalty. These rewards and penalties are called Outcome Delivery Incentives (ODIs). Some of our performance measures are simply reputational, which means that they do not incur financial penalties or rewards.

This performance report sets out the work that we are doing to deliver our 2020-25 PCs along with our progress towards the longer-term goals which we've set.

The report provides extended commentary for tables 3A to 3I, which is a summary of our performance against our PCs that we must provide for our regulator (Ofwat) every year.

We measure our performance and calculate any penalties or rewards using the methodology in our PR19 Final Determination, along with any subsequent amends set out in the CMA's recent redetermination.

This reporting process is subject to robust assurance, as set out in the Data Assurance Statement. Further information about our performance is available on our website www.nwg.co.uk. For information about how we are performing in comparison to other water and sewerage companies, visit www.discoverwater.co.uk.

OUR ANNUAL PERFORMANCE AT A GLANCE

We show figures in green where we've met our performance against our promise this year, and red where we have not met our performance. Similarly, any applicable rewards are shown in green and penalties in red.

For further details about reasons for performance and our plans for improving, please see the detailed section for each PC later in this document.

MEASURE OF SUCCESS	COMMON / BESPOKE	OUR PROMISE FOR 2022/23	OUR PERFORMANCE			
			2020/21 ACHIEVED	2021/22 ACHIEVED	2022/23 ACHIEVED	REWARD / PENALTY (£)
Ofwat's Customer Measure of Experience (C-MeX)	C	-	85.76 (3rd)	84.46 (2nd)	83.74 (1st)	Circa £3.4m
Response time to written complaints	B	2 days	7.1 days	9.97 days	7.93 days	Reputational only
Ofwat's Developer Services Measure of Experience (D-MeX)	C	-	86.94 (7th)	88.56 (5th)	89.85(6th)	Circa £0.580m
Customers' perception of trust (independent survey)	B	8.8	8.8	8.7	8.5	Reputational only
NWL independent value for money survey	B	8.3	8.3	8.2	8.2	Reputational only
Percentage of households in water poverty	B	9.42%	10.38%	9.61%	15.27%	Reputational only
Awareness of additional financial support	B	65%	41%	38%	41.5%	Reputational only
Satisfaction of customers who receive additional financial support	B	8.7	9.3	9.2	9.2	Reputational only
Awareness of additional non-financial support	B	52%	50%	45.0%	45.3%	Reputational only
Satisfaction of customers who receive additional non-financial support	B	8.7	8.7	8.7	8.5	Reputational only
Priority services for customers in vulnerable circumstances – Reach/ Actual contact/ Attempted contact	C	8.8% / 35% / 90%	2.3% / 57.3% / 40%	3.5% / 40.2% / 93.4%	8.8% / 44% / 90.3%	Reputational only
British Standards Institute Award for Inclusive Services	B	Maintain	Maintained	Maintained	Maintained	Reputational only
Voids	B	4.30%	3.74%	3.53%	3.39%	£1.33m
Gap sites	B	89.7%	67.5%	64.3%	59.1%	Reputational only
Risk of severe restrictions in a drought (% of customers)	C	0%	0%	0%	0%	Reputational only
Per Capita Consumption (PCC) (litres/person/day 3 year average)	C	2.9%	3.8% increase to 156.3 litres	4.7% increase to 157.7 litres	5.6% increase to 159.1 litres	Ofwat to review in 2024/25
Unplanned outages at Water Treatment Works	C	4.36%	5.69%	4.57%	3.51%	Penalty only measure/no reward available

Interruptions to supply between one and three hours (mm:ss)	B	95.0%	n/a	87.9%	124.2%	-£2.7m
Water supply interruptions greater than three hours (mm:ss)	C	5 mins 45 secs	4 mins 4 sec	5 mins 51 sec	8 minutes 17 seconds	-£2.611m
Interruptions to supply greater than 12 hours (properties)	B	450	143	917	448	£0.007m
Leakage (ESW)* (MLD 3-year average)	C	7.2% reduction to 60.5M:D	0.5% reduction to 64.9MLD	3.2% reduction to 63.1 MLD	7.5% reduction to 60.3 MLD	£0.031m [we are not claiming this]
Leakage (NW)* (MLD 3-year average)	C	6% reduction to 126.7MLD	1% increase to 136.2 MLD	0.1% reduction to 134.7 MLD	3.7% reduction to 129.8 MLD	£-0.543m
Visible Leak repair time (average days)	B	6.0	9.7	6.7	7.1	-£0.471m
Mains repairs (per 1,000km main)	C	132.4	127.0	110.9	154.9	-£1.863m
Abstraction Incentive Mechanism (AIM)	B	n/a	n/a	n/a	n/a	n/a
Water quality compliance (CRI)**	C	0	7.11	6.36	7.62	-£8.531m
Event Risk Index (ERI)**	B	152.940	197.592	289.699	166.907	-£0.28m
Discoloured water contacts (per 10,000 population)**	B	8.98	8.22	8.42	7.85	£0.992m
Taste and smell contacts (per 10,000 population)**	B	2.05	1.75	1.89	1.75	£0.263m
Internal sewer flooding (per 10,000 connections)	C	1.58	1.89	1.84	1.21	£0.934m
Repeat sewer flooding	B	42	25	23	20	£1.211m
External sewer flooding	B	3,009	3,862	3,454	3,018	-£0.56m
Risk of sewer flooding in a storm	C	27.30%	16.11%	16.11%	16.11%	Reputational only
Sewer blockages	B	11,164	12,023	11,991	10,949	£0.168m
Sewer collapses (per 1,000km of sewers)	C	9.43	9.82	8.71	9.29	Penalty only measure/no reward available
Treatment works discharge compliance**	C	100%	99.51%	98.03%	98.52%	-£0.287m
Bathing water compliance (no. Of sites achieving good or excellent)**	B	97.06%	n/a	97.06% (33 of 34 sites including 1 exemption)	97.06% (33 of 34 sites including 1 exemption)	-
Pollution incidents (per 10,000km of sewers) **	C	23.00	14.61	22.98 per 10,000km (69)	19.98 per 10,000km (60)	£0.9m

Water Industry National Environment Programme (WINEP)	B	460	0	347	447*	Reputational only until end period
Delivery of WINEP requirements	B	Met	Met	Met	Met	Reputational only
Water environment improvements	B	10km	30.2 km	34.6km	33.1km	£0.177m
Greenhouse gas emissions (tCO2e reduction from 2019/20 baseline)	B	6,771	15,235	46,492	23,445	£7.183m
Bioresources	B	100%	100%	100%	100%	Reputational only

** The change of number of deliverables has been signed off with the Environment Agency so we consider this as on track*

We're pleased to have achieved or beaten 25 out of our 43 PCs in 2022/23.

Although our overall performance was strong and we are number one in the industry on customer service, we were disappointed to fall short on water quality and interruptions to supply. We have clear action plans underway to raise these areas of overall operational performance to the same level as our customer service performance.

The table above shows we earned rewards for eleven of these achievements, excluding the final confirmation of C-MEX and D-MEX rewards. However, we are not claiming the reward for leakage in ESW. Of the remaining 11 commitments we achieved, nine were reputational only and two were penalty only.

We accrued penalties for not meeting nine of our PCs this year and did not achieve eight of our reputational only PCs While there have been some setbacks this year regarding progress towards our longer-term ambitious goals, we acknowledge areas where we fell short of our intended goals and have clear performance improvement plans in place.

Headlines include:

- We are absolutely delighted to have achieved our ambition of being the top company for C-MeX in 2022/23, the industry-wide measure that provides a holistic comparison of companies' customer satisfaction and experience performance. The reflects our long-standing commitment to delivering unrivalled customer experience.
- Our action plan to improve performance for customers in vulnerable circumstances has been a success thanks to an innovative approach to partner working and data sharing. In 2022 we increased the number of customers on our PSR (Priority Services) register by over 73k households, putting us on track to deliver against the most ambitious and toughest target for this measure in the industry.
- Our internal sewer flooding performance has improved by over 30% compared with the performance we reported last year, with our success resulting from the continuing maturity of our sewer flooding tactical plan we started in 2019. We are delighted to have achieved our target.
- We have achieved our leakage target in ESW, but acknowledge we have more to do in NW.
- In keeping with our commitment to our communities we have maintained our ambitious local spending goal of spending 60p in every £1 locally.
- The cost-of-living crisis has pushed more people into water poverty and as a result, we haven't hit our ambitious target in this area. We are disappointed with this result as although we are helping more people

and have further enhanced our focus on increasing awareness of the support available, we are still short of our aim here. We will continue to innovate in this area to make sure we positively face into new challenges that the wider socio-economic landscape poses and will also continue to work with partners and stakeholders to share key messages across all available channels to make sure maximum exposure and reach.

- We're disappointed to not hit our high standards in water quality (despite scoring highly in our customer facing measures around taste and odour and discoloration). We are committed to achieving industry-leading levels of CRI and are delivering our long-term plans to reach this, as well as working closely with the DWI and will continue to prioritise our efforts around water treatment where CRI risk is highest.
- Our overall performance on interruptions to supply has been impacted by extreme temperatures coupled with freeze thaws, doubling the number of repair jobs doubled from what we forecasted. Careful management of our network made sure we were able to meet demand across our operating areas but good performance in the longer term will be dependent on investment to make our assets more resilient to these events.
- We remain committed to our ambition to have the best rivers and beaches in the country and have updated our Vision for Coasts and Rivers. We continue to beat our PC for Pollution Incidents and achieve our PC for Bathing Water Quality. We are disappointed to miss our target again for Treatment Works Discharge Compliance. To get back on track in 2023/24, a tactical plan to improve performance is currently in development and will aim to see us reach over 99% compliance.
- We're also pleased to have again beaten our target (by a factor of almost four) for delivering Water Environment Improvements.
- Our performance overall has created a net penalty of -£3.918m excluding C-MeX and D-MeX performance rewards. Taking C-MeX (+£3.361m) and D-MeX (+£0.580) into account, the estimated final reward is +£0.023.

In addition to the commitments outlined in the table above, we have PCs to make sure we deliver additional investments for customers by 2025 including: Smart metering, Lead Pipe Replacement, Delivery of our water and wastewater resilience programmes, Howdon Sewage Treatment Works Expansion, Cyber Resilience and Drainage & Wastewater Management Plans (DWMPs).

We encountered some setbacks during the Covid-19 pandemic, with some of the investment schemes starting later than originally planned. In addition, global supply chain issues, manufacturing problems and component shortages have also delayed our smart metering programme and limited access to customer's homes during Covid also hampered the lead project. Despite these challenges we remain fully committed to delivering these schemes for our customers on time and are working hard to achieve this.

We estimate that completion of our smart metering programme may fall slightly short of target by March 2025 but as a minimum we'll make sure the programme is delivered in full in Suffolk, a water stressed area. We are on track with delivery against our wastewater resilience programme, our resilience investment at Howdon and Cyber Resilience and published our DWMP on 31 May 2023.

OUR 2022/23 PERFORMANCE IN DETAIL

Some of the measures are ‘common’ across the water industry and some are ‘bespoke’ to us. This is flagged next to each measure.

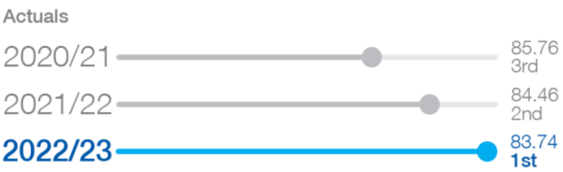
THEME ONE: UNRIVALLED CUSTOMER EXPERIENCE

OUTCOME 1: our customers tell us we provide excellent customer service and resolve issues quickly

AMBITIOUS GOAL: Deliver world class customer service

- Ofwat’s Customer Measure of Experience (C-MeX) – common
- Response time to written complaints – bespoke
- Ofwat’s Developer Services Measure of Experience (D-MeX) – common

Customer Measure of Experience (C-MeX) position - PR19NES_COM01



We are absolutely delighted to have achieved first place – beating our ambition of being in the top two companies for C-MeX, the industry-wide measure that provides a holistic comparison of companies’ customer satisfaction (CSS) and customer experience (CES) performance.

This is an industry comparative measure, defined by Ofwat. As such, the ranking position is more relevant to report on as opposed to the absolute score.

The table below shows our industry ranking for CSS, CES and overall C-MeX across the year.

Table 1

	CSS	CES	OVERALL C-MEX
Q1	3rd	7th	7th
Q2	3rd	2nd	1st
Q3	2nd	4th	3rd
Q4	2nd	2nd	1st
OVERALL	3rd	3rd	1st

We are passionate about engaging with our customers to understand how they want us to deliver world class customer service. Our focus remains on getting things right first time, fast time, every time. We know our customers really value this and we always work hard to achieve it.

After a difficult start to 2022/23, our 3,038 employees pulled together across the business to turn performance around and deliver a fantastic overall result for the year through relentless hard work and a real obsession with customer service – this is reflected in our 2022 Great Place to Work scores. Over 2,500 of our people took part and 70% said that NWG is a great place to work.

We know that to be unrivalled and to be recognised by our customers as top performers, we need to look at the interactions and engagements we have every day, as well as the cumulative impact of these and the way our customers see us overall, or through time.

To improve CSS scores, our focus has been on improving customers' experiences when they do get in touch. We have focused on communication at all stages of our customers' journeys as we know keeping them informed and being open and transparent is critical to satisfaction and positive experiences. We've improved how and when we communicate, as well as the channels we choose to share messages.

Being proactive, choosing the right time to get in touch and the right messages to share means we can share positive updates and information in a timely way that helps customers understand and feel in control. We've had positive feedback about our enhanced approach here.

In the small number of cases where complaints are received, we take a 'phone first' approach and talk with our customers before following up in writing if we need to. This makes sure we fully understand their concerns and that they are satisfied with our proposed resolution. We have put in place robust cross-functional processes to make sure complaints are resolved to customers' satisfaction as swiftly and consistently as possible. This includes a series of regular review meetings with our customer, water, wastewater, and billing teams.

In relation to CES, we continue to promote the great work we do through our Just Add Water integrated marketing campaign and have ramped up visibility of this in our local communities, promoting the ways in which we can offer help with bills to our customers who are struggling to pay. We've offered at least five contact channels throughout the year, and at least three of them were digital.

We've also looked at overall journeys and experiences, where our brand is positioned and how we can be the best version of ourselves in local communities, for example where our brand is very visible. This is from briefing our teams on considerate parking, driving and on-street working, to how we help our customers, engage with them and consistently act as positive role models in the areas where we work and live.

Examples of our channels include voice, automated interactive voice response (IVR), email, webform, website, app, social media, and messaging.

We can earn a reward for high performance if we meet each of the following three criteria:

- We are one of the top three performers by C-MeX.
- We are at, or above, a cross-sector threshold of customer satisfaction performance based on the all-sector upper quartile (ASUQ) of the UK Customer Satisfaction Index (UKCSI).
- We have lower than the industry average number of household complaints (per 10,000 connections).

We await Ofwat's confirmation on the level of our C-MeX reward factoring in the three criteria above but expect this to be approximately £3.4m.

Response time to written complaints (days) - PR19NES_BES03

We have not achieved our target but have made an improvement on the previous year's performance.

Our customers told us that the speed with which we respond to complaints was more important to them than minimising incidents. This is a bespoke PC.

This measure uses CCW's definition of a written complaint, which covers complaints via post, email, web, or fax that are responded to within the reporting year. We're committed to responding to a minimum of 90% of written complaints within one working day. To reflect that commitment, while also maintaining appropriate focus on complex complaints which cannot be responded to within one day, we set our PC to two working days for 2020-25. This has proven to be an extremely stretching target.

We failed to achieve our target, in part because only substantive and full responses are included in the figure. Most complaints we receive are complex and require in-depth investigations and/or further work to resolve the issue. If we were to include holding responses the current response time is around 4.77 days.

Our response time to wastewater complaints is poorer than that of water and billing complaints because these issues are largely more complex and take longer to fully investigate and resolve. This applies mainly to sewer flooding investigations.

While we are disappointed to not achieve our target, we are confident that we are ultimately working with our customers to resolve issues to their satisfaction. Customers give good feedback in terms of how we resolve their issues, and they are complimentary when they do speak to us. They also tell us that if we keep them informed, they are happy for resolution to take that little bit longer to achieve the best outcome.

Just 3.33% of complaints were escalated to the second stage of our complaint process, with more than 96% resolved without the need for an independent review.

We are working hard to not only reduce the number of complaints that we receive but also to put in place robust processes which will allow us to improve response times.

Examples of feedback from our customers:

"They were very, very prompt in responding and the engineer that came was considerate and understood. They checked with me first. They knocked on the door they came very, very quickly, they explained everything to me, they came to check with me again when they were finished. It felt like they cared."

"The gentleman I spoke to was very clear in what was needed and before I was asking the questions, he was giving additional information, so I didn't need to ask any other questions. He was very proactive. The gentleman was very professional, very caring and understood the situation as I described it."

"Not only for speed of response, but actually the people that came along were very helpful. They were meticulous and communicated very well. They just do it (get on with it). They explained it and offered advice. I was very impressed. Overall, very helpful people to be dealing with."

"They're always very helpful and the website is really easy to use, and they send me a reminder when my payment is due every month, which is great for me as I'm a disabled pensioner. "

"I was so upset as my dad had recently passed away. The woman on the phone was so kind she said take a minute and I will speak to you as I sobbing on the phone [sic] - she was amazing not like [redacted] who after one hour I couldn't get through. I rang you and got told I was in a queue of one to two mins and that was correct - I cannot express my appreciation how I was treated by your staff - she was so helpful and kind and really seemed to care about my feelings."

Developer Experience (D-MeX) position - PR19NES_COM02

This is a financial **common PC** for developer customers looking at a range of Water UK metrics, as well as feedback from customers.

We finished in 6th place and have improved our score from the previous year with an overall score of 89.85, which is above average. We scored a qualitative score of 81.32 and a quantitative score of 98.38. We expect to receive a reward of approximately £0.58M from a potential reward of £1.3M once Ofwat has finalised figures.

To make sure we check our performance against the selected Water UK metrics is an accurate reflection of our underlying performance in the reporting year, first stage validation is carried out by data providers and then assured by our Customer Experience Manager (D-MeX). Validation also includes referring selected performance data to our Developer Services Regulation & Compliance Manager. In addition, there is periodic audit of performance from our Internal Audit team.

Our customer satisfaction performance remains strong where we have remained in the top quartile throughout the year. However, our ability to deliver new service connections consistently on time has been hampered by a number of weather events as resource has been diverted elsewhere, resulting in performance against some Water UK metrics decreasing.

Our customer satisfaction performance remains strong as we finished fourth. However, our ability to deliver new service connections consistently on time has been hampered by a number of weather events as resource was diverted elsewhere, resulting in performance against some Water UK metrics decreasing. This activity has now transferred to a different team where resource is ringfenced and for the last two months we have achieved 100% performance.

Some customers will have been left disappointed when we have needed to cancel their new service connection however this is a relatively small portion of our customer base. Our customer satisfaction scores remain high at 81.32%. We are confident the changes mentioned above will have a further positive impact on customer satisfaction next year.

Overall, our performance for 2022/23 has improved compared to the previous year, however our industry position has dropped one place as others have improved. There was a marginal difference of 0.05 between us and fifth place, and just 0.14 difference between us and fourth place. We are focusing our efforts on making sure we continue to improve the customer experience through enhancing our online offering, introducing site visits and Account Managers while revieing processes to reduce timescales.

Case study: Leading in customer service

We strive to be at the heart of our communities, and that means understanding our customers and what they need us to deliver. Our work on customer experience and satisfaction has meant we have been recognised, not just in our industry through the C-MeX measure, but also alongside the UK's biggest brands in the KPMG Customer Experience Excellence report for 2022.

The report, by the KPMG Nunwood Excellence Centre, puts us in the top 100 companies in the country for customer experience.

We were delighted that we not only ranked highly but were one of just two utility providers on the list and included as an exemplar case study in the report.

The analysis is carried out based on six key pillars of customer service - Integrity, Personalisation, Empathy, Time and Effort, Expectations and Resolution.

These six pillars support our customer function and are widely understood across the business - even our internal processes use them as a guide, ensuring that crucial values like integrity and empathy are at the heart of everything we do.

OUTCOME 2: Our customers say they feel informed about the services we provide and the importance of water

AMBITIOUS GOAL: Give every single customer the opportunity to have a strong voice and engage with us, with at least 2m customers participating by 2025

Whenever we have big decisions to make about changes to the services we provide and how we provide with them, we seek our customers' views to make sure we provide services in the way that they want us to.

We also ask them about the channels we use and how they want to engage with us – both operationally and on a wider level more generally. As we've been developing our updated Unrivalled Customer Experience strategy we've enshrined this philosophy in our Six Customer Priorities – which have been directly informed by customer research and feedback and reflect the things our customers tell us matter most to them. Our Six Customer Priorities, along with our Six Pillars of Customer Experience Excellence form the backbone of our Unrivalled Customer Experience Strategy, and inform priorities, behaviours and thinking right across our business.

Getting the right balance between investing in our services, environmental improvements and the affordability of customer bills is not easy, and it's important to us that the views of our customers inform those decisions.

Since 2020 we have been engaging with customers on our developing PR24 Business Plan and we reflect what our customers have asked for, and told us is important to them, in our plans for 2025-30.

Drinking water quality is consistently rated amongst our customers' highest priorities. Through Water Resource Management Plans and Drainage and Wastewater Management Plan, we've spoken to them about water scarcity and drought in Essex and Suffolk, and the need for long-term improvements to river and bathing water quality in the North East.

Customers also tell us that they expect us to work with others in our regions to solve difficult problems – our strong track record in this area demonstrates this is something we do well. In creating our Business Plan, we have done this more than ever before, working closely with organisations, like the Rivers Trust, to understand the best ways to tackle environmental challenges.

We see growing support for these environmental improvements, but customers don't always want to pay for these through their bills - especially when times are already tough. Some customers support the idea of phasing investments over a longer time so that they're more affordable.

With some of the poorest communities in the country on our doorstep, it's not surprising that our customers tell us is that it's important to keep our services as affordable as possible and build in plans to make sure financial support is available for those customers who need it. We take that responsibility very seriously.

Correctly understanding customers' needs and diverse circumstances is critical to providing an unrivalled customer service and our 4.5 million customers sometimes need a bit of extra help in other ways too.

We are pleased that our customers value our services and have rated us as the top water company at providing customer service in Ofwat's independent CMEX survey and as the most trusted water company in CCW's Water Matters report. We listen to our customers daily through operational contact that we have with them, including how we use Rant & Rave to understand how we can continually improve the services that we provide based on customers' feedback.

We'll continue to work hard to make sure that we are delivering customer expectations and are investing in a new system with many enhanced features to enable this in even more ways in the future.

Case Study: Save water, save energy

Waters worth saving - the summer campaign including no customers off supply during months of drought.

The cost-of-living crisis has changed how we approach communicating with our customers about issues around affordability. We've reached out more broadly to make sure more a wider audience knows about the financial support that's available and have the information they need.

Our messages fell into three categories - general affordability messaging covering everything we can do to help; individual messaging about specific tariffs and support options; and messaging about saving water and energy.

That mix of messaging was important, linking a broader audience to information about financial support alongside the opportunity to share help and advice on saving water and saving energy, to save money on bills.

With simple tips focusing on the use of household appliances like kettles, dishwashers and washing machines, alongside messages on water usage through baths and showers, we were able to explain how simple changes can help save money on bills.

Some of the numbers involved are stark - 27% of the water used in the home is in the shower; 5,500 litres of water can be wasted in a year by a single dripping tap; 200 litres of water is wasted every day by a leaky loo.

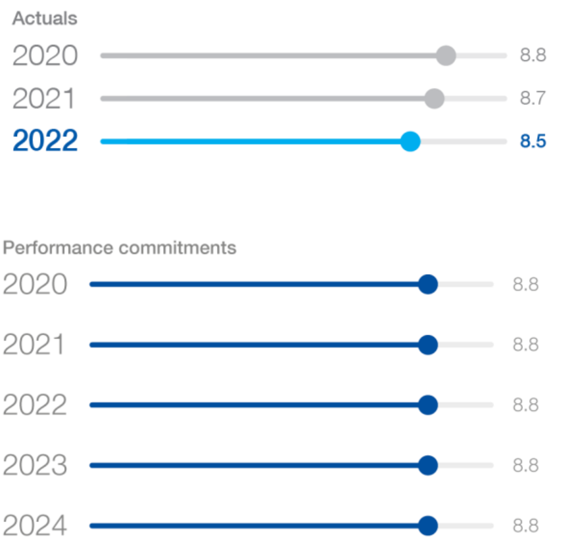
We've seen clear results, with a 192% increase in web traffic to our financial support pages, and 5,000 views of our new Save Water, Save Energy page.

An additional 19,000 people are receiving financial support from us, taking the total to 107,000, and general awareness of those financial support programmes increased from 37% to 46% in our latest customer survey.

OUTCOME 3: our customers say we are a company they trust

- Customers' perception of trust (independent survey) – bespoke

Customers' perception of trust (independent survey) - PR19NES_BES05



We have not achieved our target.

This measure is the mean customer satisfaction score out of ten from our independent customer tracking survey. The survey engages 500 household customers each quarter. There are no financial incentives associated with this bespoke measure which is reputational only.

Our trust score has dropped to 8.5, which is below our PC.

It is critical to us that our customers trust us and are confident in the services we provide. We strive to always communicate openly and transparently with customers. We want our customers to know us as a valued and respected partner in the communities we serve and demonstrate this by informing them of the services we provide, increasing brand awareness, sharing our good news stories with the media and on social media.

Examples of how we communicate with our customers include:

Bin the Wipe - our campaign that helps customers understand why flushing wipes can cause pollution and flooding has been adopted nationally by the whole water industry (through Water UK) and was launched in Parliament in October 2022.

Water usage communications - we know our customers responded well to last year's communications about using water wisely, weather-related challenges (including the drought), and water demand situation. This, along with the dedication of teams throughout the business, helped us to avoid a temporary usage ban in our ESW operating area.

We carried out a brand impact study in September last year following the campaign and found that:

- 61% of respondents have changed behaviour to reduce water use (benchmark 49.8%).
- More than half were happy that we were offering tips for water efficiency.
- Appeal for restraint emails had an excellent open rate of over 70%.
- Research carried out in September 2022 told us that nine out of ten respondents consciously adopt behaviours at home to save water.
- There was a significant increase of water stress awareness (10% to 32%).

In CCW's Water Matters report 2022/23, our trust score in our ESW operating area (7.27) remains lower than our NW score but is still above the average (7.21) across all water companies in England. The percentage of customers who agree the company cares about service given to customers stands at 65%, above the WoC average of 59%.

In our NW region, our trust score increased to 7.81, joint top and significantly higher than average for all water and sewerage companies. As with our ESW area the percentage of customers who agree the company cares about service given to customers is at an all-time low (68%), just above the WaSC average of 66%.

While we are disappointed to have dipped slightly compared to our usually high performance, we continue to focus on how we engage with our customers to develop our relationship with them. We recently brought our Commercial colleagues (including appointed leisure and fisheries business and meter field services) into the Customer team; this helps us to begin to better influence experiences to reflect brand. We can also make sure all our customers, no matter which service they are using, be it water supply or visiting one of our leisure sites, will consistently receive the unrivalled customer service they expect and which has seen us top of C-MeX for 2022/23.

Case study: Working with trusted partners to support customers

We take our place in the community seriously. That means behaving ethically, sustainably and with social responsibility.

We focus our financial contributions and our volunteering on key areas including ending water poverty, water for health and protecting the water environment.

During 2022/23, this saw us support a range of initiatives across our operating areas, including Christmas appeals - Mission Christmas in Tyneside, Kids Inspire in Essex and Winter Wonderland in Suffolk - and our Powered by Water schools programme, which delivers messages on the importance of hydration to children.

We have also continued our Water Ranger citizen science programme, working with community groups including Marske Litter Action, Seascapes beach volunteers, Tees Valley Wildlife Trust, Saltburn Countryside Volunteers and the Friends of the Lower Path.

Overall, we reinvest at least 1% of our profits every year into community activities - a longstanding commitment we are proud to have met again in 2022/23.

OUTCOME 4: Our finances are sound, stable and achieve a fair balance between customers and investors.

There are no PCs under this Outcome. However, we stated in our Business Plan that we will deliver the following for

customers under this Outcome:

- We are financially resilient
- We have a financially stable Business Plan
- We plan our finances for the long-term
- We raise debt finance efficiently
- We share any efficiencies we make with customers
- We pay our taxes
- We procure responsibly

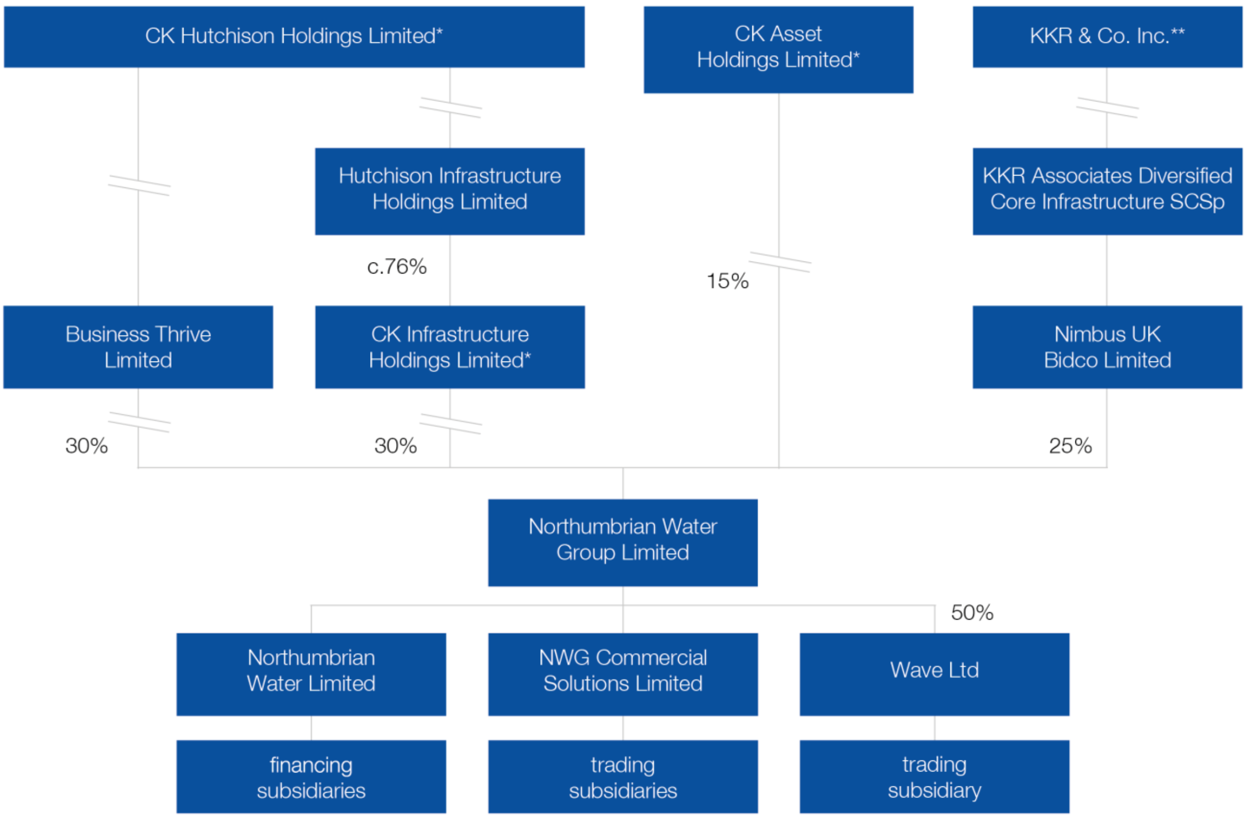
We have longer term plans to allow us to operate our business sustainably and we manage our finances in the same way to make sure they remain sound and stable. It is important that we maintain a fair balance between our customers and investors to keep our customers' bills as low as possible while continuing to attract capital to finance the investment necessary to maintain and enhance our assets. Striking this balance shows our customers they can have trust and confidence in us.

Financial structure and resilience

Like most companies, we are financed through a combination of money from shareholders, profits, and borrowings. NWL is a wholly owned subsidiary of Northumbrian Water Group Limited (NWGL), which is majority owned by companies in the CK Hutchison Holdings Limited (CKHH) group, based in Hong Kong, who are responsible and committed investors in our business. In December 2022, KKR & Co Inc indirectly acquired a 25% shareholding in NWGL on a pro-rata basis from NWGL's three other shareholders.

The chart below shows the summarised corporate structure of the Group. The chart shows the principal intermediate holding companies, which are wholly owned unless otherwise shown. On 21 May 2021, CK Asset Holdings Limited acquired the Li Ka Shing Foundation's indirect interest in NWGL.

CKHH, CK Infrastructure Holdings Limited (CKI), Business Thrive Limited, KKR & Co. Inc, KKR Associates Diversified Core Infrastructure SCS, Nimbus UK Bidco and NWGL have provided Ultimate Controller undertakings to the Company in accordance with the provisions of the Company's Instrument of Appointment (Licence).



*Companies listed on The Stock Exchange of Hong Kong Limited
**Companies listed on the New York Stock Exchange

Like any investors, our shareholders expect a return on the money they invested but these dividends are not guaranteed. We make sure the dividends are set at a level which is sustainable, remains consistent with our investment grade credit ratings and allows us to continuously put money back into the business.

The Board places a strong focus on maintaining long term financial resilience. We maintain a detailed five-year plan that is updated regularly and formally reviewed by the Board annually. This is underpinned by a commitment to maintaining an investment grade credit rating, as assessed by independent credit rating agencies Moody's and Standard & Poor's.

The Board has assessed our long-term financial resilience over a seven-year period, to the end of the next price review cycle. This included stress testing our plan against our most significant risks and uncertainties. The Board's assessment is set out in our long-term viability statement on page 130 of this report.

Customer bills

The revenue that we can charge to customers is set every five years through the regulatory price review process. We aim to keep our bills as low as possible while still allowing us to invest in sustainable and resilient services and allowing a reasonable return to our investors.

We operate and finance our business as efficiently as we can on behalf of our customers, and we share any efficiencies we make with them. We aim to be at the frontier of cost efficiency which benefits all water and sewerage customers in England because it drives the efficiency frontier, against which all companies are benchmarked, to new levels.

Customers benefit from sharing the cost efficiencies we make in each price review period. Any outperformance of the totex regulatory allowance for 2020-25 will be shared with customers, resulting in lower future bills. They also benefit from efficiencies in financing costs so that customers do not pay any more than is necessary.

Long term borrowings

We invest over £1M each business day in maintaining and enhancing our asset base to improve services for our customers, and this level of investment is expected to increase sharply over the next few years. The scale of this capital expenditure means that we need to supplement the money we receive each year from our customers through their bills by borrowing additional money from banks and debt markets. Our investment grade credit ratings and strong capital structure help us to obtain financing at competitive interest rates, making sure our financing costs stay as efficient as possible for customers.

We borrow in a controlled and sustainable manner to make sure we can deliver substantial investment in our asset base without this leading to a significant increase in customer bills. We spread the financing cost of our investment and manage the borrowings over long periods of time, sometimes more than forty years. This means both current and future customers help to pay for the investment. As a result, bills are more stable and sustainable for customers, with a fair balance of contributions between generations.

Our borrowings range from short-term working capital financing to long term bonds, typically listed on the UK Stock Exchange. Our borrowings reflect a mix of fixed rate, providing stable interest costs, and inflation-linked, to match our inflation linked revenues. By maintaining a well-balanced debt portfolio, we can better manage risks of adverse movements in inflation and interest rates and minimise volatility on customer bills.

Our total borrowings at 31 March 2023 amounted to £3.48bn, as reported in Table 1E of this report.

Shareholder returns

Our shareholders have provided the necessary capital and financial backing required to run the business and in return they receive a dividend return on the capital they have invested. During the year, the Board approved an updated dividend policy which recognises the company's commitments to various stakeholders including customers, employees, specifically pension scheme obligations, and investors, and with due attention to maintaining appropriate levels of financial resilience within the company.

The updated policy aligns dividends more closely to performance for customers and the environment, as well as taking into account longer term financial resilience and the underlying risk profile of the business. This means that the returns our shareholders receive are not guaranteed from one year to the next and we paid no dividends in the year 2020/21 as a result of the impact of the PR19 Final Determination and the uncertainty surrounding the CMA redetermination process and the impact of Covid-19. There are many significant risks associated with the business and it is the shareholders rather than our customers who carry the weight of these risks.

We make sure the dividends are set at a level which is sustainable, remains consistent with our investment grade credit ratings and allows us to continuously put money back in the business. Our dividend policy is described on page 177 along with an explanation of how the directors have applied the policy in the year.

Taxes

Both NWL and our parent company, NWGL, are based in the UK and pay corporation tax to the UK Government. We are transparent about our tax arrangements and present our Tax Strategy on page 156 of this report, as well our website. This sets out our responsible approach to tax matters, under the oversight of the Board and its Audit Committees, and our constructive relationship with HMRC.

Our customer bills include an allowance to cover the corporation tax we expect to pay, like other operating costs. This allowance reflects the benefit of tax reliefs that are available to us, such as capital allowances on our investment in our assets, which helps keep customer bills down.

Responsible procurement

Our responsible approach to procurement is described on page 1210-124 of this report.

Case study: Tipping Point – asset life extension tool

A new tool, initially developed at our Innovation Festival 2021, allows us to be more efficient and estimate when replacement is a better option than repair.

Our entire asset base is worth £28bn, and much of it has an expected life span of decades - or even a century. To achieve that, assets need to be properly assessed and maintained, with repairs carried out promptly on those assets which are aging or damaged.

Above Ground Civils Structures - assets often made from reinforced concrete - make up about 15% of our asset base.

As those assets age, it's important to keep track of how rapidly they are deteriorating, and while tools exist to do that, none of them can predict the point at which replacement becomes more cost effective than repair.

We set that challenge to the innovators at our Innovation Festival and working with Wood Group PLC (now part of WSP), we developed our Tipping Point Tool.

The tool allows us to predict when assets will need to be replaced, building resilience and meaning we can focus our investment programme where it's needed most.

Before developing the tool, we needed specialists to visit and make on-site inspections before then extrapolating what was found across our whole asset base.

With the Tipping Point Tool, those predictions are far more accurate and reduce the risk of large-scale asset replacements being required over a short period of time - something that would be expensive, and potentially undeliverable.

Instead, we can plan and focus investment effectively.

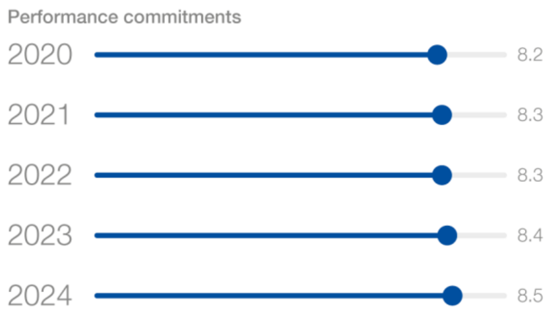
THEME TWO: AFFORDABLE AND INCLUSIVE SERVICES

OUTCOME 5: Our customers say our services are good value for money and we work hard to keep water and wastewater services affordable for all

AMBITIOUS GOAL: Eradicate water poverty in our operating areas by 2030

- NWL independent value for money survey – bespoke
- Percentage of households in water poverty – bespoke
- Awareness of additional financial support – bespoke
- Satisfaction of customers who receive additional financial support – bespoke
- Awareness of additional non-financial support – bespoke
- Satisfaction of customers who receive additional non-financial support – bespoke
- Priority services for customers in vulnerable circumstances – common
- Reach of Priority Services Register – common
- Review of Priority Services Register – common
- British Standards Institute Award for Inclusive Services – bespoke
- Percentage of void household properties – bespoke
- Gap sites – bespoke

NWL independent value for money survey - PR19NES_BES30



We have not achieved our target.

This customer survey is a bespoke measure which is reputational only.

This year the average satisfaction of customers answering whether they think the services we provide represent good value for money remained at 8.2 out of 10 meaning we were just short of our PC. Our 2020 score of 8.3 out of 10 was the highest we've received in the last seven years.

We are pleased to still achieve a high result and continue to promote the value of water through campaigns such as Water's Worth Saving, where we actively promote the installation of a meter and how saving water could save money on household energy bills as well as reduce water usage.

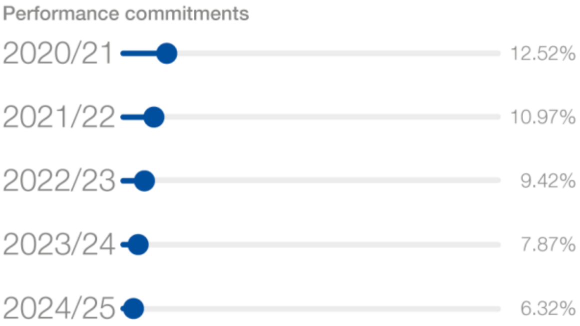
Given the affordability challenges our customers are facing, we're always working hard to keep bills low and affordable, and despite the recent bill increase, our bills (in NW region) are still the lowest water and sewerage bills in England.

We look for ways to support people when they struggle and actively promote early engagement with us. We can offer significant discounts where people qualify and can offer payment breaks and reduced bills. It's also important that we look at new tariffs and new social tariffs to make sure we can support as many people as possible who need our support. This work is ongoing.

In CCW's Water Matters report 2022/23, we were pleased to score 86% (above industry average of 75%) in our NW region for satisfaction with value for money of water services. This is 5% up on last year's score and our highest ever score for this measure. Overall satisfaction with sewerage services has shown a downward trend for the past four years and we have our lowest percentage of satisfied customers here at 82% (just above the industry average). However, the percentage of customers satisfied with value for money of sewerage services is at 83%, which is just below the WaSC top score of 84%. Further, 76% of participants agree charges are fair, a 5% increase on last year and significantly higher than average, which is 64%.

In our ESW region, 79% of customers are satisfied with value for money of water services, a 6% increase on last year and our highest ever score (WoC average is 75%). Also, 73% of participants were satisfied with the value for money of their water charges which was well above the average score of 64%.

Percentage of households in water poverty - PR19NES_BES06



We have not achieved this PC. At the end of 2022, we peaked with over 190,000 customers being positively impacted through bill reductions 2020/21 and support tariffs. We now expect the bill reduction benefit to have all been eroded completely by 2025.

This is a non-financial bespoke measure. We were the first water company to set the ambitious goal to eradicate water poverty in our regions by 2030. Customers in water poverty are paying more than 3% of their net household income (after housing costs) on their water bill.

When we first set our water poverty target, we had an estimated 22% of our customer base in water poverty, equating to 380,000 households. We set out to reduce this number to 140,000 households by 2025, a reduction of 240,000.

One of the major strands of our original plan was a significant bill reduction at the beginning of the current price review which we expected to take around 100,000 customers out of water poverty. We saw a bigger benefit initially form this price reduction and up until this year the net bill reduction alongside our financial support schemes meant we were ahead of our water poverty targets. The past three years have seen a period of significant economic upheaval, with Brexit, the Covid-19 pandemic and the current period of high inflation creating a cost-of-living crisis period, this coupled with increasing water bills, driven by higher inflation and lower real term wage increases have meant that the initial bill reduction has all but eroded away.

As a result of these external factors, we have worked with TransUnion to update our baseline analysis of water poverty in our regions to understand the impact of the cost-of-living crisis and increasing bills on our customers. This has shown that there has been a net baseline reduction from 22% to 20.6% of our customers are currently in water poverty. This baseline reduction reflects the movement of incomes vs changes to bills over the period and demonstrates that most of our bill reduction benefit has now been eroded. If we then overlay our customers on either a capped or reduced bill, we have 15.30% customers in water poverty, which while being behind the original target has meant that so far, the inflationary impacts have been mitigated for our underlying customer base.

We are seeing an increase in customers reaching out for financial support. The cost-of-living crisis is impacting of customers who were previously just about managing. During 2022/23, the number of customers benefitting from either a reduced or capped bill tariff increased by 54% to 104,701.

Within these numbers our company-funded tariff increased by 14% during year, with customers' bills being reduced by a total of £1.35m (to be updated when final figures received).

This is a bespoke measure, however when comparing customers on our affordability schemes, we have identified that we are at the lower end of performance. Funding of support is a challenge, as our customer subsidy is £3 and

£3.75 in North – one of the lowest in the industry. Some other companies are now nearer £20 cross subsidy so have the capacity to expand the offerings to different segments of customers. At our current funding level, we are already over capacity and unable to expand the support that we offer.

Data sharing with DWP (Department for Work and Pensions) has continued to provide the largest opportunity to provide reduced bills for customers. During this year, we have increased the number of customers on WaterSure by 68% and Low-Income Pensioner Discount by 123%, with a large proportion of these customers being identified with no customer effort.

We have successfully set up data sharing agreements with two councils to share customer data using the digital economy act. This allows for councils to extract customer information they have and share with us where they can see that customers may be eligible for a discount. To date this has identified nearly 2,000 customers where we have been able to apply a discount of us to 50%.

To reduce customer effort, we have introduced an eligibility checker on our website which with a few simple questions can direct them to the best financial support for them. This could be an affordable payment arrangement, tariff application or applying for payments to be taken directly from their benefits.

In January 2023, we expanded our use of Policy In Practice, who provide social policy software that helps customers check if they are receiving all of the government benefits they are entitled to. This tool has been enhanced so that it can identify if customers are eligible for a discounted or capped bill or if they would be better off on a water meter. Alongside assessments for our tariffs, the tool also identifies if customers are eligible for both Thames Waters low-income discount and Anglian Water Lite tariffs, again reducing customer effort with customers only needing to apply once to cover both water and sewerage charges. We have seen over 2,500 applications since it was launched.

Providing proof of eligibility for our low-income schemes has previously created a barrier for customer applications as they have needed to send us copies of benefit statements and bank statements. We wanted to assist vulnerable customers by being able to offer them 50% reduced bills for their water usage but to do this, we needed a new method of processing and verifying customer applications. Our data-driven solution which has been developed with TransUnion enables us to check eligibility at the click of a button, streamlining the customer journey and reducing the risks of fraud. This is due to go live in Autumn 2023 and is leading in the water industry.

We are working with industry on how we can deliver a more aligned social tariff approach for customers in the future to help increase awareness of industry help and give customers confidence that those in similar situations across the country can get the help they need.

Despite falling short of our target this year, we are ahead of our original targets for customers on our affordability schemes. Increasing the cross subsidy from customers is key for us to be able to help more customers in the future.

Case study: Sharing data to make accessing support easier

Data sharing is an important tool for us to make sure customers get the support they are eligible for. With agreements in place with DWP, local authorities, housing associations and neighbouring water companies, we're seeing big increases in customers able to access discounted bills and our social tariff.

We know that understanding what support they're eligible for - and even knowing that support exists in the first place - isn't always easy for our customers.

Alongside efforts to improve our communications and make application processes easier, we've also entered into a series of data sharing agreements with key partners to help us proactively identify those in greatest need of support and cut out big parts of our eligibility checking process.

Through a data sharing agreement with the Department of Work and Pensions, we've been able to proactive assess customers for eligibility for WaterSure and our pension credit tariffs.

That work with DWP has helped us increase the number of customers benefiting from WaterSure by 60% and increased fourfold the number of pensioner households receiving a discounted bill.

