

NORTHUMBRIAN
WATER *living water*

ESSEX & SUFFOLK
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FINAL ASSURANCE PLAN

MARCH 2022

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OUR RECENT ASSURANCE ACTIVITY AND PLAN FOR FUTURE ASSURANCE ACTIVITY



WELCOME TO OUR ASSURANCE PLAN

Northumbrian Water Limited (NWL) operates in the North East of England as Northumbrian Water, and in the South East of England as Essex & Suffolk Water.

We supply water and wastewater services to around 4.5 million people. Northumbrian Water provides water and wastewater services to 2.7 million people in the north east of England. Essex & Suffolk Water provides water services to 1.5 million people in Essex and 0.3 million people in Suffolk.

We regularly report and publish information about our performance to show how well we are delivering our service promises to you, our customers. This information has robust checking procedures so that you can be sure it is correct. This is what we mean by **assurance**.

Why have an assurance plan?

The services we provide are essential for life and wellbeing. This means that maintaining the trust and confidence of our customers and stakeholders is absolutely crucial.

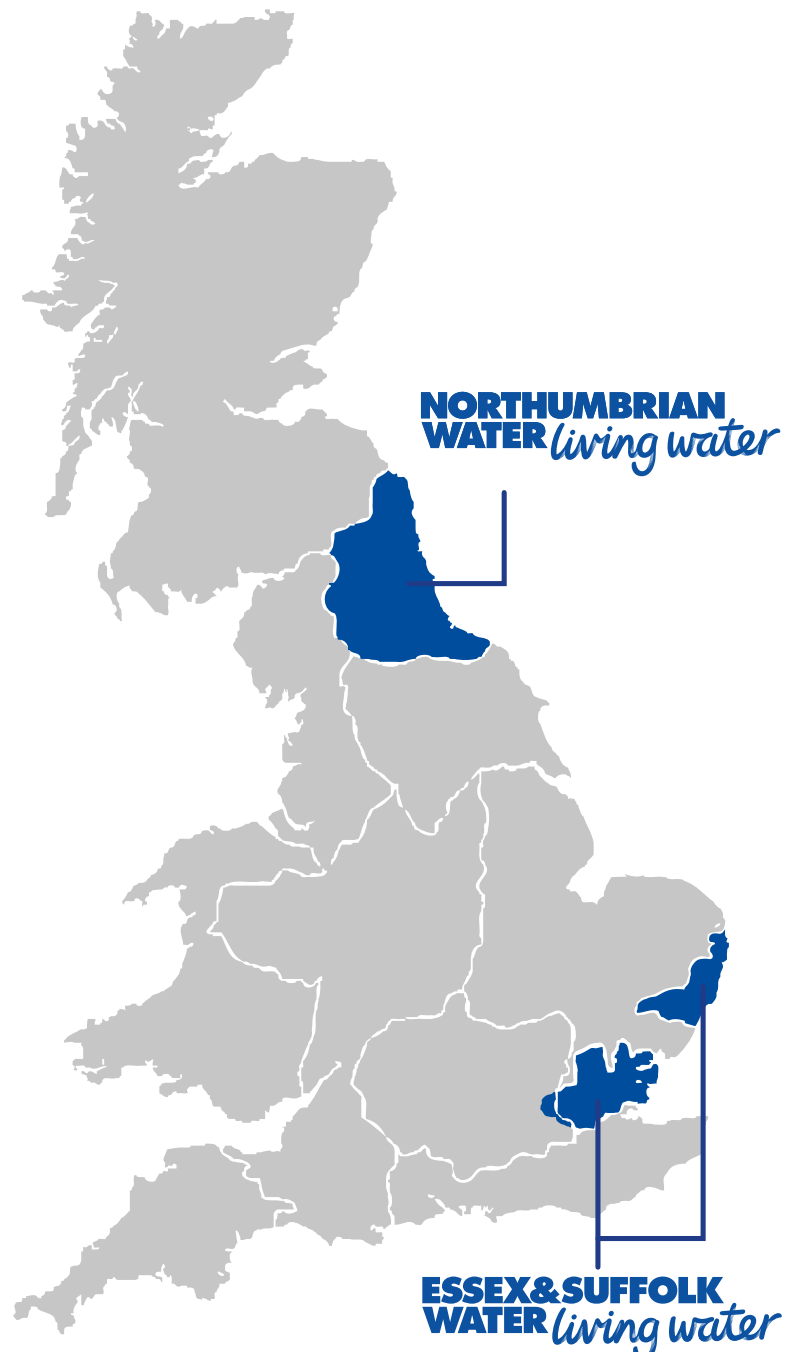
To maintain your trust, we need to ensure that we meet all our obligations and the published performance commitments that we have agreed with the water regulator, Ofwat.

We also need to make sure that we provide transparent, reliable information about our performance to our customers and stakeholders, so that they can hold us to account.

The purpose of this document is to tell you about our **strengths, risks** and **weaknesses** in relation to:

- Fulfilling our performance commitments and obligations
- Providing robust information to customers and stakeholders.