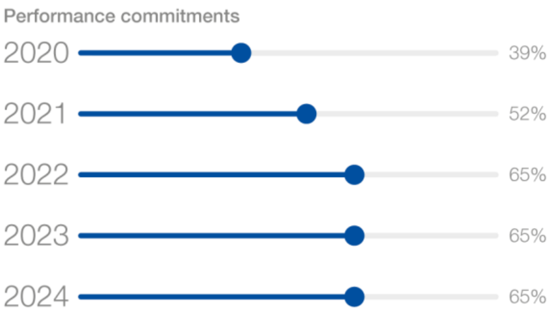
We're working with local authorities, including with Norfolk County Council helping customers in arrears through the government's Household Support Scheme, and with our fellow water company Anglian Water, sharing information on WaterSure eligibility in our shared operating area.

We're also working with Believe and Gentoo - two housing providers - to help customers we do not bill directly.

In total we have around a dozen partners who help us assess eligibility for our social tariff as part of their own financial wellbeing work.

This all works to make accessing support as easy as possible for the customers who need it - and in some cases, they now receive it automatically.

Awareness of additional financial support - PR19NES_BES02a



We have not achieved our target.

This bespoke PC measures customers' awareness of the additional financial support we offer. This includes both discounted bills and writing off customer arrears for eligible customers. We measure awareness in quarterly surveys with customers.

Awareness of additional financial support has increased slightly since last year, however, is lower than our stretching target of 65%. We are very disappointed and surprised with this result, especially due to the focus that we have taken to increase awareness of the support available.

Lower awareness impacts our customers as they are not applying for the support that they are entitled which may mean they miss out on discounts available. We have already put several measures in place this year to mitigate this and expect to see increased awareness moving forward.

At a time when more of our customers find themselves in circumstances where they require financial support, we have clear plans in place to increase awareness of the support we can offer.

We will integrate our financial and non-financial support services and customer records to make sure we can provide a clear and combined service package to customers. Combining these two data sets will enable us to better target and personalise our messages to ensure they are more relevant and have the greatest impact. Hyper-personalisation of our messages will enable us to proactively communicate and offer timely support when it can bring customers the greatest value.

We have also begun rebranding our inclusivity messaging following customer research. This will see our communications evolve from personas we used in developing out Water Without the Worry campaign to more relevant and accessible profiles.

Our smart metering model office has developed an integrated approach where meter installers are specifically trained to give a rounded customer experience at an individual level based on their specific needs. Smart meter installers can talk to people about personal circumstances, including if they are struggling to pay their bills, at the time of installing the meter. This successful approach will now be rolled out across all meter services.

We will continue to work with partners and stakeholders to share key messages across all available channels to make sure maximum exposure and reach.

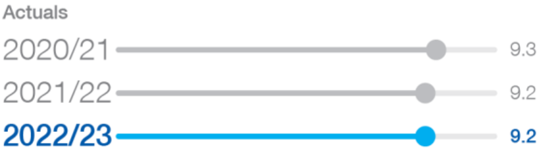
We will work to support customer adoption and education of digital tools and we will offer alternative routes of communication where social media and digital tools are unavailable. This may include having a greater presence in local communities where there are higher levels of digital deprivation.

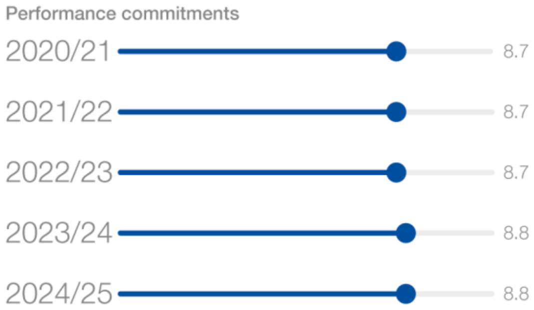
Case Study – Believe Housing Partnership

Following an idea from our 2022 Innovation Festival, we completed an initial six-week trial working with Believe Housing in the North East. Believe is a social housing provider in County Durham with more than 18,000 homes. During the trial, we co-located employees in Believe's offices, also working with the local authority and The Money and Pensions Service (MaPS) to offer a one-stop support service covering water, housing, council tax and money/debt advice. This initiative delivered fantastic customer outcomes in providing rounded support to those in need.

This successful trial led to interest from two more housing associations that operate in our area wanting to carry out similar activities.

Satisfaction of customers who receive additional financial support - PR19NES_BES01a





We have achieved this PC.

This bespoke, reputational only PC is designed to make sure we provide high quality financial support to household customers that are signed up to one of our SupportPLUS tariffs or WaterSure. The score is determined as an annual mean from telephone surveys, during which a total of 1,000 customers who are receiving financial support for either water arrears or ongoing charges are asked to rate their overall satisfaction with the services we provide.

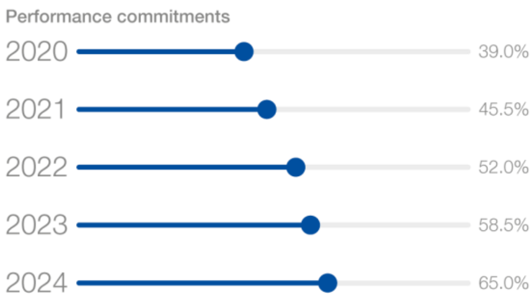
We continued to beat our target of 8.7 with a high score of 9.2.

With the impact of the cost-of-living crisis we are seeing customers reaching out to receive financial support who have never struggled to pay before. To support customers through this we have continually reviewed our approach to raising awareness of financial support available and reducing effort for customer application.

During 2022 we have taken a new approach to applications for our affordability schemes, both with the introduction of a telephone application process for our customers who have found themselves in short term financial hardship, and also the expansion of our partnership with Policy In Practice. They offer an online tool that has been tailored to assess the best tariff for our customer, with the additional benefit of identifying any additional government benefits they may be eligible for.

The scores we receive (via a satisfaction score out of 10), indicate that we are delivering a quality approach to supporting these customers.

Awareness of additional non-financial support - PR19NES_BES02



We have not achieved our target.

This bespoke PC measures customers' awareness of the non-financial services we offer as part of our Priority Services Register. We've achieved 45.3% awareness, which is similar to last year and we recognise we need to do more.

We need to understand customers circumstances to allow us to tailor our service for customers. We have already put several measures in place this year to mitigate this and expect to see increased awareness moving forward.

Using our PSR digital twin dashboard, which details internal and external information about demographics, sign-ups to tariffs and PSR information to help us understand our customers better, we have been able to prioritise which segments to target who may need additional non-financial support. For example, segmenting pensioners, homes with young children and people with health problems. We've created a messaging matrix from this information by identifying their needs rather than using generic messaging.

We've created a suite of digital adverts using these messages promoted online on websites and social media and using keywords targeted on Google. We also continue our outdoor advertising for "Just add Water which supports these messages for customers who are not online.

Going forward we will integrate our annual marketing communication campaigns to better highlight the financial and non-financial services we offer, personalised and tailored to customers unique circumstances. Following customer research, we are rebranding our inclusivity messaging. This will see our communications evolve from personas we used in developing out Water Without the Worry campaign to more relevant and accessible profiles.

We will integrate our financial and non-financial support services and customer records to ensure we can provide a clear and combined service package to customers. Combining these two data sets will enable us to better target and personalise our messages to make them more relevant and have the greatest impact. Hyper-personalisation of our messages will enable us to proactively communicate and offer timely support when it can bring customers the greatest value.

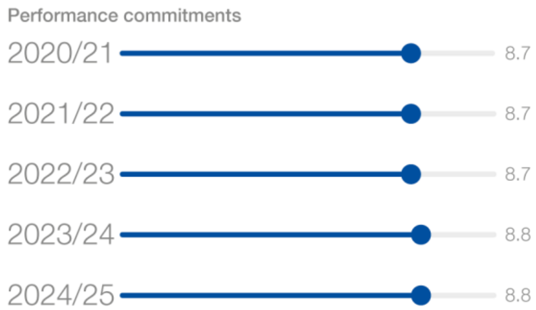
Building on existing data-sharing arrangements with UKPN, we are working with SGN, UK Power Networks, Northern Powergrid, Northern Gas Networks and the Cross Utilities Forum, as well as with other water companies, to identify the best way to share information about those who need extra support. After successfully bidding for funding to Ofwat's Innovation Fund, the "Support for All" project seeks to design and build a hub to host this data, sharing Priority Service Registers between companies. Once this is working regionally, we would like to develop this into a national platform to benefit society.

Our smart metering model office has developed an integrated approach where meter installers are specifically trained to give a rounded customer experience at an individual level based on their specific needs. Smart meter installers can talk to people about personal circumstances at the time of installing the meter. This successful approach will now be rolled out across all meter services.

We will work with partners and stakeholders to share key messages across all available channels to ensure maximum exposure and reach. Going forward in our 2025-30 Business Plan we want to invest more in partnerships and community engagement teams who can integrate into the local communities.

We will work to support customer adoption and education of digital tools and we will offer alternative routes of communication where social media and digital tools are unavailable. This may include having a greater presence in local communities where there are higher levels of digital deprivation.

Satisfaction of customers who receive additional non-financial support - PR19NES_BES01



We have not achieved this PC.

This is a bespoke PC, which is reputational only. An independent market research provider has interviews 1,000 customers to understand their satisfaction with the service they have received.

Over this year, we have seen a slight reduction in the customer satisfaction from customers compared to previous years. We have just missed our PC this year with a score of 8.5 out of 10.

This decrease was most noticeable in the last quarter, where we saw the lowest result of this year with 8.3.

In Q4 of 2022 we asked 250 customers who are on either our Priority Services Register (PSR) to rate their satisfaction and to also tell us why they gave their score. The top reasons were:

- No problems/never had a problem (20%)
- Good/great scheme/idea – beneficial (10%)
- Alert customers regarding issues, works, supply problems, updates (9%)
- Satisfied/happy with them/been good to me (8%)

- Helpful/supportive (7%)
- Reassuring to have/offers what we need (7%)
- The fact they have/will supply bottled water, so never without (6%)
- Good/proactive communication/return calls/frequent etc (4%)
- No supply problems (4%)
- Good service/customer service (4%)
- Poor/no communication (3%)
- It's excellent/brilliant etc (3%)

We saw that 9% of customers are referencing supply issues as the focus on their scoring. This year we have seen a significant increase in the number of customers registered on our PSR and this has impacted the level of service we have been able to provide for supply interruptions with delivery of bottled water so anticipate this has impacted on customer satisfaction.

Delivering unrivalled customer experience means making sure all our customers receive leading service, especially when they are in vulnerable circumstances, so we were very disappointed with this result. They rely on the reassurance of a constant supply of water. We have completed a benchmarking exercise to understand the level of service offered by other water companies and how we compare. We will carry out a full review of our approach to interruptions to supply and delivery of bottled water to help us to manage customer expectations. In the meantime, the sharp increase in demand due to the higher number of customers who are on our PSR means we will focus on prioritising bottled water delivery to those customers with medical dependency. This approach is in line with other companies.

We are also reviewing our approach to notifications of the services that we offer and the messaging to communicate when work is being completed in the area that might impact customers. For example, potential access/noise disturbance or if work needs to be carried out to maintain a constant supply. A benchmarking piece using information from company websites and direct contact with colleagues at other water companies to compare how bottled water requests are managed during an incident has been carried out. Some companies outsource bottled water delivery and have a longer timescale than we currently do (three hours). This is currently industry leading and the increase in our PSR numbers means will be unable to sustain this level of service with current resource, so we need to look at our alternatives.

Priority services for customers in vulnerable circumstances - PR19NES_COM16

This is a common, reputational PC. Its purpose is to ensure a minimum standard across all companies for the number of households registered on the Priority Service Register (PSR) and for PSR data checking.

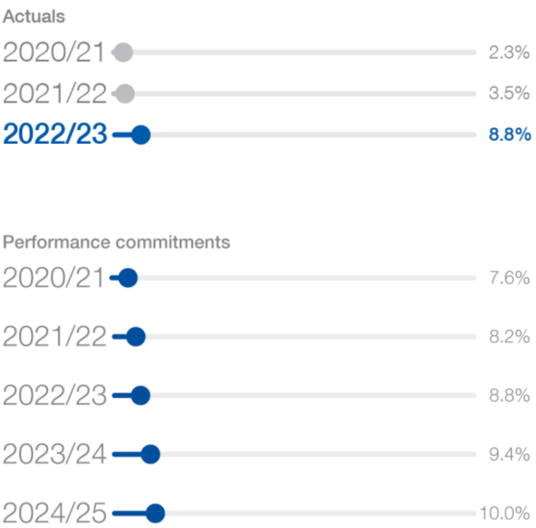
The PC has the following criteria:

- The PSR reach: percentage of households that the company supplies with water and/or wastewater services that are registered on the company's PSR.

- Actual contact: percentage of distinct households on the PSR that the company has contacted over a two-year period.
- Attempted contact: percentage of distinct households on the PSR that the company has attempted to contact over a two-year period.

To achieve compliance with this PC, all the reach, attempted contact and actual contact targets must be achieved.

Reach of Priority Services Register (PSR)



We have achieved this PC.

More than 8.8% (174,573) of our households are now registered. PSR membership figures include: communication (15,350), support with mobility and access restrictions (123,690), support with supply interruption (162,035), support with security (22,369) and support with other needs (49,195).

During 2022 we have increased the number of customers on our PSR register by over 73k households. This has been achieved through several initiatives:

* Expansion of data sharing with UK Power Networks, the company that owns and maintains the electricity cables and lines in our Essex and Suffolk operating areas. Due to the success of this partnership this approach is now being extended to Northern Power Grid and Electricity Northwest, who maintain services in our North East operating region.

* Using internal data to understand customers who are not registered on our PSR, however have circumstances that identify they would require tailored support. This could be age or where they have shared that they are claiming mobility benefits.

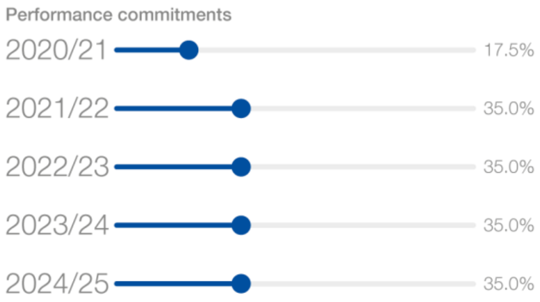
* Partnership approach with councils and housing associations to register households where they know the occupiers are vulnerable. For these households, the housing associations are being registered so that they have advance notification of interruption to supply and can provide additional support.

We have used data analysis of inbound calls to highlight any missed opportunities of PSR registration. Since moving to our latest telephony platform, our telephone calls are also transcribed now, as well as recorded, and through data mining we have been able to extract where key words or phrases have been used. Further analysis is to be completed to understand if this can be expanded.

After successfully bidding for funding to Ofwat's Innovation Fund, the "Support for All" project seeks to design and build a hub to host this data, sharing Priority Service Registers between companies. Once this is working regionally, we would like to develop this into a national platform to benefit society. This will be a leading approach and is being built collaboratively with other water companies.

Review of Priority Services Register

Actual contact



Attempted contact

We have achieved this PC.

This common PC verifies customers' needs where they have been on the PSR for more than two years and we have beaten both our actual and attempted contact targets again this year.

We are validating our PSR register in four main ways:

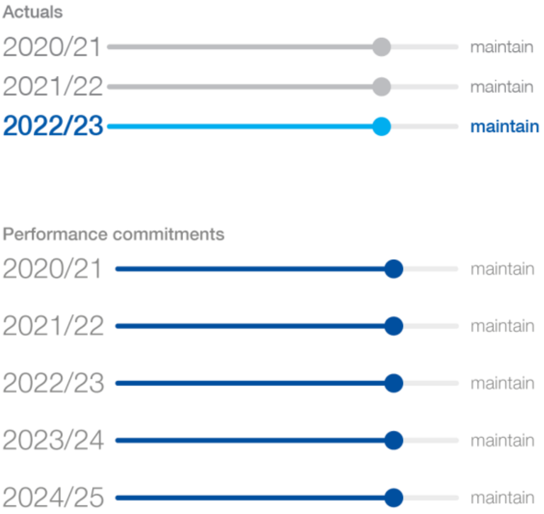
- When a customer who is already on our PSR contacts us the Customer Advisor receives an alert to verify their needs.
- As part of our proactive contact with customers, when we are completing planned work, we review their PSR information.
- We are making outbound contacts to customers who were due to have their information validated who hadn't contacted us directly. This has involved sending letters in with customers' bills and sending texts and emails where we have received our highest response rate.
- We are working with large housing associations to update social housing properties for tenants living in accommodation reserved for anyone needing support.

With the number of customers registered on our PSR increasing year on year, this year we had over 45k properties where we had customers on the PSR register for over two years.

Following the success of last years' text and email campaigns, we used these as our primary contact approach.

We need to keep our PSR up to date to make sure customers receive the tailored service they require. The letters that we send also give a summary of all the services that are available so that customers are more aware of the offerings and can sign up for additional services.

British Standards Institute Award for Inclusive Services - PR19NES_BES23



We have achieved this PC. This is a bespoke PC and is reputational only. Our target is to maintain this award consistently.

This PC is designed to make sure we provide a fair, flexible service which can be used by all customers equally, regardless of their health, age, or personal circumstances.

We’re proud to have maintained BS 19477: Inclusive Service Verification (BSI) this year. The standard assesses whether inclusive services are fully accessible to all customers and that companies have the right business processes in place.

This is the third year that we have completed the audit which reviews our approach to vulnerability and makes sure our services are inclusive for all - whatever a customer’s circumstances. During the assessments BSI reviewed our documented policies and procedures, then held sessions with our teams to see how we operate the policies and procedures on a day-to-day basis. The sessions include contact with all areas of the business, including call listening, a complaints review, our communications planning, how we manage events, debt recovery and affordability.

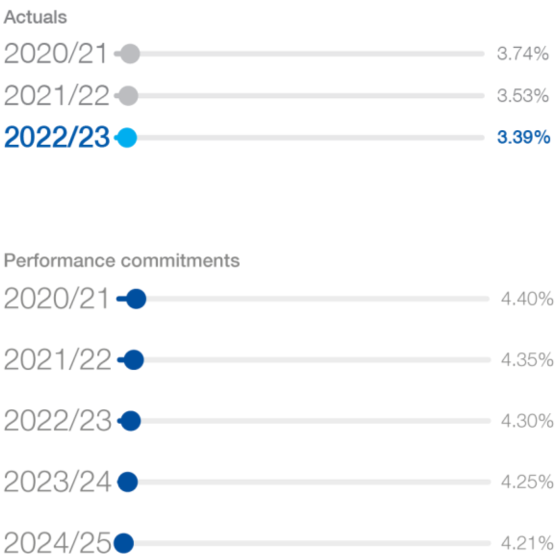
With BSI alongside core expectations on delivery of service, they continually focus on seeing how we are continuing to develop our offering and learning from customer feedback. We’ve put an action plan in place to cover the non-conformity and opportunities highlighted, which will be completed this year to further enhance our website offering and how we improve the identification of triggers and risk factors that highlight our customers may be in vulnerable circumstances.

We’re always reviewing the services we offer, and this expert assessment provides regular external scrutiny of our processes. This was our best result of the three audits that have been completed, where there were no nonconformities identified.

Following the audit last year, we have successfully delivered action plans to improve the accessibility of our website and also a detailed plan on training on identifying customers in vulnerable circumstances and how we can have open conversations to identify how best we can offer support.

BSI recognises our performance in delivering tailored services for all our customers. This standard is widely achieved in the water industry, and the standard is transitioning to a Kitemark which is an enhanced audit. This has been completed by a pilot group of water and energy companies and we will shortly be completing a gap analysis for our transition in 2023.

Percentage of void household properties - PR19NES_BES08



We have achieved this PC.

This is a bespoke measure, with financial incentives for both under and outperformance. We've beaten our PC again and earned a financial reward of £1.33m.

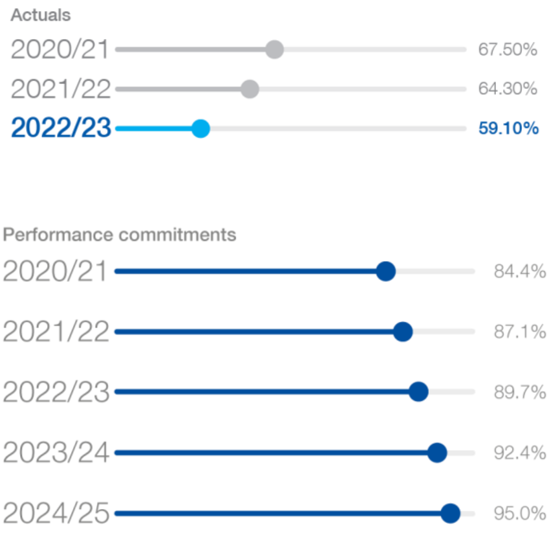
Billing all customers in a timely and accurate way has always been our focus. Reducing the number of void properties, which are occupied but not billed, leads to fairer charges between customers and lower bills for customers already being billed.

We continue to work closely with TransUnion to improve the way that we proactively use credit reference data to identify properties that are occupied yet not billed. We have continued to refine the selection criteria to improve the quality of accounts raised via our established auto billing process. This alongside automation to deal with returned post and steps in the trace process, has enabled an efficient empty property routine to be embedded.

Our work continues with local authorities and housing associations to share information on their tenants who may not yet have registered for billing, these arrangements help tenants by reducing back billing and creating debt and offer us an opportunity to actively offer information on our support tariffs.

In future years we expect to see improvements by using data from our smart metering programme to help identify when customers have moved out without telling us, or where they have started to use a supply that we have registered as empty. We are working to establish an efficient process for those properties where consumption is identified by our new smart meter data management system, and we don't have a registered bill payer.

Gap sites - PR19NES_BES07



We have not achieved this PC.

The aim of our bespoke gap site PC is to reduce the risk of sites or properties receiving water and/or wastewater services that are unknown to us and are not being billed. Reducing the number of these gap sites, which are also potentially occupied, leads to fairer charges between customers and lower bills for customers already paying.

This PC is reputational only so no penalty or reward is payable.

The number of gap sites cannot be measured directly as they are unknown to us. The only way to assess gap site risk is by comparing our property data with third party information to look for differences.

Over the last 12 months our focus has been on data quality and eligibility of premises within the market following an updated eligibility guidance produced by Ofwat in August 2022. In 2021/22 we completed 1,179 deregistrations; this increased to 1,632 in 2022/23 which demonstrates that we concentrated on removing ineligible premises. The number of gap sites we completed in 2021/22 was 409 and this remained roughly the same with 424 gap sites completed in 2022/23.

MOSL (the market operator for the non-household water retail market in England) monitors and compares wholesalers across a range of measures including the number of Government's Valuation Office Agency (VOA) references and unique property reference number (UPRN) each wholesaler updates in the central market register. This metric is purely looking at fields populated and does not measure the level of accuracy. We are currently placed third for completeness of VOA score and eleventh for completeness of UPRN score.

The NHH market 2023-26 Business Plan focuses on the need to remove friction in the market and one of the strategic goals is to make sure wholesalers create and maintain accurate and reliable address data in the central market register. A data quality trial (Project TIDE) was completed by MOSL in April 2022 which showed that 16% of records in the market could not be matched to address referenced sources and a focus group to look at the findings has been created. No agreed methodology of what good data quality should be measured against has been released and, following the Data Cleanse Consultation document published in November 2022, we decided to pause any work we were doing to match against VOA business listings or update UPRN references through Address Based Premium until an agreed guidance has been released.

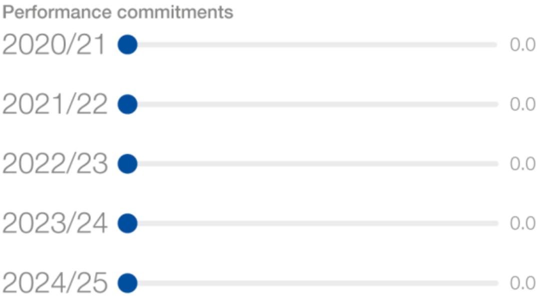
To improve our performance, we are working together with a third party who will match our data against address reference sources to produce a list of gap sites that we can work through and add to our source systems and the non-household (NHH) market. We have recruited additional resource to manage this project.

THEME THREE: RELIABLE AND RESILIENT SERVICES

OUTCOME 6: We are resilient and provide clean drinking water and effective sewerage services; now, and for future generations.

- Risk of severe restrictions in a drought – common
- Delivery of our smart water metering enhancement programme – bespoke
- Delivery of our water resilience enhanced programme – bespoke
- Delivery of our lead enhancement programme – bespoke
- Delivery of our wastewater resilience enhanced programme – bespoke
- Delivery of our Howdon Sewage Treatment Works enhancement – bespoke
- Delivery of our cyber resilience enhancement programme – bespoke
- Delivery of our Drainage and Wastewater Management Plan – bespoke

Risk of severe restrictions in a drought - PR19NES_COM10

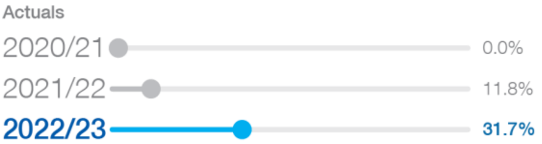


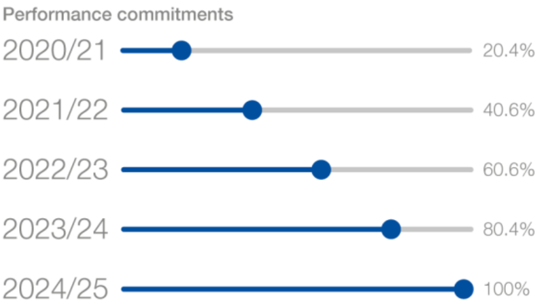
We have achieved this PC.

The overall metric is the percentage of our population at risk of experiencing severe restrictions in a 1-in-200-year drought, on average, over 25 years. The metric tracks water company implementation of Our PR19 Water Resources Management Plan (WRMP19) supply and demand schemes, to reduce the percentage of customers at risk of severe drought restrictions.

We report a result of 0% of population at risk for this metric, meeting our PC, reflecting progress to date with implementing our WRMP19 schemes. Our WRMP19 demonstrated that we have 100% security of supply in all our Water Resource Zones (WRZs), across the full 40-year planning horizon. We also demonstrated resilience to a drought with a return period of 1 in 200 years in all our WRZs, with 0% of our customers at risk from severe supply restrictions. We therefore did not need to promote any supply schemes in our WRMP19 but did include demand management schemes.

Delivery of our smart water metering enhancement programme - PR19NES_BES26





We have not achieved our target.

This is a bespoke, penalty-only PC to incentivise delivery and return funding to customers if we fail to deliver the programme in full by March 2025. The PC specifically measures the percentage delivered of our smart metering programme. This is limited to installing new smart meters and replacing existing basic meters with smart meters. Only household meters can be counted for this PC, and only once for each household in the five-year period. New developer installs are also discounted from the PC despite advanced metering infrastructure (AMI) meters being installed at these properties.

We're committed to rolling out smart water meters for our customers with the overall goal that all our meters will be fully smart by 2035. While we made significant progress with the smart programme in the last year, we did not achieve our PC for 2022/23.

In the last year we expanded our Arqiva Flexnet smart communications coverage with the addition of two further communication towers on the Thames border. This provides smart coverage to a total of 78,000 properties in Essex. To date we have connected 26,000 meters to this network capable of providing hourly read data. This rich source of data allows us to better understand water usage in our supply area and identify leakage and wastage, enabling us to work with customers to help reduce demand and leakage.

By the end of March 2023, the install volumes for 2022/23 were 29,050 new installs, 17,360 replacements and 13,351 at new builds or bulk meter to individual replacements, which do not count towards the PC. While this is an increase of 49% on 2021/22 installs performance, 2022/23 performance fell short of target.

We continue to offer our customers free water meter installations, on request. Our current strategy is to install only smart meters in our Whole Area Metering (WAM), selective and replacement programmes. These meters can be read in automated meter reading (AMR) or advanced metering infrastructure (AMI) modes where a Smart Communications Network (SCN) is installed. All meters installed are therefore classified as 'smart' based on the definition outlined by Ofwat. However, until a meter is covered by an SCN it remains in AMR mode and is read manually. There will be instances when a customer may request a 'basic' meter, either through the non-household retail market (meter to be logged) or for our domestic customers for religious grounds.

We are still recovering from the slow start that we made to our metering programmes in 2020/21 which was largely driven by the effects of Covid-19. We continued to see supply chain constraints driven by Covid-19 and the war in Ukraine which has capped our install opportunity in the last year and led to a four-month slowdown in install volumes to mitigate wider meter stock shortages. This is an industry wide issue that also affected smart installation activity at other water companies. The delays to our smart metering programme also impacted our water efficiency drive and PCC (per capita consumption) targets.

We delayed procurement of additional meter variants and the enduring smart communications network until we had signals from the market that the supply chain was improving. A further factor constraining deployment was the ongoing issues recruiting additional resource in a challenging labour market, particularly in our Essex and Suffolk operating regions.

In response to these challenges and supply chain constraints, we are prioritising efforts on installation of NEW smart meters (I.e. installations where no meter previously existed) as opposed to upgrading existing analogue meters to smart, as it is the new installations where we see the greater benefit in terms of managing consumption and leakage.

Customer demand for meters (optants) started to recover to pre-pandemic levels and by the end of the year we were seeing a 67% increase in demand versus February 2020. To drive further demand for meter installation we ran a series of targeted marketing campaigns aimed at customers in Essex and Suffolk who would benefit the most from moving to a metered bill. However, we did not meet our total optant demand target for the year (23,000) as we achieved a total install volume of 16,580. Total customer demand (optant applications) was 25,141.

We have now installed 26,500 WAM meters at previously un-measured properties. We engage with these customers on a six-monthly basis to share their measured water consumption and to give them data that allows them to compare it to their un-measured charges. Overall, we are seeing that 26% of customers could benefit from switching to a metered bill with an average saving of £192 per year. A further 36% of customers could make a financial saving by adopting small behaviour changes.

Through hourly smart data we were able to identify 2,077 properties with customer side leakage. Many of these were at previously un-measured properties where it would have otherwise been unlikely that we would have identified a leak. 39% of these leaks have been resolved but persuading customers to take action for low volume leaks still proves challenging.

We remain focused on maximising programme delivery by March 2025 however there remains the risk of a shortfall. As a minimum we expect to deliver our PR19 expectations in full in our Suffolk operating area. Within Suffolk, in the water stressed Hartismere supply zone, we are aiming to achieve close to 100% meter penetation, for household and non-household customers, by March 2025 – exceeding the commitments we set out at PR19.

Following on from 2022/23, we are forecasting a further increase in installations of 32% for 2023/24 and 38% for 2024/25, a trajectory which continues to ramp up our delivery capability in advance of targeting a larger metering programme in 2025-30.

Case study: Empowering employees as ‘Smart Cookies’

To continue to deliver unrivalled customer experience and foster a deeper understanding of smart meter technology, we are introducing a unique initiative called "Smart Cookies" later this year. The initiative will empower non-senior managers across the organisation to become knowledgeable ambassadors capable of addressing customer inquiries related to smart meters.

Smart Cookies will carry out comprehensive training to enable them to provide valuable insights into customer energy consumption patterns. This data-driven approach ensures that they can offer personalised advice and recommendations tailored to individual needs, at the same time as carrying out their original roles.

By providing employees with real-time data and personalised information, we aim to enhance customer service and facilitate meaningful conversations that address individual and household energy needs.

Knowledge sharing across the business will promote the exchange of ideas, best practices, and lessons learned, further enhancing their expertise in the smart meter domain.

Delivery of our water resilience enhancement programme - PR19NES_BES24

In our 2020-2025 Business Plan we committed to making some improvements to strengthen the resilience, effectiveness, and efficiency of our water services through several major investment schemes.

These schemes in the North East include a new underground reservoir at Springwell (Gateshead) and upgrades to our Tees pipeline along with a new Abberton to Hanningfield pipeline in the Essex area – all of which aim to improve the resilience of our water supply network.

These schemes are due for completion by or before March 2025 and we encountered some setbacks during the Covid-19 pandemic, with some schemes starting later than originally planned. In addition, global supply chain issues, manufacturing problems and component shortages have also meant some of the schemes were delayed in starting. Funding for one scheme was granted a year later than normal when we appealed Ofwat's funding settlement for 2020-25 to the Competition and Markets Authority (CMA).

Despite these challenges we remain fully committed to delivering these schemes for our customers on time and are working hard to achieve this.

In some instances, there may be a small amount of follow-on activity (and expenditure) remaining to be done after this date, for example landscaping work at the site. Also, in some instances the enhancement scheme may be incorporated within broader investment being made on an asset, and part of that broader investment may continue after the deadline for the enhancement element.

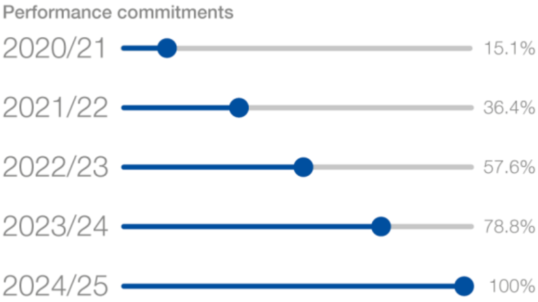
A summary of these schemes, target and forecast completion dates, and a description of the criteria for successful completion, is described in the table below.

SCHEME	TARGET DATE	FORECAST COMPLETION DATE	SUMMARY OF ACTIVITY	DESCRIPTION OF SUBSTANTIAL COMPLETION
Mosswood: We're installing new treatment capability at this treatment works in County Durham to manage cryptospridium risk from raw water sources (such as rainwater and ground water).	Dec 22 (for DWI elements)	**Dec 23**	The Drinking Water Inspectorate (DWI) elements of the scheme were delivered on time by December 2022. The remaining elements, including a power supply upgrade, are scheduled to complete by end 2023.	As Agreed with the Drinking Water Inspectorate
Layer: We're installing new treatment processes to address raw water quality changes in Abberton Reservoir.	Mar 25	**Jan 25**	We're in the final stages of negotiating costs and estimate we will award the contract for this work by September 2023.	As Agreed with the Drinking Water Inspectorate. Read more here.

Springwell service reservoir: We're constructing a new storage reservoir in Gateshead together with 1.5km of pipe to connect the reservoir to our network.	Mar 25	**Jun 25**	In Jan 23 we awarded the contract for the work, and we forecast completion 3 months late in June 2025 with 5% (£2.4m) of investment forecast to be after the deadline. This is due to a reservoir size review extending procurement and planning timelines. The contractor is on site and construction is about to begin. There has been a series of successful customer events.	Protect 52,147 from a loss of supply event by providing additional storage sufficient to last 24 hours in the event of a supply failure. Read more here.
Tees pipeline: We're upgrading the network in the North East.	Mar 25	**Mar 25**	The contract was awarded in August 2022. Construction work has started on the shafts for the Tees Crossing and we forecast completion date for some elements of the work (those linked to our enhancement commitment) by March 25. Planning permission is granted. The schedule remains tight, and some elements cannot be accelerated by increasing workforce (for example, river crossings).	70,404 to benefit from a second source of supply should an issue arise with their primary source. Read more here.
Abberton pipeline: We're upgrading the network in Essex (also known as Layer to Langford pipeline)	Mar 25	**Mar 25**	We're in the final stages of negotiating costs and estimate we will award contracts for the pipe procurement in September 2023.	370,000 customers to benefit from increased resilience of raw water supplies. Read more here.
Barsham: We're installing a borehole water treatment plant and a new treated water service reservoir.	Mar 25	**Mar 25**	The contract was awarded in 2022. Construction is underway excavating for the main structures. We forecast completion by March 2025.	36,614 customers to benefit from increased resilience equivalent to 24 hours of storage.

Note we remain in discussions with Ofwat to clarify the terms of the ODI attached to this programme.

Delivery of our lead enhancement programme - PR19NES_BES25



We have not achieved this PC.

This programme is supported by a bespoke, penalty-only PC to incentivise delivery and return funding to customers if we fail to deliver the programme in full by March 2025, alongside a reputational target in each year of the period against which we can track progress. While we are currently behind our original output profile, we are gaining momentum and remain confident that we will deliver 100% of the programme by March 2025.

As a priority, we want to protect those most vulnerable to the effects of lead in drinking water by focusing on lead pipe replacement in buildings frequented by children (our Vulnerable Groups scheme, which covers educational and community establishments).

In addition to protecting our most vulnerable communities, our lead pipe replacement programme prioritises areas at the highest risk to lead exposure (our Hot Spots scheme). These schemes are spread across our three geographic supply areas so all our customers will benefit.

To mitigate the risk of lead in drinking water at the tap, the programme goes beyond replacing our lead communication pipe by replacing the customer's lead supply pipe to inside their homes. The success of replacement therefore requires individual property owner's consent.

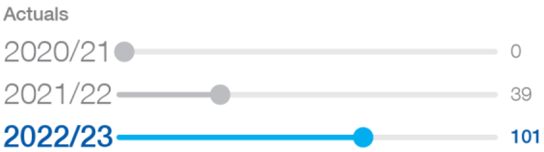
Our lead replacement programme was impacted throughout 2020/21 by Covid-19. There were two main aspects of this. Firstly, the impact that the government restrictions had on our supply chain and their people being furloughed as a result, and secondly, our customers were reluctant to engage in a programme that involved work inside their homes.

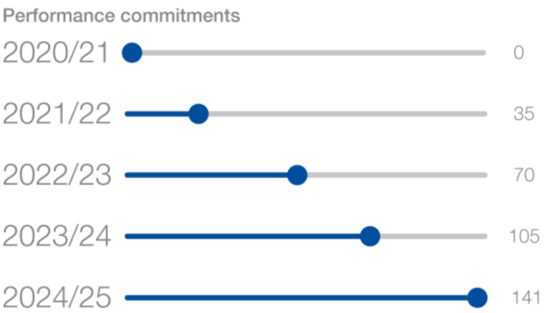
In 2020, we focused on developing the delivery strategy, including setting up the commercial framework, and on implementing the model for delivering and reporting on our lead enhancement commitments. Although, some lead replacement was able to start in 2021, concerns for the pandemic were still high and it wasn't until January 2022 that we were able to move forward with more assurance within the circumstances.

Throughout 2022/23 we have refined our customer engagement strategy and exceeded our annual target outputs for hot spots. In addition, we have secured business authorisation for our delivery approach which will see us deliver a greater proportion of hot spot and rural candidates whilst extending the project covering vulnerable customers to also include registered nurseries, child minders and foster carers, as well as schools.

We are still confident we can deliver 100% of our programme by 2025, by flexing the ratio of scheme types (hotspots v rural supplies v vulnerable customers) to reflect levels of customer take-up/stakeholder appetite. We are increasing resources to accelerate delivery in years four and five to support this.

Delivery of our wastewater resilience enhancement programme - PR19NES_BES27





We have achieved this PC.

This bespoke, penalty-only PC tracks the delivery of our wastewater resilience enhancement programme. This programme is focused on delivering investment at 141 sewage treatment works (STW) and sewage pumping stations (SPS) to increase the resilience of our wastewater network and mitigate disruption to customers.

We achieved 101 outputs by the end of 2022/23 (ahead of the target), which included a variety of measures to mitigate flood risk or improve recovery in the event of power failure thereby increasing the resilience of our network.

All site visits have been completed and a project to deliver the remaining 40 outputs is now underway.

Delivery of our Howdon sewage treatment works (STW) enhancement - PR19NES_BES29

We have achieved this PC so far but are flagging it as at risk.

Howdon is one of our largest STWs. This scheme seeks to improve the sites resilience. Two key assets have been identified as requiring a major upgrade: the primary effluent pumping station (PEPS), the Southbank pumping station (SBPS) and both associated rising mains. These assets are required to deliver flows up to 6,200l/s.

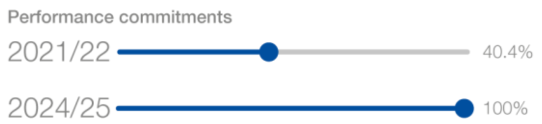
This programme is supported by a bespoke, penalty-only PC to incentivise delivery and return funding to customers if we fail to deliver the scheme by March 2025. As planned, we are now in the final stage of contractual negotiations with our lead delivery partner, Mott MacDonald Bentley. There are some complex programme challenges which are currently being worked through so that we can successfully deliver the resilience elements within this agreed timescale. However, due to some complex construction constraints required to ensure that STW performance is maintained, there is a risk that delivery may be delayed by up to twelve months.

To mitigate some of this risk, as much of the works as possible are being accelerated. Demolition of derelict assets on the recently purchased land adjacent to the existing Howdon site is ongoing so that the working area is fully prepared for Mott MacDonald Bentley, so that they commence the upgrade as quickly as possible.

The project has two further objectives to increase the permitted dry weather flow, due to population growth in the next 25-30 years (estimated to be 150,000 population equivalent) and additional measures to better manage storm flows. We know our customers want us to greatly reduce spillages and we are setting new aspirational targets for our approach to rives and coasts in our long-term vision for 2050.

The delivery of this additional scope is aligned to the programme for the expected population growth, which is continually under review so that business risk is fully managed. Delivery of this growth scope is phased to complete by early 2027.

Delivery of our cyber resilience enhancement programme - PR19NES_BES28



We are on target to achieve this PC at the end of March 2025.

This programme aims to deliver multiple benefits by enhancing our cyber security function and supporting compliance with the Network and Information Systems (NIS) Directive. We have already delivered most of this PC and are on target to deliver by the end of the 2020-25 Business Plan.

We continue to monitor the increasing cyber threat landscape to make sure our investment is focused on the areas that have the greatest impact on protecting our business. Keeping up with advancements in technological and human cyber capability, particularly from well-funded foreign state threat actors is both challenging and expensive so we make sure our investments are allocated to the most appropriate areas. We continue to develop our policies and are making sure all our people are equipped with the relevant knowledge and continue to develop through Exercises, Training and Phishing simulation tests.

Several cyber security procurements and enhancement have been made during 2022/23 and others are currently in flight. Our Cyber Security team is increasing in size to support new enhancements and we continue to develop our security posture in line with our continuous improvement strategy to make sure technical and human advances by malicious threat actors are mitigated appropriately and keep our people and our customers safe.

Delivery of our Drainage and Wastewater Management Plan (DWMP) - PR19NES_BES32

We have achieved this PC.

In 2023 for the first time, we are due to publish a Drainage & Wastewater Management Plan (DWMP) to identify how we will extend, improve, and maintain a robust and resilient drainage and wastewater system considering the pressures of climate change, population growth and growing customer expectations.

Publication of our DWMP is supported by a bespoke, reputational-only PC, performance against which will be assessed in 2023.

As planned our draft DWMP was published in June 2022 and included an adaption to our plan to meet the new requirements of the Storm Overflow Discharge Reduction Programme set out by Defra. Following publishing we have carried out further work on:

- The development our plan following publication of the Defra Storm Overflow Discharge Reduction Programme (SODRP), including prioritisation of Storm Overflow (SO) interventions.
- Further development and submission of our Water Industry national Environment Programme (WINEP) programme to the Environment Agency (EA).
- Our DWMP structure and narrative following feedback from Defra, Ofwat, EA, and CCW.

We published our DWMP on 31 May and this will include all aspects of our wastewater plan that will be included in our 2025-30 Business Plan in October 2023.

Our DWMP will be based on the information available from regulators on 6 April 2023. Any further changes after this date may require us to republish at a later date. We are planning for this scenario as many aspects of our plan are yet to be agreed, for example, WINEP, and we are still awaiting guidance for some aspects (nutrient neutrality).

Smart networks are an evolving concept which presents an opportunity to further strengthen our DWMP - we have commissioned a study with Hydro Digital to understand the possibilities available. This work will be used in particular to inform our planned interventions for our storm overflow programme, identifying any opportunities to outperform our plan. Any updates will be provided in our re-published plan in October 2023.

Case study: Durham WINEP - Building a network for the future

Each decision we make when investing in our network has one eye on needs now and the other on future requirements. In County Durham we've invested £8m to be ready for the future.

When we invest in our network, we always think about flexibility and resilience for the future. In County Durham, we've invested £8 million in 6km of new pipeline and two new pumping stations at Plawsworth and Pity Me.

The new pipeline has been designed with the accommodation of the transfer of future flows in mind, allowing for expected population growth in the area.

These projects, which are just the first part of a larger upgrade plan which will run until 2030, will streamline sewerage treatment processes, add an extra layer of protection to Blackdene Burn, and futureproof the network around these sites.

OUTCOME 7: We always provide a reliable supply of water

AMBITIOUS GOAL: Have the lowest levels of leakage in the country in our water-stressed Essex & Suffolk Water (ESW) operating area

AMBITIOUS GOAL: Have a per capita consumption (PCC) for water use of 118 litres per person per day by 2040

- Per Capita Consumption (PCC) – common
- Unplanned outages – common
- Interruptions to supply between one and three hours – bespoke
- Interruptions to supply greater than three hours – common
- Interruptions to supply greater than 12 hours – bespoke
- Leakage (ESW) – common
- Leakage (NW) – common
- Visible leak repair time – bespoke
- Mains repairs (was bursts) – common
- Abstraction Incentive Mechanism (AIM) – bespoke

Per Capita Consumption (PCC) - PR19NES_COM07

We have not achieved this PC.

This is a common PC. Our PC requires us to deliver a reduction of 5.6% by 2025 against a baseline of 150.6 l/hd/d in 2019/20, on a three-year rolling average basis. The PCC for 2022/23 is 153.8 l/hd/d. This represents a 2.5% reduction from 2021/22 and a 7.2% reduction since 2020/21. However, PCC is still 2.1% higher than the target base year. The 3-year average PCC, which is 159.1 l/hd/d in 2022/23, is inflated by the two heavily Covid-impacted years.

Reported	Base Year	2020/21	2021/22	2022/23
Annual average PCC NWG		165.7	157.8	153.8
3-year average PCC NWG	150.6	156.3	157.7	159.1

There are four core components that impact Per Capita Consumption (PCC); water efficiency interventions, water metering (including smart metering), Government-led supportive policy change and external impacts such as Covid-19 and extreme weather. There is a clear link between the performance of our metering programme and the impact on PCC. The metering delivery outcome can be found on page 54.

Impact of Covid-19 on PCC

In September 2021, we wrote to Ofwat setting out a comprehensive evidence base of the sustained and material impact on PCC (7.3% increase in 2020/21). The estimated impact for 2022/23 is 1.6% increase potentially due to Covid; hybrid working and sustained behavioural changes account for this increase. These impacts are not unique to Northumbrian Water and have been realised nationally.

Our comprehensive annual report on the Impact of Covid-19 on Demand summarises the outputs from data analysis, customer research and collaborative industry-wide analysis. The report is available on request by emailing demand.planning@eswater.co.uk. We have also worked with the Met Office to produce annual modelling of water demand across our regions which disaggregates the impact of Covid-19 on demand from other variables that influence PCC. Our modelling work with the Met Office is showing that:

- PCC for our operating areas overall increased by 5% between April and August 2020. 63% of this was due to an increase in base demand from normal, and 37% was due to an increase in weather dependent demand from normal.
- Between April and September 2021, demand in all three of our operating regions stayed higher than 2019 (pre-Covid). The weather dependent demand seen from people being at home using water in the garden has significantly reduced in this period compared to 2020/21. From this it can be concluded that Covid-19 alone impacted total demand and PCC over and above the effects of the weather. The first half of 2021/22 saw the continuation of lockdowns and meant we continued to review, adapt, and develop innovative approaches and a new water efficiency strategy for the remainder of the 2020-25 period. As we moved into the second half of the year (2022) and out of Covid-related restrictions, we were able to initiate various new approaches alongside returning to our tried and tested interventions.
- Between April and September 2022, both the relationship between weather and demand and the non-weather dependent (base) demand in all three of our operating regions returned to pre-Covid levels. Weather dependent demand contributed significantly to the total usage over the periods of warmer and drier weather, with conditions not previously captured in demand data, either before or during the Covid period.

We have also completed several phases of customer research to understand changes in work location, staycations, water use now and in the future. Customers told us working from home has increased and that they were using more or much more water. Frequent surveys have allowed us to understand the trends and changes over time.

The below graph shows the average PCC for 2022/23 is in-line with the last reported pre-Covid dry year PCC of 2018/19, indicating the impact of Covid has been lower on PCC this year but the dry weather experienced in 2022 is causing an increase.

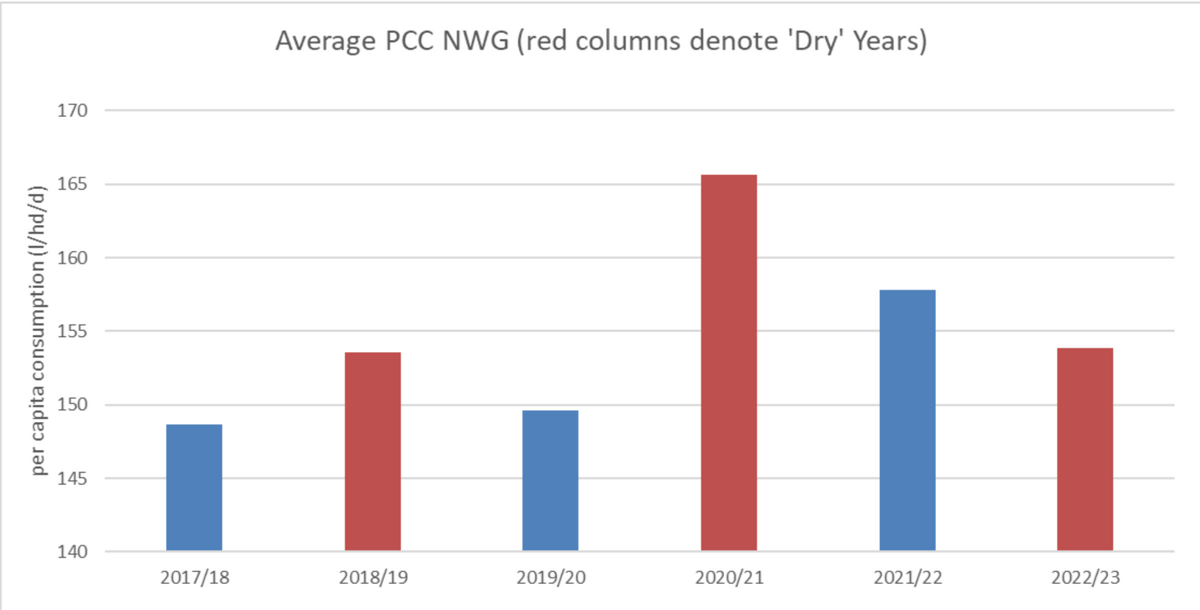


Figure 1: Average PCC for recent reporting years. Red columns denote 'dry' weather years.

2022 was the warmest year on record for the UK. Extreme heatwaves in the summer months included temperatures more than 40 °C being recorded in the UK for the first time and all four seasons were in the top-ten warmest for the UK overall. It was also the driest January-August period since 1976 and drought conditions were declared across parts of England and Wales. Dry weather is proven to impact household consumption with increased water use particularly outdoors.

Conversely to the impact of the summer drought, the large rises in energy costs have also impacted water consumption with measured households reporting they reduce or are more efficient with their showering, dishwashing and washing machine habits. We will continue to carry out research and data analysis annually to 2025 to make sure we have a robust and clear picture of how the pandemic continues to impact PCC.

An increase in internal plumbing loss (IPL) also impacts PCC. By increasing this estimate of IPL this increases the IPL estimate assigned to properties within our unmeasured small area monitor in NW. The change in IPL adds an additional 14.6 l/p/d onto unmeasured household consumption in NW. This has a direct impact on average PCC when considering 57% of households in NW are unmeasured. In summary, the changes in IPL assumptions increased our PCC by 2.6 l/hd/d in 2021/22 and 2.78 l/hd/d in 2022/23."

The PCC reporting methodology is broken down into reporting components and then into elements. We can confirm that that the reporting methodology used to provide these figures is consistent with a 'green' (I.e. compliant) assessment against each component.

Water Efficiency Programme

In 2022/23, we achieved a saving of 1.29 Ml/d (470.85 Ml/year) because of our water efficiency activity. As set out in WRMP19 we aimed to deliver a 1.1% reduction as well as addressing the shortfall accumulated in the last two years. We have not achieved our target for 2022/23. We anticipate we will reach between 30% and 39% of the planned activities over the 2020-25 period and that we would have achieved between 44% and 66% without the restrictions from Covid. We substantially pivoted our water efficiency strategy to ensure continued engagement with customers and to mitigate the impact of the lockdowns on household consumption. Our action plan is below:

2022/23 Plan	Performance
4,000 home water and energy saving retrofits each saving c.20 litres per property per day. **Exceeded action plan commitment by 25% on visits and 35% on water saving. 5,007 delivered saving 27 litres per property per day.**	This programme targets visits at highest users with enhanced focus on personalised behaviour change and longer term follow up. The Water's Worth Saving programme is our most complex, dynamic, multifaceted and ambitious retrofit scheme yet. This new strategy allows us to maximise the water savings achieved per visit. We have worked with academia through the design, implementation, and delivery of the programme to make sure it was both built and delivered using behaviour change and social practice theory to ensure sustainable behaviour change.
3,000 leaking toilet repairs each saving a minimum of 215 litres per property per day. **Exceeded action plan commitment by 25% on total water saved. 3,749 leaking toilet repairs saving 215 litres per property per day.**	This significant scaling up (more than double previous years activity) of the leaky loo programme was a result of targeted advertising with new developments, TV advertisements and enabling customers to video their toilet so we can check if it is leaking in partnership with Vyntelligence.

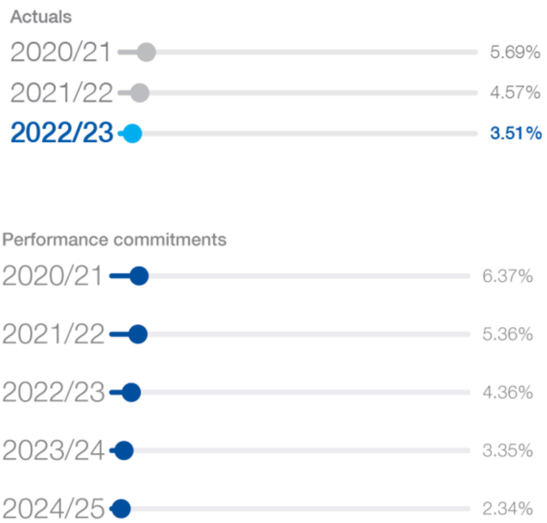
Continue to engage schools and stakeholders to increase the use of online resources for primary schools teachers on The Ripple Effect. **We engaged 2,285 pupils in the NW region and 1,868 pupils in the ESW region through half-day workshops. Supported by working with DfE's Schools Water Strategy team (inviting schools to sign up for a Ripple Effect workshop).**	In-school delivery had to stop as schools closed in 2020, so we quickly pivoted our educational offering to an online platform accessible to teachers, parents and carers of Key Stage 2 children. The Ripple Effect is an innovative, interactive website that explains the principals of the water cycle and water use in age-appropriate language and delivery. We worked in partnership with Waterwise and Water UK to develop and deliver a new national campaign called Water's Worth Saving producing over 51 million impressions, nearly 700,000 link-clicks and over 12,000 engagements (likes, shares, comments and saves) exceeding its aims. We initiated this programme and led the developmental sprint to form the concept.
c.15,000 bespoke water saving kits to homes	Bespoke water saving kits were provided to 6,847 homes in the ESW region and 8,241 in the NW region. The total of 15,088 exceeded our commitment by 16%.
c.20,000 online digital water efficiency engagements **We engaged 4,191 customers through our website, water calculator and pledges. Digital journey improvements identified in 2022/23, implementation in 2023/24 in order to increase use.**	Core to this was the implementation of an innovative online survey/calculator that customers can use to understand more about their water consumption, how it links to energy consumption and offers a personalised report detailing key actions they could take and the associated benefits. Future development of the Water and Energy Saving Calculator will deliver tailored Water Efficiency digital journeys while enhancing our ability to use customer data to benefit a range of strategic and performance objectives.
Pilots of innovative new water saving products	NRV2 – whole home flow restrictor continued to be fitted. Shower timer trials as part of our highest user visits (AQOS/Aguardio/Amphiro)
Two water efficiency related programme submissions into Round 3 of Ofwat's Water Breakthrough Competition Challenge	c.£1m Catalyst bid on Water Literacy – Successful. c.£6m Transform bid on changing Showering behaviour (PitterPattern) Funding Partners in two other catalyst bids: United Utilities Whole home flow restrictor upscaling & United Utilities Non-household Large Industry Pilots – Unsuccessful
A water efficiency related sprint at the 2023 Innovation Festival	In the 2022 Innovation Festival, water efficiency was integral to sprints focused on digital gamification, bill design and customer experience. In 2023, we are working with Southern Water on internal leakage and with Wave on exploring solutions to business use.
A wide-reaching hot weather communications Water's Worth Saving campaign across our regions.	The key objective of changing behaviour was achieved, with nearly one in three enforcing the advice and tips to save water in their home. 63% identified as the top message by the audience was 'Simple changes in your daily routine can help water efficiency', and 51% took WWS away as a strong message. 61% exposed to the campaign took (or will take) some sort of action. Launched a targeted paid for advertising campaign delivering approx. 9m impressions.

We have also:

- Taken an active and leading involvement in two national water efficiency behaviour change campaigns: Water's Worth Saving and Pledge23. We were the key partner in developing a new social media led campaign called Pledge 2021 with Waterwise. We also sponsored the 2022 Waterwise Conference. The conference is the key event in the water efficiency calendar and plays a crucial role in amplifying the importance of water efficiency as a key demand management measure.
- Integrated water efficiency as a core customer journey in our smart metering programme. Our Smart meter installation programme is allowing us to trial various water saving interventions, across different customer groups, at different times of the customer journey. Smart meter data will allow us to better understand the impact of these interventions and create customer profiles, which will allow us to create tailored offerings to get the maximum customer uptake in future.
- Led and Chaired the 'task and finish' group focused on building the evidence and case for the co-delivery of water and energy efficiency (now aligned to Strategic Objective 7 of the new national Water Efficiency Strategy 2030).

We continue to recommend that 2020-25 PCC targets be adjusted by holding companies to account for the % reductions in PCC committed to at PR19 but measured against a baseline adjusted for Covid-19 impacts.

Unplanned outage - PR19NES_COM13



We have achieved this PC.

This is common, penalty-only measure, which is used to assess the health of our assets for our water abstraction and water treatment activities. It is designed to minimise the extent that available water treatment capacity is reduced due to unplanned issues or outages, and in turn make sure water companies appropriately maintain and improve the asset health of their non-infrastructure or above-ground water assets for the benefit of current and future generations and demonstrate their commitment to asset stewardship responsibilities.

Ofwat set us the very ambitious target of having only 2.34% of unplanned outages by the end of 2025, with a glide path to demonstrate us getting there year on year.

Every day our workers discuss how best to look after the treatment of water and the control of its distribution around our network, they look to minimise the time of any unplanned, or planned treatment issue and over the last year we've been tested by the weather.

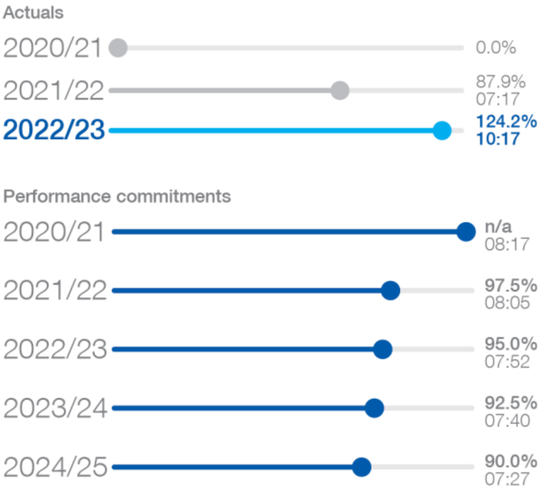
We have once again improved performance reporting 3.51 % across the company beating our 2022/23 target of 4.36%.

We continue to inform Ofwat of any unplanned or planned situations when we're unable to meet Peak Week Production Capacity (PWPC) because of any asset failures or the inability to treat water to required standards. In addition, we continue to improve our processes and simplify the data entry process for operations. Internal engagement through regular meetings and outage reviews means our people have a clear awareness of the need to accurately record outages. Our internal and external audit teams ensure the number we provide is as rigorous as it can be.

Our improvement plans remain centred on proactive maintenance regimes, continued operator asset care and delivery of future investment to our water treatment assets.

The unplanned outage reporting methodology is broken down into reporting components and then into elements. We can confirm that that the reporting methodology used to provide these figures is consistent with a 'green' (I.e. compliant) assessment against each component.

Interruptions to supply between one and three hours - PR19NES_BES14



We have not achieved this PC.

This is one of our two bespoke supply interruption measures for 2021-25. We used three years of data from 2018/19 through to 2020/21 to establish a 'baseline' level of performance from which we can measure our performance as a percentage change.

For this measure, all interruptions between one hour and two hours 59 minutes are added up to give the total time that customer supplies were lost across our supply area. We then divide this total time by the total number of connected properties we serve. This gives an average time in minutes and seconds that we have interrupted each customer for between one and three hours. The Baseline average of the last three years is 08:17mm:ss. This performance will result in a penalty of £-2.7m.

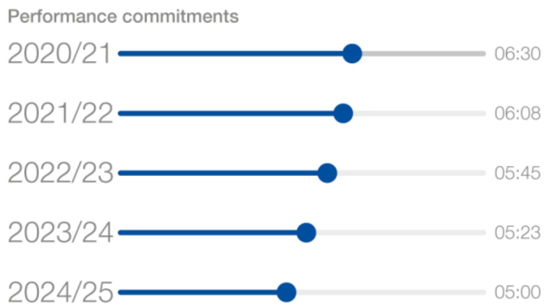
An interruption to the water supply can either occur on a planned basis when we carry out network maintenance, or unexpectedly when a burst, third party damage or other failures occur in the network. We recognise that interruptions to the water supply can cause our customers real inconvenience - especially when they're unexpected and we cannot warn customers in advance.

Our overall performance has been impacted by the uplift in repair activity caused by the dry soil conditions during the summer heatwave, where temperatures hit 40 degrees in our Essex region. As well as the freeze-thaw event, which occurred in both of our operating areas during December 2022. During this time temperatures dropped to a low of -7 degrees Celsius recorded on 13 and 16 December to a high of 13 degrees on 19 December. The number of repair jobs that were created doubled from what we forecasted.

This required careful management of our network to make sure we were able to meet demand across our operating areas and made rezoning our network to provide an alternative supply more difficult.

We have recently completed a company-wide project to holistically review how we provide water to our customers. These zonal studies have helped us identify how we can become more resilient, and where we need to become more operationally focused until investments in our assets are delivered on the ground.

Water supply interruptions greater than or equal to three hours - PR19NES_COM04



We have not achieved this PC.

This is a common measure designed to incentivise companies to minimise the number and duration of supply interruptions.

An interruption to the water supply can occur on a planned basis when we carry out network maintenance or unexpectedly when a burst or other failure occurs in the network. We recognise that interruptions to the water supply can cause our customers real inconvenience - especially when they are unexpected, and we cannot warn customers in advance.

For this measure, all interruptions of three hours or longer are added up to give a total time that customer supplies were lost across our supply area. We then divide this total time by the number of properties we serve. This gives an average number of minutes and seconds we have interrupted each customer for three hours or longer.

We put our customers at the centre of our response to a supply interruption and have been one of the industry leaders over several years. Our focus is to restore our customers supplies before undertaking any permanent repair, while always taking a balanced approach to other considerations such as environmental protection and the health and safety of our team and the public.

We restore supplies by rezoning our network or deploying temporary equipment, and we are pleased to report that we have fully rolled out the mobile storage units (MOWBIs) in Essex. These units can provide a temporary supply to an individual property, and we are very proud that our teams have been taken this innovation from the conceptual stage through to the point of delivery. Looking ahead we are planning on deploying MOWBIs across our whole business and scaling the concept to be able to supply multiple properties.

Supply interruptions remain a key area of focus for us, and underlying performance has been stable when compared to 2021/22. Our performance of 8 minutes 16 seconds is due to the uplift in repair activity caused by the dry soil conditions during the summer heatwave, where temperatures hit 40 degrees in our Essex region. Moreover, supply interruptions were also caused by the freeze-thaw event which occurred in both of our operating areas during December 2022 when temperatures dropped to a low of -7 degrees Celsius recorded on 13 and 16 December to a high of 13 degrees on 19 December. Our response was to recruit additional resources to help find and fix leaks.

We are disappointed that one of our largest events was caused by a third party who damaged three of our mains while working in Middlesborough. It is incidents such as these which drive our passion to see the National Underground Asset Register (NUAR) deployed across the UK. Developed at our 2017 Innovation Festival, it sees existing data on underground pipes and cables brought together in one single, digital map to display where electricity and phone cables, and water and gas pipes are buried.

NUAR has been live in our North East operational area since April 2023. Once fully operational across England, Wales and Northern Ireland, NUAR will help improve efficiencies in construction and development, reduce disruption to the public and businesses (from extended road closures and congestion), improve workers' safety and is envisaged to deliver at least £350 million economic growth per year.

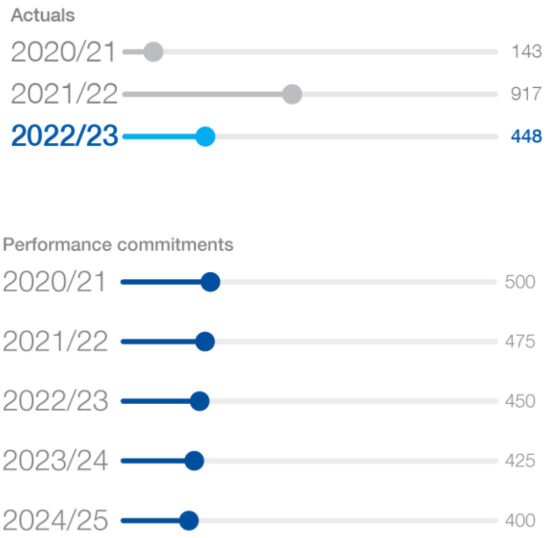
Our plans to improve performance are below.

ACTION	DESCRIPTION	TARGET END DATE
Improve pressure management	We are working hard to find new ways to manage water pressure and investing in new schemes to help with pressure management. We have deployed temporary pressure loggers at specific locations to collect extra data at critical sites. We have identified some opportunities to adjust our pressure reducing valves and are investigating these further before taking action.	End March 2024

Reviews after incidents	We will continue to carry out reviews and learn from the events we have had to see where a change in processes could prevent similar occurrences.	In use
Network support units	We have invested in new equipment to help maintain water supply during unexpected events.	In use
Internal communications – every minute counts	Our focused approach to training means that all teams involved know how to keep water supply interruptions as short as possible.	In use
Innovation	This year we have developed a MOWBI, a mobile storage until that can be transported to single properties experiencing a loss of water which temporarily restores water to the property (at a sufficient pressure), until a more permanent resolution can be put in place. These are particularly useful in events where we find a more complicated repair or there is a health and safety reason. We predict this will mean some customers experience a shorter interruption in the future, even while the permanent solution is still ongoing.	In use

Longer term our performance against this metric remains susceptible to external factors in particular weather events such as storms or flooding which are expected to increase in frequency due to climate change and which can disrupt the operation of our assets, particularly if they affect power supplies. Our PR24 Business Plan will set out robust proposals to address this, however delivery of these proposals will be dependent on provision of associated funding.

Interruptions to supply greater than 12 hours - PR19NES_BES09



We have achieved this PC.

This is our second bespoke supply interruptions measure for 2020-25 where we report the number of properties which are affected by a water supply interruption for 12 hours or longer. This is a very stretching target to meet over the next few years as it could only take one large event that could result in losing the ability to achieve our performance commitment for this measure.

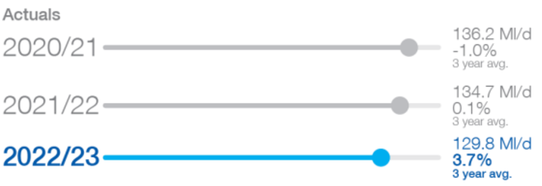
We are delighted to report that we have been able to keep supply interruptions greater than 12 hours to an absolute minimum while operating in very challenging conditions during the summer and winter. We have had 23 weeks of the reporting year where we had zero properties interrupted for more than 12 hours. We investigate where any property is interrupted for more than 12 hours and remain well placed to address the root cause of the interruption.

We have fully rolled out the mobile storage units (MOWBIs) in Essex. These units can provide a temporary supply to an individual property, and we are very proud that our teams have been taken this innovation from the conceptual stage through to the point of delivery. We view these to eliminating supply interruptions for 12 hours or more as we deploy these more across our business. This is because most supply interruptions > 12 hours occur occurred on single properties.

We did have some events where there was a high risk of properties experiencing a long interruption. During the freeze-thaw event where temperatures rapidly changed from a low of -7 degrees to a high of 13 degrees, we had 18,723 properties experience an interruption of at least one hour. However, our focused response meant that only two customers went on to experience an interruption greater than 12 hours.

Looking ahead we are planning on deploying MOWBIs across our whole business and scaling them to be able to supply multiple properties.

Leakage Northumbrian Water (NW) - PR19NES_COM05



We have not achieved this PC for 2022/23 but have delivered a year-on-year reduction in annual leakage.

This is a common measure based on a revised industry-wide reporting methodology for 2020-25 that helps companies calculate leakage more consistently. Leakage from the water network is measured in Megalitres (millions of litres) lost per day. Leakage levels fluctuate throughout the year as the weather changes, and we report the average daily level at the end of the year. Our PC is based on a percentage reduction of three-year average leakage against a 2019/20 baseline.

We have reduced leakage from 130.5Ml/d in 2021/22 to 118.8Ml/d in 2022/23 (an 8% year on year improvement) which gives a 3-year average of 129.8Ml/d against a PC equivalent of 126.7Ml/d which in turn equates to a reduction of 3.7% against a PC of 6%.

During the year we achieved some of the lowest levels of leakage ever recorded in the North East and headed into the summer months in a strong position. The first four months of the reporting year saw leakage remain under the performance commitment target profile. The hot and dry summer with record breaking hot temperatures in mid-July started to create significant numbers of burst mains and other asset failures which created a very challenging operational environment. Just before Christmas we entered a period of freeze and thaw. This freeze-thaw event saw leakage increase rapidly. In comparison to our expected daily leakage in December, we saw a 72% rise in our North East operating area.

During these peak times, we have responded quickly to the sources of leakage by bringing in additional operational resources to fix leaks. We have also increased the number of people that were looking for leaks to enhance our detected leaks to support recovery of our position.

Increasing our operational resources is just one of the ways we are tackling leakage. During the year we implemented several new and exciting technologies and techniques to help us achieve our leakage goals. We collaborated with industry experts to develop Digital Twins for four of our District Metered Areas, which gave us a new digital tool to identify leaks on our network. We have implemented new AI sensor technology that makes our leakage detection surveys more efficient. We use our annual Innovation Festival to explore new concepts, such as "no-dig" repair techniques, and emerging sources of data that can enrich the insights we have now. Finally, we are leading on industry collaboration, as we develop the new National Leakage Research and Test Centre. This will be a 5km buried water pipe network purpose built for developing and testing leakage interventions without disrupting customers' supplies or affecting water quality. We continue to evaluate and optimise how we use Smart Meter data, as we build on the penetration of meters already deployed.

Despite all the above improvement, we recognise that we remain off track against our performance commitment and are implementing solutions to deliver a step change in performance. We are continuing to fund innovations and trials of emerging technologies, alongside identifying what we need to take forward in terms of the level of resources we deploy across the year.

Our final leakage position for the year is confirmed by an annual review of our water balance, this reconciles the total volume of water input into our supply network at our treatment works with the water that is consumed by our metered and non-metered customers, along with the water used for various other purposes, and the volume lost due to leakage. We are continually improving the quality off all datasets to ensure we present the most accurate picture of use and leakage across our network and these elements all change annually.

As part of our ongoing commitment to improvement, we have conducted recent work with a third party, Invenio, to support our endeavours and it has provided independent review of each of these datasets, contributing valuable insights to our assessment.

Notably, we focused on enhancing the accuracy of household plumbing loss data through the integration of data obtained from our smart metering program and supplementary surveys, and we anticipate further advancements as we continue to install more smart meters. Our findings potentially align with some initial emerging evidence that may point to increasing trends in plumbing losses, potentially influenced by the components used in modern dual flush toilets. This would be consistent with the noticeable increase in demand for our free service, which aids in the repair of leaky loos.

This improvement in measurement and understanding of this component has contributed 6.9Ml/d of the improvement in annual leakage for 2022/23.

The way datasets are combined to calculate final leakage numbers is described in the reporting methodology, which ensures that performance across the industry, as well as baseline and in-year performance, are calculated consistently.

We aim to achieve full compliance with this methodology, which is made up of several components of the leakage calculations. We continue to have a 'green' status against Ofwat's reporting requirements for most components including the 'Household Night Use Component' which includes the plumbing losses data.

We have one red area for 2022/23 which relates to the size of the water balance gap of 3.9%. The improvements to plumbing losses does not have a material impact on the water balance gap contributing 0.06%.

We do not consider that this has a material impact on the accuracy of our reported leakage because:

1. The water balance gap has been allocated to the various water balance components – including leakage - using the best practice MLE methodology, which allocates the unaccounted for water across the water balance components according to their relative accuracy, that is components considered to be less accurate (with a worse 'confidence grade') are given a higher allocation.
2. Sensitivity analysis shows that reported leakage is not especially sensitive to the confidence grade used for the leakage component, that is if the confidence grade for the leakage component is artificially worsened it does not have a material impact on reported leakage.

Our external technical auditors, PwC, performed independent assurance procedures in relation to leakage performance information. PwC's independent assurance report, including the scope of their work and the assurance opinion, can be found here.

The key actions we are taking to further improve performance are set out below:

ACTION	DESCRIPTION	TARGET DATE
Minimise leak repair times	We have recruited extra 'find and fix' technicians to help minimise leak repair times in the future.	Ongoing
Improve pressure management	We're also working to identify new ways to manage water pressure using special valves.	End March 2024
Allocation of leak detection resources	We're improving the way we allocate resources to larger rural areas.	End March 2024
Better understand link between consumption and leakage	We're now carrying out studies to better understand customer consumption. A big part of calculating leakage is understanding how much water our customers use at night. The more accurate our estimates are then the more confidence we have in what is leakage on our network, which we need to find and repair, and what is actually being used by customers.	End March 2024
Improve logging of non-household customers	A project is underway to add extra data loggers to business customers' meters to help us improve accuracy when tracking and measuring consumption and leaks for businesses.	End March 2024
Improve monitoring of trunk mains	Trunk mains are our large water pipes that deliver high volumes of water, and we are investing money to improve the way we monitor these for leakage.	2025-30
Innovation to improve efficiency	We already use innovative and clever ways to track leakage, such as surveying 8,000km of pipes by satellite. We've been trailing small listening devices, more sensitive than the human ear, at points around the water network, where we can monitor the noise levels on the pipes to help find tiny leaks that we wouldn't be able to spot otherwise. We're even creating 'digital twins' – virtual models of our water pipe network that allow us to run simulations, study problems and generate new solutions.	Ongoing
No dig technology	We're trialling a gel and mineral-based solution that allows leaking pipes to 'self-heal' without the need for excavation (digging).	Ongoing

CASE STUDY: Dealing with a freeze-thaw event

In mid-December 2022, temperatures varied massively across the course of just a few days. Lows of -7℃ were recorded in Newcastle on 16th December and Southend on 17th December, thawing rapidly to a high of 13℃ in Newcastle and 14℃ in Southend on 19th December.

As a result, we saw a 70% rise in our expected daily leakage in the North East and a 133% increase in our Essex and Suffolk operating area.

The number of repair jobs doubled from what we'd expect to see in a normal December, and unfortunately, this meant interruption of supply to 18,723 homes.

Knowing this freeze-thaw event was coming - and learning lessons from previous events - we had our incident team established early.

This allowed us to take clear decisions as the situation unfolded, including checking vacant commercial properties for leaks, tankering water around our operating areas, and moving pallets of bottled water into strategic locations.

This included 152 pallets into Northumberland, where the area surrounding Ashington was severely impacted by an asset failure at one of our treatment works.

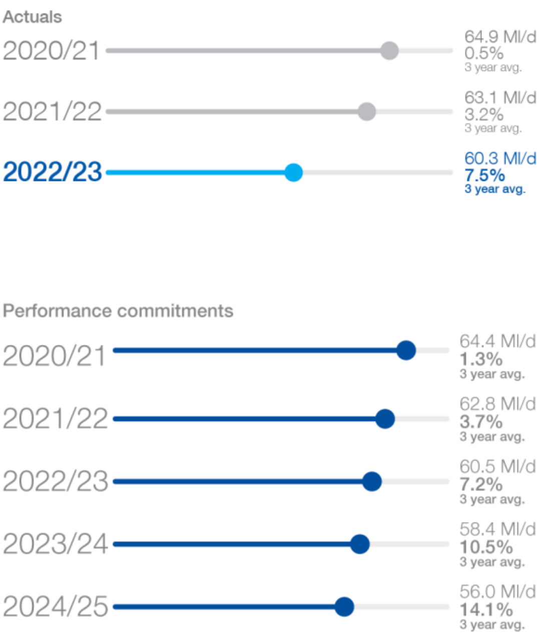
We set up a bottled water station at Ashington Leisure Centre for three days while customers experienced interruptions to supply, and deliveries of bottled water to more than 400 customers on our Priority Services Register.

Throughout the incident, we kept customers informed - sending more than 800,000 emails, nearly 150,000 text messages, and posting information and responding directly to queries on social media.

We also worked closely with stakeholders in our operating areas - including MPs, local authorities and business representatives, housing providers and voluntary sector groups to make sure they had all the information and advice to share with their contacts.

Our rapid response meant we received just eight written complaints relating to the freeze-thaw event.

Leakage Essex & Suffolk Water (ESW) - PR19NES_COM06



We have achieved this PC for 2022/23.

This is a common measure based on a revised industry-wide reporting methodology for 2020-25 that helps companies calculate leakage more consistently. Leakage from the water network is measured in Megalitres (millions of litres) lost per day. Leakage levels fluctuate throughout the year as the weather changes, and we report the average daily level at the end of the year. Our PC is based on a percentage reduction of three-year average leakage against a 2019/20 baseline.

We have reduced leakage from 59.3Ml/d in 2021/22 to 55.6Ml/d in 2022/23 (a 5% year on year improvement) which gives a 3-year average of 60.3Ml/d against a PC of 60.5Ml/d which in turn equates to a reduction of 7.5% against a PC of 7.2% - achieving the PC.

During the year we achieved some of the lowest levels of leakage ever recorded in Essex and Suffolk. By July we had driven down the visible leak repair time in Essex and Suffolk to an average of 4.3 days in comparison to 7.9 days during the corresponding period in 2022, achieved in part through increasing our operational resources.

Increasing our operational resources is just one of the ways we have tackled leakage. During the year we implemented several new and exciting technologies and techniques to help us achieve our leakage goals. We collaborated with industry experts to develop Digital Twins for four of our District Metered Areas, which gave us a new digital tool to identify leaks on our network. We have implemented new AI sensor technology that makes our leakage detection surveys more efficient. We use our annual Innovation Festival to explore new concepts, such as "no-dig" repair techniques, and emerging sources of data that can enrich the insights we have now. Finally, we are leading on industry collaboration, as we develop the new National Leakage Research and Test Centre. This will be a 5km buried water pipe network purpose built for developing and testing leakage interventions without disrupting customers' supplies or affecting water quality. We continue to evaluate and optimise how we use Smart Meter data, as we build on the penetration of meters already deployed.

These improvements have been offset by an increase in water mains bursts caused by the dry soil conditions during the 2022 summer heatwave, where temperatures hit more than 40^{0}C in our Essex region. We repaired more than 1,000 additional visible leaks than we did in the summer of 2021, and overall, the number of repairs that were required during the summer was double that of an average year. We saw leakage increased to 133% of our forecasted daily level during the freeze/thaw event which occurred in December. We were able to recover quickly from this winter peak as we had planned and prepared for this event and could quickly deploy additional resources.

Our final leakage position for the year is confirmed by an annual review of our water balance, this reconciles the total volume of water input into our supply network at our treatment works with the water that is consumed by our metered and non-metered customers, along with the water used for various other purposes, and the volume lost due to leakage. We are continually improving the quality off all datasets to make sure we present the most accurate picture of use and leakage across our network. These elements all change annually.

As part of our ongoing commitment to improvement, we have conducted recent work with a third party, Invenio, to support our endeavours and it has provided independent review of each of these datasets, contributing valuable insights to our assessment.

Notably, we focused on enhancing the accuracy of household plumbing loss data through the integration of data obtained from our smart metering program and supplementary surveys, and we anticipate further advancements as we continue to install more smart meters. Our findings potentially align with some initial emerging evidence that may point to increasing trends in plumbing losses, potentially influenced by the components used in modern dual flush toilets. This would be consistent with the noticeable increase in demand for our free service, which aids in the repair of leaky loos.

This improvement in measurement and understanding of this component has contributed 2.9Ml/d of the improvement in annual leakage in ESW for 2022/23.

The way datasets are combined to calculate final leakage numbers is described in the reporting methodology, which ensures that performance across the industry, as well as baseline and in-year performance, are calculated consistently.

We aim to achieve full compliance with this methodology, which is made up of several components of the leakage calculations. We continue to have a ‘green’ status against Ofwat’s reporting requirements for most components including the ‘Household Night Use Component’ which includes the plumbing losses data.

We have one amber area for 2022/23 which relates to the size of the water balance gap of 2.5%. We have conducted materiality analysis that we used in 2020/21 to demonstrate that this does not have a material impact on the accuracy of our reported leakage.

While reflecting on our performance, and despite achieving our target, we have decided that we will not claim an ODI reward for ESW leakage for 22/23, considering that we have only marginally beaten our target, and that further improvements are required over time to the dataset relating to household plumbing losses. Taking a broader perspective across both regions, we recognise that there is further room for improvement, and we remain steadfast in our commitment to advancing towards our 2025 goals before considering any justifiable claim for rewards.

In comparative terms, Essex & Suffolk continues to have some of the lowest leakage levels in the country. This means that remaining leaks become smaller, harder to find, and more expensive to fix per unit of water saved. Improvements in the longer term from an already low base will hence become increasingly dependent on the extent to which additional funding can be dedicated to address leakage.

Case study: Water resilience innovations - a flexible approach to alternative water supplies

When supplies are interrupted, we prioritise our customers who are most vulnerable. Through our Priority Services Register we know which customers might need extra support or perhaps have health problems which make coping with interruptions to their supply particularly difficult.

Traditionally, we put a temporary supply in place by running hoses and pipes around, often needing to use pumps and generators.

As part of our Innovation Festival, we developed a mobile pumped water storage unit to change that.

The plan was to design a unit which could be delivered to the location of the interruption of supply and quickly connected to provide water for essentials like cooking and flushing the loo.

We built an initial prototype - a converted wheelie bin - which proved the concept and, working with our partners Furst Technologies, we've developed the idea into a version that can be used reliably on site.

Not only can MOWBIs be used individually, but they can be chained together to support greater water needs - for example, when faced with a burst pipe locally, we were able to provide an emergency supply to a nursery in Chelmsford using a set of MOWBIs which kept 80 children plus staff on site until the end of the day.

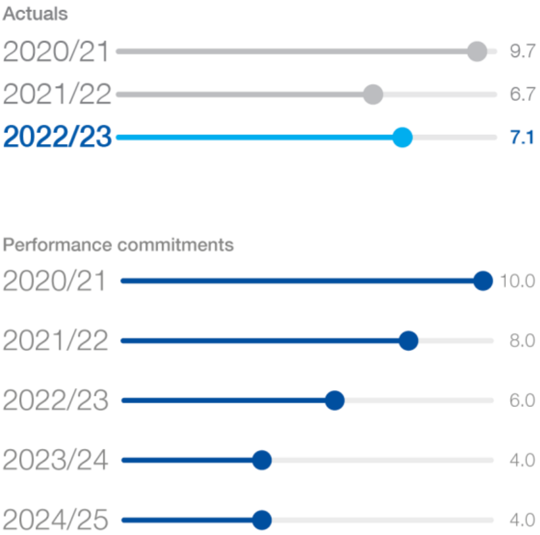
We're now developing a TOWBI, a larger version of the MOWBI, to support commercial properties like vets or hairdressers where a stable water connection is a necessity.

Daniel Fletcher, Technical Supervisor, said: "It's about lots of small wins adding up. If we can ease the disruption for individual households or individual businesses, it quite quickly starts to have a big impact across our operating areas. We know we're ahead of the industry with this innovation, and I know our partners at Furst are looking at how to support other water companies to follow suit."

MOWBI is an innovation which started intending to solve a problem but is already outgrowing that - there's now a team of specialists building around it and the deployment of MOWBIs has become something that is built into our business-as-usual process for planned works.

It's a practical solution, helping us provide a more reliable supply to the customers across our operating areas.

Visible leak repair time (days) - PR19NES_BES04



We have not achieved this PC.

This is a bespoke PC to incentivise us to reduce the time it takes to repair customer-reported visible leaks. This will reduce the amount of water wasted through leaks, something our customers tell us is very important to them. We recognise that particularly during times when we are asking customers to be mindful of their own personal consumption, they want to know that we are working hard to minimise leaks and it's not acceptable to fall short of our targets.

From April through to June, we had a similar run rate of visible leaks in comparison to the same time in 2021 - but we were repairing them 40% quicker in just over four days.

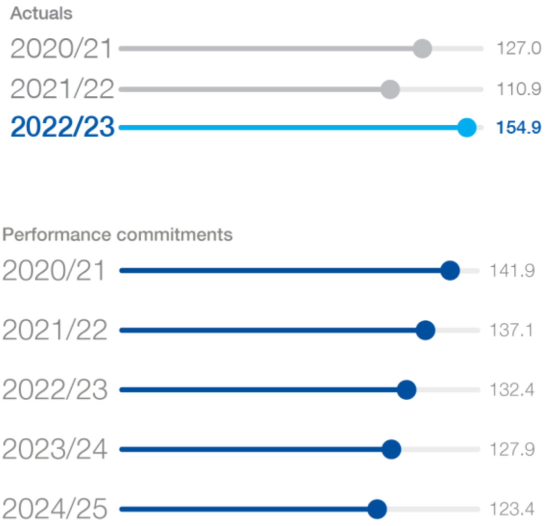
We had our best monthly performance in July where we took 3.8 days on average to repair a visible leak across all our operational areas. Despite operating in record high temperatures that continued through to September. During these summer months the number of visible leaks increased significantly as the network responded to the dry soil conditions, particularly in the Essex region. We repaired more than 1,000 visible leaks than we did in the summer of 2021.

Collectively, the average number of visible leak repairs completed per month in 2022/23 is close to 900, which is a 20% uplift in comparison to previous years.

We acted by recruiting additional resources to help find and fix leaks. This brought the average repair time back down, but the freeze/thaw event of early December was challenging and further impacted our average repair time. This year has been like no other we have faced as we have measured ourselves against visible leak repair time.

Our year end average is 7.1 days. Our visible leaks target for the next two years is 4.0 days. We look ahead with confidence knowing we have achieved this performance previously, but that our challenge is to do so consistently. We are looking at working patterns, forecasting, and innovations such as 'No Dig' technology to improve our performance.

Mains repairs (bursts) - PR19NES_COM12



We have not achieved this PC and are very disappointed with this result as this is usually an area where we perform well.

This is a common PC and is measured per 1,000km of the entire water main network conveying treated water around the distribution point (excluding communication and supply pipes). Proactive (found because of active leakage control/detection by the company) and reactive (customer reported) repairs are reported separately.

We measure the number of mains bursts by counting the repairs we make to water mains each year. This year we repaired 154.9 mains bursts per 1,000km, which is below our PC of 132.4 and results in a -£1.863m penalty.

Our performance for mains bursts has been impacted by the dry soil conditions during the summer heatwave, where temperatures exceed 40 °C for the first time ever in the UK. As well as the freeze-thaw event, which occurred in both of our operating areas during December 2022. During this time temperatures dropped to a low of -7 degrees Celsius recorded on 13 and 16 December to a high of 13 degrees on 19 December. While we are not able to fully weatherproof our network, we can make sure our response to these events is our top priority. We did have some freeze-thaw events where there was a high risk of properties experiencing a long interruption and one such event saw 18,723 properties experience an interruption of at least one hour. However, our focused response meant that only two customers went on to experience a supply interruption greater than 12 hours.

It is the significant uplift in mains bursts during the winter and summer months that have markedly impacted our overall performance. For example, we had close to double our forecasted mains bursts in August compared to our recent performance based on a three-year average. Our underlying burst rate continued to be in line with previous years outside of July through to September and December and January this year.

Looking ahead we continue to refine our modelling capability for identifying areas at a higher risk of bursts. We will feed these into our analysis as we prioritise areas for investment. We continue with staff training calm network operations, and investing technology, which can help us identify activity on the network that can cause a mains burst.

We continue to focus efforts on ways in which we can mitigate the impact of demanding weather scenarios on our performance. Outside of July, August, December and January our run rate for bursts has been in line with previous years indicating a strong underlying performance consistent with our performance commitment.

Finally, as one of four asset health metrics, longer term performance is strongly linked to the delivery of appropriate levels of capital maintenance. Our PR24 Business Plan will set out our proposals in more detail, however delivery of this plan will in turn be dependent on.the provision of appropriate levels of funding for capital/asset maintenance activities. We do not consider that the current regulatory approach to setting funding allowances is sustainable in the longer term, a topic we will elaborate on further in our Business Plan.

Abstraction Incentive Mechanism (AIM) - PR19NES_BES18

We have achieved this PC.

The Abstraction Incentive Mechanism (AIM) is is a common, financially incentivised measure designed to protect the ecology of raw water sources by limiting the extent to which we can abstract water from them during dry conditions.

For NWL the AIM only applies to one location at Ormesby Broad, Norfolk. This year’s summer (May to September 2022 inclusive) rainfall was around the long-term average, however, we managed broad water levels to remain well above the level at which AIM would be triggered.

We report full details to the EA in our WRMP Annual Review which we submit on 30 June.

OUTCOME 8: Our drinking water is clean, clear and tastes good

AMBITIOUS GOAL: Promote confidence in our drinking water so that nine out of ten of our customers choose tap water over bottled water.

• Water quality compliance (CRI) – common

• Event Risk Index (ERI) – bespoke

• Discoloured water contacts – bespoke

• Satisfaction with taste and odour of tap water – bespoke

Water quality Compliance Risk Index (CRI) - PR19NES_COM03

We have not achieved this PC.

CRI is a common, penalty-only, calendar year PC using a risk-based monitoring methodology, which assesses water quality compliance against our statutory obligations.

Our CRI was 7.62 (to 2 decimal places) against a PC level of 0, incurring a penalty of £8.531M. This is a deterioration in performance from our overall score in 2021. For 2022 most of our CRI score is derived from compliance failures in our North East operational area while in 2021 it was primarily the Essex and Suffolk area.

When a failure occurs at an asset or in a supply area that is subject to an agreed programme of work with the Drinking Water Inspectorate (DWI), the DWI's compliance assessment will increase the associated CRI score. In 2022, this effect increased the CRI total by 2.27 units.

The biggest impact on CRI for 2022 was a bacteriological failure from a water treatment works in the Teesside area, which accounted for 1.431 units. This represents more than 15% of the final figure. No definitive cause could be identified however, the condition of the superstructure which houses the filter gallery, contact tanks and flash mixer is known to be in very poor condition. Some parts of the asset cannot be accessed to carry out inspection. The contact tanks are due to be inspected in April 2023 which should provide some greater understanding of the condition of those assets.

A sampling campaign at the time of the failure demonstrated that the result was confined to the treatment works and had no impact on customer supplies or public health.

72% of the sample failures recorded in 2022 were at customers' taps at the point of use. Over half of these results were because of internal plumbing or the property supply pipe and therefore did not attract any CRI points. In these circumstances, we work closely with the customer to understand the issue and determine a root cause. Support for the customer can take several forms, including the issue of precautionary advice and bottled water while investigations continue, education and awareness on tap hygiene and cross contamination in the home, and the replacement of lead communication pipes supplying a property where the risk is shown to be elevated. Our aim is to make sure customers retain a high level of trust in the tap water we provide.

There have been fifteen service reservoir (SR) failures in 2022. These were all in the North East region apart from one failure in Essex and Suffolk. This is a deterioration in performance compared to 2021. In the last 12 months, we have completed the full replacement of a treatment site in Wooler, which will provide more reliable supplies and meet future drinking water standards. Following on from this is the new treatment works at Horsley which (alongside the existing site) supplies a large proportion of Tyneside. This new works is partially in supply, and we expect completion in 2024.

The replacement of three sites in Northumberland was completed in 2022 along with the completion of the installation of UV treatment at two works supplying the Durham and Wearside areas. We are continuing with the enhanced programme of treated water storage tank inspections to mitigate some of the risks identified at these sites, alongside a risk review of treatment processes.

We're disappointed to not hit our high standards in this area as we are committed to achieving industry-leading levels of CRI and are delivering our long-term plans to reach this, as well as working closely with the DWI. We've accelerated and increased funding in our base capital programme as part of a transformation plan with the DWI.

We are continuing to prioritise our efforts around water treatment where CRI risk is highest, and areas of focus include filter media refurbishment, carbon regeneration, and water quality minor works activities such as on-line monitoring capability to increase resilience and control of the treatment processes.

The journey of water from treatment through to customer tap is important, and in our networks, we are continuing with the enhanced service reservoir maintenance programme, inspecting and (where applicable) repairing a higher number of tanks per annum to maintain the integrity of these assets and minimise any water quality risks. We are using a combination of physical assessment and technologies such as Remote Operating Vehicles (ROVs).

We are continuing with smart network innovation to allow real time operational decisions to be made on the quality of water being supplied through our networks and so improve the customer experience.

Finally, as one of four asset health metrics, longer term performance is strongly linked to the delivery of appropriate levels of capital maintenance. Our PR24 Business Plan will set out our proposals in more detail, however delivery of this plan will in turn be dependent on.the provision of appropriate levels of funding for capital/asset maintenance activities. We do not consider that the current regulatory approach to setting funding allowances is sustainable in the longer term, a topic we will elaborate on further in our Business Plan.

ACTION	DESCRIPTION	TARGET DATE
Five-year water quality plan	Five treatment sites in Northumberland were replaced in 2022 along with UV treatment being installed at two water treatment works (WTWs) supplying the Durham and Wearside areas. An extensive programme of inspections and work at treated water storage tanks is preventing some of the risks identified at these sites, alongside a thorough risk and hazard review (HazRev) of all treatment processes to improve condition, capability and resilience. As we prioritise our efforts around water treatment our areas of focus include filtration, carbon regeneration, and water quality activities such as on-line monitoring to control the treatment processes. We are also trialling an innovative smart network in the Tees area of supply, which we believe will be the largest implementation of a water quality sensor network in Europe. Monitors are being installed at both service reservoirs and District Metered Areas to help create insight in how the network influences water quality and the CRI measure, and to signpost positive interventions around operational management, asset maintenance and cost efficiency, all with the aim of improving the customer experience. We will continue to work with customers on tap hygiene and cross contamination in the home, and the replacement of lead pipes where necessary.	End March 2025
Improve Layer Water Treatment Works and Mosswood Water Treatment Works	We are investing in new treatment equipment at these sites to respond to changes in the quality of the raw water (from rivers and reservoirs) that these sites have to treat.	March 2025 March 2024

Case study – Project Pipeline - Future-proofing supply in Co Durham and the Tees Valley

More than 200,000 customers across the south of County Durham and into the Tees Valley are benefiting from a £155m investment to upgrade and futureproof our water supply network across the area. The programme - ‘Project Pipeline: County Durham and Tees Valley’ - will see both new pipeline and the replacement of sections of the network that have served the area for more than 100 years.

The beginning of 2023 saw the start of a £155m, multi-year project to upgrade and futureproof the water supply network in south County Durham and the Tees Valley.

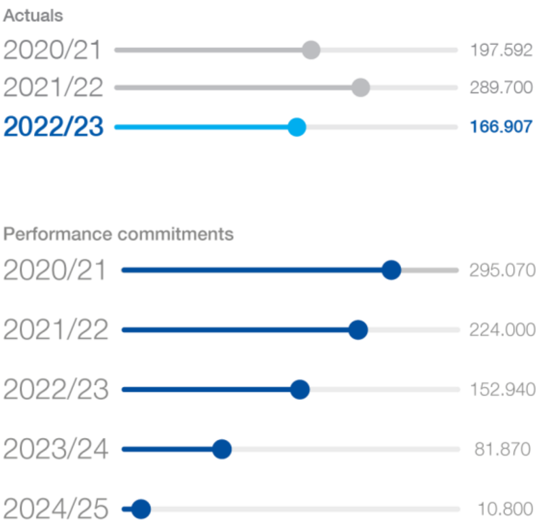
The programme, called 'Project Pipeline: County Durham and Tees Valley', will see around 200,000 customers benefit from the significant investment which will improve resilience and allow us to continue to deliver for the people of the area for generations to come.

Phase 1 of the project is underway, which will replace pipeline connecting Lartington Water Treatment Works with Gainford - including sections which are more than a century old - as well as see new pipe linking underground reservoirs at Whorley Hill and Shildon, and up into Spennymoor.
As with any project of this size, delivering the work itself is just part of the process - equally important is keeping customers in the area informed.

We're working hard to make sure as work progresses into new areas that customers living nearby are kept up to date and know about any impact activities may have on them.

The environment is at the heart of everything we do, and also has a place at the heart of Project Pipeline, and we're making sure it delivers for the environment at the same time as delivering great quality water for our customers.

Event Risk Index (ERI) - PR19NES_BES13



We have not achieved this PC.

Our performance of c.166.907 units for the year marks a 42% improvement on 2021 outturn. Despite this, we have not achieved this PC as the penalty threshold reduced by 32% to 152.940 units.

This means we have incurred a penalty of -£0.028M.

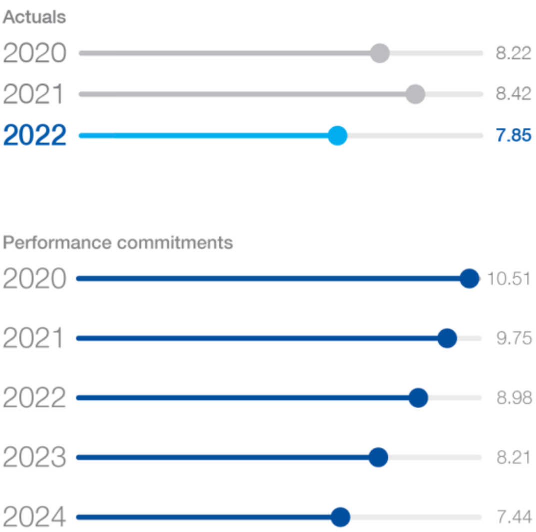
This is a bespoke, penalty-only, calendar year measure and this PC incentivises us to promote a proactive approach to risk mitigation of water quality events, including understanding the impact of events on customers. Events are assessed by the Drinking Water Inspectorate (DWI), and the assessment considers the seriousness of an event, our response, the population impacted, and the duration.

During 2022, 42 events were notified to the DWI for assessment, which is comparable to the number of events reported in 2021. The outcome in 2022 was influenced by five high scoring events, four of which occurred in our North East operating area. A bacteriological failure at Whittle Dene, one of our major water treatment works (WTW) in the North East was our highest scoring event accounting for 54.6795 units. It was an isolated event with no further sample failures taken at the treatment works, or in the network, supplied by Whittle Dene. The lack of additional sample failures or customer complaints confirmed that the issue was confined to the treatment works and had no impact on customer supplies or public health. Steps have been taken to protect customers from future failures including additional site inspections, root cause analysis, and staff training.

Our biggest failure in our Essex and Suffolk region occurred in August 2022 when we received a total of 11 customer contacts regarding metallic taste and odour of their supply. A cluster of contacts in the Broomfield area of Chelmsford have been linked to firefighting, and it is very likely that the large draw of water from hydrants disturbed some mains sediment causing the customers to experience a temporary metallic taste to their water. In addition, some positive sample results in a block of flats highlighted a specific issue at that location. It was discovered that a valve, assumed open, was closed. It is believed this closed valve has caused some customers to notice a slight metallic taste to their water. In response additional flushing and sampling was carried out, with customers reporting to us that their supply had returned to normal.

We're committed to improving on ERI performance and investing in our assets.

Discoloured water contacts - PR19NES_BES11



We have achieved this PC.

This is a bespoke calendar year measure that reflects the number of times we've been contacted by customers due to the appearance of their tap water not being clear, per 10,000 population. The appearance measure covers seven contact types including discolouration (brown/black/orange and blue/green/pink), aerated water, particles, and general conditions.

Our PC this year was 8.98, which we've beaten with a result of 7.85, earning a reward of £0.992M. We've continued to perform better than our PC for the eighth year in a row and this has been the best performing year for appearance.

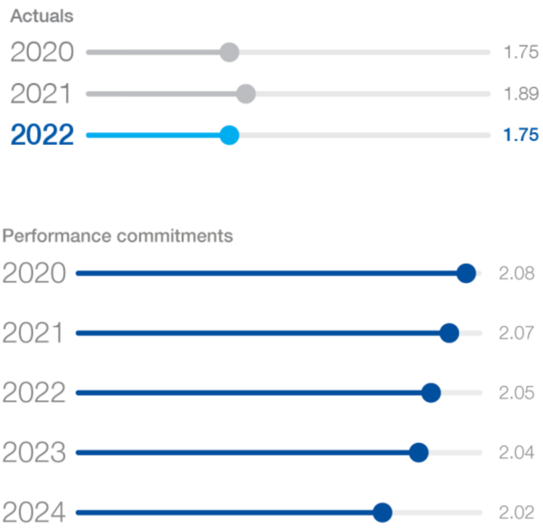
Our plan continues to focus on appearance: discoloured water – brown, orange, or black, which is our major contributor of contacts to this measure. Very occasionally, and for a short time, customers' tap water may appear discoloured. This is caused by the disturbance of harmless material in our water supply network, possibly caused by a burst, leak or third-party activity. We are continuing to progress with our programmes of work agreed with the Drinking Water Inspectorate (DWI) to improve the number of trunk mains in which flow can be automatically raised with less risk of disturbing mains material and causing discolouration in downstream supply areas.

Continuing to flush smaller sized pipes closer to customers is happening on a prioritised basis as well as investigations into how to improve the other contact types such as water coloured white due to aeration. Due to resource issues requiring careful management through the summer, we focused our flushing activity in Teesside. This focused zonal approach appeared to deliver step change in performance. As a result, we are reflecting on how we can replicate this approach in future within other areas.

We'll also look for innovations that can cleanse parts of the network which cannot be managed with our current techniques.

We've increased the number of text messaging alerts to cover the different contact types to inform customers that we are aware of an issue and are investigating the potential cause. We've also continued with employee training, to make sure we are using the correct operational techniques, which we know helps to manage the number of contacts we receive while we work on the network. We've supplied training to third party contractors to also help manage the number of contacts we receive.

Taste and smell contacts - PR19NES_BES12



We have achieved this PC.

This bespoke measure reflects the number of times we've been contacted by customers to report perceptive issues with the taste or smell of their tap water. We want our customers to be satisfied with the taste and smell of our tap water.

We received 789 taste and smell contacts in 2022. This level of performance is better than the upper quartile (top 25%) threshold, and better than our stringent PC of 960 contacts. An outperformance reward of approximately £0.263M is payable for this measure. This is particularly good, given we were able to maintain this performance through challenging operational periods. The hot/dry summer required carful management as we protected resources, and addressed an elevated numbers of mains bursts and other issues which required a reactive repair.

Water supplies for most areas routinely come from the same source. However, to carry out asset maintenance, or in response to reactive issues like a burst pipe, water to an area can be re-zoned through a different route or come from a different source treatment works. We know that customers can be sensitive to changes derived from these actions and may choose to contact us to report a perceived change in taste or odour to their supply.

The drinking water we supply is very high quality, but occasionally some of our customers perceive different tastes or odours. This could be due to:

• The use of chlorine to maintain good hygiene in our water supply network.

• A change in where a customer's water comes from, or how it is treated.

• Issues with a customer's own plumbing inside their home.

• A change in a customer's perception.

There is an ongoing project with Siemens in the Tees system where there are a higher-than-average number of contacts for both discolouration and T&O, and also records a steady number of CRI-related fails each year. Borne out of the Innovation Festival, we installed online water quality monitors in the distribution network to identify changes in water quality parameters. This information is then being used to support investigations into water quality changes which may influence taste and smell of the water. The project also incorporates leakage data to understand synergies with water quality and includes customer behavioural research to understand how the future customer wants to interact with water quality info.

OUTCOME 9: Our sewerage service deals with sewage and heavy rain effectively

AMBITIOUS GOAL: Eradicate sewer flooding in the home as a result of our assets and operations.

• Internal sewer flooding – common

• Repeat sewer flooding – bespoke

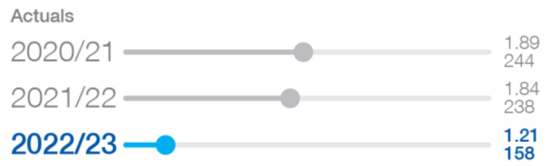
• External sewer flooding – bespoke

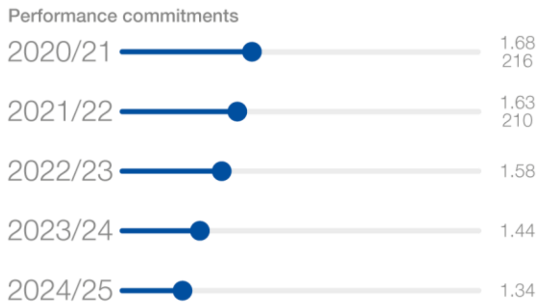
• Risk of sewer flooding in a storm – common

• Sewer blockages – bespoke

• Sewer collapses – common

Internal sewer flooding - PR19NES_COM08





We have achieved this PC.

This is a common measure with financial incentives associated with under and out performance. The performance commitment records the number of internal sewer flooding incidents per 10,000 connected properties per year.

Internal sewer flooding is one of the worst performance failures that our customers can experience. Since the end of 2019/20 we are delighted to have reduced the number of internal sewer flooding incidents we report by more than 64%.

Our performance has improved by over 30% compared with the performance we reported last year with our success resulting from the continuing maturity of our sewer flooding tactical plan we started in 2019.

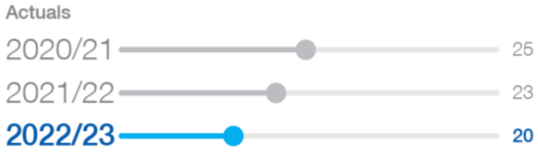
Highlights this year include visiting over 500 high risk properties and investigating, clearing blockages, and fixing sewer defects where we find them. We also significantly boosted the engagement we have had with customers from our Bin the Wipe campaign by sending an additional 100,000 information letters to customers in hotspot areas. This is on top of the 170,000 properties we have engaged with directly on the ground.

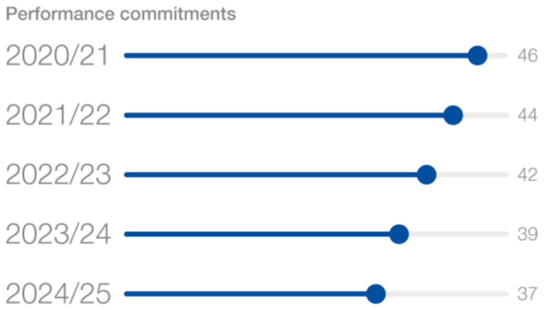
Our tactical plan is reviewed monthly to make sure we are doing everything we possibly can to help reduce the risk of sewer flooding to customers, as well as providing the right level of support and standards when this does happen.

We are also working to implement several additional recommendations recently identified in Ofwat's and CCW's joint sewer flooding research and hope to have these embedded as business as usual for 2023/24. This will include how we can provide an enhanced standard of care for customers who experience internal and repeat internal sewer flooding.

Our performance this year means we are one of the top performing companies in relation to internal sewer flooding, with our performance above the industry upper quartile. Further initiatives planned for 2023, including CCTV of all first-time blockages will help further reduce the risk of sewer flooding to customers in the North East.

Repeat sewer flooding - PR19NES_BES17





We have significantly outperformed our PC again this year.

In accordance with our ambition to reduce sewer flooding in the home as a result of our assets and operation, we have a bespoke performance commitment for repeat sewer flooding (properties which have flooded internally more than once in the last five years). For the third year in a row, we have significantly outperformed our performance commitment for this measure.

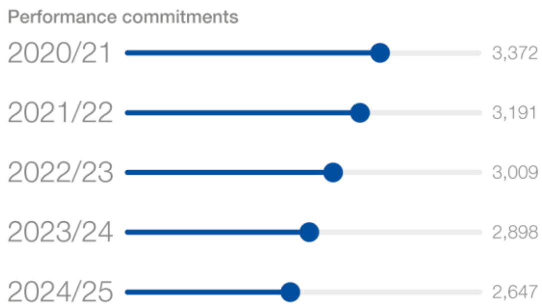
Since the end of the previous reporting period, we have reduced repeat sewer flooding by over 75%.

Our performance for repeat sewer flooding continues to be driven by the rigour we undertake through manager led investigations as well as from the interventions we carry out as part of the sewer flooding tactical plan we have had in place since 2019.

Internal sewer flooding, particularly repeat internal sewer flooding is one of the worst service failures our customers can experience. We are proud that our performance in this area continues to be strong, especially with respect to the number of internal sewer flooding incidents we are now experience ‘in year’, which is only six incidents this year.

In accordance with our incentive structure for this measure, we’ve earned an outperformance payment of £1.212M.

External sewer flooding - PR19NES_BES16



We have not achieved this PC.

This is a bespoke measure with a financial incentive applied. The performance commitment records the number of external sewer flooding incidents per year.

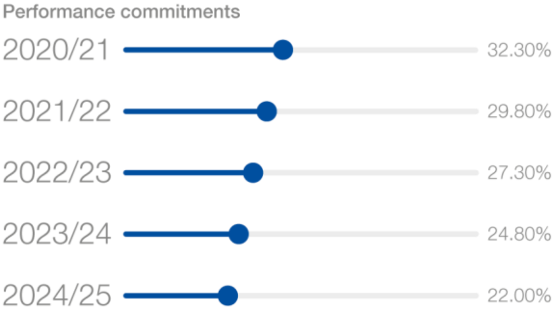
Since the end of the last regulatory reporting period (2019/20) we have reduced the number of external sewer flooding incidents by 34%. However, despite this improving performance, we underperformed against our PC and in accordance with our structure for this measure, an underperformance payment of £0.560m will be paid.

Although we did not achieve our PC, our performance has improved by a further 10% compared with the performance we reported last year. We have the right initiatives in place within our sewer flooding tactical plan to meet our future targets, including several specific initiatives helping us to reduce external sewer flooding. These initiatives are now starting to outperform our initial benefit assessment, with a great example of this being the investigations and technical rigour we are undertaking on first time external flooding events occurring on the Transferred Drains and Sewer Network (TDS), which is delivering a measured reduction in external flood risk of 10% more than we originally had estimated.

We continue to support affected customers with Guaranteed Standards Scheme (GSS) payments, as well as providing support and cleaning services post flood events. Our response time for attending external flooding incidents (four hrs) is already amongst the best in the industry. We are also investigating how we can now provide longer term solutions to those properties with chronic repeat hydraulic flooding, following on from the sewer flooding studies we carried out and reported on in our last annual performance report.

Our performance this year shows that our overall reduction in external sewer flooding incidents since the start of the regulatory reporting period on average continues to be among the best of those other companies that are also improving. Despite this, we are still one of the worst performing companies at present for external sewer flooding. We are confident in our planning and that our performance will improve in the near future, however, we will also be using the outputs from our Drainage and Wastewater Management Plan (DWMP) to identify future hotpot areas for investment, as well as using this programme to identify how we can best use new technology to proactively manage risk through ‘smart networks’.

Risk of sewer flooding in a storm - PR19NES_COM11



We have achieved this PC.

This is a common measure with no financial incentive.

The performance measure defines the percentage of population at risk in a 1 in 50-year return period storm as defined by hydraulic modelling.

As we reported last year, the supporting hydraulic modelling work that we carried our as part of our Drainage and Wastewater Management Plan (DWMP) has led to us exceeding our 2024/25 performance commitment for this measure ahead of programme.

We are publishing our final DWMP in May 2023 and as the modelling work has been completed, there has been no further opportunity to reduce this number.

We have continued to reduce the risk of sewer flooding for our customers through our tactical plan activities in accordance with the other performance commitments we have in place for sewer flooding.

We are behind in comparison to the rest of the industry with the percentage at risk number we are reporting. However, our final DWMP will help provide long-term resilience for our customers and therefore we are confident we have the right long-term strategy for this area, despite this particular measure not being a common performance commitment in 2025-30.

This measure is reputational only and therefore no outperformance reward has been earned.

Sewer blockages - PR19NES_BES15

We have achieved this PC.

Our sewer blockage performance has improved by 14% compared to last year and as a result we have earned an outperformance reward of £0.168m. Our improvement in performance has been driven by the continued success of our tactical plan initiatives including our Bin the Wipe campaign, which has now engaged more than 170,000 households. We are proud that Bin the Wipe has now been adopted as a national campaign through Water UK.

We recognise that blockages are a significant contributing factor to the performance of our sewerage system. We therefore have a bespoke performance commitment in place which records the number of sewer blockages that required clearing. A blockage is defined as an obstruction in a sewer which causes a reportable problem, such as sewer flooding or a discharge to the environment.

We have also continued to have some great success in reducing the amount of Fats Oils and Grease (FOG) entering our network from Food Service Establishments. A great example of this success is the work we have completed in partnership with Greggs. We have shared best practice and information on the risks the FOG in our network causes and as a result Greggs will be rolling our Grease Recovery Units at over 200 outlets across the North East.

Over 50% of sewer flooding incidents are because of blockages within the sewerage system, with over 60% of blockages caused by wipe wipes. The work we are leading on both locally and nationally in this area is now starting to deliver real benefits to our customers.

Our sewer blockage performance continues to be better than the industry average and we are also better than the industry upper quartile. As part of our tactical plan, we continuously benchmark ourselves with the rest of the industry and because of this knowledge sharing, we will be starting a new initiative in 2023 to CCTV all sewer blockages, fixing any defects that we identify along the way. This will be another intervention that will help further reduce our sewer blockage performance over the next year and beyond.

We also planning to adopt AI defect recognition software to help with the proactive inspection of our sewer network and are currently piloting this technology on a couple of existing programmes.

Case study: Inspiring the nation to 'Bin the Wipe'

Back at the start of 2020, we launched our Bin the Wipe campaign. Since then, we have seen a 52% reduction in blockages and a 64% reduction in home flooding incidents. The campaign has been so successful that the nation's industry body, Water UK, is coordinating with water companies across the country to take the Bin the Wipe message nationwide.

Our Bin the Wipe campaign has been successfully reducing the number of sewer blockages since 2020, and 2022 saw our teams operating in 24 hot spot areas, engaging with more than 90,000 households.

Wipes are a significant challenge for our sewers, as they do not break down in the way toilet roll does, causing them to settle in pipes and add to or cause blockages. In fact, wipes were present in 64% of the more than 15,000 sewer blockages our team cleared in the year before the Bin the Wipe campaign started.

The campaign combines education on the problems wipes can cause with on-the-ground action from our teams which enables them to speak to wipe flushers face-to-face. This combination has been successful, and in the best performing areas - Washington and Darlington - we found a 91% reduction in the number of wipes found in the sewers.

This improvement has contributed to a 52% reduction in blockages in the hot spot areas since the campaign started in 2020, and a 64% reduction in the number of home flooding incidents.

Those excellent outcomes have caught national attention. In the past year WaterUK, the industry body representing water companies across the country, has unveiled plans for a national Bin the Wipe campaign, inspired by our success and with the backing of MPs.

Bin the Wipe is a simple message, but one with a significant impact - not just in the North East but now across the country as well.

For us, since its' inception in 2020, the campaign has:

- Reduced blockages by 52%
- Reduced internal flooding by 57%
- Reduced external flooding by 60%
- Reached over 170k customers in our hotspot areas
- Reduced the wipe count in hotspots by up to 91%.

Sewer collapses (per 10,000km sewer) - PR19NES_COM14

We have achieved this PC. This is a common measure with an associated penalty and therefore we do not earn a reward for our outperformance.

We are continuing to reduce our sewer collapse number and have outperformed our PC once again, for the third year in a row.

The measure is a count of the number sewer collapses per thousand kilometres of sewer that have not been identified proactively and cause an impact on service or the environment.

We have reduced the number of sewer collapses we report by 50% compared to the number we reported at the end of 2019/20.

We carried out specific training within our operational teams to embed the learning and best practice we have identified throughout the year. We're also seeing several sewer collapses avoided through proactive investigations, for example those identified as part of our find and fix activities associated with our 'Flooding Other Causes' programme.

Our sewer collapse performance is ahead of the average number of sewer collapse reported by the industry. We recognise that there is more than we can do in this area and will continue to benchmark our performance and learn from companies who are doing slightly better than us to help us continue to reduce sewer collapses in the future. The work we are trialling using AI for defect recognition from CCTV survey footage is a good example of where we plan to improve the efficient and effective proactive inspection of our sewer network.

Our continuing improving performance in this area has helped reduced the risk of sewer flooding incidents and environmental discharges across our region.

Finally, as one of four asset health metrics, longer term performance is strongly linked to the delivery of appropriate levels of capital maintenance. Our PR24 Business Plan will set out our proposals in more detail, however delivery of this plan will in turn be dependent on.the provision of appropriate levels of funding for capital/asset maintenance activities. We do not consider that the current regulatory approach to setting funding allowances is sustainable in the longer term, a topic we will elaborate on further in our Business Plan.

THEME FOUR: LEADING IN INNOVATION

OUTCOME 10: We are an innovative and efficient company

AMBITIOUS GOAL: To be leading in innovation within the water sector and beyond

We measure innovation in multiple ways across the business, as detailed in the below table.

Table 2

METRIC	DESCRIPTION/HOW WILL MEASURE	2019/20	2020/21	2021/22	TARGET	2022/23 ACHIEVED
Reach	Social media reach	8.6M	15M	2.3M	>5M	3.8M
Culture	No. of innovation ambassadors	47	71	82	All employees of NWG	96
Employee participation	No. of employees taking part in Innovation Festivals	484	645	439	>20%	610
Collaboration	Innovation Festival attendees	3,311	2,730* (digital event)	4000	>2,500	>2050
External collaboration	No. of businesses/organisations attending Innovation Festivals	734	941	800	>140	600
Added value	Training delivered as part of Innovation Festivals (hours)	46	400	256	>12	256
Design sprints / hacks	No. of innovation activities	23	40	44	>20	31
Ideas generated	Ideas unfiltered	615	2,000	1,675	>300	1800
Ideas in the innovation pipeline	Total no. of ideas	56	70	87	>50	109
Success rate (%)	Projects adopted as BAU (business as usual)	38%	41%	40%	40%	40%
Potential value (£)	Potential value of the pipeline	£15m	27M* estimated	£37M	£20M	£66M per annum
Innovation funding secured (£)	External funding secured	-	£475,000 for innovation; £350,000 for research & development	£12.03M	>£500,000	£1.8M

Leading in innovation

Innovation is central to how we work across the whole business and 'innovative' is one of our core values that is reinforced and celebrated across the year. For the past seven years we have been working to create the right environment for an innovative culture to thrive. We are now benefitting from increased engagement in innovation which is enabling everyone to improve how we work no matter the job level or role. This is essential so that we can deliver the ambitious goals set out in our 200-25 Business Plan and has resulted in us being widely seen as leading in innovation, both within the water sector and beyond.

This year we have built on the strong foundations laid and have focused on enabling bigger ideas, faster execution post proof of concept and inclusive innovation. This has enabled us to build the number of employees involved innovation which currently stands at 20% of the organisation.

We have continued to build the robustness of the pipeline process, making it more accessible and accurate. In addition, we have had significant success securing external funding to grow our innovation capacity both in terms of capacity and capability. To date we have won the largest number of bids from the Ofwat Innovation Fund (10 out of 51 winning bids) and have secured £14M in funding.

Innovation culture

Our innovative culture has matured and more of our employees are able to play an active role. The growth of our innovation ambassador group is central to the growth and strength of the culture shift which is more curious and open for changing how we run our operations and business.

We have firmly established 'hub leads' for each of our operational directorates, which is an effective way of communicating new ideas to the right audience and hearing more of what is needed from the business. The number of employees engaging with innovation has grown significantly. The innovation ambassador group now has 96 members up from 80 last year - these members come from across the whole business and represent all levels. In addition, more than 600 employees attended the Innovation Festival which is a key engagement opportunity.

This has also enabled us to have a better relationship with the supply chain as we are faster at responding to opportunities and can give clear feedback. We were voted number one in the British Water Supply Chain Survey for innovation. We also share our innovation news monthly through our Innovation Connect newsletter and invite external organisations that excel in innovation to a quarterly Innovation Connect virtual call.

Training and knowledge sharing is a key aspect of the Innovation Ambassador group which brings in an inspiring external speaker each month and invites sharing across business units internally. We have continued to upskill the organisation via our core skills training programme and the NWG Innovation University, which offers bite-sized training covering all the core elements of innovation. More than 100 employees took advantage of the training offered on intellectual property, facilitation, design sprints or core skills which exceeded 500 hours.

Open data

We have a long history of living Our Purpose and Our Values. As a result, developing our capabilities regarding open data is the natural ethical thing for us to do. We have been opening up our data sets, collaborating widely and realising value for more than seven years now mainly in the form of data hacks. This has exposed us to new thinking that we have brought back into our business. This collaboration and co-creation has also brought economic, societal and environmental benefits to our operating regions and beyond. The National Underground Asset Register is one of our best examples of what can happen when we become more open with data.

The water industry holds vast data sets, that can play a key role in unlocking value for the UK from open data. The industry and our customers are facing challenging times, dealing with complex issues related to climate change and the current cost-of-living crisis. We believe that open data has a big role to play in helping us to tackle these issues and are delighted to be publishing our Open Data strategy. This strategy clearly sets out our ambition and commitment to open data, not only for the benefit of our own customers and regions but for the whole industry and other sectors. While developing this strategy, we have researched published best practices as well as inspiration from those who have demonstrated the ability to generate real, quantifiable value as a result of opening up data, such as governments from around the world. We have consulted widely and challenged ourselves, our assumptions and our practices and we are excited to be able to bring this to life for our company and across the water sector.

We have a growth mindset, and we know that we learn by doing. We will review this strategy periodically and will continue to scour the outside world for best practice that improves our performance.

Open data statement

We have recently published our Open Data Strategy and were cited in the Ofwat sponsored PwC assessment on Open Data progress in the Water Industry (Open Data Assessment Report Live (ofwat.gov.uk) as an example of good practice for strategy and strategic oversight. We have clearly and publicly set out our aspirations, ambition, and commitment to driving value for our customers, society, and environment through opening up our data. Our Open Data Lead is working with stakeholders to bring the strategy to life and deliver year one of our tactical plan. We have already begun to develop and strengthen our data publishing by adding licenses, certificates, and additional datasets. We prioritise user ease and provide metadata and data user support.

While we put in place robust processes and practices in line with our strategy, we have made some improvements to the way we publish our APR data. These include:

- Adding an open data licence type with a link to further detail on the licence condition – to help users of the data to clearly understand what, if any, the restrictions are. This licence has also been embedded into the file itself so that it remains with the data upon download.

- Adding an Open Data Institute certificate – this is in line with our commitment to adopt the ODI certification scheme so users can see at a glance how closely the published dataset conforms to best practice.

- Publishing additional datasets alongside the final APR tables – initially we have created a 3-year dataset for a subset of Table 3 datapoints. This allows users to see trends without having to download and manipulate three separate files. We are also investigating the release of further related datasets, which provide more detailed data behind the APR numbers. These will form part of our prioritised data publication pipeline.

- Basic metadata alongside the file, to help users understand the data at a glance while we work on adopting our full open data metadata standard.

- The provision of a data user help function, to support users with data related queries.

Lastly, we are leading the Stream initiative, which helps us publish additional datasets that support the APR tables. This is useful for users who want to access data at the sector level instead of just individual company data. The Use Case and Market Needs advisory group in Stream will consider APR-related data and supporting datasets to prioritise which sector datasets to publish first.

Innovation Festival

The Innovation Festival returned for the sixth year, an in-person event again, and was our most successful to date in terms of engagement across the water sector and beyond and quality of the output. The Innovation Festival is an important element of our innovation programme and is key for idea generation, acceleration of existing projects and establishment of consortia for future external funding bids.

These events are now very established and highly anticipated nationally and globally. The novel format of the festival also enables us to attract a diverse audience which is a critical part of design sprints.

Our latest festival hosted 31 activities, 27 sprints and four data hacks. Five of the sprints were online to keep our festival as inclusive as possible.

The festival attracted 53 sponsors from 38 sectors, 600 organisations with participants from over 33 countries. We also had four sprints that had global hubs including US, India, Ireland, and Australia. Our novel, electronic delegate badges enabled 23,000 connections and saved 77Kg of paper.

Sydney Water ran its second Innovation Festival in November using a similar blueprint as ours. We continue to collaborate closely with Sydney Water and played an active part in the 2022 event including a couple of shared sprints. We also passed on our expertise to help the company run the event, further reinforcing our leadership in innovation globally. The equivalent professional services value of this contribution is estimated to be between five and six million pounds.

Since our first Festival we have taken >250 ideas back into the business and put more than £1.5million back into the local economy, demonstrating our convening power to bring others into our regions. In 2022 we reached an engaged audience across key social media channels (LinkedIn, Twitter and Facebook), building up a strong innovation community with thought leadership and impactful content that had a social reach of >2.7 million. The festival output projects cover many aspects of the business, including the sector changing No Dig pipe fix product which we have used in >10 live trials with great promise. Additionally, five Ofwat innovation bids were formulated in the festival potentially worth >£18M, these include Project Greenscape, Asset Health Demonstrator (in partnership with the nuclear sector) and a self-powering smart meter. This shows the strength of the festival's convening power.

Innovation fund

During 2022/23 there has been another round of the Ofwat Innovation Fund, Breakthrough 3 and us have been active in both the Catalyst and Transform rounds. We submitted five bids into the Catalyst fund, asking for £4.5M. There was a total of 32 bids submitted from 10 water companies, 19 of these were invited to pitch stage. We took four out of five bids through to pitch stage and successfully won two bids out of 10 awarded, with a game changing water powered smart meter (£874,954) and a root growth prevention technology (£939,377). We are also short listed for potential funding with the water literacy tool kit (£864,484) bid with funding remaining from the Transform round.

We have four bids submitted into the two stage Transform competition and got all four through to stage two. These bids cover asset health, regenerative agriculture, open data, and water efficiency. Our Stream open data project was successful and secured £3,973,205. There were 11 bids in the competition and five secured funding in this round. In addition, they awarded our Water Literacy Toolkit Catalyst project £864,484 funding, netting us three out of five catalyst bids. These bids have brought our overall total funding secured to £18,904,917 which is 164% versus our contribution to the competition and 18.5% of the total fund so far.

Previously in the funding programme we have secured eight bids worth over £12.5M, which is already more than we put into Ofwat during the 2020-25 Business Pan period (£11.5M).

This competition is extending our innovation capacity both in terms of available funding and personnel. It is also driving higher levels of collaboration across the water sector and beyond as we seek out new and interesting partnerships for future rounds.

The projects have been granted funding are progressing well, including the Organics Green Ammonia project which now has the equipment being commissioned at Howdon. This world-first project turns ammonia into green hydrogen fuel, collaborating with Organics, Wood Group, and Warwick and Cranfield Universities. The Support for All platform to help vulnerable customers pilot has also been successfully run and we are now exploring scale opportunities. The National Leakage Research and Test Centre (£5.3M), an ambitious, first of its kind leakage test centre for the sector to significantly fast forward technology development in this vital space is now in the design phase. Stream, the transformational open data platform has completed phase one work and is in the Transform competition to secure further funds to bring this to life.

Value from innovation

We have continued to drive speed to value from innovation and making our ideas bigger. The innovation pipeline has 109 ideas being considered across the business. The estimated value of ideas in the pipeline, if successful is worth >£66M per annum if successful.

We actively encourage employees to come forward with innovative ideas and support their development. A great example of this is the Invest Quest competition, which enabled the Micro-Algae treatment process to grow to three times its original design.

We are focusing support on the transformational ideas such as the Tipping Point asset health tool, No Dig pipe fix technology and the National Underground Asset Register, which are all now ready for business-as-usual deployment.

In addition, the Pressure Vessel solution, which was home grown in Essex & Suffolk, is now making a difference to reduce interruptions to supply. This team won the Innovative ViVa award in 2022. ViVa (Vision and Values) is our employee awards scheme to commend employees for doing a great job or going the extra mile.

These are a few examples of how innovation is really making a difference to our customers, now and for a more resilient future.

Case study – Innovation fund – Investing in technology to reduce leaks

We are at the forefront of new technology to help detect and repair leaks faster. Last year we were awarded more than £5m to create the National Leakage Research and Test Centre, which will provide a testbed for new solutions to the problem of leakages in the water network.

Across the country, the water network loses 51 litres of water per person per day to leakages. That's a huge amount of water, and leaks can cause significant problems for customers and put unnecessary strain on the environment.

Lots of progress has been made, and the number of reported leaks has fallen significantly since the mid-1990s - but there's lots more to do, and we were disappointed this year not to hit our target for leakage reduction in the North East.

To help with that effort, we have been awarded more than £5m from Ofwat to create the National Leakage Research and Test Centre (NLRTC). The project will create a testbed for trialing innovative new solutions for detecting and fixing leaks.
That testbed - a five kilometer-long buried water network - will have its own control room, with three new dedicated staff to run it.

The NLRTC will provide a place where innovators can try out new ideas without risking interruption to customers' water supplies or harming water quality - any water leaked by the centre is collected and recycled.

The project is part of the Water Breakthrough Challenge, which is led by Ofwat along with Challenge Works, and awards funding to innovative initiatives which deliver benefits for customers, society and the environment.

THEME FIVE: IMPROVING THE ENVIRONMENT

OUTCOME 11: We help to improve the quality of rivers and coastal waters for the benefit of people, the environment and wildlife

AMBITIOUS GOAL: Have the best rivers and beaches in the country

AMBITIOUS GOAL: Have zero pollutions as a result of our assets and operations

• Treatment works compliance – common

• Bathing water compliance – bespoke

• Pollution incidents – common

• Water Industry National Environment Programme (WINEP) – bespoke

• Delivery of WINEP requirements – bespoke

Our care and respect for our natural environment goes far beyond our regulatory requirements. We work constantly to protect and bring about improvements for our coasts, rivers, and watercourses in all areas of our operations.

Our vision is to be the leader within our sector for environmental performance for our customers and communities - and we have achieved several significant successes towards this. In the last two years, we have:

- We have a good track record of being a Four Star rated company in the Environment Agency Environmental Performance Assessment. In its latest assessment we achieved Three Stars (leading) because the threshold for Four Stars has got higher with compliance (our only area rated amber) now being a core metric. We score green in all other areas.
- In the North East, 32 out of the 34 bathing waters are rated Good or Excellent. We have overseen dramatic reductions in pollution in the past decade.
- We were also the first and remain the only water company to use 100% of our sewage sludge to produce clean energy through advanced anaerobic digestion at our green power stations at Howdon on Tyneside and Bran Sands on Teesside. That is a significant factor in putting us on track to achieve our ambitious goal of making our operations carbon Net Zero by 2027.

This has all been achieved while offering our customers the lowest wastewater bill in England.

We are proud of the level of environmental investment we committed to in the current five-year investment period, which reflects our customers' priorities as we understood them pre-Covid, but we understand that times and expectations have changed.

Climate change increases the risk of drought, affecting the health of our waterbodies, and intense storms, increasing the risk of unplanned discharges to the environment. In the last year, our CEO, Heidi Mottram, has helped to establish and co-chair a new partnership, Net Zero North East England, bringing together a series of organisations in our northern operating area to make a bigger collective difference.

We have recently updated A Vision for our Coasts and Rivers, to set out the progress we have made against the nine pledges we have made to water quality and our programme of work to 2025 that will help us achieve our goals. They include reducing spills from our storm overflows to an average of 20 per year by 2025. The number came down from 25.3 to 20.3 in 2022. However, we are not complacent – while this was in part down to our actions and investment, it was also a year in which we saw fewer intense storms, so we recognise there is more to do to make sure we can consistently achieve this level, or better.

We expect to deliver on our pledge to put real time monitoring in place for all our storm overflows during 2023. We have also developed a clear plan to implement water quality monitoring at our highest priority sites.

We continue to cooperate fully with Ofwat's and the Environment Agency's investigations into Flow to Full Treatment (FFT) compliance at our sewage treatment works and understand we may now be reaching the end of Ofwat's investigation process. More in depth updates can be found on our website.

Important work is taking place at the two bathing waters that are not rated Good or Excellent, and we are playing a full part in this even though their lower status does not appear to be due to our assets. We have also taken steps to protect the standards achieved elsewhere in our region.

Many of our pledges cannot be achieved without the support of partners. Over the past year the Rivers Trust has worked with us to establish the North East Catchments Hub and through this new approach, develop a series of catchment and nature-based solutions we hope to take forward from 2025. This would see us deliver water quality improvements for North East rivers, while working more closely with communities, catalysing more investment, and providing a range of other benefits including flood resilience, biodiversity net gain and carbon sequestration.

Treatment works compliance - PR19NES_COM15

We have not achieved this PC.

This is a common measure. It differs slightly from that reported by the Environment Agency (EA) in its annual Environmental Performance Assessment (EPA) of water companies in England. This measure is reported as the total number of failing sites (rather than the number of failing discharges) where one or more numeric permitted discharges have been confirmed as failing in a calendar year. This is expressed as a percentage of the total number of discharges on the EA register. For both NW and ESW in 2020-25, this measure now includes both sewerage treatment works (STW) and water treatment works (WTW) discharges and is subject to penalty for under-performance (EPA does not include ESW sites).

Our result this year has stayed stable at 98.52%. This performance is below the 99.00% deadband and we will incur a penalty of £0.287m.

This year we have seen failures at three sites out of a total of 205 eligible treatment works – these are not the same sites that failed in 2021/22. This result has been associated with two treatment work sites in our Northumbrian operating region (one STW and two WTW) and two WTW in the Essex & Suffolk area.

The North East failing discharges were at Honeyhill WTW due to and iron failure and Billingham STW for a suspended solids failure. In Essex & Suffolk, there was also a chlorine failure at Barsham WTW.

To make sure we are doing all we can to improve our performance we are working on a tactical plan specifically for discharge compliance. This will cover both WTWs, and STWs, and include root cause analysis, data interpretation and identify any additional training or governance required.

We are disappointed to have had failures again this year and we recognise these failures have an impact on the environment, people, and wildlife though in each case the impact was relatively minor and transient. The development of a new tactical plan (similar to what we have done for flooding) will help us to improve in this area. This will be across both water and wastewater so we can share learning and implementation.

The industry average (ten water and sewerage companies) performance for discharge compliance has been between 98.2% and 99.2% over the last eight years. Last year there was only 1.79% (max 99.42% and min 97.63%) difference between the highest and lowest performing company showing the high standards achieved across England and Wales.

We make sure that our treatment works meet the required discharge standards by taking regular samples that are analysed for the levels of substances, including phosphorous and ammonia, and other specific substances that may accumulate to cause a problem in the water environment. We have a strong record for meeting numeric discharge compliance limits (with additional reporting following a failure until you have reported 12 consecutive months of numeric compliance) at our STWs. These numeric permits apply to 160 of our largest STWs and 44 WTWs. Future permits will tighten as legislation changes. This will introduce new challenges and standards over the next five years and beyond, as well as tightening existing permit standards. We will therefore need to adopt new treatment technologies and increase our emphasis on very efficient operational control.

The pressures of increasing population, new housing, industrial development, and climate change will also challenge our performance. We commit to doing our best to deliver against challenging new standards over 2020-25. We must also plan to meet future new and tighter standards and satisfy our obligations in working towards meeting 'Good' Water Framework Directive (WFD) status in our rivers.

Finally, as one of four asset health metrics, longer term performance is strongly linked to the delivery of appropriate levels of capital maintenance. Our PR24 Business Plan will set out our proposals in more detail, however delivery of this plan will in turn be dependent on.the provision of appropriate levels of funding for capital/asset maintenance activities. We do not consider that the current regulatory approach to setting funding allowances is sustainable in the longer term, a topic we will elaborate on further in our Business Plan.

To get back on track in 2023/24, a tactical plan to improve performance is currently in development and will aim to see us reach over 99% compliance.

The tactical plan will address three key areas in both water and wastewater:

1. Known risks.
2. Continuous improvements.
3. Trend analysis/data analytics and knowledge sharing/operator interventions procedural changes.

Examples of intervention activities are shown in the table below (this is not comprehensive and will evolve as the tactical plan develops). To improve performance, we are making sure we carry out work at any sites with a history of any level of sample failures, to prevent a reoccurrence. We are also continuously improving our approach to scrutinising our compliance data.

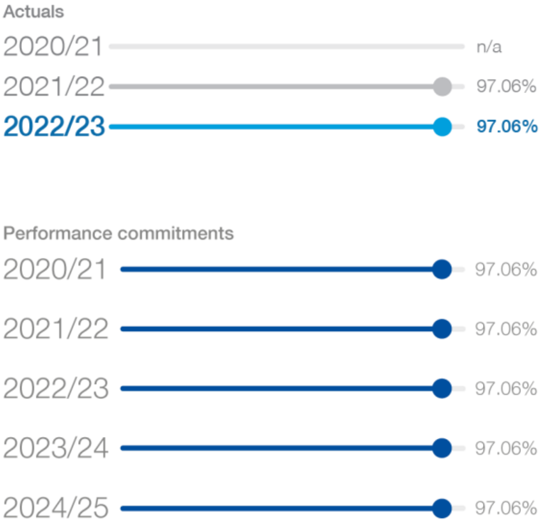
Our aim is zero failures. This will be challenging but is important in meeting our environmental purpose and to meet our objective to be a Four Star company in the Environment Agencies' Environmental Performance Assessment (EPA).

Table 3

ACTION	DESCRIPTION	TARGET DATE
Address known risks	We have carried out extensive investigations to find the root cause of any failures or observed compliance risks and are implementing measures at specific sites to prevent a reoccurrence. These include improving operating procedures and introducing preventive maintenance schedules along with extra infrastructure. By taking regular samples that are analysed for compliance, including phosphorous and ammonia, and specific substances that may accumulate to cause a problem in the water environment, we can also take a more proactive approach. We remain committed to achieving maximum compliance and are focusing on targeting known risks by putting in place interventions at sites with one or more individual sample fails (previously it would have been three). This includes investing in cleaning, filtration and investigating ammonia issues.	Sherburn WWTW due 2024 Lanchester WWTW due 2025
Continuous improvement	We're running a programme of compliance controls including further improving visibility and scrutiny of compliance data, via a new 'compliance hub', including data from retailers to facilitate trade effluent management. Our wastewater teams will employ investigation and interventions at the first failure, and we are investing in cleaning, filtration, and ammonia issues. Our wastewater teams have an increased focus on discharge compliance and internal reporting requirements.	End 2024

Performance data and analytics	We'll make sure data is high quality using Mcert and other quality audit requirements. We're focusing on making sure data is correctly interpreted, meets reporting obligations and that any necessary actions as a result of the data are accurately programmes and resourced to avoid non-compliance.	

Bathing water compliance - PR19NES_BES19



We have achieved this PC.

Our stretching bespoke measure is to contribute to all the region's bathing waters being 'Good or Excellent'. Previously for 2015-20 our PC was to contribute to all the regions bathing waters being 'Sufficient or better'.

Under the bathing water regulations, high amenity beaches are designated as bathing waters and classified every year as either: Excellent, Good, Sufficient or Poor. These classifications are linked to the levels of bacteria measured in sea water during the bathing season (May-September). 'Sufficient' is the minimum acceptable standard.

Bathing water classifications were assessed for the 2022 bathing season with 32 out of 34 bathing waters either Good (7) or Excellent (25).

The two bathing waters that haven't met our PC of 'Good' or 'Excellent' are Marsden ('Sufficient') and Cullercoats ('Poor').

Marsden classification deteriorated from Good in 2019 to Sufficient in 2021 having been significantly impacted by higher-than-normal sample results in both August 2018 and August 2019 that were linked to rainfall events. Our Water industry national environment programme (WINEP) investigation in 2020/21 found that local diffuse sources represent the predominant cause and removal of our only asset, a storm overflow, would not improve the classification.

The definition for this PC includes a specific exemption where it can be proven that our assets are not contributing to any deterioration in classification. The EA provided written statements to confirm that Marsden meets the exemption criterion for the 2021 bathing season and again for the 2022 season. Therefore, our reported performance is 33/34 (or 97.06%) for this year that comprises of 32 beaches rated as Excellent or Good along with Marsden rated as Satisfactory but with a written exemption confirmed by the EA.

Cullercoats has been classified as Poor since 2018 having deteriorated from Good in 2016 and to Sufficient in 2017. Due to the break in classification for 2020, the 5-year consecutive count before de-designation for Poor bathing waters has been reset in 2021. This means that the earliest Cullercoats could be de-designated due to five consecutive Poor classification under the regulations will now be after the 2025 season.

Our WINEP investigation found that contaminated groundwater is the most likely primary reason for the deterioration in bathing water quality and that there is no evidence that our assets have an impact. This study built on the extensive partnership investigations with the EA and local authority carried out since 2017 and included targeted investigations and surveys to determine the most likely cause. An uncharted polluted drainage culvert belonging to the local authority, that was identified in a previous study in 2011 and capped off from the beach, was also investigated further. Groundwater flow in the culvert have been shown to contain high levels of bacteria and to improve bathing water quality, this was diverted into our combined sewerage network in December 2022. We continue to have positive engagement with the Cullercoats Collective, a local interest group with wider-ranging membership including members of Surfers Against Sewage, but with a broad town-wide remit. We remain committed to working with our partners including North Tyneside Council and the EA to improve the seawater quality at Cullercoats for our customers, local businesses, and recreational users.

Our Water Ranger volunteers help us to monitor environmental conditions and improve the coastal area. In our engagement with local community groups, we provided training to Markse Litter Action, Seascapes beach volunteers, Saltburn Countryside Volunteers, Tees Valley Wildlife Trust and the Friends of the Lower Path. The community groups are passionate about protecting the environment and their local area, especially the beach and nearby waterways. Training gave them an in-depth understanding of our wastewater system and included the Bin The Wipe campaign.

Our bathing waters continue to be amongst the cleanest in the country. We were ranked second in this measure in 2022 for the percentage of Excellent and Good coastal bathing waters in comparison with water companies in England.

Case study: NE Catchment Hub - Industry-leading partnership with The Rivers Trust

Water is best managed at a regional level, and within the North East we’re working with The Rivers Trust to create a regional hub to develop improvements for water quality and the wider environment.

We’ve created the North East Catchments Hub, a first for the industry, and with it comes three full time roles covering the Tyne, Wear and Tees river catchments, bringing together the best local, regional and national expertise to benefit our region

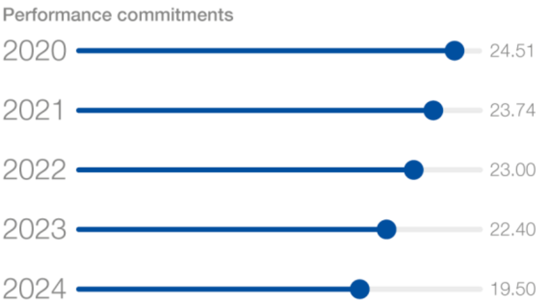
Those three roles, plus a part-time managerial role, will help us and our partners to invest effectively in improvements to watercourses and the wider environment.

By working in partnership, with the Catchments Hub as the coordinating presence, we can do more than any individual organisation can do alone, by combining expertise and best practice, and considering alternative, sustainable ways to invest for environmental benefit.

In the past year, we have invested around £300,000 in the Catchments Hub, identifying eight catchment and nature-based schemes which have been put forward for inclusion in our 2025-30 Business Plan.

The catchment and nature-based solutions have multiple benefits. By focusing on cross-catchment partnership working, rather than end-of-pipe schemes at Sewage Treatment Works, we can save an estimated £51.7m, helping keep customer bills down, and also minimise our carbon and climate impacts while delivering substantial water quality benefits.

Pollution incidents (Category 1-3 Wastewater) - PR19NES_COM09



We have once again achieved this PC.

We aim to avoid all pollution and our PC for all wastewater category 1, 2 and 3 incidents is a common measure for pollution using the Environment Agency's (EA) EPA methodology.

Our 2022 performance for category 1-3 wastewater pollution incidents has improved further with 60 incidents (19.98 against our PC of 23 incidents per 10,000km of sewer) and we have earned a reward of £0.902m.

In the Environment Agency (EA) assessment of our performance for incidents attributable to Storm Malik in January 2022, an extratropical cyclone that caused damage throughout our region with severe winds and multiple power outages, they found all but one incident to have caused no impact (category 4 incidents). The decision also reflects that after full investigation by the EA these incidents were deemed to be outside of our control.

We are very pleased that we had zero serious category 1 and 2 pollution incidents in 2022 from our water and wastewater assets having previously reported very low occurrences at one (category 2) in 2021. Our continued aim is to have zero serious incidents.

Power issues remains one of the main reasons behind the increase in wastewater category 3 incidents that particularly impact sewage pumping stations (SPS). These are connected to incoming power supplies where power cuts or very small interruptions, often referred to as a 'brown-out', can cause significant issues to our powered sites. Internal power issues can also occasionally affect our service. We continue to put in place measures to increase our power resilience, such as improved arrangements for generators and engagement with our power Distribution Network Operator (DNO) to address risks.

Our focus is on continuous improvement in pollution performance through our company-wide zero-tolerance approach as set out in our published Pollution Incident Reduction Plan (PIRP). We constantly examine all aspects of pollution to target our efforts in effectively reducing the number of incidents. In doing this, we share our experiences and learn from others, such as through the industry Pollution Reduction Task Force and our innovation networks. An example of a recent innovation is the full deployment of a smart network management technology. This uses advanced machine language learning, together with hyperlocal rainfall forecasting, to accurately predict the normal performance of our assets and provide alerts of issues occurring. This increases our capability to detect these issues and respond to prevent pollutions from happening.

For our water assets, there were 21 category 3 pollutions incidents in 2022 that were mainly from our supply network (20) with one incident from a water treatment works. These incidents typically involve a burst water main and chlorinated water impacting a nearby watercourse. Focus on raising standards in this area has included the completion of environmental training across the water directorate, deployment of new innovative mitigation measures and dispatch of strategically placed emergency response trailers.

The EA expects that we will pro-actively 'self-report' at least 80% of all pollution incidents to it rather than rely on others to point out a problem. This is part of the package of pollution measures reported annually in the EPA. We consistently achieve high levels of self-reporting in surpassing the 80% requirement with continued improvement to 91% in 2022 compared with 89% in 2021 and 81% for 2020. From 2020 onwards, the EA also expects a self-reporting level of 90% or more for sewage pumping stations (SPSs) and sewage treatment works (STWs). We achieved 92% self-reported in 2022 having previously attained 100% in 2021 and 2020.

We remain an upper quartile company for pollution incident performance and are proud to have delivered zero serious pollutions incidents across all our assets and operations in 2022.

Longer term our performance against this metric remains susceptible to external factors in particular weather events such as storms or flooding which are expected to increase in frequency due to climate change and which can disrupt the operation of our assets, particularly if they affect power supplies. Our PR24 Business Plan will set out robust proposals to address this, however delivery of these proposals will be dependent on provision of associated funding.

Case study: Stormharvester – preventing pollution with help from AI

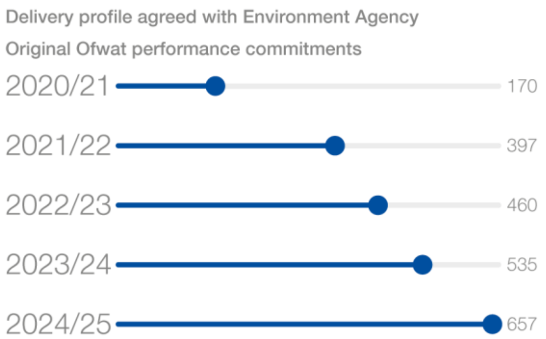
We are always looking for ways to improve our processes and understand our network better. Working with industry specialists Stormharvester, we've harnessed machine learning and more than 1,300 sensors across our network to keep track of rainfall, make predictions and allow us to intervene to prevent spills.

Using more than 1,300 sensors across our assets - everything from storm tanks to pumping stations to manholes - we've been able to collect data and use hyperlocal rainfall forecasting to enable us to increase our blockage detection and asset performance, while reducing spills, pollutions, and flood events.

The system collects data form each sensor and machine learns the normal operating thresholds for that site, it can then recognise and highlight anomalies in near real time.

In the first six months of operation, the project with Stormharvester alerted us to possible incidents which resulted in 110 teams being dispatched to investigate further, and 39 pollutions were avoided.

Water Industry National Environment Programme (WINEP) - PR19NES_BES31



Delivery of Water Industry National Environment Programme requirements - PR19NES_NEP01

These are two bespoke PCs which are reputational only until 2025, when a penalty could apply for underperformance.

Measured by the cumulative number of WINEP schemes completed each year across our operating areas (including both Northumbrian Water and Essex & Suffolk Water), it is limited to schemes that were confirmed on 1 April 2019 within the WINEP and therefore had certain (green) status. Only sites signed off by the Environment Agency (EA) can count towards the measure.

The WINEP is a key part of the overall programme of measures to meet the requirements of the Environment Agency (EA)'s Water Industry Strategic Environmental Requirements (WISER) document. This includes objectives to meet Water Framework Directive (WFD) ‘Good’ status in our rivers by 2027 and prevent deterioration in status, together with other international regulatory drivers, including the Urban Wastewater Treatment (UWWT) and Habitats Directives.

The EA sets an expectation in its WISER guidance that companies will deliver 100% of the environmental improvement schemes listed in WINEP. All our forecasted WINEP deliverables (post accepted changes) for 2022/23, have been completed for sign off. The agreed number of deliverables for year three (2022/23) was 111, we are pleased to say that these are all complete making the cumulative delivered 439. We are confident that we will deliver 100% of the schemes by the end of the five-year period.

We work very closely with our local EA team to make sure we have a common understanding of the specific requirements of our obligations, and to make sure the mitigation measures we implement will satisfy the WINEP’s environmental objectives. We have regular engagement with local EA representatives and provide information, as required to make sure we agree on key decisions throughout a scheme’s delivery cycle. A governance process has been agreed, based on an EA guidance document, to avoid late decisions on any changes to the obligations and in developing the evidence requirements for EA sign off on completion. These include procedures for Change Protocol and for WINEP measures sign off.

Our targets for the first four years are reputational only, but if we should fail to complete the agreed total by 31 March 2025, we would pay a financial penalty in 2024/25. The EA also reports WINEP delivery performance in its Environmental Performance Assessment (EPA). For this it uses its revised delivery profile and hence the EPA indicates that we are on track with WINEP delivery.

The measure specifically tracks the completion of the required schemes in each year and Ofwat specified performance for 2022/23 will be reported based on the latest WINEP programme on 31 March 2023, and the schemes delivered by this date. We have consistently delivered 100% of schemes since its introduction in 2011.

OUTCOME 12: We take care to protect and improve the environment in everything we do, leading by example

AMBITIOUS GOAL: Be leading in the sustainable use of natural resources, through achieving zero avoidable waste by 2025 and being carbon neutral by 2027

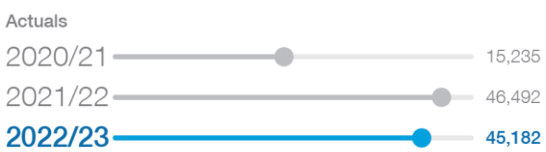
• Greenhouse gas emissions – bespoke

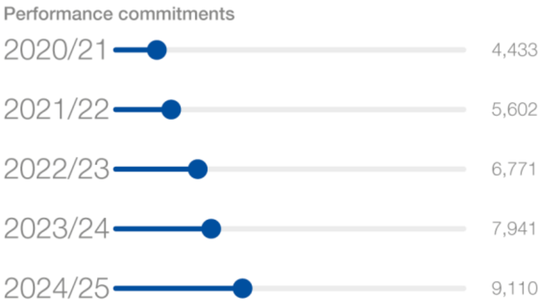
• Bioresources – bespoke

Our ambition is to be the first water company to achieve Net Zero carbon emission by 2027 and we continue to remain on track to achieve this.

Greenhouse gas emissions - PR19NES_BES21

The chart below shows the reduction in our emissions compared to 2019/20 baseline figures.





This is a bespoke PC that incentives us to reduce greenhouse gas emissions arising from our operational activities. The baseline was re-calculated for 2019/20 using the newest carbon accounting workbook.

This year we have reduced our operational emissions to just 23 thousand tonnes of CO2e – down from 69 thousand tonnes in 2019/20.

This is a small increase compared to last year – the company's high performance in this area means that maintaining performance at the current level is challenging.

We have reduced emissions by:

- Installing our first large scale solar arrays across 5 sites (with more planned in 2023).
- Being the first and are the only water company to use 100% of our sewage sludge to create energy (or power from poo), and we've enhanced our activities in energy creation further with the implementation our second Gas to Grid plant at Bran Sands.
- Using biomethane purchased through the market to reduce our reliance on natural gas.
- Continuing to be efficient in our travel – avoiding unnecessary journeys and travelling by public transport.
- Migrating our bioresources fleet onto HVO (a form of biodiesel) wherever possible.
- Leading the industry with our offshore wind Power Purchase Agreement (PPA), which was the first of its type in the UK. This 10-year deal has us sourcing approximately 30% of our electricity demand from the Race bank offshore wind farm.
- Powering all sites using renewable electricity.
- Using electric vehicles wherever possible.

We are on track to achieve zero avoidable waste by 2025. This will mean eliminating, re-using, or recycling 90% of our waste from operations, developing resource recovery technologies and working with partners to contribute to the circular economy in their regions.

For our performance in this area, we are receiving a reward of £7.183M.

Ofwat has asked us to re-verify previous year's performance to ensure the ODI revenues have been fully reflective of our performance. We are confident our reporting has been good and accurate, but any identified historic issues may result in minor amendments to our in-year ODI performance.

2022/23 SWOT Analysis in Relation to Emissions Reporting and Performance

Strengths	Weaknesses
• Positive audit report in relation to 2022/23 Scope 1,2 and mandatory Scope 3 emissions in relation to both compliance with ISO 14064-1:2006 along with the Enviromark Solutions Carbon Reduce Programme. • The Audit Report also confirmed a data quality assessment of "Good" in relation to NWL's inventory of emissions and that excluded emissions did not exceed 5% of NWL's total footprint. • Consistent outperformance of our GHG target for operational emissions. Positive recognition from our Water Forum (CCG) in relation to this. • The first company to use 100% of our sewage sludge to create energy via advanced anaerobic digestion processes (AAD) before all sludge being beneficially recycled to land. • 100% use of renewable electricity, including the first Power Purchase Agreement (PPA) for an offshore wind farm in the UK. • Northumbrian Water has an embedded and mature approach to innovation with multiple projects in our innovation pipeline that could aid future emissions reductions, including algal wastewater treatment, ammonia recovery and real time power emissions optimisation.	• With respect to Market Based Reporting, the timing of APR production and associated audit does not align perfectly with some aspects of the timing for certification for market-based emissions (REGO and RGGO certificates) and assumptions have to be made which are reconciled/checked in future years. • The latest 2022/23 audit identified a minor correction in relation to emissions associated with grit and screenings in our 2019/20 emissions which are now correctly categorised as outsourced activity, so this has now been resolved. • Validating scope 3 emissions in long and complex supply chains remains challenging. We consider improvements could be accelerated by sector wide sharing of reporting methodologies.
Opportunities	**Threats**
• Further certification to CEMARS (Certified Emissions Measurement and Reduction Scheme) would further strengthen our reporting. • We consider there is greater opportunity for future sector reporting to allow greater recognition of carbon offsets (and insets) where these have a high confidence of emissions reductions and assured benefits. • Similarly, there is scope to strengthen incentives on companies to innovate by using actual emissions factors associated with purchased electricity in future reporting rather than grid average factors – which reduces the scope for innovation. A similar principle applies to chemical purchases. • Industry reporting capability – via the Carbon Accounting Workbook – is continually improving and there is an opportunity to reflect this in company reporting by permitting use of the latest available version of the workbook in each reporting year. • Continual improvement in the science and measurement of emissions may identify areas where emissions reduction efforts need to be concentrated.	• Possible future divergence of water industry reporting from international standards for carbon reporting/accounting may introduce unnecessary complexity along with market distortions which may reduce customer and environmental benefit.[1] • There is a natural tension between the desire to reduce emissions and the need to comply with ever more stringent (and hence more energy intensive) treatment standards – particularly wastewater treatment standards as driven by the Water Industry National Environment Programme (WINEP). In particular, this needs to be recognised and resolved in some way when baseline performance is established against which future reductions are assessed.

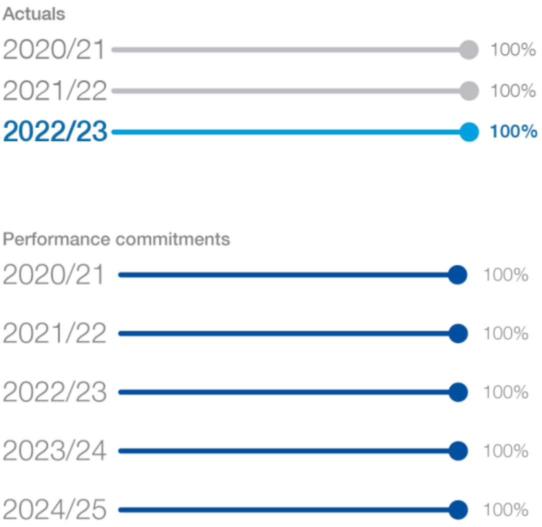
[1] As per our response to Ofwat dated 6/3/2023 re PR24 operational greenhouse gas emissions PC definitions

Case study: Emission Possible - Solar

As part of our ambitious target to reach Net Zero by 2027, we're installing solar arrays at treatment works across our operating areas. Not only does this make help us reduce our carbon footprint, but it also makes our network more resilient. Water and wastewater treatment are energy intensive activities, and solar power helps us generate green energy and reduce our carbon output while we also explore innovative ways to reduce our energy consumption overall.

In 2022, we took a big step forward in our pursuit of Net Zero by 2027. Most notably an array of 3,600 solar panels was installed at Lumley Water Treatment Works in Co. Durham - the first of six sites, including Sedgeletch, Billingham, Newton Aycliffe, Broken Scar and Blyth. There is also Bran Sands, where our Green Power Station has added solar power to existing Green Gas production.

Bioresources - PR19NES_BES22



We have achieved this PC.

This bespoke PC is reputational only. The measure for bioresources performance is the percentage of sewage sludge treated and converted to biosolids at one of our two Advanced Anaerobic Digestion (AAD) sites and the percentage of biosolids that are beneficially recycled to land.

Our performance has remained at 100% achievement, therefore maintaining our industry leading performance which was first achieved as early as 2014/15.

We continue to lead the sector as the most efficient company in this area driving innovation and operational excellence.

Key enablers in continually delivering this leading status have been:

• Continued optimisation of two strategically located AAD treatment centres accommodating all of our sludge volumes.

• Harnessing the opportunity of upgrading biogas generated by the AAD process to biomethane, and injection into the natural gas grid at both sites.

• An efficient logistics strategy encompassing a network of six sludge handling centres throughout the region and onward transportation of sludge cake to one of our two AAD sludge treatment centres.

• Final nutrient rich biosolids recycled safely and beneficially to agriculture under the Biosolids Assurance Scheme (BAS).

The continued deployment of our biosolids to the region's agricultural land provides plant nutrients including phosphate, nitrogen and sulphur.

The use of biosolids continues to offer farmers an economically viable fertiliser alternative which has a considerable benefit in carbon footprint reduction compared to manufactured providers.

We continue to lead the sector being the only Water and Sewage Company (WaSC) that processes 100% of sludge through AAD operations then allowing 100% of the final biosolids to be deployed to the region's landbank.

Throughout 2020-25 the level of regulatory uncertainty has increased potentially impacting on our current, future and long-term strategic operating models. These current uncertainties include the final positioning of the pending Environment Agency (EA) Sludge Strategy, future interpretations of the Farming Rules for Water (FRfW) and the potential of considerable reductions in landbank availability.

The sector continues to collaborate in understanding the likely impact of future regulatory changes whilst actively seeking improvements in efficiencies. This is reflected in Ofwat's publication of the Bid Assessment Framework (BAF) which promotes the trading of sludge between companies to the benefit of customers in terms of affordability efficiencies.

We have proactively used this mechanism to formally approach both United Utilities and Yorkshire Water to offer our services to deliver efficiencies while initiating discussions with other WaSCs.

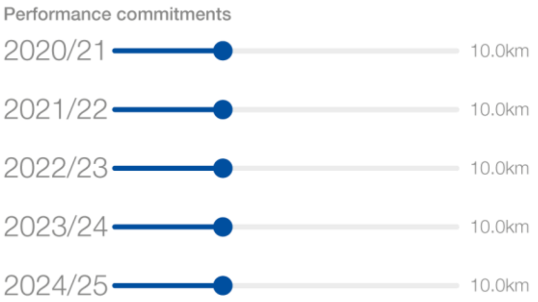
To support this collaborative philosophy we are also a key partner in the Innovation in Water Challenge - Unlocking bioresource market growth using a collaborative decision support tool.

This project in collaboration with Anglian Water (main sponsor), Thames Water and Yorkshire Water (key partners) aims to provide WaSCs with the support necessary to overcome existing barriers and unlock the benefits of market collaboration by integrating into a single decision support platform.

AMBITIOUS GOAL: Demonstrate leadership in catchment management to enhance natural capital and deliver net gain for biodiversity

• Water environment improvements – bespoke

Water environment improvements - PR19NES_BES20



We have achieved this PC. This is a bespoke measure.

This is the second full year of our programme following feasibility work in 2020/21, and the third year of reporting for the ODI.

Linking improvements to public access is an innovative partnership approach to investing in the environment. All water environments are in scope, including lakes and reservoirs, streams and rivers, canals, wetlands, coasts, and beaches. Improvements must cover at least two out of three aspects of access and recreational facilities, wildlife and biodiversity, and water quality, and must include elements above our regulatory obligations.

This year, we have continued to outperform our performance commitment of 10 km, achieving 39.3 km of water environment improvements through delivery of 15 partnership projects across our NW and ESW operating areas. We also have a further 25.3 km of projects in delivery in year three which will be signed off in future years.

In total through the first three years of the 2020-25 Business Plan, we have improved circa 100km of water environment for our customers in our regions.

We have continued to work closely with the Water Environment Governance Group (WEGG), an independent group made up of external expert stakeholders who are passionate about improving the environment. The WEGG helps steer our activity and approves and signs off projects against the ODI.

Our Bluespaces funding scheme which provides the platform for developing and delivering partnership projects to support this is working well, and we have a further 18 partnership projects approved in the pipeline for years four and five.

We will receive a reward of £0.177m for our performance this year.

We committed to reinvest at least 50% of any reward received above costs in new water environment projects. For years four and five, we will continue to invest towards meeting our internal target of 248 km improvements by 2025. The level of investment annually will be substantially above the 50% reward reinvestment level we committed to.

In 2022-23, we have invested £200,000 in water environment improvements, including in staff resources and investment in projects.

This year, we have also been developing our ambition for the future through business planning, engaging with partners and stakeholders to plan for the water environment improvements that could be achieved in our regions from 2025-30, and engaging with the Environment Agency and Ofwat on the best way to include Bluespaces improvement schemes in our Business Plan.

The 2022/23 Governance Statement from Richard Powell OBE, Chair of the WEGG, demonstrates that we have addressed Ofwat's specific reporting and assurance requirements for this ODI. More detail can be found on the Water Environment Governance Group pages on our website.

Case study – Bluespaces activity - Delivering 250km of water environment improvements

In 2022/23 we worked to improve *bluespaces* in more than 20 locations across our operating areas. This included path improvements at Holywell Dene, fish and dormouse conservation at Roman River and Layer Brook, wetland creation at Longdike Burn, stream and beach cleans at Limekiln Gill, and waymarking improvement at RSPB North Warren.

This work is supported and externally assured by our Water Environment Governance Group, whose independent members include an academic, The Rivers Trust and the Environment Agency.

Our *bluespaces* improvement projects must make a difference to a site in at least two of the following areas: access, facilities and recreation; wildlife and biodiversity; water quality. We anticipate investing around £1m over the five years of our Business Plan for 2020-25 to support partner projects to improve water environments.

CATCHMENT MANAGEMENT

Catchment management covers the whole water cycle and links across our water, wastewater, and conservation activities. We carry out catchment activities across our own network and assets, and in partnership with others, working to influence and to make shared decisions to improve the environment and showing leadership in integrated catchment management. Our goal is to demonstrate leadership in catchment management to enhance natural capital and deliver net gain for biodiversity.

In the areas upstream of our drinking water sources we work with farmers, land managers and other stakeholders to address the risks to good water quality. We do this through raising awareness about pollution risks and providing grants to support changes where needed. For example, our Field to Tap scheme offers grants to farmers and land managers for equipment or land-use changes that will reduce the risk of diffuse or direct pollution to rivers and reservoirs. We also support wider environmental improvements through partners, such as peatland restoration, and we are leading on two holistic catchment improvements projects in the South Tyne (NW) and Blackwater (ESW) catchments, which focus on improving river habitat and biodiversity to support good water quality.

During 2022/23 we delivered the following:

Field to Tap – farm advice and grants programme:

• Advisory visits to 29 new farms and follow-up visits to farms where we had previously offered grants.

• 47 grants were offered; £297,430 of grant funding was paid to farmers in our highest risk areas with farmers matching our grant with an equal contribution towards the improvements/changes. A further £134,723 in grant funding has been agreed and will be paid when the farmer completes the work. Grants were for on-farm interventions such as clean and dirty water separation, muck storage, pesticide handling areas, bunded pesticide storage, cover crops, precision spraying equipment, rainwater harvesting equipment, and soils assessments. Over 95% of our offered grants were completed.

• Our Catchment Advisors attended 44 events, from local farmer groups to catchment partnership meetings, to talk about the risks of catchment activities to raw water quality. They helped organise and sponsored the Farm Business Update events in our catchments in Essex and Suffolk, and organised and sponsored three Farm Update North events in the North East. These events signpost farmers to opportunities for environmental improvements and grants from a wide range of organisations and Government.

South Tyne and Blackwater Holistic Water Management Projects:

• Seven partner projects have been supported to deliver biodiversity and river habitat improvements through partnerships; in all cases the grant applicants had secured additional funding, effectively leveraging our financial support into delivering larger projects to benefit the wider environment. Partnership meetings have been held, as well as site visits to view the river restoration work that has been carried out to date.

• On the River Blackwater the holistic project has been tied in with farmer engagement and the establishment of a cluster group on the River Pant, a tributary of the Blackwater system. We are working with partners to develop a river restoration plan for the Blackwater, from which we may be able to develop projects for further support during 2020-25, but that will also build foundations for future river habitat and biodiversity improvements across the catchment.

• On the South Tyne we plan to carry out direct farmer engagement during 2020-25 to identify opportunities for river restoration, as well as continuing our leadership of the South Tyne Catchment Partnership, a subgroup of the highly successful CaBa Tyne Catchment Partnership.

Peatland Restoration

• In 2022/23 we paid our final tranche of £100,000 of funding to the Peatscapes Partnership to support peat restoration as part of the Tees-Swale project, addressing issues of colour in our raw water sources in the Tees catchment. This brings our total funding of peatland restoration during 2020-25 to £300,000, which the Peatland Partnership has leveraged into a much bigger investment in peatland restoration across the North Pennines.

Berwick Nitrates Investigation and Field Trials

• The WINEP Investigation into rising nitrates in our groundwater sources in the Berwick area required us to look at both catchment management interventions and the underlying hydrogeology to improve our knowledge of the nitrate issue and better understand the actions that could be taken to prevent further deterioration.

• We engaged with farmers in the geographic catchment overlying the aquifer and trialled a range of on farm interventions to help change behaviour around nutrient applications and to improve Nitrogen Use Efficiency (NUE) in the catchment. Although the investigation has now concluded we continue to engage with farmers across the catchment and are working on developing a farmer-led support group to continue the discussion around best practice to minimise nitrate inputs to groundwater.

Case study – Branch Out - Delivering benefits for our natural environment

Our Branch Out fund supports projects which deliver benefits for our natural environment, build resilience for wildlife and reconnect the public with the habitats around them. As well as the main Branch Out fund awarding grants of up to £25,000, we also have funds aimed at Invasive Non-Native Species and Priority Habitats.

Our Branch Out fund supports projects which bring benefits to water, wildlife and communities. Through the fund, we enable local communities to take action which can make a difference to the natural environment within our operating areas, because a healthy environment is crucial to top quality drinking water.

The joy of our Branch Out, Invasive Non-Native Species and Priority Habitat funds is that every project is different. That variety is in evidence in some of the projects we've supported in the past year.

We've provided a £9,000 grant to help fund new gardens at the Locomotion railway museum in Shildon, encouraging the flora and fauna commonly found on railway embankments, planting new native hedgerows and habitats for hedgehogs and bats.

A £2,000 grant has helped enhance the Gosforth Nature Reserve - one of the oldest in the North East, founded in 1929. The support from the Branch Out fund helps increase biodiversity through wildflower planting and woodland habitat enhancements, as part of a project which also replaced a nesting platform for common terns.

The Wear Rivers Trust received two grant awards totalling £32,000, which will support a project tackling Invasive Non-Native Species along the River Wear, as well as a specific effort to manage and treat Giant Hogweed as part of a project called 'Old Durham Beck Renewed'.

These projects, and others like them improve habitats and make our natural environment safer and more accessible.

THEME SIX: BUILDING SUCCESSFUL ECONOMIES IN OUR REGIONS

OUTCOME 13: We are proud to support our communities by giving time and resources to their important causes

AMBITIOUS GOAL: Be the most socially responsible water company

Our responsible business practices have again been recognised through significant external accreditations over the past year.

We were named on the World's Most Ethical Companies list, compiled by Ethisphere, for the 12th time – one of only two UK companies, and the only water and sewerage company in the world to be named in the list. This is based on information requested by Ethisphere on issues including environmental sustainability, governance and social responsibility, which is judged against set criteria and benchmarked against companies around the world.

For the second successive year, we were the only water company awarded the Good Business Charter, supported by the Confederation of British Industry and the Trades Union Congress. This involves demonstrating good practice against a series of key components, including employment practices, environmental responsibility, fair tax and procurement.

We also again continued to meet our long-standing commitment to reinvest at least 1% of our profits in community activities.

During 2022/23 we have moved forward with implementation of our community investment strategy, aided by the removal of Covid restrictions enabling the re-starting of events and engagement activities.

Our strategy is focused on three areas where we believe we should take lead in our communities because they are central to our Purpose. We deliver community investment activity in these areas through financial contributions, volunteering (including our Just an Hour scheme through which 38% of our employees supported 297 good causes), education impact, and playing a leadership role.

Our key areas of focus are:

Ending Water Poverty – alongside our action detailed elsewhere in this report, we supported this goal through backing a series of Christmas appeals in our operating areas – Mission Christmas in Tyneside, Kids Inspire in Essex and Winter Wonderland in Suffolk. Across the year we volunteered for food and clothing banks, and made donations to PACT House, Zoe's Place, Consett Community Trust in our northern operating area and Hope House, Kids Inspire and Home Start in our southern area.

Water for Health – our Powered By Water schools programme went from strength to strength in 2022/23, delivering hydration messages to 10,233 children, and introducing the course to visitors to the community museums we support at Museum of Power in Langford, Essex, and Tees Cottage in Darlington. We also successfully launched new fundraising events for WaterAid including a football tournament and fun run.

Protecting the Water Environment – we extended training on our Water Ranger citizen science programme for a series of community groups in our coastal areas - Marske Litter Action, Seascapes beach volunteers, Tees Valley Wildlife Trust, Saltburn Countryside Volunteers and the Friends of the Lower Path. We also played a key role in the launch of a new partnership initiative, Net Zero North East England, which is co-chaired by our chief executive Heidi Mottram and brings together cross-sectoral activity to reduce emissions in our North East region.

Looking ahead we have agreed sponsorship and begun to promote two major charity appeals in our operating areas taking place in summer 2023 – the Shaun the Sheep trail supporting St Oswald's Hospice in Newcastle, and 'Herd in the City' supporting Havens Hospices in Southend. We will use these as opportunities to promote our messages about sustainable water use, particularly to school students.

We continue to hold a number of accreditations that demonstrate our commitment to responsible business practices, including:

- ISO 14001 Environmental Management
- ISO 15001 Asset Management
- BITC Responsible Business Tracker – which showed us to be leading in our cohort for Governance & transparency, Supply chain, Digital transformation and Nature stewardship
- BSI for inclusive services
- Living Wage employer

- Disability Confident employer

Case study – Community Investment Programme - Supporting childrens’ sport and their health

Through our Powered by Water programme, we’ve sponsored Newcastle Eagles’ Hoops4Health tournament, encouraging teams from schools across Northumberland and Tyne and Wear to take part, get active, and learn about the benefits of staying hydrated.

We have long played an active role in the community, including as founder members of WaterAid as far back as 1981.

Last year we combined our fundraising efforts on behalf of WaterAid with our Powered by Water programme’s sponsorship of the Newcastle Eagles Hoops4Health tournament - part of a longstanding partnership with the Eagles. That tournament sees more than 4,000 schoolchildren from across Northumberland and Tyne and Wear compete in a series of basketball tournaments, culminating in a final day where 250 children from the best performing teams met at the Vertu Arena, home of Newcastle Eagles.

While our Powered by Water programme sponsored the Hoops4Health tournament, on that final day we joined forces with the Newcastle Eagles Community Foundation to raise hundreds of pounds for WaterAid.

Powered by Water is our educational programme which teaches children about the benefits and importance of staying hydrated, while WaterAid focuses on getting clean water and sanitation to the millions of people around the world who lack access to that basic human right.

Sam Blake, CEO of the Newcastle Eagles Community Foundation said: “We have a mutually beneficial relationship with the Powered by Water team that grows stronger year on year. “It’s been a pleasure to work alongside Northumbrian Water and support WaterAid as they campaign for clean water for all — something most of us take for granted.”

Our Corporate Affairs Director, Louise Hunter said: “We are proud of our longstanding partnership with the Newcastle Eagles, who along with our other partners help us teach tens of thousands of youngsters every year about the importance for water for health.”

OUTCOME 14: We work in partnership with companies and organisations to achieve the goals that are most important to our customers

AMBITIOUS GOAL: Spend at least 60p in every £1 with suppliers in our regions

We have achieved this PC. After making strong and sustained progress since 2017/18 we are delighted to have surpassed this target again over the past year, with local spending in 2022 at 62.60%.

As one the largest businesses in the regions where we operate, and in keeping with our commitment to our communities, we believe it is important to maximise the positive impact of our spending. We therefore prioritise working with a supply chain that upholds our social, economic, and environmental standards and shares our vision of continuous improvement.

To calculate our local procurement spending, we established a baseline by defining local procurement and mapping suppliers to local and non-local categories. We define ‘local spend’ as spending with suppliers with a postcode that falls within its operating areas. This is based on the ‘pay site’ defined on the supplier’s invoices.

In calculating local procurement expenditure, we include both capex and opex, but exclude certain spend categories, such as power, banking payments and inter-company payments. Excluding these items removes approximately 20% of total expenditure.

For smaller companies, the invoice location is generally near where the company is based and where their employees work and live. However, for companies operating over larger geographical areas, using invoice postcodes is less effective. Examples include temporary staffing contractors and capital framework partners who have a head office out of our regions but source our requirements from our local areas. To address this, a manual adjustment is made to better reflect where their employees work and live.

In the last year we updated our Responsible Procurement Strategy, through which we have developed the ‘Impact Initiative 7’. This sets out a series of key activities within seven key initiatives, which we believe will make the biggest positive difference when sourcing goods and services.

As part of this, to enable us to achieve the strategy’s outcome to protect relationships with local suppliers and continue to create awareness and opportunities, we have identified four key activities:

- Maintain 60p in every £1 of supply chain spend with local businesses in our operating regions in the North East, Essex and Suffolk.
- Build and maintain external relationships with local organisations to offer business mentoring and provide meet the buyer events.
- Provide a pipeline of tendering opportunities on our website and use social media platforms such as LinkedIn to alert businesses of upcoming opportunities.
- Membership of the County Durham Pound –a collaborative group of local partners who seek to work together to increase collective local spending, create business Opportunities for local SMEs, VCSEs and other local businesses.

Several actions over the past year have helped to get us to this level:

- Targeted local supplier engagement at ‘Meet the Buyer’ events such as the chamber of commerce expo and Business Durham, to enable local suppliers to gained insights and access to opportunities.
- We relaunched our ‘Procurement in the Community’ educational pack designed for local SME’s to inform them about the procurement process and wider Utility procurement.
- We have established a great network with other North East organisations through the County Durham Pound group who have similar same goals and challenges to us regarding local spend and social value. This will assist us with spend analysis to show leakage outside of the local area and where new opportunities lie.

Our focus now will be on at least maintaining this level until 2025 and beyond and considering how we can do more to make sure the economic benefit of this spending is as big as possible.

As a responsible employer, we play an important role in the success of our local economies in our three operating regions, North East, Essex and Suffolk. Spending more money in our own economy will benefit our businesses, protect, and create local jobs which in turn will result in more money being spent in the local areas and their economies will grow as a result. Without a robust local procurement strategy, we risk not realising the benefits of a strong local economy, the diverse chain it can create and ultimately revenue may reduce if unemployment rises, and our customers struggle to pay utility bills.

Over the last six months of 2022, as part of the County Durham pound group, we have started to measure the social and local economic value to the Durham region. We have currently recorded £4.9m local spend within the county Durham region. Out of the 12 partners in the county Durham pound group, only seven of them are currently reporting on local spend and we are currently spending the highest in the region.

To make sure we continue to improve building successful economies in our region(s) we have identified actions:

a) Improve / promotion with our supplier partners to 'cascade' our approach to local spend. Encourage our Tier 1 Capex partners to 'think local' as part of their delivery model.

b) Ensure the local supply chain is engaged at procurement strategy development. For example, can larger contracts / requirements be split into Lots to provide opportunity for local SME's (where commercially viable) who may struggle to deliver the full work package. This may also drive innovation / new ideas.

c) Continue to engage with Durham County Family to deliver social value benefits in our regions where possible through our supply chains.

We will also continue to engage in local supply chain and wider community. We will look at how technology can support us to continue to be visible.

We have established a great network with other North East organisations through the Durham County Pound group which has the same goals and challenges as ourselves in terms of local spend and social value commitments. We continue to work with the group which has secured funding for its members to have access to support into 2023, to continuing reporting on social value and spend analysis to show leakage outside of the local area and where new opportunities lie.

Case study: Local Spend / Social Value

We're proud to spend more than 60p in every £1 locally, working with a supply chain which helps uphold our social, economic and environmental standards. We're working to maximise the impact of that local spend and open up more opportunities for local SMEs to work with us.

As one of the largest businesses in the regions we operate in, we know our spending power can have a positive impact on our local economies.

We have analysed the impact this had in our local economy. This showed £138.9m was estimated to have been re-spent across our operating area by our suppliers on local employees and the local supply chain in 2022/23, and of that £51.1m was spent on employing local people.

Our suppliers created 2,131 jobs and 239 apprenticeships, supported by their contracts with us, and donated 72,694 hours of community volunteering.

Over the past few years, we've worked hard to develop, and widen, these relationships, including working closely with external organisations to reach new audiences with our procurement opportunities.

Two examples are our work with North East England Chamber of Commerce and Business Durham in our Northumbrian Water operating area, where 'Meet the Buyer' events have allowed targeted local supplier engagement, sharing insight into our buying and access to opportunities.

We've also relaunched our 'Procurement in the Community' educational pack, which is designed to help local SMEs understand our procurement process, and that of the wider utility sector.

Through our engagement with our local business communities, we've found broad support and a great appetite for action amongst our peers - an example is the County Durham Pound group of likeminded businesses, who share similar goals and work collectively to improve local spend and social value.

That group - which consists of 11 companies and public sector organisations working in Co. Durham - has contributed more than £320m of social value in its first year.

All this work combines into our responsible procurement strategy, which aligns to the UN's Sustainable Development Goals and outlines what we call the 'Impact Initiative 7' (ii7).

The ii7 sets key activities within seven areas - environment, local spend, diversity, skills, innovation, social value and modern slavery - which will help us, and our supply chain have the biggest possible positive impact.

REGULATORY ACCOUNTING STATEMENTS

&

ADDITIONAL REGULATORY INFORMATION

DIRECTORS' RESPONSIBILITIES AND DECLARATIONS
for the year ended 31 March 2023

CONDITION F – REGULATORY ACCOUNTING STATEMENTS

The Directors are responsible under Condition F of the Instrument of Appointment granted by the Secretary of State for the Environment to the Company as a water and sewerage undertaker under the Water Industry Act 1991 for:

- ensuring that appropriate accounting records are maintained by the Appointee which are consistent with the Regulatory Accounting Guidelines published by Ofwat;
- preparing a set of regulatory accounting statements each financial year in accordance with the Regulatory Accounting Guidelines; and
- complying with all other requirements set out in the Regulatory Accounting Guidelines.

RISK AND COMPLIANCE STATEMENT

The Board confirms that:

- it considers the Company has full understanding of, and is meeting, all its relevant statutory, licence and regulatory obligations and has taken steps to understand and meet customer expectations;
- it has satisfied itself that the Company has sufficient processes and internal systems of control to fully meet its obligations; and
- the Company has appropriate systems and processes in place to allow it to identify, manage, mitigate and review its risks.

Ongoing compliance with our obligations in future will be dependent in particular on:

- successfully securing adequate/sustainable funding levels for capital maintenance in order to maintain asset health in the medium and long term;
- securing funding to allow sufficient investment in climate adaptation, to protect our services from deteriorating climate trends and increased prevalence of severe weather events; and
- given the substantial uplift in investment requirements from AMP8 onwards, successfully concluding work to secure the deliverability and financeability of our PR24 business plan.

As stated above the Board has concluded that it has a full understanding of the Company's statutory obligations and can confirm that these have been materially met. However, the table below reports departures which are included for transparency.

Legislation	Duty	Detail of departure
Environmental Permitting England and Wales – Regulation 12	Compliance with Environmental Permits	As for last year, the Board notes that the Company continues to comply fully with the Ofwat and EA investigations into environmental permit compliance in relation to flow to full treatment at wastewater treatment works, and was disappointed to identify potential non-compliance at four smaller sites. These sites have now been remediated. Quarterly updates for stakeholders are provided on our web site.
Water Resources Act 1991 – Section 24a	Abstraction Licences	We marginally exceeded the Redgrave Group annual licensed quantity due to elevated non-household demand. This increasing trend is driving new schemes in our revised draft WRMP24. A moratorium on new non-domestic demand is in place to reduce the risk of further or greater exceedances. A new Rickinghall WTWs (in supply April 2024) will also reduce the risk of further exceedances.
Water Industry Act 1991 – Section 68	Duties of water undertakers and water supply licensees with respect to water quality	NWL records approximately 100 compliance sample fails per annum as part of regulatory monitoring. Whilst every effort is made to mitigate any non-compliances and prevent them from re-occurring, the response is sometimes not immediate and requires capital investment. An example is an iron failure linked to deterioration of the supplying distribution main. Until remedial action is complete, the reference to wholesomeness cannot be claimed within the year of sampling. This scenario currently applies to around 5-10% of the 2022 water quality programme. In addition, NWL is part way through a transformation programme agreed with DWI around water treatment and service reservoir and tower asset health, and discharge from associated legal notices is not expected to be achieved until end of AMP8.
Water Industry Act 1991 – Section 199	Sewer maps	In common with other wastewater companies in England and Wales not all sewers are mapped, in particular those that were transferred assets from local authorities. Records are updated regularly to reflect any changes identified in sewer locations or attributes but the cost of full surveys of all sewer assets is generally deemed to be uneconomic.
Water Supply – Water Quality Regulations – Regulation 29	Water treatment to minimise contamination from pipes	We model lead risk across all supply areas annually and set treatment targets for phosphate accordingly. We don’t dose phosphate everywhere. The reason for the departure is that we only take a limited set of lead samples every year (compliance and operational) to inform our models and risk assessment, but we know that there are over 500k lead communication pipes (company-owned) and a likely equivalent of customer lead supply pipes still in existence. Phosphate treatment has performed well but is not a long term sustainable solution to the lead risk. The only long term solution is to remove lead piping entirely from supplies. This needs an integrated, multi-stakeholder approach that extends beyond the water sector. We have plans to reduce lead piping in both AMP8 and our Long-Term Delivery Strategy.
Water Supply – Water Quality Regulations – Regulation 31	Application and introduction of substances and products	The requirements of Reg 31 are understood and applied internally, but the knowledge of applicable products and their associated instructions for use (IFU) are shown to be inconsistent across the supply chain. This has led to further internal risk assessments on products used, and even aborted work. This situation is not unique to NWL and is recognised quite broadly across the water sector. NWL is helping to lead on a new scheme supported by the Energy and Utilities Skills Register to create a standard training course equivalent to the national Water Hygiene Card to make sure all employees (internal and supply chain) who would need Reg 31 awareness are deemed competent and hold evidence to demonstrate it.

DISCLOSURE OF INFORMATION TO AUDITORS

So far as each current Director is aware, there is no relevant audit information of which the Company's auditor is unaware and each Director has taken all the steps that he or she ought to have taken as a Director in order to make himself or herself aware of any relevant audit information and to establish that the Company's auditor is aware of that information.

CONDITION P (Ring-fencing Certificate)

As required by Condition P of our Licence, the Board has provided this ring-fencing certificate to Ofwat in accordance with the requirements and expectations set out in Information Notice IN 20/01.

The Directors certify that, in their opinion:

- the Appointee will have available to it sufficient financial resources and facilities to enable it to carry out, for at least the next 12 months, its Regulated Activities (including the investment programme necessary to fulfil the Appointee's obligations under the Appointment);
- the Appointee will, for at least the next 12 months, have available to it management resources and systems of planning and internal control which are sufficient to enable it to carry out its Regulated Activities;
- the Appointee has available to it sufficient rights and resources, other than financial resources, to enable a special administrator to manage the affairs, business and property of the Appointee, should a special administration order be made; and
- all contracts entered into with any Associated Company include all necessary provisions and requirements concerning the standard of service to be supplied to the Appointee, to ensure that it is able to meet all its obligations as a water and sewerage undertaker.

In providing this certificate, the Directors have considered the following main factors:

Financial resources and facilities:

- the financial strength of the Company at the balance sheet date and financial performance, which is in line with expectations and reviewed at each Board meeting, most recently in July 2023;
- the key financial ratios over the next 12 month planning horizon, as reflected in investment grade credit ratings;
- the fact that the Company has in place £450m of committed bank facilities as back up liquidity, maturing in December 2025, which was undrawn at 31 March 2023;
- the Treasury Strategy approved by the Board in April 2022 and the subsequent establishment of a £6bn European Medium Term Note (EMTN) programme which enables the Company to raise new financing in a timely manner as required; and
- the Directors assessment that the Company should be able to manage its business risks, continue to operate and meet its liabilities as they fall due over the seven years to March 2030, reported in the viability statement.

Management resources

- the balance and effective operation of the Board, on which Independent Non-executive Directors (INEDs) are the largest group, as described in the Corporate Governance report in our Annual Report and Financial Statements;
- the work of the Nomination Committee for the appointment of senior positions;

- the experience and broad-ranging skills and experience of the INEDs and Executive Leadership Team;
- the engagement of staff, demonstrated by the 87% response rate to our annual Great Place to Work survey, and award of Great Place to Work Certified Employer Status again;
- the further development and embedding of our Inclusion and Diversity Strategy called TIDE (Together for Inclusion, Diversity and Equity).

Systems of planning and internal control

- the Company's formal governance and risk management arrangements which are monitored by the Audit Committee, Risk & Compliance sub-committee and Board.
- the work of the Board and its Committees to monitor the risk and control systems throughout the year, including conducting a robust assessment of principal risks and an annual review of the effectiveness of the Company's risk management and internal control systems, oversight of the work carried out by external auditor, internal audit and other assurance providers, and monitoring compliance with procedures to prevent bribery and receiving reports on any whistleblowing allegations;
- the monitoring and review throughout the year of the principal risks and uncertainties facing the business by the Risk & Compliance Sub-committee;
- the Company's robust business continuity arrangements.

Rights and resources other than financial resources

- the Company's business model comprising its Purpose, Vision, Strategic Themes, Values and Reputation and how these are delivered, as set out in Our Purpose report;
- the robust IT infrastructure and investment in recent years in major technology transformation programmes for billing and customer contact and asset management and field working;
- our asset management governance structure, certified under ISO 55001 and the development of our service planning framework.

Contracting

- the approval by the Board of all significant contracts;
- disclosure of all transactions with associated companies, of which no new arrangements were entered into during the year;
- an internal audit of compliance with RAG 5.07 Guideline for transfer pricing, which confirmed that there were no areas of significant non-compliance but identified a small number of areas for improvement in disclosure which have been reflected in this APR.

Material issues or circumstances.

The Directors considered all material circumstances, including in its approval of the going concern statement and viability statement. No other material issues or circumstances were identified.

Deloitte LLP have carried out assurance on the ring-fencing certificate, in accordance with the Company's Instrument of Appointment. The assurance was in the form of agreed upon procedures and the assurance report has been submitted separately to Ofwat.

This certificate was approved by the Board on 14 July 2023.

CONDITION P26 (Credit Rating)

The Directors confirm that throughout 2022/23 the Appointee has ensured that it, and an Associated Company as issuer of debt on its behalf, has maintained an issuer credit rating which is an investment grade rating.

VIABILITY STATEMENT

The PR19 settlement remains extremely challenging and does not constitute a 'fair balance between risk and return' resulting in less financial headroom in the near term to 2025

When considering long-term viability, the Directors note that, in their opinion, the PR19 FD and the amendments made by the CMA in March 2021 still resulted in a settlement which is extremely challenging. The level of asymmetric risk in the settlement package is significant and not matched by the level of return. Allowed costs are insufficient for an efficient company like NWL to deliver the stretching service levels set out in the FD for its customers. This also results in lower financial headroom available for the management of downside shocks, such as the unprecedented increase in power prices experienced in the last 18 months, placing pressure on credit ratings as reflected in the downgrade by S&P to BBB (stable). In the round it does not provide a 'fair balance between risk and return".

The Directors confirm that over the long-term the business remains financially resilient but have concerns about the rate of return at PR24

Financial forecasts over longer-term timeframes are inherently subject to more risk that the assumptions adopted will not be realised. As set out above, the Directors have confirmed that the business remains a going concern. In considering the longer-term viability, the Directors note the challenges inherent in the PR19 FD referred to above and that some of the downside stress test scenarios would place pressure on projected credit ratings in the next two years, particularly higher operating and capital costs. The longer-term view beyond two years assumes that the 2024 price review will provide a sufficient rate of return to enable the Company to finance its functions for the period 2025-30, as well as setting stretching but achievable targets and allowing sufficient totex to enable an efficient company to meet its obligations and service level targets. This is consistent with Ofwat's statutory duty to ensure that efficient companies are financeable.

This statement and the supporting analysis takes account of the latest internal forecast of the investment requirements for the 2025-30 period and beyond, consistent with our draft long-term strategy. This is still subject to review and challenge by Ofwat in its forthcoming price review ("PR24") and so is uncertain. For the purpose of stress testing we have therefore looked at a range of capital investment scenarios. These scenarios suggest a capital programme 2-3 times larger than historical levels from previous five-year periods driven principally by the need to deliver new infrastructure demanded by legal requirements. The scale of this investment programme creates a need for additional equity investment under most scenarios. Our stress test scenarios include this equity injection as a mitigant where we believe it would be required. This is also reflected in the Board's discussions around distributions.

The Directors have assessed the future prospects of the Company and consider that it should be able to manage its business risks, continue to operate and meet its liabilities as they fall due over the seven years to March 2030 given the long-term nature of the business. Whilst the Directors consider that the business will remain financeable with regards to its obligations to debt financing and credit ratings, they remain significantly concerned that the 'early-view' returns Ofwat has set out in its PR24 methodology are not sufficient to attract the necessary investment that is likely to be needed to meet the new capital needs and, in the round, offer reasonable returns on that investment.

Following from the above, our Board can confirm that we would be financeable over the long term to 2030 specifically in relation to debt. However, we do not think that Ofwat's 'early-view' weighted cost of capital is consistent with the risks faced by our equity investors.

This confirmation is given based on the latest information and evidence available to NWL

In arriving at their conclusion, the Directors have taken into account:

- the Licence which is in place on a rolling 25 year basis;
- the controls and protections provided by the independent regulatory regime including the primary duty of Ofwat to ensure that efficient companies are able to finance their functions, including earning a reasonable return on the capital invested;
- revenue from wholesale and household retail price controls to March 2025 provided by the PR19 FD, as revised by the CMA in March 2021;
- the financial strength of the Company at the balance sheet date and the fact that the Company has a £450m committed bank facility as back up liquidity, which was undrawn, maturing in December 2025 with the intention of extending until 2030 in due course, and a further of £150m loan facilities which were drawn after the balance sheet date;
- the Treasury Strategy approved by the Board in April 2022 and the subsequent establishment of a £6bn European Medium Term Note programme which enables the Company to raise new financing in a timely manner as required;
- the key financial ratios over the planning horizon of the Company's financial forecast to March 2028 and extended forecast to March 2030, as reflected in investment grade credit ratings;
- the development of the PR24 business plan, including plans to address the financeability challenge created by the potential scale of the AMP8 capital programme;
- the Board's dividend policy;
- the extent to which equity could be raised in NWL if required;
- the principal risks and uncertainties facing the Company and the mitigating controls, as described on pages 57 to 62 of the Annual Report & Financial Statements, which are monitored by the Audit Committee, R&CSC and Board; and
- the work of the Audit Committee, on behalf of the Board, to review and approve the baseline plan and stress test scenarios and to review the outputs of the stress testing in the context of the Company's financial resilience.

To support the Directors in their assessment of viability, the Audit Committee carried out a thorough review process.

This included discussing and approving appropriate updates to the Board approved plan to reflect latest economic projections, in particular inflation assumptions and discussing an appropriate forward testing period. This concluded that the base forward plan should be updated to reflect the latest inflation forecast published by the Bank of England's Monetary Policy Committee in May 2023.

The Audit Committee also discussed and approved the range and severity of stress test scenarios to be applied to the baseline plan, taking account of the principal risks of the business. The stress tests are set out in detail below.

The Audit Committee then reviewed the detailed outcomes of the stress testing and the potential impact on the Company's key financial ratios and discussed appropriate mitigating actions which could be taken if the need arose. Following this process, the Audit Committee recommended approval of the viability statement to the Board.

The Directors have chosen a period of seven years to March 2030 to assess the viability of the Company

This period has been chosen to align with the business planning process for the regulatory price review period to March 2025, and the next price review period to March 2030. Whilst the Directors do not believe that it is possible to test financial resilience beyond March 2025 to the same level of robust detail, given uncertainty of revenue and returns past this point, they have performed an assessment of viability beyond the current price control period against an extended plan applying reasonable assumptions for the next price review which includes a sufficient rate of return to enable the Company to finance its functions.

The financial forecast has been stress tested under a number of plausible and severe adverse scenarios linked to the businesses' principal risks.

The scenarios were selected after considering the principal risks and uncertainties facing the Company and the key economic and financial variables which could impact on the forecast. The combined impact of multiple scenarios has also been tested.

The stress tests were assessed in the context of NWL's overarching financial objective of maintaining prudent investment grade credit ratings, and the Board's target of retaining regulatory gearing of around 70%. Whilst the viability statement relates specifically to NWL, both rating agencies take account of NWGL metrics in their methodologies, therefore, the impact on both NWL and NWGL financial plans have been considered.

The table below sets out the stress tests performed, how they map to the principal risks, the severity of the adverse scenarios applied, the outcome in the context of the key financial ratios and potential mitigating actions where required.

Ref	Stress Test	Principal Risk	Scenarios	Outcome	Mitigation
1	Lower inflation, reducing allowed revenue and RCV growth	Regulatory and political changes	Up to 1% per annum lower than base forecast, sustained over period	Increased gearing and lower interest cover creates risk of credit rating downgrade if low inflation sustained through AMP8	Application of the Board's dividend policy and possible equity raising
2	Increased borrowing costs for raising new and refinanced debt	Regulatory and political changes Funding and liquidity risk Financial performance	Up to 2% higher than base forecast	No material impact on ratios in AMP7 but sustained increase through AMP8 would impact interest cover and FFO creating a risk of credit rating downgrade	Increasing interest rates should be reflected in PR24 cost of debt Application of the Board's dividend policy and possible equity raising
3	Defined benefit pension scheme returns to deficit position and higher deficit repair contributions	Regulatory and political changes	Deficit up to £100m and increased deficit repair payments up to £10m pa	No material impact on ratios	Not required
4	Higher operating costs, including energy and chemical prices	Customer and stakeholder trust and confidence Water/wastewater service failure Supply chain failure Asset health deterioration Effect of climate change Regulatory and political changes Financial performance	Up to 10% increase in current planned spend	Significant cost increases would affect gearing, interest cover and FFO credit ratios over the seven year period creating a risk of credit rating downgrade	Strong management of costs and efficient delivery of outcomes through innovation. Application of the Board's dividend policy and possible equity raising
5	Higher capital costs, reflecting input cost pressures		Up to 10% increase in current plan		
6	Higher totex costs		Combination of scenarios 5 and 6		
7	Impact of incident crystallising one of the principal risks identified on pages 57 to of the Annual Report & Financial Statements.	Water/wastewater service failure Cyber security Asset health deterioration	One off impact of up to £50m	One-off impact would not have a material impact on ratios	Not required
8	Regulatory penalty for poor performance or non-compliance with obligations	Health & safety Water/wastewater service failure Asset health deterioration	One off penalty of up to 10% of regulated revenue	One-off impact would not have a material direct impact on ratios Reputational impact could affect stakeholder views of the business over longer term	Financial mitigation not required but would need to demonstrate improved performance to retain stakeholder trust and confidence

Ref	Stress Test	Principal Risk	Scenarios	Outcome	Mitigation
9	Sustained deterioration in household revenue collection due to cost of living pressures	Customer and stakeholder trust and confidence	Up to 2% pa	No material impact on ratios	Not required
10	Net ODI penalty	Water/wastewater service failure Supply chain failure Asset health deterioration Effect of climate change	Up to £15m pa	No material impact on ratios	Not required
11	Adverse outcome of PR24 compared to base plan assumptions	Regulatory and political changes	Lower revenue allowance than base plan assumption	No impact in AMP7 Insufficient returns in AMP8 impeding the ability to raise finance and creating a risk of rating downgrade	To be assessed through PR24 process, including option to refer to CMA.
12	Combined impact of adverse economic movements		Scenarios 1, and 2	No material impact on ratios in AMP7. Sustained impacts through AMP8 would affect gearing, interest cover and FFO ratios creating a risk of rating downgrade	Application of the Board's dividend policy and possible equity raising Increasing interest rates should be reflected in PR24 cost of debt
13	Combined impact of adverse company performance		Scenarios 6, 8 and 10	Increased costs in AMP7, including advancement of AMP8 investment, would affect gearing, interest cover and FFO ratios and create some risk of credit rating downgrade in AMP7 Higher costs and penalties would impact gearing, interest cover and FFO ratios over the period and result in credit rating downgrade in AMP8	AMP8 financing plans may need to brought forward to fund any advancement of capex. Strong management of cost and performance would reduce the impact. Application of the Board's dividend policy and possible equity investment.

The baseline plan is compatible with retaining the Company's investment grade credit ratings.

None of the stress test scenarios undermined the Company's long term financial resilience. However, certain scenarios, specifically higher operating and capital costs, a substantial increase in the cost of raising new finance into AMP8 or a sustained period of low inflation in AMP8, indicated a risk of a credit rating downgrade which would trigger the cash-lock up provisions in the Company's Licence, preventing payment of dividends. In the Board's opinion, even the most severe scenarios were not indicative of falling below investment grade credit rating.

To the extent that any of these scenarios, in isolation or combination, would place retention of the Company's investment grade credit rating or liquidity position at risk, the Board would seek to take mitigating actions. This includes:

- additional controls on discretionary costs and capital expenditure phasing, taking care not to impact on service levels to customers;
- flexible and efficient financing of new debt;
- the Board's dividend policy, which allows equity to be retained in NWL if required; and
- discussions with shareholders in respect of any equity raising that may be required.

The Board engaged Deloitte LLP to provide third party assurance, in the form of agreed upon procedures.

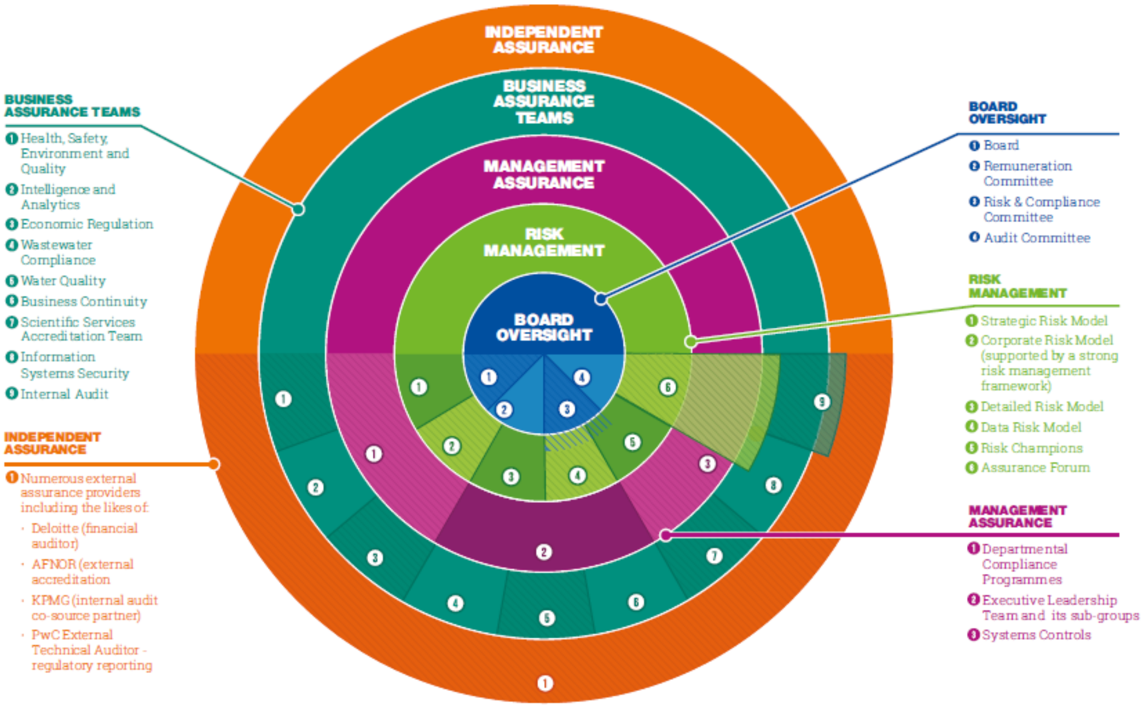
BOARD STATEMENT ON ACCURACY AND COMPLETENESS OF DATA AND INFORMATION

In the opinion of the Board, based on the governance and assurance arrangements in place, the data and information contained in this Annual Performance Report and provided to Ofwat during the year is complete and has a high degree of accuracy. Our Data Assurance Statement provides a detailed review of the assurance work carried out in the year and the findings of our assurance providers, upon which this opinion is based.

Governance Arrangements & Assurance Framework

The Board is committed to providing regulatory data and information that is accurate, clear and transparent in order to maintain the trust of our customers and stakeholders. The Board takes ownership of the arrangements for governance and assurance of regulatory submissions and reporting. This is monitored and controlled through the Board's Audit Committee and Risk & Compliance Sub-committee, which report regularly to the Board.

The Board has put in place a comprehensive assurance framework, shown in the diagram below. This has Board oversight at its core, supported by a risk management framework and multiple layers of internal and external assurance.



The Risk & Compliance Sub-committee, on behalf of the Board, carried out its annual review of the effectiveness of the Company's risk management and internal control systems. This review confirmed that the Company has strong systems of internal control and robust processes in place to enable it to identify, evaluate and manage the risks it faces and to ensure that its obligations are met. These systems and processes are embedded in the organisation and are reviewed regularly by the Board, its Committees and Sub-committee. The annual review confirmed that the risk management and internal control systems have operated effectively through the year and that there have been no significant failings or weaknesses.

Activities in the Year

We are no longer required to publish an Assurance Plan however we do provide stakeholders with an annual Assurance Statement which details our approach to assurance and the assurance arrangements we have in place. This reports also details any material findings and includes full copies of the audit reports received from external providers.

The Board, through the work of its Audit Committee, has continued to improve regulatory data through the year. This plan was designed to address areas of risk identified in reports from our assurance providers for the 2021/22 APR, as well as areas where the source of data has changed during the year and where there are new reporting requirements. This included:

- more resource being provided to ensure that conflicting data from the field can be corrected quickly rather than it being a retrospective annual exercise;
- improving accuracy in the use of complex spreadsheets; and
- streamlining business process for reporting bioresources data.

As part of the approval process for this APR, the Audit Committee received assurance reports from the Internal Audit manager, the external technical assurer, PricewaterhouseCoopers LLP, and the financial auditor, Deloitte LLP. Greenhouse gases require specific third-party assurance from an appropriately qualified company to the ISO standard 14064. Their assurance has been completed and their opinion is included in the Data Assurance Statement.

These all confirm there were no significant issues to report.

Conclusion

The Board is satisfied that the governance and assurance arrangements it has put in place are comprehensive and robust and have operated effectively throughout the year. On this basis, the Board is confident that the data reported has a high degree of accuracy. However, no assurance process can give an absolute guarantee of total accuracy, especially given the extremely large volume of data in the APR and the fact that some of the reported information is dependent on expert judgement and assumptions, for example accounting separation data.

By order of the Board

Andrew J Hunter
Chairman

Heidi Mottram
CEO

Alan Bryce
Senior Independent
Non-Executive Director

Dominic Chan
Non-Executive Director

H L Kam
Non-Executive Director

Duncan Macrae
Non-Executive Director

Jacquie McGlade
Independent Non-Executive Director

Bridget Rosewell
Independent Non-Executive Director

Richard Sexton
Independent Non-Executive Director

Peter Vicary-Smith
Independent Non-Executive Director
14 July 2023

REGULATORY ACCOUNTING POLICIES AND DISCLOSURES
for the year ended 31 March 2023

(a) Regulatory Accounts - Basis of Accounting

The Regulatory Accounting Statements, on pages 125 to 181 of the APR, have been prepared in accordance with the Regulatory Accounting Guidelines (RAGs) issued by Ofwat. They have been prepared on a consistent basis to the Company's Financial Statements, with the following exceptions:

- income relating to energy generation and meter reading, which is recorded as revenue in the statutory accounts, has been recorded as negative operating expenditure;
- rental income and amortisation of deferred capital income, which are recorded as revenue in the statutory accounts, have been recorded as other income below operating profit;
- profit on disposal of fixed assets, which is recorded as operating costs in the statutory accounts, has been recorded as other operating income;
- borrowing costs that are directly attributable to the acquisition or construction of an asset, which are capitalised in the statutory accounts, are charged to the income statement; and
- The net innovation fund receipt has been accrued in operating costs in the Statutory accounts but removed from the Regulatory accounts, in accordance with Ofwat guidance.

The information reported in the Regulatory Accounting Statements relates to NWL's Appointed business only, except where stated. The Appointed business comprises Regulated Activities, defined in Condition A of the Licence to be 'functions of' and the 'duties imposed on' a water and sewerage undertaker by the Water Industry Act 1991. Such duties are consequently those necessary for the Company to fulfil its duty as a water and sewerage undertaker.

The accounts have been prepared on a going concern basis which assumes that the Company will have adequate funding to meet its liabilities as they fall due in the foreseeable future.

(b) Revenue recognition

The revenue recognition policy is the same in the regulatory and statutory accounts, other than the exceptions related to income from energy generation, meter reading, rental income and deferred capital income, as explained above.

RAG 1.09 requires companies to recognise all revenue billed to properties which receive a service, other than if confirmed as void, and to assume that it is probable that this will be collected, disapplying IFRS 15 in this respect. NWL complies with this requirement.

Revenue from water and sewerage charges billed to customers is recognised pro-rata over the period to which it related. For consumption by measured customers which has not yet been billed, revenue is estimated and accrued using a defined methodology based upon historical usage and the relevant tariff per customer. Invoices raised or payments received where the service has not been provided are not recognised in revenue in the year but are treated as receipts in advance.

Additional charges added to a customer's account as a result of debt recovery activity, such as court costs or solicitors' fees, are recognised as negative operating costs when payment is received in both the statutory and regulatory accounts. They are not recognised in revenue.

Charges for water and sewerage services remain due in full whilst a property contains furnishings and fittings or when a property is unfurnished and water is being used for any purpose including refurbishment. If the Company has turned off the supply of water at the mains to a property at a customer's request, then water supply charges are not payable.

If the supply of water is turned off and the property is unfurnished the property is considered unoccupied and charges are not payable. If, however, the supply of water is turned off and the property remains furnished it is considered ready for occupation and in this case sewerage charges in respect of the drainage of surface water and contribution to highway drainage continue to be payable.

If a property is recorded as empty in the billing system an empty property process is followed. The purpose of this process is to verify whether the property is occupied or not and, if occupied, to identify the chargeable person and raise a bill. No bills are raised in the name of 'the occupier'.

The empty property process comprises a number of steps including an initial letter asking the occupier to either contact the Company or return a completed registration form, a check of the property record against Land Registry information, signs of an active credit reference file at the property and visits to the property by Company representatives. If these steps confirm that a property appears to be empty, then the supply may be turned off.

New properties are charged from the date a meter is installed, if consumption is being recorded on the meter. If the property is unoccupied but water is being registered, the developer will be charged. Once the developer is no longer responsible for a property, if no new occupier has been identified the property will be treated as unoccupied and the empty property process followed, as outlined above.

A retrospective review has confirmed that the measured household income accrual at 31 March 2022 of £59.9m was slightly higher than the amounts subsequently billed to customers of £55.9m.

(c) Bad debt policy

The policy for bad and doubtful debts is applied consistently between the statutory and regulatory accounts.

(i) Bad debt write offs

Debt is only written off after all available economic options for collecting the debt have been exhausted and the debt has been deemed to be uncollectable. This may be because the debt is considered to be impossible, impractical, inefficient or uneconomic to collect.

Situations where this may arise and where debt may be written off are as follows:

- where the customer has absconded without paying and strategies to trace their whereabouts and collect outstanding monies have been fully exhausted;
- where the customer has died without leaving an estate or has left an insufficient estate on which to levy execution;
- where the customer does not have any assets or has insufficient assets on which to levy execution;
- where the value of the debt makes it uneconomic to pursue;
- where county court proceedings and attempts to recover the debt by debt collection agencies have proved unsuccessful; and
- where the customer has been declared bankrupt, is in liquidation or is subject to insolvency proceedings or a debt relief order and no dividend has been or is likely to be received.

For debt to be written off there must be a legitimate charge against the debtor. If it is considered that part or all of the debt is incorrect or unsubstantiated, then such elements are dealt with through the issue of a credit note.

(ii) Bad debt provisioning

The Company's detailed bad and doubtful debts provision policy has remained unchanged during the year and has been consistently applied in the current and prior periods. The bad debt provision is charged to operating costs to reflect the Company's assessment of the risk of non recoverability of debtors. It is calculated by applying expected recovery rates to debts outstanding at the end of the accounting period. These recovery rates take into account the age of the debt, payment history and type of debt.

Higher provisioning percentages are applied to categories of debt which are considered to be of greater risk, including those with a poor payment history as well as to those of greater age. Bad debt provisioning rates are reviewed annually to reflect the latest collection performance data from the Company's billing system. Actual amounts recovered may differ from the estimated levels of recovery which could impact on operating results. A comparison of the provision against historical collection rates is carried out at the end of each year to validate and, if necessary, adjust the level of provision.

An assessment of the potential impact of cost of living pressures caused by high energy costs and the consequent inflationary pressures was made at 31 March 2022 and an additional provision of £2m was created. Cash collection has been sustained through the year, therefore management has concluded that this provision is no longer required and it has been released at 31 March 2023.

The provision has reduced from £94.2m at 31 March 2022 to £92.3m at 31 March 2023, reflecting cash collection, write off of £12.6m of debt considered to be unrecoverable and the release of the £2m cost of living provision.

(d) Capitalisation policy

The policy for the capitalisation of costs as items of property, plant and equipment and intangible assets is applied consistently between the statutory and regulatory accounts, in accordance with IAS16 Property, Plant and Equipment and IAS38 Intangible Assets.

The application of this policy is summarised below. Further detail is provided in the accounting separation methodology statement published on our websites.

The cost of construction or purchase of new or replacement infrastructure and non-infrastructure assets is capitalised. Cost includes any costs directly attributable to bringing the asset into condition for use in the business, including directly attributable overhead costs but excluding general overhead costs. The costs of infrastructure and non-infrastructure assets are depreciated over their useful economic lives.

On the infrastructure network, capital replacement of assets includes any renewal of a full pipe length of main or sewer and replacement of ancillaries such as stop taps, valves, meter chambers and manhole covers.

Subsequent maintenance expenditure is treated as an operating cost unless it provides an enhancement of economic benefits in excess of the expected standard of performance such as an extension in the estimated useful life or an increase in capacity, in which case it is capitalised. Examples of maintenance costs charged as operating costs include pipe and tank cleaning, inspections, surveys and zonal studies.

(e) Accounting separation policy

Cost allocations have been prepared in accordance with RAG 2.09 and RAG 4.11 for the definitions for the regulatory accounting tables. All costs are recorded in the accounting records by cost centre. Cost centres are defined either as a direct department, comprising operational and customer functions, or a support department. Direct departments are mostly directly allocated to service activities based on the nature of the function, although some costs require apportionment on an appropriate basis. Support departments are apportioned across the price controls either based upon a specific analysis of the costs or by apportionment by an appropriate cost driver. Once allocated to the appropriate price control the costs are then allocated to service activities pro-rata to full time equivalent staff numbers of the direct departments.

Fixed assets directly involved in the activities within each business unit are recorded against that business unit using direct allocation per the location or asset type. Where an asset is utilised in more than one business unit, the asset is allocated to the business unit of principal use and costs are recharged to other different business units on the same basis used to allocate operating expenditure.

Further detail is provided in the accounting separation methodology statement published on our website.

(f) Statement of Directors' remuneration and standards of performance

Directors' remuneration is fully disclosed in the NWL Annual Report and Financial Statements for the year ended 31 March 2023, in the Remuneration Committee Report on pages 88 to 99 This is published on our website. To avoid duplication, this information has not been replicated within the APR.

The Remuneration Committee Report has been produced in accordance with section 35A of the Water Industry Act 1991. It also has regard to the requirements of the Large and Medium-sized Companies and Groups (Accounts and Reports) (Amendment) Regulations 2013 in respect of Directors' remuneration reporting for quoted companies, albeit in the context of a company which is not a listed public limited company.

1A INCOME STATEMENT
financial performance for the 12 months ended 31 March 2023

		Adjustments			
	Statutory	Differences between statutory and RAG definitions	Non-appointed	Total adjustments	Total appointed activities
	£'m	£'m	£'m	£'m	£'m
Revenue	849.9	(32.5)	(34.7)	(67.2)	782.7
Operating costs	(638.3)	20.4	28.0	48.4	(589.9)
Other operating income	-	1.8	(0.3)	1.5	1.5
Operating profit	211.6	(10.3)	(7.0)	(17.3)	194.3
Other income	-	11.4	(1.1)	10.3	10.3
Interest income	1.4	-	-	-	1.4
Interest expense	(244.9)	(10.0)	-	(10.0)	(254.9)
Other interest expense	0.8	-	-	-	0.8
Profit before tax and fair value movements	(31.1)	(8.9)	(8.1)	(17.0)	(48.1)
Fair value gains/(losses) on financial instruments	(17.9)	-	-	-	(17.9)
Profit before tax	(49.0)	(8.9)	(8.1)	(17.0)	(66.0)
UK Corporation tax	(3.1)	0.3	0.4	0.7	(2.4)
Deferred tax	25.0	1.8	(0.1)	1.7	26.7
Profit for the year	(27.1)	(6.8)	(7.8)	(14.6)	(41.7)
Dividends	(110.8)	-	-	-	(110.8)
Tax analysis					
Current year	4.8	(0.3)	(0.4)	(0.7)	4.1
Adjustments in respect of prior years	(1.7)	-	-	-	(1.7)
UK Corporation tax	3.1	(0.3)	(0.4)	(0.7)	2.4

Analysis of non-appointed revenue

Imported sludge	-
Tankered waste	2.5
Other non-appointed revenue	32.3
Revenue	34.8

Differences between Statutory and Regulatory Definitions

Differences between statutory and RAG definitions are explained in note (a) of the Regulatory Accounting Policies and Disclosures.

The differences which result in a change to profit for the year reflect the following accounting treatments:

- capitalisation of borrowing costs, which are capitalised in the Statutory Financial Statements but charged to the Income Statement in the Regulatory Accounting Statements, along with the associated depreciation and deferred tax; and
- Innovation Fund costs, which are provided in the Statutory Financial Statements but removed from the Regulatory Accounting Statements, along with the associated tax.

Other changes are presentational in nature:

- income relating to energy generation and meter reading has been reclassified from revenue in the statutory accounts to negative operating costs;
- rental income, amortisation of deferred income and other contributions to capital investment have been reclassified from revenue in the statutory accounts to other income; and
- profit on disposal of fixed assets has been reclassified from operating costs in the statutory accounts to other operating income.

Interest Analysis

Interest expense comprises:

	£'m
Bank overdrafts and loans	(5.6)
Loans from financing subsidiary	(98.0)
Amortisation of issuance costs	(3.4)
Accretion on index-linked debt	(142.0)
Obligations under leases	(5.9)
Interest expense	(254.9)

NWL has a financing subsidiary, Northumbrian Water Finance Limited, which raises listed debt on its behalf. The debt is then loaned to NWL at the same terms.

Other interest expenses represents interest cost on pension plan obligations.

1B STATEMENT OF COMPREHENSIVE INCOME
financial performance for the 12 months ended 31 March 2023

	Statutory	Adjustments: Differences between statutory and RAG definitions	Adjustments: Non-appointed	Adjustments: Total adjustments	Total appointed activities
	£'m	£'m	£'m	£'m	£'m
Profit for the year	(27.1)	(6.8)	(7.8)	(14.6)	(41.7)
Actuarial gains/(losses) on post employment plans	(31.4)	-	-	-	(31.4)
Other comprehensive income	(2.7)	-	-	-	(2.7)
Total Comprehensive income for the year	(61.2)	(6.8)	(7.8)	(14.6)	(75.8)

1C STATEMENT OF FINANCIAL POSITION
financial performance for the 12 months ended 31 March 2023
(Registered number 02366703)

		Adjustments			
	Statutory	Differences between statutory and RAG definitions	Non-appointed	Total adjustments	Total appointed activities
	£'m	£'m	£'m	£'m	£'m
Non-current assets					
Fixed assets	4,998.2	(69.7)	(103.7)	(173.4)	4,824.8
Intangible assets	55.0	(2.7)	(0.1)	(2.8)	52.2
Investments - loans to group companies	1.9	-	(1.9)	(1.9)	-
Investments - other	-	-	-	-	-
Total non-current assets	5,055.1	(72.4)	(105.7)	(178.1)	4,877.0
Current assets					
Inventories	8.0	0.1	(0.5)	(0.4)	7.6
Trade & other receivables	246.3	3.0	(5.4)	(2.4)	243.9
Cash & cash equivalents	146.6	-	(1.7)	(1.7)	144.9
Total current assets	400.9	3.1	(7.6)	(4.5)	396.4
Current liabilities					
Trade & other payables	(182.8)	(145.2)	7.5	(137.7)	(320.5)
Capex creditor	(37.4)	-	0.4	0.4	(37.0)
Borrowings	(208.5)	146.0	-	146.0	(62.5)
Current tax liabilities	-	-	-	-	-
Provisions	(0.1)	-	-	-	(0.1)
Total current liabilities	(428.8)	0.8	7.9	8.7	(420.1)
Net current assets / (liabilities)	(27.9)	3.9	0.3	4.2	(23.7)
Non-Current liabilities					
Trade & other payables	-	-	-	-	-
Borrowings	(3,420.6)	-	-	-	(3,420.6)
Financial instruments	(87.1)	-	-	-	(87.1)
Retirement benefit obligations	17.9	-	(0.3)	(0.3)	17.6
Provisions	(3.8)	-	-	-	(3.8)
Deferred income - G&C's	(398.0)	-	78.9	78.9	(319.1)
Deferred income - adopted assets	(169.5)	-	-	-	(169.5)
Deferred tax	(619.6)	17.2	5.5	22.7	(596.9)
Total non-current liabilities	(4,680.7)	17.2	84.1	101.3	(4,579.4)
Net assets	346.5	(51.3)	(21.3)	(72.6)	273.9

1C STATEMENT OF FINANCIAL POSITION (continued)
financial performance for the 12 months ended 31 March 2023

		Adjustments			
	Statutory	Differences between statutory and RAG definitions	Non-appointed	Total adjustments	Total appointed activities
	£'m	£'m	£'m	£'m	£'m
Equity					
Called up share capital	122.7	-	(30.6)	(30.6)	92.1
Retained earnings & other reserves	223.8	(51.3)	9.3	(42.0)	181.8
Total Equity	346.5	(51.3)	(21.3)	(72.6)	273.9

Approved by the Board of Directors on 14 July 2023 and signed on their behalf by:

H Mottram

Differences Between Statutory and Regulatory Definitions

Differences between statutory and RAG definitions are explained in note (a) of the Regulatory Accounting Policies and Disclosures.

The change in net assets and total equity reflects the different treatment of borrowing costs, which are capitalised in the Statutory Financial Statements but charged to the income statement in the Regulatory Accounting Statements, along with the associated depreciation and deferred tax; and the removal of the provision for Innovation Fund costs from the Regulatory Accounts along with the associated tax. Other changes reflect the disaggregation of cash balances and trading balances between the appointed and non-appointed businesses.

1D STATEMENT OF CASH FLOWS
financial performance for the 12 months ended 31 March 2023

		Adjustments			
	Statutory	Differences between statutory and RAG definitions	Non-appointed	Total adjustments	Total appointed activities
					£'m
Operating profit	211.6	(10.3)	(7.0)	(17.3)	194.3
Other income	-	11.4	(1.1)	10.3	10.3
Depreciation	151.0	(2.1)	(3.1)	(5.2)	145.8
Amortisation - G&C's	-	-	-	-	-
Changes in working capital	(2.2)	1.0	(1.3)	(0.3)	(2.5)
Pension contributions	(39.1)	-	0.2	0.2	(38.9)
Movement in provisions	(14.8)	1.8	7.0	8.8	(6.0)
Profit on sale of fixed assets	-	(1.8)	0.3	(1.5)	(1.5)
Cash generated from operations	306.5	-	(5.0)	(5.0)	301.5
Net interest paid	(99.7)	-	-	-	(99.7)
Tax paid	3.1	-	-	-	3.1
Net cash generated from operating activities	209.9	-	(5.0)	(5.0)	204.9
Investing activities					
Capital expenditure	(282.8)	-	2.2	2.2	(280.6)
Grants & Contributions	15.4	-	-	-	15.4
Disposal of fixed assets	6.2	-	(0.3)	(0.3)	5.9
Other	-	-	-	-	-
Net cash used in investing activities	(261.2)	-	1.9	1.9	(259.3)
Net cash generated before financing activities	(51.3)	-	(3.1)	(3.1)	(54.4)
Cashflows from financing activities					
Equity dividends paid	(110.8)	-	-	-	(110.8)
Net loans received	248.7	-	1.7	1.7	250.4
Cash inflow from equity financing	-	-	-	-	-
Net cash generated from financing activities	137.9	-	1.7	1.7	139.6
Increase / (decrease) in net cash	86.6	-	(1.4)	(1.4)	85.2

Net interest paid comprises:

	£'m
Interest paid	(101.2)
Interest received	1.5
Net interest paid	(99.7)

1E NET DEBT ANALYSIS as at 31 March 2023
Appointed Business only

	Interest rate risk profile				
		Floating	Index linked		
	Fixed rate	rate	RPI	CPI/CPIH	Total
	£'m	£'m	£'m	£'m	£'m
Borrowings (excluding preference shares)	2,142.7	19.5	1,203.5	117.4	3,483.1
Preference share capital					-
Total borrowings					3,483.1
Cash					0.7
Short term deposits					-
Net Debt					3,483.8
Gearing					68.3%
Adjusted Gearing					68.3%
Interest					
Full year equivalent nominal interest cost	93.3	0.4	180.4	12.2	286.3
Full year equivalent cash interest payment	93.3	0.4	15.4	0.3	109.4
Indicative interest rates					
Indicative weighted average nominal interest	4.36%	1.88%	14.96%	10.34%	8.21%
Indicative weighted average cash interest rate	4.36%	1.88%	1.28%	0.24%	3.14%
Time to maturity					
Weighted average years to maturity	8.9	5.0	14.8	16.0	11.2

1F FINANCIAL FLOWS for the 12 months ended 31 March 2023 and for the price review to date

	12 months ended 31 March 2023						Average 2020-25					
	%			£'m			%			£'m		
	Notional returns and notional regulatory equity	Actual returns and notional regulatory equity	Actual returns and actual regulatory equity	Notional returns and notional regulatory equity	Actual returns and notional regulatory equity	Actual returns and actual regulatory equity	Notional returns and notional regulatory equity	Actual returns and notional regulatory equity	Actual returns and actual regulatory equity	Notional returns and notional regulatory equity	Actual returns and notional regulatory equity	Actual returns and actual regulatory equity
Regulatory equity (£m)	1,665.4	1,665.4	1,266.6				1,625.2	1,625.2	1,230.8			
Return on regulatory equity	4.42	3.36	4.42	73.6	56.0	56.0	4.39	3.32	4.39	71.3	54.0	54.0
Financing												
Impact of movement from notional gearing		1.06	1.29		17.6	16.3		1.07	1.32		17.3	16.7
Gearing benefits sharing		-	-		-	-		-	-		-	-
Variance in corporation tax		1.65	2.17		27.5	27.5		0.87	1.14		14.5	14.5
Group relief		-	-		-	-		-	-		-	-
Cost of debt		4.35	6.66		72.5	84.5		1.74	2.70		29.0	34.2
Hedging instruments		0.42	0.55		6.9	6.9		0.31	0.41		5.2	5.2
Return on regulatory equity including Financing adjustments	4.42	10.84	15.09	73.6	180.5	191.2	4.39	7.31	9.96	71.3	120.0	124.6
Operational Performance												
Totex out / (under) performance		-0.42	-0.55		(6.9)	(6.9)		(0.53)	(0.70)		(8.8)	(8.8)
ODI out / (under) performance		-0.24	-0.31		(3.9)	(3.9)		(0.18)	(0.23)		(3.0)	(3.0)
C-Mex out / (under) performance		0.17	0.23		2.9	2.9		0.12	0.15		1.9	1.9
D-Mex out / (under) performance		0.04	0.06		0.7	0.7		0.02	0.03		0.3	0.3
Retail out / (under) performance		-0.55	-0.72		(9.2)	(9.2)		(0.68)	(0.89)		(11.3)	(11.3)
Other exceptional items		0.15	0.19		2.4	2.4		0.07	0.09		1.1	1.1
Operational performance total		-0.85	-1.10		(14.0)	(14.0)		(1.18)	(1.55)		(19.8)	(19.8)
RoRE (return on regulatory equity)	4.42	9.99	13.99	73.6	166.5	177.2	4.39	6.13	8.41	71.3	100.2	104.8
RCV growth	10.69	10.69	10.69	178.0	178.0	135.4	6.35	6.35	6.35	103.2	103.2	78.2
Voluntary sharing arrangements		-	-		-	-		-	-		-	-
Total shareholder return	15.11	20.68	24.68	251.6	344.5	312.6	10.74	12.48	14.76	174.5	203.4	183.0

	12 months ended 31 March 2023						Average 2020-25					
	%			£'m			%			£'m		
	Notional returns and notional regulatory equity	Actual returns and notional regulatory equity	Actual returns and actual regulatory equity	Notional returns and notional regulatory equity	Actual returns and notional regulatory equity	Actual returns and actual regulatory equity	Notional returns and notional regulatory equity	Actual returns and notional regulatory equity	Actual returns and actual regulatory equity	Notional returns and notional regulatory equity	Actual returns and notional regulatory equity	Actual returns and actual regulatory equity
Dividends												
Gross Dividend	3.18	5.64	7.41	53.0	93.8	93.8	3.18	5.35	7.07	51.7	87.0	87.0
Interest Receivable on Intercompany loans		-	-		-	-		-	-		-	-
Retained Value	11.93	15.04	17.27	198.6	250.7	218.8	7.56	7.13	7.69	122.8	116.4	96.0
Cash impact of 2015-20 performance adjustments												
Totex out / under performance		-	-		-	-		0.11	0.14		1.7	1.7
ODI out / under performance		-	-		-	-		-	-		-	-
Total out / under performance		-	-		-	-		0.11	0.14		1.7	1.7

Explanation of Financial Flows

The purpose of this table is to provide transparency of financial flows to investors, comparing actual flows, and the main elements of performance which contribute to these flows, against the financial flows assumed by Ofwat under the notional structure at the last price review.

The table shows performance for 2022/23 and cumulative performance for the first three years of the 2020-2025 price control period. All of the financial values are expressed in the same 2017/18 price base as the PR19 price review. Where prior year numbers have been restated within the cumulative performance, this is explained below.

Return on regulatory equity (RORE)

At PR19, the base notional RORE was set at 4.42% for 2022/23. The regulatory equity base represents the proportion of RCV funded as equity rather than debt. Ofwat's notional structure for PR19 assumed net debt at 60% of RCV, equating to base regulatory equity of 40%, or £1,665m at March 2023.

NWL's actual average gearing in 2022/23 was 69% (closing gearing 68.3%), due to having higher net debt than assumed by Ofwat's notional structure, resulting in actual regulatory equity of 31% of RCV, or £1,267m.

Financing

This section of the report relates to performance from financing and tax.

Gearing is calculated as net debt divided by RCV. NWL's average gearing was 69%, remaining above Ofwat's notional structure assumption of 60% but below our target level of around 70%. The more efficient capital structure has generated a financing benefit of £16.3m. The CMA redetermination removed the gearing sharing mechanism for NWL, though it would not have come into effect during the year if it had been applied.

Corporation tax reports the difference current tax funded in the FD and the actual tax rate applied to profit before fair value, adjusted for capital allowances. The Company made a loss before tax in the year, due to the impact of very high inflation on index-linked debt interest charges. As a result, the tax charge was significantly lower than assumed in the FD, with a variance of £27.5m in 2022/23. This also included the impact of accelerated 'super deductions' on capital investment. A reconciliation of our current tax to FD allowance is provided on page 156. All tax losses acquired from related parties in the year were paid for in full.

The tax performance reported in 2020/21 included a deferred tax adjustment which, after subsequent consideration, has now been removed from the calculation. The cumulative tax variance is:

£m	2020/21	2021/22	2022/23	Average
Variance in corporation tax	0.258	15.634	27.492	14.461

Cost of debt performance is reported in real terms, rather than nominal. As reported in table 4H, over 60% of the Company's debt is at fixed rate and not impacted by indexation. In 2022/23, the real cost of debt was 3.24% lower than allowed in the FD due to high CPIH inflation, generating a £91.4m outperformance on cost of debt. This included £6.9m in respect of interest rate swaps.

In previous years, the impact of hedging instruments has been calculated including the impact of fair value gains and losses on hedging instruments. Following a review of the updated Regulatory Accounting Guidelines, the basis of the calculation has been revised to exclude fair value movements. The restated cost of debt and hedging returns are shown below:

£m	2020/21	2021/22	2022/23	Average
Cost of debt	(18.191)	36.192	84.461	34.154
Hedging instruments	4.543	4.157	6.914	5.205

The net effect of financing and tax in the year was an outperformance of FD allowance by £135.2m, or 10.67% of actual regulatory equity.

Operational Performance

This section of the report explains the impact of operational performance on wholesale totex, ODIs and retail costs, each of which is explained elsewhere in this report.

Wholesale totex performance reflects the performance presented in table 4C, and excludes variations due to timing of expenditure. The underperformance of £6.8m reflects overspends on the water price controls and underspends on the wastewater price controls, net of customer cost sharing, as explained in the commentary to table 4C on page 195. Following publication of the March 2022 APR, Ofwat highlighted an error in the RAG guidance. The restated cumulative totex performance is shown below:

£m	2020/21	2021/22	2022/23	Average
Totex performance	7.107	(26.709)	(6.938)	(8.847)

ODI performance against our PCs is reported in the tables in section 3, with table 3H reporting the summary incentive rewards and penalties (excluding C-MeX and D-MeX rewards as explained below). The reported performance for the year for in-period adjustments is a net penalty of £3.9m. Our performance against each ODI is explained earlier in this report.

In the previous year, the reported performance included the full impact of Storm Arwen on interruptions to supply. Following our representations, Ofwat removed 50% of the penalty in its final determination of ODIs. The restated cumulative ODI performance is shown below:

£m	2020/21	2021/22	2022/23	Average
ODI performance	1.862	(7.003)	(3.918)	(3.020)

Performance rewards on C-MeX and D-Mex are based on comparative performance across the sector and are not finalised until later in the year. For the purposes of this table, the performance is reported a year in arrears so the rewards of £2.9m for C-MeX and £0.7m for D-MeX relate to 2021/22 performance. We have achieved 1st place overall for C-MeX in 2022/23 and expect to earn a larger reward which will be reported in next year's APR.

Retail costs were higher than the PR19 allowance by £9.2m, as explained in the narrative to table 2C and due in part to the allowance not being increased each year for inflation. Cumulative performance has been updated so that the numbers reflect the correct price base:

£m	2020/21	2021/22	2022/23	Average
Retail performance	(16.666)	(8.149)	(9.155)	(11.323)

Exceptional items of £2.4m reflects the company's share of benefits from the disposal of surplus land and properties, as reported in table 2L.

The net effect of operational performance in the year was an underperformance of FD allowance by £14.0m, 1.10% of regulatory equity.

Total Shareholder Return

The total shareholder return comprises base RORE, financing performance, operational performance and growth in the RCV as allowed in the FD. Our total shareholder return of £312.6m performance comprises £177.2m RORE and £135.4m growth in RCV, reflecting the high levels of inflation in the latter part of the year.

Retained Value

Our dividend policy is set out on page 177 and we explain how this dividend policy is applied on pages 179-181. The dividend reported in the table is for dividends paid during the year, reflecting a final dividend for 2021/22 and an interim dividend for 2022/23, rebased to 2017/18 prices. This resulted in retained value of £218.8m for 2022/23.

APPOINTED BUSINESS TAXATION

The rate of UK corporation tax for the current year was 19%. The movement in the Company's deferred tax liabilities has been calculated at 25%.

Current tax for the Appointed business is derived by adjusting the Company's statutory position by the amount relating to the activities of the Non-appointed business. The Appointed business credit for the year of £1.5m (£4.1m charge in the income statement and £5.6m credit in the other comprehensive income statement) relates to £1.5m receivable from fellow group companies in respect of tax losses that will be surrendered by the Appointed business. The surrenders have not required the disclaimer of any capital allowances by the Appointed business and payments for the losses will be made at the full rate of corporation tax.

The prior years' corporation tax credit of £1.7m reflects revisions to tax reliefs for capital expenditure and R&D claims made.

The current corporation tax credit of £1.5m reflects a swing of £6.9m compared to the credit of £8.4m in 2021/22 and is explained by the decrease in profit before tax and fair value movements (-£17.0m), additional tax reliefs for capital expenditure (notably super deductions) (-£11.3m), the omission of the prior year one off deduction on the change of basis of accounting for 'software as a service' (+£4.2m), additional tax relief available on pension contributions paid in excess of accounts service and finance costs (-£8.8m), tax losses (+£38.5m), and other small variances (-£1.3m).

The deferred tax credit for the Appointed business is derived by adjusting the Company's statutory credit of £17.7m (£25m credit in the income statement and £7.3m credit in the other comprehensive income statement) by amounts relating to accounting differences (i.e. capitalised interest: charge of £2.0m; Innovation Fund: credit £0.2m) and the activities of the Non-appointed business (credit of £0.1m). The resulting Appointed business credit of £19.4m includes £19.1m for the current year and £0.3m for prior years related to the matters referred to above. Deferred tax in the year and at the balance sheet date is all provided at 25%, being the rate at which temporary differences are expected to reverse.

An explanation of why the current tax credit for the Appointed business is lower than the result of applying the standard rate of corporation tax to profit before tax is provided in the table below:

	Total appointed activities £'m
Profit before tax and fair value movements	(48.1)
Profit before tax and fair value movements multiplied by standard rate of corporation tax of 19%	(9.1)
EFFECTS OF:	
Expenses incurred that are not deductible for tax purposes	0.1
Non-taxable income	(0.3)
Super deductions claimed in excess of cost	(4.0)
Depreciation in respect of non-qualifying items	0.7
Tax reliefs claimed for capital expenditure in excess of accounts depreciation	(31.0)
Grants and contributions received in excess of accounts amortisation	9.3
Pension contributions paid in excess of accounts service and finance costs	(2.5)
Other temporary differences	(0.3)
Tax losses carried forward	46.5
Deferred tax movements not at the standard rate for the year	(5.3)
Adjustments in respect of prior periods	(1.7)
UK:UK transfer pricing adjustments	(0.7)
Balancing payment payable	0.7
Appointed current tax charge per line 1A.12	2.4

Future tax charges will be affected by the following matters:

The company expects to continue to incur high levels of capital expenditure during the remainder of the 2020-25 regulatory review period which should result in claims for tax reliefs in excess of depreciation.

The temporary increase in the rate of capital allowances (super-deductions) included in Finance Act 2021 applied to qualifying expenditure incurred in the two years ended 31 March 2023 under contracts entered into on or after 3 March 2021. Such expenditure attracts allowances of 130% (compared to the normal 18%) in the case of assets with an economic life of less than 25 years, and 50% (compared to the normal 6%) in the case of assets with an economic life of 25 years or more. The additional allowances were a contributory factor to the Company incurring tax losses in the current year.

In his 2023 Budget, the Chancellor introduced the expensing regime to replace super-deductions which introduces a 100% first year capital allowance for assets with an economic life of less than 25 years and 50% for assets with an economic life of 25 years or more for a three year period from 1 April 2023. As a result, the Company expects to continue to generate a tax loss over the remainder of the 2020-25 regulatory review period.

CURRENT TAX RECONCILIATION TO FD

An allowance for corporation tax was made in the Final Determination (FD) at PR19. Actual performance differs to the FD for a number of reasons. As far as current tax is concerned, the charge for the year is reconciled to the FD allowance as follows:

	Total appointed activities
	£'m
Current tax charge (at 19%) allowed in price limits	18.0
Net decrease in profit before tax and depreciation	(27.6)
Increase in allowable pension contributions	(1.3)
Increase in tax reliefs for capital expenditure	(14.8)
Increase in capital allowances due to 'super deductions'	(4.0)
Decrease in amortisation of grants and contributions	(1.2)
Decrease in provisions	(0.3)
Other	(0.1)
Tax losses arising in the year	35.4
Adjustment in respect of prior years	(1.7)
Appointed current tax credit per line 1A.12	2.4

APPOINTED BUSINESS TAX STRATEGY

Scope

The Company is required, by section 3.32 of RAG 3.14, to publish details of its Tax Strategy relating to the Appointed Business within the Annual Performance Report. For the avoidance of doubt, the Company has a single Tax Strategy which applies to its Appointed and Non-appointed businesses, as well as to its subsidiaries.

The Tax Strategy set out below is for the Company's financial year ended 31 March 2023 in order to satisfy the requirements of Schedule 19, Finance Act 2016.

Aim

The Company is committed to fully complying with all the statutory tax obligations that are imposed on it, including the provision of tax returns, the payment and recovery of taxes at the right time, and the provision of all relevant information to HM Revenue and Customs (HMRC) to support the amounts of tax concerned.

The Company's Board owns and approves the Tax Strategy which comprises the following four components:

a) Tax governance arrangements

The Board reviews and approves all significant investment and business operating decisions directly or delegates the appropriate authority. The Company's Audit Committee considers significant tax related matters as part of its monitoring of internal controls and financial reporting arrangements.

Day-to-day management of the Company's tax affairs is delegated to the Tax Manager and to other appropriately qualified staff who have responsibility for specific taxes. All staff with responsibility for tax report to members of the Company's senior management team which, in turn, reports to the Board.

The Company's tax affairs are conducted in a business-like manner in accordance with the Company's commitment to corporate responsibility.

b) Tax risk management framework

The Company's Risk Committee oversees the risk assessment process applied by the business which includes an assessment of tax risks.

As far as possible, through the activities of its Board, Committees and personnel responsible for tax matters, the Company seeks to manage the level of tax risk arising from its operations by ensuring appropriate processes and controls are in place.

The Company only takes tax positions which are justifiable and based on law, with advice taken from reputable professional firms where necessary. In accordance with internal governance procedures, any transaction that is likely to have material tax consequences must be referred to the Board.

To help manage tax risk, the Company's taxation affairs are only handled by appropriately qualified and experienced staff and, where necessary, training is given to non-tax staff who are involved in processes which have tax implications.

The Company does not tolerate or condone any form of tax evasion, whether committed or facilitated by its own staff or any associated persons (e.g. agents and other persons who perform services for or on behalf of the Company) and manages this risk by the use of appropriate processes.

c) Approach to tax planning

The Company considers tax as part of its business decision making process. When entering into commercial transactions, the Company seeks to obtain the benefit of tax incentives, reliefs and exemptions available under UK tax legislation, consistent with the purpose and the letter of the law.

The tax affairs of the Company are arranged and managed in response to, and in support of, its business or commercial activities. Related party transactions are managed and documented to ensure they are in compliance with local tax law and practice.

d) Relationship with HMRC

The Company seeks to have a transparent and constructive relationship with HMRC on all taxation matters and keeps HMRC aware of significant transactions and business developments. All contact with HMRC is conducted in a professional and courteous manner.

The Company seeks to obtain certainty from HMRC at the earliest opportunity on the tax treatment of complex or uncertain issues or to establish the appropriate understanding or interpretation of the law. Discussions with HMRC are held at least annually to review past and present tax risks and agree on the steps required to take matters forward. Resolution of any disputed matters will be sought through open discussion and negotiation with HMRC, but the Company is prepared to litigate in cases where it believes the technical basis of a decision is incorrect.

The Company takes an active role in the development of the UK's legislative framework through participation at company or industry level in Government consultations on significant new tax laws.

Publication date: 14 July 2023.

2A SEGMENTAL INCOME STATEMENT for the 12 months ended 31 March 2023

	Residential retail	Business retail	Water resources	Water Network+	Wastewater Network+	Bioresources	Total
	£'m	£'m	£'m	£'m	£'m	£'m	£'m
Revenue - price control	61.3	-	101.2	327.8	259.3	24.3	773.9
Revenue - non price control	-	0.2	-	8.6	-	-	8.8
Operating expenditure - excluding PU recharge	(53.6)	-	(80.0)	(196.6)	(113.9)	(0.5)	(444.6)
PU opex recharge	(3.0)	-	(0.4)	8.4	(4.6)	(0.3)	0.1
Operating expenditure - including PU recharge	(56.6)	-	(80.4)	(188.2)	(118.5)	(0.8)	(444.5)
Depreciation - tangible fixed assets	(2.1)	-	(5.9)	(68.9)	(52.2)	(7.9)	(137.0)
Amortisation - intangible fixed assets	(2.1)	-	-	(6.6)	(0.1)	-	(8.8)
Other operating income	-	-	0.4	0.9	0.1	0.1	1.5
Operating profit	0.5	0.2	15.3	73.6	88.6	15.7	193.9
Surface water drainage rebates							0.2

2B TOTEX ANALYSIS: WHOLESALE

for the 12 months ended 31 March 2023

	Water resources	Water Network+	Wastewater Network+	Bioresources	Total
	£'m	£'m	£'m	£'m	£'m
Base operating expenditure					
Power	20.6	38.1	43.6	5.2	107.5
Income treated as negative expenditure	(0.3)	-	-	(19.5)	(19.8)
Abstraction charges/ discharge consents	39.6	0.4	3.8	-	43.8
Bulk Supply/Bulk discharge	1.2	-	-	-	1.2
Renewals expensed in year (Infrastructure)	0.6	0.4	1.7	-	2.7
Renewals expensed in year (Non-Infrastructure)	0.2	5.8	2.7	0.2	8.9
Other operating expenditure (including Location specific costs & obligations)	7.5	111.7	58.5	13.3	191.0
Local authority and Cumulo rates	4.2	27.0	7.7	1.6	40.5
Total base operating expenditure	73.6	183.4	118.0	0.8	375.8
Other operating expenditure					
Enhancement operating expenditure	1.2	0.9	0.2	-	2.3
Developer services operating expenditure	-	-	0.2	-	0.2
Total operating expenditure excluding third party services	74.8	184.3	118.4	0.8	378.3
Third party services	5.6	3.9	0.1	-	9.6
Total operating expenditure	80.4	188.2	118.5	0.8	387.9
Grants and contributions - operating expenditure	-	-	-	-	-
Capital expenditure					
Base capital expenditure	21.8	117.3	66.7	3.5	209.3
Enhancement capital expenditure	2.4	22.0	30.8	-	55.2
Developer services capital expenditure	-	20.5	1.5	-	22.0
Total gross capital expenditure excluding third party	24.2	159.8	99.0	3.5	286.5
Third party services	-	-	-	-	-
Total gross capital expenditure	24.2	159.8	99.0	3.5	286.5
Grants and contributions - capital expenditure	-	13.1	2.0	-	15.1
Net totex	104.6	334.9	215.5	4.3	659.3
Cash expenditure					
Pension deficit recovery payments	0.6	12.9	6.1	0.3	19.9
Other cash items	-	-	-	-	-
Totex including cash items	105.2	347.8	221.6	4.6	679.2

2C COST ANALYSIS: RETAIL
for the 12 months ended 31 March 2023

	Residential	Business	Total
	£'m	£'m	£'m
Operating expenditure			
Customer services	15.5	-	15.5
Debt management	4.5	-	4.5
Doubtful debts	18.0	-	18.0
Meter reading	2.0	-	2.0
Services to developers		-	-
Other operating expenditure	9.4	-	9.4
Local authority and Cumulo rates	0.2	-	0.2
Total operating expenditure excluding third party services	49.6	-	49.6
Depreciation			
Depreciation (tangible fixed assets) on assets existing at 31 March 2015	0.4	-	0.4
Depreciation (tangible fixed assets) on assets acquired after 1 April 2015	1.7	-	1.7
Amortisation (intangible fixed assets) on assets existing at 31 March 2015	-	-	-
Amortisation (intangible fixed assets) on assets acquired after 1 April 2015	2.1	-	2.1
Recharges			
Recharge from wholesale for legacy assets principally used by wholesale (assets existing at 31 March 2015)	0.9	-	0.9
Income from wholesale for legacy assets principally used by retail (assets existing at 31 March 2015)	(0.1)	-	(0.1)
Recharge from wholesale assets acquired after 1 April 2015 principally used by wholesale	2.3	-	2.3
Income from wholesale assets acquired after 1 April 2015 principally used by retail	(0.1)	-	(0.1)
Net recharges costs	3.0	-	3.0
Total retail costs excluding third party and pension deficit repair	56.8	-	56.8
Third party services operating expenditure	-	-	-
Pension deficit repair costs	4.0	-	4.0
Total retail costs including third party and pension deficit repair	60.8	-	60.8
Debt written off	12.6	-	12.6
Capital expenditure	3.2	-	3.2

Other operating expenditure includes the net retail expenditure for the following household retail activities which are part funded by wholesale:

Demand-side water efficiency - gross expenditure	1.1
Demand-side water efficiency - expenditure funded by wholesale	1.1
Demand-side water efficiency - net retail expenditure	-
Customer-side leak repairs - gross expenditure	1.2
Customer-side leak repairs - expenditure funded by wholesale	1.2
Customer-side leak repairs - net retail expenditure	-
Comparison of actual and allowed expenditure	
Cumulative actual retail expenditure to reporting year end	175.5
Cumulative allowed expenditure to reporting year end	147.1
Total allowed expenditure 2020-25	247.5

Retail revenue and cost reconciliation to FD

Household retail revenue, reported in table 2I, was £61.3m, which was £1.1m lower than allowed in the FD.

Household retail costs excluding pension deficit repair costs, in table 2C above, were £56.8m, which was £6.8m higher than allowed in the FD.

The retail cost base is higher than the allowance in the FD, reflecting inflationary pressures on staff and other costs which were not allowed in the FD.

2D HISTORIC COST ANALYSIS OF TANGIBLE FIXED ASSETS

for the 12 months ended 31 March 2023

	Residential Retail	Business retail	Water resources	Water Network+	Wastewater Network+	Bioresources	Total
	£'m	£'m	£'m	£'m	£'m	£'m	£'m
Cost							
At 1 April 2022	30.9	-	335.8	3,457.4	3,054.0	204.4	7,082.5
Disposals	(0.1)	-	(0.2)	(11.5)	(0.7)	(0.4)	(12.9)
Additions	1.1	-	24.2	152.6	99.1	3.5	280.5
Adjustments	-	-	(0.2)	0.3	(0.2)	0.1	-
Assets adopted at nil cost	-	-	-	2.6	24.2	-	26.8
At 31 March 2023	31.9	-	359.6	3,601.4	3,176.4	207.6	7,376.9
Depreciation							
At 1 April 2022	(25.2)	-	(75.5)	(1,294.5)	(886.6)	(141.8)	(2,423.6)
Disposals	0.1	-	0.1	7.2	0.7	0.4	8.5
Adjustments	0.1	-	-	-	0.1	(0.2)	-
Charge for year	(2.1)	-	(5.9)	(68.9)	(52.2)	(7.9)	(137.0)
At 31 March 2023	(27.1)	-	(81.3)	(1,356.2)	(938.0)	(149.5)	(2,552.1)
Net book amount at 31 March 2023	4.8	-	278.3	2,245.2	2,238.4	58.1	4,824.8
Net book amount at 1 April 2022	5.7	-	260.3	2,162.9	2,167.4	62.6	4,658.9
Depreciation charge for year							
Principal services	(2.1)	-	(5.6)	(68.9)	(52.2)	(7.9)	(136.7)
Third party services	-	-	(0.3)	-	-	-	(0.3)
Total	(2.1)	-	(5.9)	(68.9)	(52.2)	(7.9)	(137.0)

The net book value includes £265.2m in respect of assets in the course of construction.

2E ANALYSIS OF 'GRANTS AND CONTRIBUTIONS': WATER RESOURCES, WATER NETWORK+ AND WASTEWATER NETWORK+
for the 12 months ended 31 March 2023

	Fully recognised in income statement	Capitalised and amortised (in income statement)	Fully netted off capex	Total
	£'m	£'m	£'m	£'m
Grants and contributions - water resources				
Diversions - s185	-	-	-	-
Other contributions (price control)	-	-	-	-
Price control grants and contributions	-	-	-	-
Diversions - NRSWA	-	-	-	-
Diversions - other non-price control	-	-	-	-
Other contributions (non-price control)	-	-	-	-
Total	-	-	-	-
Value of adopted assets	-	-		-
Grants and contributions - water network+				
Connection charges	-	9.2	-	9.2
Infrastructure charge receipts	-	1.2	-	1.2
Requisitioned mains	-	5.1	-	5.1
Diversions - s185	1.0	-	-	1.0
Other contributions (price control)	-	0.1	-	0.1
Price control grants and contributions before deduction of income offset	1.0	15.6	-	16.6
Income offset	-	4.2	-	4.2
Price control grants and contributions after deduction of income offset	1.0	11.4	-	12.4
Diversions - NRSWA	0.7	-	-	0.7
Diversions - other non-price control	-	-	-	-
Other contributions (non-price control)	0.1	-	-	0.1
Total	1.8	11.4	-	13.2
Value of adopted assets	-	2.6		2.6
Grants and contributions - wastewater network+				
Receipts for on-site work	-	-	-	-
Infrastructure charge receipts	-	0.7	-	0.7
Diversions - s185	0.2	-	-	0.2
Other contributions (price control)	(0.1)	0.8	-	0.7
Price control grants and contributions before deduction of income offset	0.1	1.5	-	1.6
Income offset	-	-	-	-
Price control grants and contributions after deduction of income offset	0.1	1.5	-	1.6
Diversions - NRSWA	-	-	-	-
Diversions - other non-price control	0.3	-	-	0.3
Other Contributions (non-price control)	-	-	-	-
Total	0.4	1.5	-	1.9
Value of adopted assets	-	24.2		24.2

	Water resources	Water network+	Wastewater network+	Total
	£'m	£'m	£'m	£'m
Movements in capitalised grants and contributions				
Brought forward	0.6	261.0	190.9	452.5
Received in year (above)	-	11.4	1.5	12.9
Adopted assets	-	2.6	24.2	26.8
Transferred from receipts in advance	-	2.1	0.4	2.5
Amortisation (in income statement)	-	(3.7)	(2.3)	(6.0)
Carried forward	0.6	273.4	214.7	488.7

Grants and contributions falling within the wholesale price control, and therefore also reported on table 2B, comprise connection charges, infrastructure charge receipts and requisitioned mains and sewers.

2F RESIDENTIAL RETAIL

for the 12 months ended 31 March 2023

	Revenue	Number of customers	Average residential revenues
	£'m	000s	£
Residential revenue			
Wholesale charges	544.6		
Retail revenue	61.3		
Total residential revenue	605.9		
Retail revenue			
Revenue Recovered ("RR")	61.3		
Revenue sacrifice	-		
Actual revenue (net)	61.3		
Adjustment			
Allowed revenue ("R")	62.4		
Net adjustment	1.1		
Customer information			
Actual customers ("AC")		1,971.7	
Reforecast customers		1,961.4	
Other residential information			
Average residential retail revenue per customer			31.1

2G & 2H NON-HOUSEHOLD WATER AND WASTEWATER REVENUES BY TARIFF TYPE

NWL exited the NHH retail market at 1 April 2017 and transferred its NHH retail business to an acquiring licenced retailer, NWGB, another subsidiary of NWGL.

In accordance with RAG 4.11, as NWL has exited all NHH market activities, we are no longer required to publish tables 2G and 2H.

NWL still provides wholesale water and wastewater services to NHH properties in our areas of supply. The NHH wholesale revenue for the year ended 31 March 2023 was £168.0m, as reported in table 2I.

2I REVENUE ANALYSIS for the 12 months ended 31 March 2023

	Household	Non-household	Total	Water resources	Water network+	Total
	£'m	£'m	£'m	£'m	£'m	£'m
Wholesale charge - water						
Unmeasured	180.5	1.5	182.0	45.9	136.1	182.0
Measured	156.2	85.6	241.8	54.8	187.0	241.8
Third party revenue	0.8	4.4	5.2	0.5	4.7	5.2
Total wholesale water revenue	337.5	91.5	429.0	101.2	327.8	429.0

	Household	Non-household	Total	Wastewater network+	Bioresources	Total
	£'m	£'m	£'m	£'m	£'m	£'m
Wholesale charge - wastewater						
Unmeasured - foul charges	131.7	0.7	132.4	120.8	11.6	132.4
Unmeasured - surface water charges	0.3	1.8	2.1	1.9	0.2	2.1
Unmeasured - highway drainage	0.2	0.8	1.0	0.9	0.1	1.0
Measured - foul charges	38.1	39.2	77.3	70.9	6.4	77.3
Measured - surface water charges	23.4	23.2	46.6	42.5	4.1	46.6
Measured - highway drainage	12.3	10.8	23.1	21.2	1.9	23.1
Third party revenue	1.1	-	1.1	1.1	-	1.1
Total wholesale wastewater revenue	207.1	76.5	283.6	259.3	24.3	283.6
Wholesale charge - Additional Control						
Unmeasured	-	-	-			
Measured	-	-	-			
Total wholesale additional control	-	-	-			
Wholesale Total	544.6	168.0	712.6			
Retail revenue						
Unmeasured	27.1	-	27.1			
Measured	34.2	-	34.2			
Other third party revenue	-	-	-			
Retail Total	61.3	-	61.3			
Third party revenue - non-price control						
Bulk supplies - water			3.5			
Bulk supplies - wastewater			-			
Other third party revenue			5.0			
Principal services - non-price control						
Other appointed revenue			0.3			
Total appointed revenue			782.7			

2I REVENUE ANALYSIS for the 12 months ended 31 March 2023 (continued)

Wholesale revenue control reconciliation to FD

Charges for 2022/23 were set in accordance with the price controls set by Ofwat in its PR19 Final Determination subsequently adjusted by the CMA appeal process.

During the COVID-19 pandemic we have seen an increase in household consumption due to the impact of various lockdown periods and customers working from home. This increased consumption trend has now stopped, and we are seeing reduced levels due to people now returning to workplaces. Various initiatives have continued during the year which have led to a reduction in the number of household voids to a void rate of 3.39% at the year end.

For our non-household charging base, during the year we have seen consumption increase slightly in line with the return to workplaces noted above. Non-household voids have remained relatively stable.

Wholesale water revenue in 2022/23 was £2.7m (0.8%) lower than the revenue cap income allowance. This is all within the network+ price control. Also within the network+ price control, grants and contributions income was £8.8m (42%) lower than the allowed revenue for the period, this is partly due to the ongoing impact of the COVID-19 pandemic and the subsequent economic downturn which has slowed down construction.

Wholesale wastewater revenue in 2022/23 was £2.2m (0.8%) lower than the revenue cap income allowance. This is split between the network+ and bioresources price controls which were £1.8m (0.7%) lower and £0.4m (1.6%) lower respectively. Within the network+ price control, grants and contributions income is £2.3m (59%) lower than the allowed revenue for the period, this is partly due to the ongoing impact of the COVID-19 pandemic and the subsequent economic downturn which has slowed down construction.

The revenue imbalances in the table above (for water resources and the network+ controls) will be incorporated into the Revenue Forecasting Incentive model and will be corrected within charges for 2024/25 against the relevant price controls.

2J INFRASTRUCTURE NETWORK REINFORCEMENT COSTS for the 12 months ended 31 March 2023

	Network reinforcement capex	On site / site specific capex (memo only)
	£'m	£'m
Wholesale water network+ (treated water distribution)		
Distribution and trunk mains	3.8	-
Pumping and storage facilities	1.2	-
Other	-	-
Total	5.0	-
Wholesale wastewater network+ (sewage collection)		
Foul and combined systems	-	-
Surface water only systems	-	-
Pumping and storage facilities	-	-
Other	-	-
Total	-	-

2K INFRASTRUCTURE CHARGES RECONCILIATION for the 12 months ended 31 March 2023

	Water	Wastewater	Total
	£'m	£'m	£'m
Impact of infrastructure charge discounts			
Infrastructure charges	1.2	0.7	1.9
Discounts applied to infrastructure charges	0.1	0.1	0.2
Gross infrastructure charges	1.3	0.8	2.1
Comparison of revenue and costs			
Variance brought forward	-	-	-
Revenue	1.2	0.7	1.9
Costs	(5.0)	-	(5.0)
Variance carried forward	(3.8)	0.7	(3.1)

Reconciliation of infrastructure charges and network reinforcement costs

Infrastructure charges are set at a level to fund investment in reinforcement of our networks, to meet the demand arising from new development of household properties. We are required to ensure that revenue from infrastructure charges broadly matches network reinforcement expenditure over a five year rolling period.

We review infrastructure charges annually, taking account of extra capacity expected to be required as a result of new developments in the following five years. Our forecast reflects applications received for the provision of new infrastructure, pre-development enquiries and a longer term view of local authority plans and strategic studies.

Water

During 2022/23, expenditure on water network reinforcement projects was greater than infrastructure charges receipts. The net position at the end of 2022/23 was that the cumulative expenditure on water network reinforcement is £0.3m more than the infrastructure charge income received (2021/22: £3.5m less). The projected network reinforcement expenditure over the next five years is expected to be significant to support new development growth. Our plan is to increase water infrastructure charges to fund the next five year's reinforcement expenditure.

Wastewater

During 2022/23, expenditure on wastewater network reinforcement projects was less than infrastructure charges receipts. The net position at the end of 2022/23 was that the cumulative expenditure on wastewater network reinforcement is £0.9m less than the infrastructure charge income received (2021/22: £0.3m less). The projected network reinforcement expenditure over the next five years has been reassessed and is not expected to be significant. Wastewater infrastructure charges are expected to remain at their reduced level.

2L LAND SALES for the 12 months ended 31 March 2023

	Water resources	Water Network+	Wastewater Network+	Total
	£'m	£'m	£'m	£'m
Land sales – proceeds from disposals of protected land	0.6	5.1	-	5.7

Land Sales during 2022/23

Land sales includes three property disposals.

One of these was above the threshold set in our Licence for reporting to Ofwat:

- Boldon House, Pity Me, Durham

We can confirm that all qualifying disposals were reported to Ofwat.

2M REVENUE RECONCILIATION: WHOLESALE for the 12 months ended 31 March 2023

	Water resources	Water network+	Wastewater network+	Bioresources	Total
	£'m	£'m	£'m	£'m	£'m
Revenue recognised					
Wholesale revenue governed by price control	101.2	327.8	259.3	24.3	712.6
Grants & contributions (price control)	-	12.4	1.6	-	14.0
Total revenue governed by wholesale price control	101.2	340.2	260.9	24.3	726.6
Calculation of the revenue cap					
Allowed wholesale revenue before adjustments (or modified by CMA)	101.2	321.8	258.7	24.7	706.4
Allowed grants & contributions before adjustments (or modified by CMA)	-	21.1	4.0	-	25.1
Revenue adjustment	-	-	-	-	-
Other adjustments	-	-	-	-	-
Revenue cap	101.2	342.9	262.7	24.7	731.5
Calculation of the revenue imbalance					
Revenue cap	101.2	342.9	262.7	24.7	731.5
Revenue Recovered	101.2	340.2	260.9	24.3	726.6
Revenue imbalance	-	2.7	1.8	0.4	4.9

2N RESIDENTIAL RETAIL SOCIAL TARIFFS for the 12 months ended 31 March 2023

	Revenue	Number of customers	Average amount per customer
	£'m	000s	£
Number of residential customers on social tariffs			
Residential water only social tariffs		14.9	-
Residential wastewater only social tariffs		1.0	-
Residential dual service social tariffs		42.2	-
Number of residential customers not on social tariffs			
Residential water only no social tariffs		763.0	-
Residential wastewater only no social tariffs		67.5	-
Residential dual service no social tariffs		1,083.1	-
Social tariff discount			
Average discount per water only social tariffs customer			76.8
Average discount per wastewater only social tariffs customer			125.1
Average discount per dual service social tariffs customer			96.1
Social tariff cross-subsidy - residential customers			
Total customer funded cross-subsidies for water only social tariffs	1.1		
Total customer funded cross-subsidies for wastewater only social tariffs customers	0.1		
Total customer funded cross-subsidies for dual service social tariffs	4.1		
Average customer funded cross-subsidy per water only social tariffs			1.5
Average customer funded cross-subsidy per wastewater only social tariffs customer			1.9
Average customer funded cross-subsidy per dual service social tariffs			3.6
Social tariff cross-subsidy - company			
Total revenue forgone by company to fund cross-subsidies for water only social tariffs customers	-		
Total revenue forgone by company to fund cross-subsidies for wastewater only social tariffs customers	-		
Total revenue forgone by company to fund cross-subsidies for dual service social tariffs customers	-		
Average revenue forgone by company to fund cross-subsidy per water only social tariffs customer			-
Average revenue forgone by company to fund cross-subsidy per wastewater only social tariffs customer			-
Average revenue forgone by company to fund cross-subsidy per dual service social tariffs customer			-
Social tariff support - willingness to pay			
Level of support for social tariff customers reflected in business plan			2.1
Maximum contribution to social tariffs supported by customer engagement			3.4

20 HISTORIC COST ANALYSIS OF INTANGIBLE FIXED ASSETS for the 12 months ended 31 March 2023

	Residential Retail	Business Retail	Water Resources	Water Network+	Wastewater Network+	Bioresources	Total
	£'m	£'m	£'m	£'m	£'m	£'m	£'m
Cost							
At 1 April 2022	36.8	-	-	91.5	0.9	0.3	129.5
Disposals	-	-	-	-	-	-	-
Additions	2.0	-	-	7.3	-	-	9.3
Adjustments	0.1	-	-	(0.2)	0.1	-	-
Assets adopted at nil cost	-	-	-	-	-	-	-
At 31 March 2023	38.9	-	-	98.6	1.0	0.3	138.8
Amortisation							
At 1 April 2022	(10.0)	-	-	(66.9)	(0.8)	(0.1)	(77.8)
Disposals	-	-	-	-	-	-	-
Adjustments	-	-	-	-	-	-	-
Charge for year	(2.1)	-	-	(6.6)	(0.1)	-	(8.8)
At 31 March 2023	(12.1)	-	-	(73.5)	(0.9)	(0.1)	(86.6)
Net book amount at 31 March 2023	26.8	-	-	25.1	0.1	0.2	52.2
Net book amount at 1 April 2022	26.8	-	-	24.6	0.1	0.2	51.7
Amortisation for year							
Principal services	(2.1)	-	-	(6.6)	(0.1)	-	(8.8)
Third party services	-	-	-	-	-	-	-
Total	(2.1)	-	-	(6.6)	(0.1)	-	(8.8)

The net book value includes £5.9m in respect of assets in the course of construction.

DISCLOSURE OF TRANSACTIONS WITH ASSOCIATES

Services supplied to the appointee by associated companies:

Nature of transaction	Company	Turnover of associate	Terms of supply	Value
		£'m		£'m
Holding company charges	NWGL	6.9	No market	2.200
Public liability insurance (deductible infill policy)	Three Rivers Insurance Company Limited (TRICL)	0.4	No market	0.305
Vehicle maintenance and capital finance charge	Vehicle Lease and Service Limited (VLS)	20.5	Competitive letting	15.146
Corporation tax group relief surrendered by regulated business	Caledonian Environmental Levenmouth Treatment Services Limited	15.9	No market	1.509
Corporation tax group relief surrendered by regulated business	Reiver Finance Limited	18.3	No market	0.050

Services supplied by the appointee to associated companies:

Nature of transaction	Company	Turnover of associate	Terms of supply	Value
		£'m		£'m
Sale of materials	AquaGib Limited	17.2	Negotiated	0.145
Rental of garage and service charges	VLS	20.5	Negotiated	0.100
Service charge in compliance with the WROA agreement	Reiver Finance Limited	18.3	No market	0.199
UK:UK transfer pricing tax adjustment	Northumbrian Water Finance Limited	-	No market	0.049
UK:UK transfer pricing tax adjustment	Northumbrian Water Group Limited	6.9	No market	0.697

Turnover data for all companies relates to the year to 31 March 2023, with the exception of data for VLS which relates to the year to 31 December 2022.

Payment for tax losses transferred between group/associated companies and UK:UK transfer pricing adjustments is calculated as the gross amount of the item multiplied by the corporation tax rate for the year.

Services provided to the non-appointed business:

		£'m
Treatment of imported sludge	The average unit cost per tonne dry solid is calculated using operating costs only and excluding payroll. This gives a unit rate which is more than the incremental cost but less than the income received therefore sharing the benefit of the activity.	-
Treatment of tankered waste	The recharge comprises recovery of operating costs of operator time and sampling and analysis and a charge for the use of appointed business assets, calculated using the Biological and Sludge elements of the trade effluent charge set out in the Company's Wholesale Charges Scheme.	1.084
Other	Other assets are specifically identified to the appropriate business.	-

Information in relation to allocations and apportionments

The appointed and non-appointed businesses operate separate accounting records including sales and purchase ledgers. Revenue, operating costs, assets and liabilities are taken directly from these records.

Revenue is separately recorded between wholesale water and wastewater and household and non-household retail services and no apportionment has been necessary. Operating costs have been allocated between wholesale water and wastewater and household and non-household retail services in accordance with the guidance set out in RAG 4.11.

Overhead costs incurred in the appointed business which relate to the non-appointed business have been allocated using an activity based approach to comply with RAG 5.07.

Interest has been allocated between the appointed and non-appointed businesses on the basis of actual cash balances held by these businesses during the year at market rates. Capital costs and the related depreciation charges are specifically identifiable to the appropriate business and service.

The surrender of tax losses to the non-appointed business recognises that the appointed business has tax losses while the non-appointed business has taxable profits which will be offset within the appointee's tax return.

Borrowings

At 31 March 2023, the appointee's appointed business had the following borrowings issued by associated companies:

Company	Loan type	Maturity date	Interest rate	Balance at 31 March 2023
			%	£'m
Northumbrian Water Finance plc	Fixed rate Eurobond	Feb-23	6.875	-
	Fixed rate Eurobond	Apr-33	5.625	344.443
	Index linked Eurobond	Jul-36	2.033	270.386
	Index linked Eurobond	Jan-41	1.6274	107.157
	Index linked Eurobond	Jul-49	1.7118	177.601
	Index linked Eurobond	Jul-53	1.7484	177.599
	Fixed rate Eurobond	Jan-42	5.125	343.086
	Fixed rate Eurobond	Oct-26	1.625	299.066
	Fixed rate Eurobond	Oct-27	2.375	298.493
	Index linked Private Placement	Oct-39	CPI + 0.242	117.413
	Fixed rate Eurobond	Oct-34	6.375	390.953
	Fixed rate Eurobond	Feb-31	4.5	346.606
Northumbrian Water Group Limited	Overnight borrowing	On demand	5.25	33.000
VLS	Lease	Various	5.5	12.628

At 31 March 2023, the appointee's non appointed business had the following loan issued to an associated company:

Company	Loan type	Maturity date	Interest rate	Balance at 31 March 2023
			%	£'m
Bakethin Holdings Limited	Variable	Jan-34	SONIA minus 39bp	1.886

Guarantees or other forms of security

There were no guarantees or other forms of security provided by the appointee to any associate during the year, other than those relating to amounts borrowed from NWF, outlined above.

Omission of right

There were no omissions by the appointee to exercise any rights which would cause the net assets to decrease.

Waivers

There were no waivers by the appointee of any consideration, remuneration or other payment owed to it by any associated company.

The information in this note has been produced to comply with the requirements of RAG 5.07 Transfer Pricing in the Water Industry and the disclosures required by paragraph 6 of Condition F of the Company's operating licence.

The Directors confirm that, to the best of their knowledge, all transactions with associated companies have been disclosed.

Dividend Disclosure

Dividends paid during the year

During the year, the following ordinary dividends were paid by NWL to NWGL, its immediate parent company:

Ordinary dividends paid:	**2022/23 £m**	**2021/22 £m**
Final dividend for the year ended 31 March 2022 (31 March 2021)	55.4	123.3
Interim dividend for the year ended 31 March 2023 (31 March 2022)	55.4	58.2
Appointed business	**110.8**	**181.5**
Dividend yield, as reported in table 4H	6.9%	13.2%

Dividends paid in respect of the year

The Board determines dividends for the year to which they relate, which typically comprises an interim dividend paid during the year and a final dividend paid after the year end.

After the balance sheet date, the Board approved a final dividend of £25.3m. This equated to a 5% dividend yield for dividends paid in respect of 2022/23.

Ordinary dividends paid in respect of the year:	**2022/23 £m**	**2021/22 £m**
Interim dividend for the year ended 31 March 2023 (31 March 2022)	55.4	58.2
Final dividend for the year ended 31 March 2023 (31 March 2022)	25.3	55.4
Appointed business	**80.7**	**113.6**
Dividend yield in respect of the year	5.0%	8.2%

The Board approved a revised dividend policy during the year.

Dividend policy

NWL considers that its dividend policy should be transparent, recognising the company's commitments to various stakeholders including customers, employees, specifically pension scheme obligations, and investors, and with due attention to maintaining appropriate levels of financial resilience within the company.

A key overarching principle behind NWL's approach to dividends is that its owners should be able to receive a competitive and fair return on their investment which reflects the underlying risk profile of the business. This ensures that there will be access to the necessary capital required to make investments for customer needs now and in the future.

NWL is seeking to maintain a progressive dividend policy that takes into account long-run financial performance and ensures that an efficient balance sheet is maintained. In line with the businesses' vision of being an industry leader, the policy seeks a competitive return consistent with a high-performing water company and to maximise returns over the long-term.

To deliver this the dividend policy will be based on four components:

- a base dividend component largely derived from the price control determination;
- a performance component linked to business performance and a fair assessment of outcomes for customers and the environment;
- a financial resilience adjustment designed to appropriately calibrate the company's overall gearing levels with the underlying risk profile of the business; and
- a smoothing adjustment to take into account smaller ad-hoc movements within any year that are expected to reverse out over the AMP.

These components are discussed in turn below.

Base dividend component

The approach to setting the base dividend is that it should broadly reflect the real cost of equity based on the capital structure as established in the latest regulatory determination, on the assumption that the regulatory cost of equity will always be set at a level that ensures the company remains financeable.

Performance component

The regulatory framework incentivises companies to meet or exceed regulatory targets and shares these gains or losses between shareholders and customers. The base dividend will be adjusted up or down to reflect business performance in 3 areas:

- totex performance: cost savings after the application of the regulatory approach to cost-sharing.
- ODI performance: net ODI rewards from improved outcomes for customers.
- financing performance: where the company is able to secure debt financing at lower rates than assumed by the latest regulatory determination.

Financial resilience adjustment

Financial resilience adjustments are designed to ensure the company maintains a prudent investment grade credit rating and an appropriate buffer to absorb relevant financial risks. To achieve this an adjustment will be made to ensure that any real terms growth in the regulatory capital value is funded from both debt and equity in line with an efficient capital structure.

Smoothing adjustment

To provide stability in dividends a further adjustment may be made to ensure that over a regulatory cycle there is a more even allocation of dividends. This is because expenditure within an AMP is not evenly spread and aligned with the phasing of the price control determination, and unexpected events (positive and negative) can impact financial performance in the short term.

In making these adjustments, the Board will aim to match dividends over a cumulative period of up to five years to the level required to deliver the policies set out under the first three components of the policy.

Application of Dividend Policy

The Board has approved a revised dividend policy which took effect for the year ended 31 March 2023. This is set out above.

For the year ended 31 March 2023 the Board approved payment of an interim dividend of £55.4m and, after the balance sheet date, approved payment of a final dividend of £25.3m. In reaching these decisions the Board took full account of its revised dividend policy and, in the case of the final dividend, revised Licence Condition P30 and the associated guidance.

The total dividend paid in respect of 2022/23 was £80.7m, comprising:

	£m
Base return	85.3
Totex performance	(14.1)
ODI performance	(0.4)
Financing performance (including inflation)	156.7
Total return including inflation	**227.5**
Less: Financing performance (including inflation)	(156.7)
Financing performance (due to management action)	49.8
Total return including performance	**120.6**
Smoothing adjustment	(39.9)
Total dividend in respect of 2022/23	**80.7**

- **Base return** reflects the real cost of equity based on the capital structure as established in the Final Determination. This is the base return that NWLs shareholders receive for the c.£1.6bn of equity capital that is currently deployed in NWL and reflecting the risk of that investment.
- **Totex performance** represents the Company's share of wholesale performance, as set out in table 4C, and Retail costs compared to the Final Determination allowance. Like other appointed water companies NWL receives a cost allowance from Ofwat every five years to deliver agreed service levels to customers. Where NWL is able to outperform the cost allowances customers will gain 55% of any savings made with the business retaining 45%. Similarly, if the business overspends then 55% of any overspend is borne by the business with 45% being borne by customers. This provides incentives to reduce costs but also protection for customers and the business. The base return above needs to be adjusted for totex performance. This is an underperformance due to NWL overspending against its allowances primarily due to increased power prices in the year, which are somewhat outside the control of the business, which is deducted from the base return.
- **ODI performance** reflects the rewards and penalties for the year reported in table 3H plus an estimate of the C-MeX and D-MeX rewards which will received for performance in 2022/23. Water companies are required to deliver stretching service levels to customers and rewarded 'Outcome Delivery Incentives' (ODIs) if they exceed those targets or incur penalties if they fail to meet them. Incentives are set broadly based on customers' willingness to pay for improvement or avoid service deterioration. This also reflects a small negative adjustment to be deducted from the base return as whilst NWL has performed well on many metrics including, for example, coming first in the industry for customer service (CMeX) and strong performance on pollutions and GHG emissions earning the business rewards it has also incurred penalties for under-performance on issues like Drinking Water Quality and interruptions to supply. The net effect is a small negative adjustment to be deducted from the base return.
- **Financing performance** relates to the significant costs of financing such a large capital programme. Every five years Ofwat sets a framework for ensuring that companies can recover the efficient cost of financing their investment programmes, including debt financing. Again where companies can raise finance more cheaply than Ofwat assumes the company can gain rewards and customers also benefit but if financing costs are higher companies will incur penalties. Performance in this area reflects those elements which have arisen as a result of NWL's Board decisions and actions comprising: The company's share of land sales as reported in table 2L (i.e. where NWL has sold land the proceeds from this are shared 50:50 with customers), the benefit gained from the Company retaining a lower proportion of index-linked debt in comparison to the rest of the industry which has

hedged costs for customers against the impact of high inflation on nominal interest costs; and the difference between the real cost of debt and the allowance in the FD due to financing decisions that have enabled NWL to raise finance at lower costs that Ofwat assumed in the FD. These financing outperformance benefits are added to the base return.

- **Smoothing adjustment** takes account of future investment needs over the final two years of AMP7 which will see a significant increase in capital investment to deliver the Company's obligations and maintain the health of the asset base.

The total dividend paid in respect of 2022/23 represents a dividend yield of 5% when compared against actual year end regulated equity. This is different to the dividend yield reported in table 4H which is based on dividends paid during 2022/23 and includes dividends declared for the previous year 2021/22 (following two years in 2019-20 and 2020-21 when no dividends were paid) rather than for 2022/23.

In reaching its decisions on dividends, the Board took account of performance for customers and the environment, its broader obligations and longer term financial resilience.

- **Customer and environment** – the Company has performed well overall achieving 1st place for C-MeX, zero category 1 or 2 pollutions, continued improvements in sewer flooding and strong greenhouse gas performance. The Board recognises the challenges on water quality (CRI) and interruptions to supply performance and has committed action plans to improve these. Overall, for performance commitments in 2022/23, 27 were met and 18 were not, so the majority (60%) were met.
- **Obligations** – the Board has confirmed that it considers the Company is meeting its relevant obligations in its Risk and Compliance Statement on page 126. The Company continues to cooperate with the ongoing FFT investigations and took prompt action to address the small number of sites where there was a risk that FFT requirements may not always have been met. Additional investment was made, funded by shareholders, to increase the level of monitoring and reflecting any minor detriment that may have arisen from those sites.
- **Financial resilience** – the Directors have confirmed the Company's financial resilience up to 2030 as described in the Viability Statement on page 130. The Company is developing it Business Plan for 2025-2030 and latest forecasts suggest a significant increase in capital investment which is likely to require additional equity investment. This will be addressed as the PR24 process progresses but the business is seeking to accelerate investment into the 2023-25 period to reduce the delivery risk of such a large capital programme. Additional equity may be required in 2024/25 to support the delivery of further investment with further equity injections required in the 2025-30 period. The Board is seeking assurance from the ultimate controllers of NWL that his equity can be provided. We further note that the dividend paid is less than service performance to customers and less than the total return including inflation outperformance and so will retain further equity capital within the business strengthening future financial resilience.

The Board is satisfied that, in the round, the dividends paid in respect of 2022/23 fairly represent the Company's overall performance for its customers and stakeholders.

Final dividend for the year ended 31 March 2022

A final dividend of £55.4m was paid in respect of the year ended 31 March 2022, though actually paid during 2022/23. This was paid in accordance with the previous dividend policy, as published in the 2021/22 APR. In approving this dividend, the Board took account of the underlying financial performance of the business, excluding non-cash movements in respect of the deferred tax restatement, valuation of derivatives and the impact of high inflation on index-linked debt accretion, and the Company's five year plan which remained compatible with investment grade credit ratings. The Board also took into account the principal risks facing the business, continued high levels of customer service, performance against regulatory commitments and positive employee engagement.

In considering performance for customers, the Board took account of the full range of performance commitments both where the PC was achieved and where performance fell short of the target, noting that the overall performance was a net ODI reward, excluding the exceptional storm Arwen event. Areas of positive performance included:

- excellent customer service results on C-MeX (top two in the industry) and D-MeX, along with further extension of affordability support to customers and reduction in number of void properties;
- continued industry-leading performance on interruptions to supply (excluding the exceptional storm Arwen event) and positive outcomes on burst mains and contact levels on appearance, taste and smell of water;
- awarding of 4* EPA, reflecting excellent overall environmental performance; and
- further progress on reducing greenhouse gas emissions towards our objective of being net zero by 2027.

In respect of areas requiring improvement, the Board took account of the action plans being carried out to improve these areas, including:

- the substantial investment to improve water quality and compliance risk index score, working closely with the DWI on a transformation plan;
- additional commitment both in terms of resources and investment to reduce leakage levels; and
- innovative approaches to reduce the causes of sewer flooding, such as the Bin The Wipe campaign, as part of a broader flooding tactical plan.

The Board also considered the significant interruptions to supply resulting from storm Arwen, noting that these were largely caused by power supply failures and recognising the tremendous effort put in by our teams to minimise disruption and return customers to supply as quickly as possible.

INDEPENDENT AUDITOR'S REPORT TO THE WATER SERVICES REGULATION AUTHORITY (THE WSRA) AND THE DIRECTORS OF NORTHUMBRIAN WATER LIMITED

Opinion

We have audited the sections of Northumbrian Water Limited's Annual Performance Report for the year ended 31 March 2023 ("the Regulatory Accounting Statements") which comprise:

- the regulatory financial reporting tables comprising the income statement (table 1A), the statement of comprehensive income (table 1B), the statement of financial position (table 1C), the statement of cash flows (table 1D), the net debt analysis (table 1E), lines 1F.1 to 1F.3, 1F.5 to 1F.8, 1F.12 to 1F.14, 1F.21 to 1F.22 and 1F.24 to 1F.26 of the statement of financial flows (table 1F) and the related notes; and
- the regulatory price review and other segmental reporting tables comprising the segmental income statement (table 2A), the totex analysis for wholesale water and wastewater (table 2B), the operating cost analysis for retail (table 2C), the historical cost analysis of fixed assets for wholesale and retail (table 2D), the analysis of grants and contributions and land sales for wholesale (table 2E), the household water revenues by customer type (table 2F), the non-household water revenues by customer type (table 2G), the non-household wastewater revenues by customer type (table 2H), the revenue analysis & wholesale control reconciliation (table 2I), the infrastructure network reinforcement costs (table 2J), the infrastructure charges reconciliation (table 2K), the analysis of land sales (table 2L), the revenue reconciliation for wholesale (table 2M), residential retail social tariffs (table 2N) and historical cost analysis of intangible assets (table 2O) and the related notes.

We have not audited lines 1F.4, 1F.9 to 1F.11, 1F.15 to 1F.20 and 1F.23 of the statement of financial flows (table 1F), the Outcome performance table (tables 3A to 3I) or the additional regulatory information in tables 4A to 4W, 5A to 5B, 6A to 6F, 7A to 7F, 8A to 8D, 9A, 10A to 10E and 11A.

In our opinion, Northumbrian Water Limited's Regulatory Accounting Statements have been prepared, in all material aspects, in accordance with Condition F, the Regulatory Accounting Guidelines issued by the WSRA (RAG 1.09, RAG 2.09, RAG 3.14, RAG 4.11 and RAG 5.07) and the accounting policies (including the Company's published accounting methodology statement(s), as defined in RAG 3.14, appendix 2), set out in section 4.

Basis for opinion

We conducted our audit in accordance with International Standards on Auditing (UK) ("ISAs (UK)"), including ISA (UK) 800, and applicable law, except as stated in the section on Auditors' responsibilities for the audit of the Regulatory Accounting Statements below, and having regard to the guidance contained in ICAEW Technical Release Tech 02/16 AAF 'Reporting to Regulators on Regulatory Accounts' issued by the Institute of Chartered Accountants in England & Wales.

Our responsibilities under ISAs (UK) are further described in the Auditors' responsibilities for the audit of the Regulatory Accounting Statements within the Annual Performance Report section of our report. We are independent of the Company in accordance with the ethical requirements that are relevant to our audit, including the Financial Reporting Council's (FRC's) Ethical Standard as applied to public interest entities, and we have fulfilled our ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Emphasis of matter – special purpose basis of preparation

We draw attention to the fact that the Regulatory Accounting Statements have been prepared in accordance with a special purpose framework, Condition F, the Regulatory Accounting Guidelines, the accounting policies (including the Company's published accounting methodology statement(s), as defined in RAG 3.14, appendix 2) set out in the statement of accounting policies and under the historical cost convention. The nature, form and content of the Regulatory Accounting Statements are determined by the WSRA.

As a result, the Regulatory Accounting Statements may not be suitable for another purpose. It is not appropriate for us to assess whether the nature of the information being reported upon is suitable or appropriate for the WSRA's purposes. Accordingly we make no such assessment. In addition, we are not required to assess whether the methods of cost allocation set out in the accounting methodology statement are appropriate to the circumstances of the Company or whether they meet the requirements of the WSRA.

The Regulatory Accounting Statements are separate from the statutory financial statements of the Company and have not been prepared under the basis of international accounting standards in conformity with the requirements of the Companies Act 2006 ("UK IASs"). Financial information other than that prepared on the basis of UK IASs does not necessarily represent a true and fair view of the financial performance or financial position of a Company as shown in statutory financial statements prepared in accordance with the Companies Act 2006.

The Regulatory Accounting Statements in section 4 have been drawn up in accordance with Regulatory Accounting Guidelines with a number of departures from IASs. A summary of the effect of these departures in the Company's statutory financial statements is included in the tables within section 1.

Our opinion is not modified in respect of this matter.

Conclusions relating to going concern

In auditing the Regulatory Accounting Statements, we have concluded that the directors' use of the going concern basis of accounting in the preparation of the Regulatory Accounting Statements is appropriate.

Our evaluation of the directors' assessment of the company's ability to continue to adopt the going concern basis of accounting included:

- Assessing financial facilities including availability and access at the balance sheet date, the nature of the facilities, repayment and expiration terms and associated covenants;
- Evaluating management's going concern assessment and the linkage to the business model and medium-term risks including effects of changes in water availability and usage and potential regulation;
- challenging assumptions used in the forecasts, including the effects of AMP 7 from the Ofwat final determination and the subsequent CMA final decision;
- evaluating the amount of headroom in the forecasts focusing on cash and covenants associated with financing activities;
- performing sensitivity analysis to assess how the headroom within the forecasts is affected by variations within the assumptions; and
- assessing the model used to prepare the forecasts, testing of clerical accuracy of those forecasts and assessing historical accuracy of forecasts prepared by management.

Based on the work we have performed, we have not identified any material uncertainties relating to events or conditions that, individually or collectively, may cast significant doubt on the company's ability to continue as a going concern for a period of at least twelve months from when the financial statements are authorised for issue.

Our responsibilities and the responsibilities of the directors with respect to going concern are described in the relevant sections of this report.

Other information

The other information comprises all of the information in the Annual Performance Report other than the Regulatory Accounting Statements and our auditors' report thereon. The directors are responsible for the other information. Our opinion on the Regulatory Accounting Statements does not cover the other information and we do not express any form of assurance conclusion thereon.

In connection with our audit of the Regulatory Accounting Statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the Regulatory Accounting Statements or our knowledge obtained in the audit, or otherwise appears to be materially misstated. If we identify an apparent material inconsistency or material misstatement, we are required to perform procedures to conclude whether there is a material misstatement of the Regulatory Accounting Statements or a material misstatement of the other information. If, based on the work we have performed, we conclude that there is a material misstatement of the other information, we are required to report that fact.

We have nothing to report based on these responsibilities.

Responsibilities of the Directors for the Annual Performance Report

As explained more fully in the Statement of Directors' Responsibilities set out in section 4, the directors are responsible for the preparation of the Annual Performance Report in accordance with Condition F, the Regulatory Accounting Guidelines issued by the WSRA and the Company's accounting policies (including the Company's published accounting methodology statement(s), as defined in RAG 3.14, appendix 2).

The directors are also responsible for such internal control as they determine is necessary to enable the preparation of the Annual Performance Report that is free from material misstatement, whether due to fraud or error.

In preparing the Annual Performance Report, the directors are responsible for assessing the Company's ability to continue as a going concern, disclosing as applicable, matters related to going concern and using the going concern basis of accounting unless the directors either intend to liquidate the Company or to cease operations, or have no realistic alternative but to do so.

Auditors' responsibilities for the Audit of the Regulatory Accounting Statements within the Annual Performance Report

Our objectives are to obtain reasonable assurance about whether the Regulatory Accounting Statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditors' report that includes our opinion. Reasonable assurance is a high level of assurance but is not a guarantee that an audit conducted in accordance with ISAs (UK) will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of the Regulatory Accounting Statements.

Irregularities, including fraud, are instances of non-compliance with laws and regulations. We design procedures in line with our responsibilities, outlined above, to detect material misstatements in respect of irregularities, including fraud. The extent to which our procedures are capable of detecting irregularities, including fraud, is detailed below.

We considered the nature of the company's industry and its control environment, and reviewed the company's documentation of their policies and procedures relating to fraud and compliance with laws and regulations. We also enquired of management about their own identification and assessment of the risks of irregularities.

We obtained an understanding of the legal and regulatory framework[s] that the company operates in, and identified the key laws and regulations that:

- Had a direct effect on the determination of material amounts and disclosures in the Regulatory Accounting Statements. These included Regulatory Accounting Guidelines as issued by the WRSA, UK Companies Act, pensions legislation and tax legislation; and
- do not have a direct effect on the Regulatory Accounting Statements but compliance with which may be fundamental to the company's ability to operate or to avoid a material penalty. These included the company's operating licence, regulatory solvency requirements and environmental regulations.

In common with all audits under ISAs (UK), we are also required to perform specific procedures to respond to the risk of management override. In addressing the risk of fraud through management override of controls, we tested the appropriateness of journal entries and other adjustments; assessed whether the judgements made in making accounting estimates are indicative of a potential bias; and evaluated the business rationale of any significant transactions that are unusual or outside the normal course of business.

In addition to the above, our procedures to respond to the risks identified included the following:

- reviewing financial statement disclosures by testing to supporting documentation to assess compliance with provisions of relevant laws and regulations described as having a direct effect on the financial statements;
- performing analytical procedures to identify any unusual or unexpected relationships that may indicate risks of material misstatement due to fraud;
- enquiring of management, the audit committee and external legal counsel concerning actual and potential litigation and claims, and instances of non-compliance with laws and regulations; and
- reading minutes of meetings of those charged with governance, reviewing internal audit reports, and reviewing correspondence with HMRC and WSRA.

A further description of our responsibilities for the audit of the Regulatory Accounting Statements is located on the Financial Reporting Council's website at www.frc.org.uk/auditorsresponsibilities. This description forms part of our auditor's report.

Use of this report

This report is made, on terms that have been agreed, solely to the Company and the WSRA in order to meet the requirements of Condition F of the Instrument of Appointment granted by the Secretary of State for the Environment to the Company as a water and sewage undertaker under the Water Industry Act 1991 ("Condition F"). Our audit work has been undertaken so that we might state to the Company and the WSRA those matters that we have agreed to state to them in our report, in order (a) to assist the Company to meet its obligation under Condition F to procure such a report and (b) to facilitate the carrying out by the WSRA of its regulatory functions, and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the Company and the WSRA, for our audit work, for this report or for the opinions we have formed.

Our opinion on the Regulatory Accounting Statements is separate from our opinion on the statutory financial statements of the Company for the year ended 31 March 2023 on which we reported on 14 July 2023, which are prepared for a different purpose. Our audit report in relation to the statutory financial statements of the Company (our "Statutory audit") was made solely to the Company's members, as a body, in accordance with Chapter 3 of Part 16 of the Companies Act 2006. Our Statutory audit work was undertaken so that we might state to the Company's members those matters we are required to state to them in a statutory audit report and for no other purpose. In these circumstances, to the fullest extent permitted by law, we do not accept or assume responsibility for any other purpose or to any other person to whom our Statutory audit report is shown or into whose hands it may come save where expressly agreed by our prior consent in writing.

Deloitte LLP

Deloitte LLP

Newcastle, United Kingdom

14 July 2023

3A Outcome performance - Water performance commitments (financial)

Line description	Unit	Performance level - actual	PC met?	Reward/ Penalty	Forecast 2020-25 Reward/ Penalty
				£m	£m
Common PCs - Water (Financial)					
Water quality compliance (CRI)	number	7.62	No	-8.531	-31.839
Water supply interruptions	hh:mm:ss	00:08:17	No	-2.611	-2.302
Leakage NW region	%	3.7	No	-0.543	-1.653
Leakage ESW region	%	7.5	Yes	0.000	0.056
Per capita consumption	%	-5.6	No	0.000	-9.285
Mains repairs	number	154.9	No	-1.863	1.089
Unplanned outage	%	3.51	Yes	0.000	-0.929
Bespoke PCs - Water and Retail (Financial)					
Visible leak repair time	nr	7.1	No	-0.471	-2.535
Voids	%	3.39	Yes	1.333	6.664
Interruptions to supply greater than 12 hours	nr	448	Yes	0.007	-7.179
Discoloured water contacts	nr	7.85	Yes	0.992	4.758
Taste and smell contacts	nr	1.75	Yes	0.263	1.361
Event Risk Index	nr	166.907	No	-0.028	-0.238
Interruptions to supply between one and three hours	%	124.2	No	-2.704	-2.226
Abstraction incentive mechanism (AIM)	nr	N/A	-	0.000	0.000
Water environment improvements	nr	33.1	Yes	0.177	1.259
Greenhouse Gas Emissions	tCO2e	45,182	Yes	7.183	19.505
Delivery of water resilience enhanced programme	%	25.2	Yes	0.000	-0.579
Delivery of lead enhancement programme	%	12.1	No	0.000	0.000
Delivery of smart water metering enhancement programme	%	27.3	No	0.000	-4.947
Delivery of cyber resilience enhancement programme	%	60.0	Yes	0.000	0.000

3B Outcome performance - Wastewater performance commitments (financial)

Line description	Unit	Performance level - actual	PC met?	Reward/ Penalty	Forecast 2020-25 Reward/ Penalty
				£m	£m
Common PCs - Wastewater (Financial)					
Internal sewer flooding	No. of internal incidents per 10,000 sewer connections	1.21	Yes	0.934	0.631
Pollution incidents	Pollution incidents per 10,000 km of sewer length	19.98	Yes	0.903	4.569
Sewer collapses	No. of sewer collapses per 1,000 km of all sewers	9.29	Yes	0.000	0.000
Treatment works compliance	%	98.52	No	-0.287	-2.036
Bespoke PCs - Wastewater (Financial)					
Sewer blockages	nr	10,949	Yes	0.168	1.425
External sewer flooding	nr	3,018	No	-0.056	-5.870
Repeat sewer flooding	nr	20	Yes	1.212	4.738
Bathing water compliance	%	97.06	Yes	0.000	0.000
Delivery wastewater resilience enhancement programme	nr	97	Yes	0.000	0.000
Water Industry National Environment Programme	nr	447	No	0.000	0.000
Delivery of Howdon STW enhancement	months	0	Yes	0.000	0.000

3C Customer measure of experience (C-MeX) table

Item	Unit	Value
Annual customer satisfaction score for the customer service survey	Number	83.72
Annual customer satisfaction score for the customer experience survey	Number	83.77
Annual C-MeX score	Number	83.74
Annual net promoter score	Number	41.50
Total household complaints	Number	7,828
Total connected household properties	Number	2,049,338
Total household complaints per 10,000 connections	Number	38.198
Confirmation of communication channels offered	TRUE or FALSE	TRUE

3D Developer services measure of experience (D-MeX) table

Item	Unit	Value
Qualitative component annual results	Number	81.32
Quantitative component annual results	Number	98.38
D-MeX score	Number	89.85
Developer services revenue (water)	£m	16.572
Developer services revenue (wastewater)	£m	1.799

3E Outcome performance - Non financial performance commitments

Line description	Unit	Performance level - actual	PCL met?
Common			
Risk of severe restrictions in a drought	%	0.0	Yes
Priority services for customers in vulnerable circumstances - PSR reach	%	8.8	Yes
Priority services for customers in vulnerable circumstances - Attempted contacts	%	90.3	Yes
Priority services for customers in vulnerable circumstances - Actual contacts	%	44.0	Yes
Risk of sewer flooding in a storm	%	16.11	Yes
Bespoke PCs			
Satisfaction of Customers who receive additional non-financial support	nr	8.5	No
Awareness of additional non-financial support	%	45.3	No
Response time to written complaints	nr	7.93	No
Customers' perception of trust	nr	8.5	No
Percentage of households in water poverty	%	15.27	No
Gap sites	%	59.1	No
Bioresources	%	100	Yes
Satisfaction of Customers who receive additional financial support	nr	9.2	Yes
Awareness of additional financial support	%	41.5	No
British Standards Institution Award for Inclusive Services	text	Maintained	Yes
NWL Independent value for money survey	nr	8.2	No
WINEP Delivery	text	Met	Yes
Delivery of DWMPs	%	100	Yes

3H Summary information on outcome delivery incentive payments

Line description	Initial calculation of performance payments (excluding CMEX and DMEX)
	£m (2017-18 prices)

Initial calculation of in period revenue adjustment by price control	
Water resources	0.81
Water network plus	-12.22
Wastewater network plus	5.41
Bioresources (sludge)	0.21
Residential retail	1.86
Business retail	0.00
Dummy control	0.00

Initial calculation of end of period revenue adjustment by price control	
Water resources	0.00
Water network plus	-2.55
Wastewater network plus	0.00
Bioresources (sludge)	0.00
Residential retail	0.00
Business retail	0.00
Dummy control	0.00

Initial calculation of end of period RCV adjustment by price control	
Water resources	0.00
Water network plus	0.00
Wastewater network plus	0.00
Bioresources (sludge)	0.00
Residential retail	0.00
Business retail	0.00
Dummy control	0.00

Additional Regulatory Information

This section contains additional regulatory information required by RAG 3.14.

However, some tables have not been included from this report either because their size or because of the technical nature of their content. These tables, which are listed below, can be found on our website, alongside this report.

4B	Analysis of debt
4L	Enhancement expenditure – water resources and water network+
4M	Enhancement expenditure – wastewater network+ and bioresources
4Q	Developer services – Non-financial information
4R	Properties, customers and population – non-financial information
4S-U	Green Recovery tables – not applicable to NWL
5A	Water resources – asset and volumes data
5B	Water resources - operating cost analysis
6A	Raw water transport, raw water storage, and water treatment data
6B	Treated water distribution – assets and operations
6C	Water network+ – mains, communication pipes and other data
6D	Demand management – metering and leakage activities
6E	Leakage activity detailed analysis
6F	WRMP annual reporting on delivery - non-leakage activities
7A	Wastewater network+ – functional expenditure
7B	Wastewater network+ – large sewage treatment works
7C	Wastewater network+ – sewer and volume data
7D	Wastewater network+ – sewage treatment works data
7E	Wastewater network+ – energy consumption and other data
7F	Wastewater network+ - WINEP phosphorus removal scheme costs and cost drivers
8A	Bioresources – sludge data
8B	Bioresources – operating expenditure analysis
8C	Bioresources – energy and liquors analysis
8D	Bioresources – sludge treatment and disposal data
10A-E	Green Recovery tables – not applicable to NWL
11A	Operational greenhouse gas emissions reporting

4A WATER BULK SUPPLY INFORMATION for the 12 months ended 31 March 2023

	Volume	Operating costs	Revenue
	Ml	£m	£m
Bulk supply exports			
(NESBWE1) Affinity Water (Three Valleys)	5.8	-	-
(NESBWE2) Anglian Water (Fairstead)	11.4	-	-
(NESBWE3) Anglian Water (Fuller Street)	7.7	-	-
(NESBWE4) Anglian Water (Hogwells)	3.8	-	-
(NESBWE5) Anglian Water (Layer)	38.5	-	0.1
(NESBWE6) Anglian Water (Maldon)	100.4	0.1	0.2
(NESBWE9) United Utilities Water	234.2	0.2	0.2
(NESBWE11) Anglian Water (Stour - Tiptree)	917.9	0.7	1.1
(NESBWE12) Leep Utilities - Barking	312.4	0.2	0.4
(NESBWE13) Anglian Water (Woods Meadow Oulton)	56.7	0.1	0.1
(NESBWE14) Thames Water	-	-	1.5
(NESBWE15) Albion Water (Five Oaks)	48.7	-	0.1
(NESBWE17) Anglian Water (2 Sisters Buxted Chickens)	92.1	0.1	0.1
(NESBWE18) IWNL - Throckley	28.4	-	-
(NESBWE19) IWNL (Malyon's Lane)	33.6	-	0.1
(NESBWE25) IWNL - River View - Maldon Road	1.7	-	-
(NESBWE24) LEEP - Conrad Road Witham	-	-	-
(NESBWE21) Marsh Road, Burnham	7.8	-	-
(NESBWE20) IWNL (Limebrook Way)	49.1	-	0.1
(NESBWE21) IWNL (Naisberry Farm)	2.6	-	-
(NESBWE22) IWNL (Lambton Park)	4.0	-	-
(NESBWE23) IWNL - Chester Road, Pennywell	3.6	-	-
(NESBWE26) IWNL (Seaton Vale)	4.8	-	-
(NESBEW28) IWNL (West Benton)	5.2	-	-
(NESBEW30) IWNL (Cell A)	6.9	-	-
Total bulk supply exports	1,977.3	1.4	4.0
Bulk supply imports			
(NESBWI2) Anglian Water (Cressing)	393.7	0.4	-
(NESBWE14) Thames Water	30,370.0	2.3	-
(NESVW13) - UUW	0.4	-	-
(NESBWI3) Anglian Water (Hartismere)	-	-	-
	30,764.1	2.7	-

4C IMPACT OF PRICE CONTROL PERFORMANCE TO DATE ON RCV for the 12 months ended 31 March 2023

	12 months ended 31 March 2023				Price control period to date			
	Water resources	Water network+	Wastewater network+	Bioresources	Water resources	Water network+	Wastewater network+	Bioresources
Totex (net of business rates, abstraction licence fees and grants and contributions)	£'m	£'m	£'m	£'m	£'m	£'m	£'m	£'m
Final determination allowed totex (net of business rates, abstraction licence fees, grants and contributions and other items not subject to cost sharing)	25.2	284.7	220.0	18.1	74.9	804.7	551.6	51.0
Actual totex (excluding business rates, abstraction licence fees, grants and contributions and other items not subject to cost sharing)	55.2	297.0	206.3	2.8	130.5	777.1	561.1	9.0
Transition expenditure	-	-	-	-	-	-	-	-
Disallowable costs	-	0.6	-	-	0.2	4.7	2.8	0.2
Total actual totex (net of business rates, abstraction licence fees and grants and contributions)	55.2	296.4	206.3	2.8	130.3	772.4	558.3	8.8
Variance	30.0	11.7	(13.7)	(15.3)	55.4	(32.3)	6.7	(42.2)
Variance due to timing of expenditure	(19.4)	(1.7)	6.3	8.7	-	(48.1)	-	-
Variance due to efficiency	49.4	13.4	(20.0)	(24.0)	55.4	15.8	6.7	(42.2)
Customer cost sharing rate - outperformance	55.00%	55.00%	55.00%	0.00%	55.00%	55.00%	55.00%	0.00%
Customer cost sharing rate - underperformance	45.00%	45.00%	45.00%	0.00%	45.00%	45.00%	45.00%	0.00%
Customer share of totex overspend	22.2	6.0	-	-	24.9	7.1	3.0	-
Customer share of totex underspend	-	-	(11.0)	-	-	-	-	-
Company share of totex overspend	27.2	7.3	-	-	30.5	8.7	3.7	-
Company share of totex underspend	-	-	(9.0)	(24.1)	-	-	-	(42.2)
Totex - business rates and abstraction licence fees								
Final determination allowed totex - business rates and abstraction licence fees	51.4	30.0	7.8	1.6	144.1	84.2	22.0	4.5
Actual totex - business rates and abstraction licence fees	43.8	27.3	7.7	1.6	139.2	81.3	19.4	4.0
Variance - business rates and abstraction licence fees	(7.6)	(2.7)	(0.1)	-	(4.9)	(2.9)	(2.6)	(0.5)
Customer cost sharing rate - business rates	82.95%	90.14%	90.00%	90.00%	82.61%	90.87%	90.00%	90.00%
Customer cost sharing rate - abstraction licence fees	82.67%	75.00%	75.00%	75.00%	82.67%	75.00%	75.00%	75.00%
Customer share of totex over/underspend - business rates and abstraction licence fees	(6.3)	(2.4)	(0.1)	-	(4.0)	(2.6)	(2.3)	(0.4)
Company share of totex over/underspend - business rates and abstraction licence fees	(1.3)	(0.3)	-	-	(0.9)	(0.3)	(0.3)	(0.1)
Totex not subject to cost sharing								
Final determination allowed totex - not subject to cost sharing	5.7	3.8	-	-	16.3	12.2	0.7	-
Actual totex - not subject to cost sharing	5.6	10.6	1.5	-	23.4	31.4	2.5	-
Variance - 100% company allocation	(0.1)	6.8	1.5	-	7.1	19.2	1.8	-
Total customer share of totex over/under spend	15.9	3.6	(11.1)	-	20.9	4.5	0.7	(0.5)

	12 months ended 31 March 2023				Price control period to date			
	Water resources	Water network+	Wastewater network+	Bioresources	Water resources	Water network+	Wastewater network+	Bioresources
RCV								
Total customer share of totex over/under spend	15.9	3.6	(11.1)	-	20.9	4.5	0.7	(0.5)
PAYG rate	91.44%	54.47%	37.71%	40.72%	90.10%	54.62%	43.15%	40.87%
RCV element of cumulative totex over/underspend	1.4	1.6	(6.9)	-	2.1	2.0	0.4	(0.3)
Adjustment for ODI outperformance payment or underperformance payment					-	-	-	-
Green recovery					-	-	-	
RCV determined at FD at 31 March					340.4	2,259.0	2,328.8	169.2
Projected 'shadow' RCV					342.5	2,261.0	2,329.2	168.9

Wholesale Totex Comparison to FD Allowance

Totex (net of business rates, abstraction licence fees and grants and contributions)

Actual totex in 2022/23 across all price controls was £12.7m higher than the FD allowance, after excluding disallowed costs. This has been allocated as £6.1m underspend due to timing of expenditure and £18.8m overspend relating to 'efficiency'.

The cumulative position for the first three years of the price control period is a total underspend of £12.4m, of which an underspend of £48.1m has been allocated to timing and an overspend of £35.7m to 'efficiency'.

The methodology adopted for allocation of variances between timing and efficiency is as follows:

- All operating expenditure variances are allocated to efficiency as they relate to in-period spend;
- If cumulative capital investment for a price control is above FD and forecast to remain above, then it is allocated to 'efficiency'. This is the case for the Water resources price control;
- If cumulative capital investment for a price control is below FD and forecast to remain below, then it is allocated to 'efficiency'. This is the case for the Wastewater network plus and Bioresources price controls;
- If cumulative capital investment for a price control is below FD but forecast to be above over the full AMP, then the variance is allocated to timing. This is the case for Water network plus.

Operating costs for the three years to date have been higher than FD on all price controls except Bioresources. This has been primarily due to the significant increase in power prices from 2021.

Capital expenditure has been lower than FD in the first three years, although it will increase significantly in the final two years of AMP7. The underspend due to timing is principally due to slower progress on enhancement projects, as reported in 4L and 4M of our APR, which can be found on our website.

Our progress on delivering our enhancement programme is explained in detail under 'Outcome 6: We are resilient and provide clean drinking water and effective sewerage services; now, and for future generations' on page 53 of this report.

Totex - business rates and abstraction licence fees

Actual totex in 2021/22 was £10.4m lower than the FD allowance. This primarily relates to lower abstraction charges following the end of a temporary two-year increase to recover costs relating to Kielder.

The original Ofwat determination set consistent cost sharing rates for abstraction and rates variances. However, our CMA redetermination amended the sharing rates for different elements of these costs. In order for the sharing rate calculation to work correctly, a hybrid sharing rate has been used and reported in the row for 'Customer cost sharing rate – business rates' in line with Ofwat guidance. The individual rates are shown below:

	12 months ended 31 March 2023				Price control period to date			
	Water resources	Water network plus	Wastewater network plus	Bio-resources	Water resources	Water network plus	Wastewater network plus	Bio-resources
Customer cost sharing rate - abstraction	82.67%	75.00%	75.00%	75.00%	82.67%	75.00%	75.00%	75.00%
Customer cost sharing rate - business rates	90.00%	90.00%	90.00%	90.00%	90.00%	90.00%	90.00%	90.00%
Customer cost sharing rate - weighted ave	82.95%	90.14%	90.00%	90.00%	82.61%	90.87%	90.00%	90.00%

Shadow RCV

Actual RCV at 31 March 2022, as published by Ofwat, was £5,097.4m.

The projected 'shadow' RCV, adjusted for the customer share of cost variances was £5,101.6m, the small increase reflecting the customer share of overspends due to increased energy costs.

Disallowable costs

Costs classified as disallowable are:

- Section 74 fines and fixed penalty notices; and
- compensation claims.

Recharges in respect of 'principal use' of assets

These relate to assets which are shared across more than one business unit, which mainly relate to IT systems and office buildings. The capital is allocated to Water Network+ as the 'principal user' and an appropriate proportion recharged to the other business units, including retail. The values are reported on table 2A.

4D TOTEX ANALYSIS: WATER RESOURCES AND WATER NETWORK+ for the 12 months ended 31 March 2023

		Network+				
	Water resources	Raw water transport	Raw water storage	Water treatment	Treated water distribution	Total
	£'m	£'m	£'m	£'m	£'m	£'m
Operating expenditure						
Base operating expenditure	73.6	6.8	2.3	63.4	110.8	256.9
Enhancement operating expenditure	1.2	-	-	0.4	0.5	2.1
Developer services operating expenditure	-	-	-	-	-	-
Total operating expenditure excluding third party services	74.8	6.8	2.3	63.8	111.3	259.0
Third party services	5.6	1.4	-	0.5	2.0	9.5
Total operating expenditure	80.4	8.2	2.3	64.3	113.3	268.5
Grants and contributions - operating expenditure	-	-	-	-	-	-
Capital expenditure						
Base capital expenditure	21.8	0.1	-	53.2	64.0	139.1
Enhancement capital expenditure	2.4	1.2	-	3.4	17.4	24.4
Developer services capital expenditure	-	-	-	-	20.5	20.5
Total gross capital expenditure (excluding third party)	24.2	1.3	-	56.6	101.9	184.0
Third party services	-	-	-	-	-	-
Total gross capital expenditure	24.2	1.3	-	56.6	101.9	184.0
Grants and contributions - capital expenditure	-	-	-	-	(13.1)	(13.1)
Net totex	104.6	9.5	2.3	120.9	202.1	439.4
Cash expenditure						
Pension deficit recovery payments	0.6	0.1	-	3.6	9.2	13.5
Other cash items	-	-	-	-	-	-
Totex including cash items	105.2	9.6	2.3	124.5	211.3	452.9
Atypical expenditure						
Pension past service credit (non-cash)	(0.3)	-	-	(2.0)	(4.9)	(7.2)
Total atypical expenditure	(0.3)	-	-	(2.0)	(4.9)	(7.2)

4E TOTEX ANALYSIS: WASTEWATER NETWORK+ AND BIORESOURCES for the 12 months ended 31 March 2023

	Network+ Sewage collection			Network+ Sewage treatment		Bioresources			
	Foul	Surface water drainage	Highway drainage	Sewage treatment and disposal	Imported sludge liquor treatment	Sludge transport	Sludge treatment	Sludge disposal	Total
	£'m	£'m	£'m	£'m	£'m	£'m	£'m	£'m	£'m
Operating expenditure									
Base operating expenditure	14.3	20.6	11.0	64.9	7.1	5.5	(5.8)	1.1	118.7
Enhancement operating expenditure	-	-	-	0.2	-	-	-	-	0.2
Developer services operating expenditure	0.2	-	-	-	-	-	-	-	0.2
Total operating expenditure excluding third party services	14.5	20.6	11.0	65.1	7.1	5.5	(5.8)	1.1	119.1
Third party services	-	0.1	-	-	-	-	-	-	0.1
Total operating expenditure	14.5	20.7	11.0	65.1	7.1	5.5	(5.8)	1.1	119.2
Grants and contributions - operating expenditure	-	-	-	-	-	-	-	-	-
Capital expenditure									
Base capital expenditure	11.6	19.3	10.2	25.6	-	0.5	3.0	-	70.2
Enhancement capital expenditure	0.5	0.8	0.4	29.1	-	-	-	-	30.8
Developer services capital expenditure	0.4	0.7	0.4	-	-	-	-	-	1.5
Total gross capital expenditure (excluding third party)	12.5	20.8	11.0	54.7	-	0.5	3.0	-	102.5
Third party services	-	-	-	-	-	-	-	-	-
Total gross capital expenditure	12.5	20.8	11.0	54.7	-	0.5	3.0	-	102.5
Grants and contributions - capital expenditure	(0.6)	(0.9)	(0.5)	-	-	-	-	-	(2.0)
Net totex	26.4	40.6	21.5	119.8	7.1	6.0	(2.8)	1.1	219.7
Cash expenditure									
Pension deficit recovery payments	2.9	0.2	-	3.0	-	-	0.3	-	6.4
Other cash items	-	-	-	-	-	-	-	-	-
Totex including cash items	29.3	40.8	21.5	122.8	7.1	6.0	(2.5)	1.1	226.1
Atypical expenditure									
Pension past service credit (non-cash)	(0.4)	(0.7)	(0.4)	(2.0)	-	-	(0.2)	-	(3.7)
Total atypical expenditure	(0.4)	(0.7)	(0.4)	(2.0)	-	-	(0.2)	-	(3.7)

4F & 4G MAJOR PROJECT EXPENDITURE FOR WHOLESALE WATER AND WASTEWATER

NWL does not have any Major Projects as defined by RAG4.11.

4H FINANCIAL METRICS for the 12 months ended 31 March 2023

	Units	Current year	AMP to date
Financial indicators			
Net debt	£m	3,483.8	-
Regulatory equity	£m	1,613.6	-
Regulatory gearing	%	68.3%	-
Post tax return on regulatory equity	%	-3.4%	-
RORE (return on regulatory equity)	%	10.0%	6.1%
Dividend yield	%	6.9%	-
Retail profit margin - Household	%	0.7%	-
Retail profit margin - Non household	%	0.0%	-
Credit rating - Fitch	Text	n/a	-
Credit rating - Moody's	Text	Baa1 (Stable)	-
Credit rating - Standard and Poor's	Text	BBB (Stable)	-
Return on RCV	%	4.1%	-
Dividend cover	dec	(0.4)	-
Funds from operations (FFO)	£m	207.4	-
Interest cover (cash)	dec	3.1	-
Adjusted interest cover (cash)	dec	0.6	-
FFO/Net debt	dec	0.1	-
Effective tax rate	%	(8.4%)	-
RCF	£m	96.6	-
RCF/Net debt	dec	-	-
Borrowings			
Proportion of borrowings which are fixed rate	%	61.5%	-
Proportion of borrowings which are floating rate	%	0.6%	-
Proportion of borrowings which are index linked	%	37.9%	-
Proportion of borrowings due within 1 year or less	%	1.7%	-
Proportion of borrowings due in more than 1 year but no more than 2 years	%	0.8%	-
Proportion of borrowings due in more than 2 years but but no more than 5 years	%	16.4%	-
Proportion of borrowings due in more than 5 years but no more than 20 years	%	70.7%	-
Proportion of borrowings due in more than 20 years	%	10.4%	-

An explanation of RORE performance compared to the allowance in the FD is provided in the commentary to table 1F.

4I FINANCIAL DERIVATIVES for the 12 months ended 31 March 2023

	Nominal value by maturity (net) at 31 March				Total value at 31 March		Total accretion at 31 March	Interest rate (weighted average for 12 months to 31 March 2021)	
	0 to 1 years	1 to 2 years	2 to 5 years	Over 5 years	Nominal value (net)	Mark to Market		Payable	Receivable
	£'m	£'m	£'m	£m	£'m	£'m	£'m	%	%
Interest rate swap (sterling)									
Floating to fixed rate	-	-	150.0	-	150.0	(8.7)	-	2.36%	0.49%
Floating from fixed rate	-	-	-	-	-	-	-	0.00%	0.00%
Floating to index linked	-	-	-	-	-	-	-	0.00%	0.00%
Floating from index linked	-	-	-	-	-	-	-	0.00%	0.00%
Fixed to index-linked	-	-	150.0	100.0	250.0	96.3	87.2	12.82%	2.17%
Fixed from index-linked	-	-	-	-	-	-	-	0.00%	0.00%
Index-linked to index-linked	-	-	-	-	-	-	-	0.00%	0.00%
Total	-	-	300.0	100.0	400.0	87.6	87.2		
Forward currency contracts									
Forward currency contracts USD	-	3.2	0.9	-	4.1	(0.3)	-		
Total	-	3.2	0.9	-	4.1	(0.3)	-		
Other financial derivatives	0.3	-	-	-	0.3	(0.2)	-		
Total financial derivatives	0.3	3.2	300.9	100.0	404.4	87.1	87.2		

For the floating to fixed rate swaps, the interest rate receivable has been calculated using the forward SONIA curve as the applicable market rates on the last day of 2022/23 for the discounted maturity cash flows of the derivative(s).

For the fixed to index-linked swaps, the interest rate payable has been calculated using a reference RPI of 13.51%, being the published RPI for March 2023. Both swaps reported in this line are set at RPI minus the margin as a fixed percentage on the swaps.

Other financial derivatives are power forward contracts.

For the mark-to-market valuations, liability (out of the money) positions are reported as positive values and asset (in the money) positions are reported as negative values, in accordance with RAG4.11. The total balance, £87.1m liability, is consistent with the Financial instruments balance in table 1C Statement of Financial Position.

4J BASE EXPENDITURE ANALYSIS: WATER RESOURCES AND WATER NETWORK+ for the 12 months ended 31 March 2023

		Water network+				
	Water resources	Raw water distribution	Raw water storage	Water treatment	Treated water distribution	Total
	£'m	£'m	£'m	£'m	£'m	£'m
Operating expenditure						
Power	20.6	3.1	0.1	6.6	28.3	58.7
Income treated as negative expenditure	(0.3)	-	-	-	-	(0.3)
Bulk supply	1.2	-	-	-	-	1.2
Renewals expensed in year (infrastructure)	0.6	-	-	-	0.4	1.0
Renewals expensed in year (non-infrastructure)	0.2	-	-	1.2	4.6	6.0
Other operating expenditure	7.5	0.4	2.2	51.3	57.4	118.8
Local authority and Cumulo rates	4.2	3.3	-	4.0	19.7	31.2
Service Charges						
Canal & River Trust abstraction charges/ discharge consents	0.5	-	-	-	-	0.5
Environment Agency / NRW abstraction charges/ discharge consents	39.1	-	-	0.3	-	39.4
Other abstraction charges/ discharge consents	-	-	-	-	-	-
Other operating expenditure						
Costs associated with Traffic Management Act	-	-	-	-	0.4	0.4
Costs associated with lane rental schemes	-	-	-	-	-	-
Statutory water softening	-	-	-	-	-	-
Total base operating expenditure	73.6	6.8	2.3	63.4	110.8	256.9
Capital expenditure						
Maintaining the long term capability of the assets - infra	8.7	-	-	-	29.3	38.0
Maintaining the long term capability of the assets - non-infra	13.1	0.1	-	53.2	34.7	101.1
Total base capital expenditure	21.8	0.1	-	53.2	64.0	139.1
Traffic Management Act						
Projects incurring costs associated with Traffic Management Act (nr)	-	-	-	-	9,165.0	9,165.0

4K BASE EXPENDITURE ANALYSIS: WASTEWATER NETWORK+ AND BIORESOURCES for the 12 months ended 31 March 2023

	Wastewater network+					Bioresources			
	Foul	Surface water drainage	Highway drainage	Sewage treatment and disposal	Sludge liquor treatment	Sludge Transport	Sludge Treatment	Sludge Disposal	Total
	£'m	£'m	£'m	£'m	£'m	£'m	£'m	£'m	£'m
Operating expenditure									
Power	3.9	6.4	3.4	24.5	5.4	1.6	3.6	-	48.8
Income treated as negative expenditure	-	-	-	-	-	-	(19.5)	-	(19.5)
Bulk discharge	-	-	-	-	-	-	-	-	-
Renewals expensed in year (infrastructure)	0.5	0.8	0.4	-	-	-	-	-	1.7
Renewals expensed in year (non-infrastructure)	0.3	0.5	0.3	1.6	-	-	0.2	-	2.9
Other operating expenditure	7.8	12.8	6.9	29.3	1.7	3.9	8.3	1.1	71.8
Local authority and Cumulo rates	-	0.1	-	7.6	-	-	1.6	-	9.3
Service Charges									
Canal & River Trust discharge consents	-	-	-	-	-	-	-	-	-
Environment Agency / NRW discharge consents	1.8	-	-	1.9	-	-	-	-	3.7
Other discharge charges / permits	-	-	-	-	-	-	-	-	-
Other expenditure									
Costs associated with Traffic Management Act	-	-	-	-	-	-	-	-	-
Costs associated with lane rental schemes	-	-	-	-	-	-	-	-	-
Costs associated with Industrial Emissions Directive	-	-	-	-	-	-	-	-	-
Total base operating expenditure	14.3	20.6	11.0	64.9	7.1	5.5	(5.8)	1.1	118.7
Capital expenditure									
Maintaining the long term capability of the assets - infra	9.4	15.7	8.3	0.1	-	-	-	-	33.5
Maintaining the long term capability of the assets - non-infra	2.2	3.6	1.9	25.5	-	0.5	3.0	-	36.7
Total base capital expenditure	11.6	19.3	10.2	25.6	-	0.5	3.0	-	70.2
Operating expenditure (AMP 7 shadow reported values)									
Power	3.9	6.4	3.4	24.5	5.4	1.6	3.6	-	48.8
Income treated as negative expenditure	-	-	-	-	-	-	(19.5)	-	(19.5)
Traffic Management Act									
Projects incurring costs associated with Traffic Management Act (nr)	402.0	-	-	-	-	-	-	-	402.0

4N DEVELOPER SERVICES EXPENDITURE: WATER RESOURCES AND WATER NETWORK+ for the 12 months ended 31 March 2023

	Water network+		
	Treated water distribution		
	Capex	Opex	Totex
	£'m	£'m	£'m
New connections	7.7	-	7.7
Requisition mains	5.1	-	5.1
Infrastructure network reinforcement	5.1	-	5.1
s185 diversions	1.7	-	1.7
Other price controlled activities	0.1	-	0.1
Total developer services expenditure	19.7	-	19.7

40 DEVELOPER SERVICES EXPENDITURE: WASTEWATER NETWORK+ AND BIORESOURCES for the 12 months ended 31 March 2023

	Wastewater network+					
	Foul	Surface water drainage	Highway drainage	Sewage treatment and disposal	Sludge liquor treatment	Total
	£'m	£'m	£'m	£'m	£'m	£'m
Capex						
New connections	-	-	-	-	-	-
Requisition sewers	-	-	-	-	-	-
Infrastructure network reinforcement	-	-	-	-	-	-
s185 diversions	0.1	0.2	0.1	-	-	0.4
Other price controlled activities	0.2	0.4	0.2	-	-	0.8
Total total developer services capex	0.3	0.6	0.3	-	-	1.2
Opex						
New connections	-	-	-	-	-	-
Requisition sewers	-	-	-	-	-	-
Infrastructure network reinforcement	-	-	-	-	-	-
s185 diversions	-	-	-	-	-	-
Other price controlled activities	-	-	-	-	-	-
Total developer services opex	-	-	-	-	-	-
Totex						
Total developer services expenditure	0.3	0.6	0.3	-	-	1.2

4P EXPENDITURE ON NON-PRICE CONTROL DIVERSIONS for the 12 months ended 31 March 2023

	Water resources	Water network+	Wastewater network+	Total
	£'m	£'m	£'m	£'m
Capex				
Costs associated with NSWRA diversions	-	0.8	-	0.8
Costs associated with other non-price control diversions	-	-	-	-
Other developer services non-price control capex	-	-	0.3	0.3
Developer services non-price control capex	-	0.8	0.3	1.1
Opex				
Opex associated with NSWRA diversions	-	-	-	-
Opex associated with other non-price control diversions	-	-	-	-
Other developer services non-price control opex	-	-	0.2	0.2
Developer services non-price control opex	-	-	0.2	0.2
Totex				
Costs associated with NSWRA diversions	-	0.8	-	0.8
Costs associated with other non-price control diversions	-	-	-	-
Other developer services non-price control totex	-	-	0.5	0.5
Developer services non-price control totex	-	0.8	0.5	1.3

4V MARK-TO-MARKET OF FINANCIAL DERIVATIVES ANALYSED BASED ON PAYMENT DATES for the 12 months ended 31 March 2023

	Derivatives - Analysed by earliest payment date				Derivatives - Analysed by expected maturity date			
	Net settled	Gross Settled outflows	Gross Settled inflows	Total	Net settled	Gross Settled outflows	Gross Settled inflows	Total
	£'m	£'m	£'m	£'m	£'m	£'m	£'m	£'m
Between one and two years	-	-	-	-	-	-	-	-
Between two and three years	-	-	-	-	(52.7)	-	-	(52.7)
Between three and four years	(52.7)	-	-	(52.7)	-	-	-	-
Between four and five years	-	-	-	-	(34.9)	-	-	(34.9)
After five years	(34.9)	-	-	(34.9)	-	-	-	-
Total	(87.6)	-	-	(87.6)	(87.6)	-	-	(87.6)

4W DEFINED BENEFIT PENSION SCHEME – ADDITIONAL INFORMATION for the 12 months ended 31 March 2023

	Defined benefit pension schemes
	Northumbrian Water Pension Scheme
	£'m
Scheme details	
Scheme name	NWPS
Scheme status	Closed to accrual of future defined benefits
Scheme valuation under IAS/IFRS/FRS	
Scheme assets	823.2
Scheme liabilities	805.3
Scheme surplus / (deficit) Total	17.9
Scheme surplus / (deficit) Appointed business	17.6
Pension deficit recovery payments	23.4
Scheme valuation under part 3 of Pensions Act 2004	
Scheme funding valuation date	31 December 2019
Assets	1,066.7
Technical Provisions	1,291.8
Scheme surplus / (deficit)	(225.1)
Discount rate assumptions	pre-retirement: gilts +1.6%; post-retirement: gilts +0.7%
Recovery plan (where applicable)	
Recovery Plan Structure	Recovery Plan signed on 24 March 2021. Schedule of contributions requires employers to pay the following deficit reduction contributions: • £12.2m pa, with effect from 1 January 2020 to 31 March 2020; • £12.5m pa, with effect from 1 April 2020 to 31 March 2021; • £20.0m pa, with effect from 1 April 2021 to 31 March 2022; • £23.8m pa, with effect from 1 April 2022, increasing annually by RPI each 1 April
Recovery plan end date	31 August 2027
Asset Backed Funding (ABF) arrangements	Not applicable
Responsibility for ABF arrangements	Not applicable

9A INNOVATION COMPETITION

	Current
Allowed	£'m
Allocated innovation competition fund price control revenue	2.6
Revenue collected for the purposes of the innovation competition	
Innovation fund income from customers	2.6
Income from customers to fund innovation projects the company is leading on	11.8
Income from customers as part of the inflation top-up mechanism	-
Income from customers that is transferred to other companies as part of the innovation fund	3.5

	1	2	3	4	5	6	7	8	9	10
	£'m	£'m	£'m	£'m	£'m	£'m	£'m	£'m	£'m	£'m
Fairwater	3.8	-	0.2	0.2	-	3.8	0.2	(3.6)	3.5	-
National Leakage Research Centre	5.3	-	0.1	0.1	-	5.3	0.1	(5.2)	5.2	-
Stream phase 1 - Open data	0.9	-	0.8	0.8	-	0.9	0.8	(0.1)	0.1	-
Support For All	0.6	-	0.3	0.3	-	0.6	0.3	(0.3)	0.3	-
SuPR Loofah (Sustainable	0.4	-	-	-	-	0.4	-	(0.4)	0.4	-
Water Quality As-A-Service	0.7	-	0.1	0.1	-	0.7	0.1	(0.6)	0.7	-
Innovation project 14	11.7	-	1.5	1.5	-	11.7	1.5	(10.2)	10.2	-

Total	£'m
Administration	0.1

Innovation Competition

As part of PR19 Ofwat established its Innovation Fund, the purpose of which is to grow the water sector's capacity to innovate enabling it to better meet the evolving needs of customers, society and the environment. Our revenue allowance includes £2.6m per annum, which is recovered through customer charges, to contribute towards the Innovation Fund.

Innovation fund income received from customers was £2.642m (21/22 £2.526m).

There was also a payment to Ofwat of £0.106m for the innovation partner administration charge.

£m	**20/21**	**21/22**	**22/23**	**Cumulative**
Income from customers (price control)	2.512	2.526	2.642	7.680
Innovation project cost contributions	0	-0.128	-3.509	-3.637
Administration partner costs	0	-0.116	-0.106	-0.222
Net	**2.512**	**2.282**	**-0.973**	**3.821**

The net receipt of £3.821m has been accrued in operating costs in the Statutory accounts but removed from the Regulatory accounts, in accordance with Ofwat guidance.

NWL has received the funding in 2022/23 to lead on a number of projects:

Water Breakthrough Challenge 1 - Fair Water.

Water Breakthrough Challenge 2 : Catalyst - Support for All, SuPR Loofah, Water Quality as a Service (Treatment 2 Tap).

Water Breakthrough Challenge 2 : Transform - National Leakage Research and Test Centre; Stream (open data sharing platform).

The income and expenditure to date for each project is shown on the table above.