Our Assurance Plan follows this assessment, which shows the assurance activities we plan to complete to reduce risks and strengthen weak areas

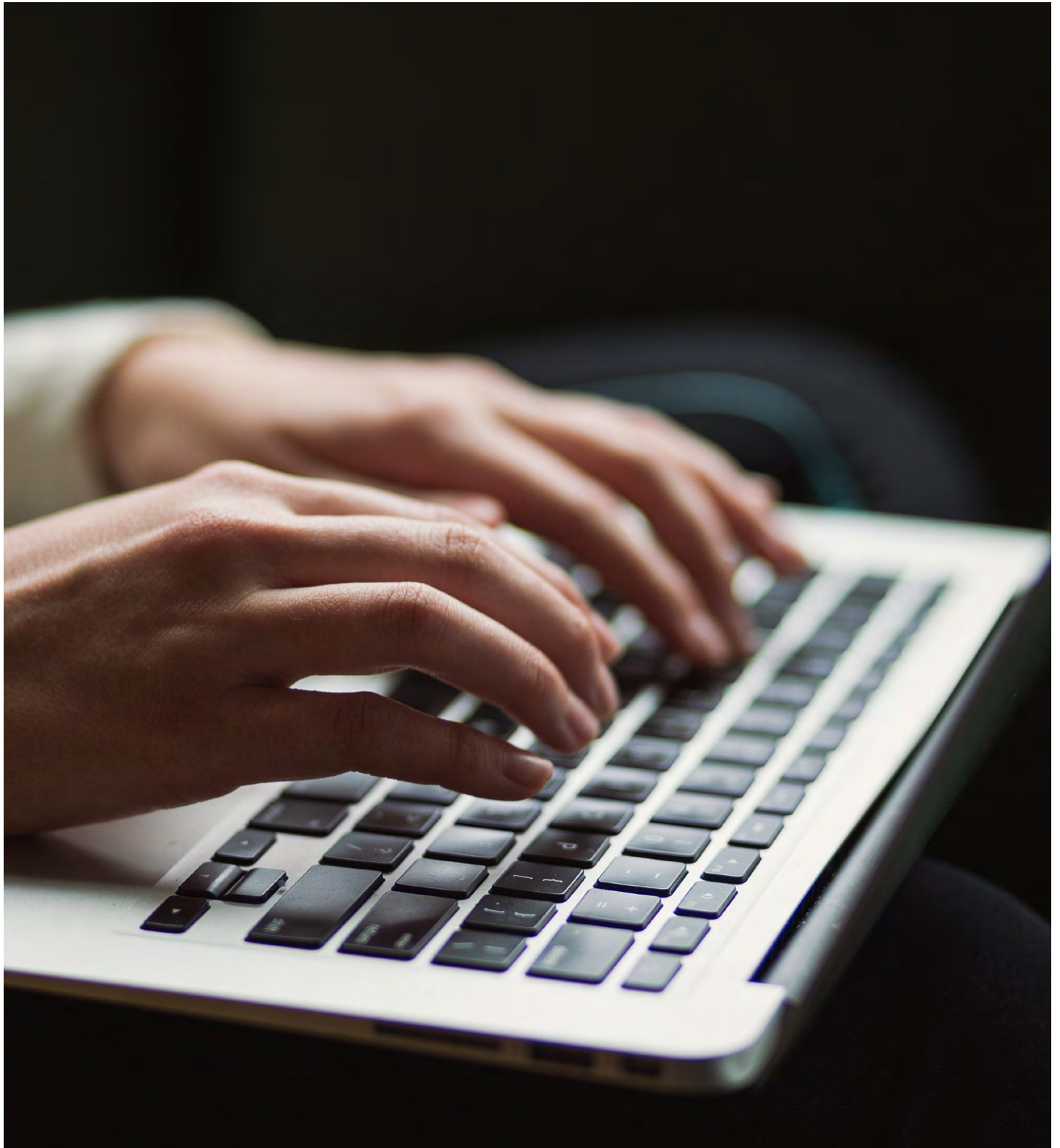


There are two versions of this document to choose from. This is our full assessment, which contains detailed, technical information. We also publish a **shorter summary**, with less technical detail.

Each year, we consult with our customers and stakeholders on our Statement of Strengths, Risks and Weaknesses and our Assurance Plan. More than 8,400 customers and stakeholders commented on our consultation for this 2022/23 plan. This helps us to ensure that this Final Assurance Plan fully responds to customers' and stakeholders' needs and priorities.

This full Final Assurance Plan and a shorter summary document were published on our group website: [nwg.co.uk](https://www.nwg.co.uk) in March 2022.

This plan is then implemented to make sure we provide customers and stakeholders with robust information, including the information in our **Annual Performance Report**, as shown in the diagram on **page 7**.



HOW CUSTOMERS AND STAKEHOLDERS INFLUENCED THIS PLAN

CUSTOMER AND STAKEHOLDER INVOLVEMENT

Our consultation on our strengths, risks and weaknesses and Draft Assurance Plan was published on our websites on 14 February 2022 and closed on 28 February 2022. This included publishing a shorter version of our Draft Assurance Plan, then emailing more than half a million of our customers to invite them to complete an online survey. 83 customers were also informed about the consultation through our social media channels and 16 members of our **HaveYourSay** online community of customers took part by invitation. Our customer participation report is available [here](#).

We were delighted to receive more than 8,400 responses from our customers (including 30 from stakeholders) and our Water Forum containing rich qualitative insights, as well as quantitative feedback.

More than 1,000 customers and stakeholders suggested further information that we could include in the plan, which we have used to inform this Assurance Plan. These included:

- More detail on our environmental work and on discharges to the environment from our activities, how it is reported and future plans and investment. We have added a link to our website [here](#) where more information is available;
- More information on what we are doing to minimise leakage and burst that lead to loss of supply and speed of repair;
- How they can reduce bills and the **financial and practical support** we offer;
- How we are financed as a privately owned company and how we report on our financial performance and performance commitments. In response, we've included a link to **Our Finances Explained** and **How we are Performing** page which includes our Annual Performance Report and Annual Report, and
- More information about drinking water quality in their local areas, including water type (hard/soft) and the chemicals used and why.



65%

understood our plan and said it made them feel informed



83%

were confident that the information we publish in 2022/23 will be correct and true



83%

said that we are a company they trust

OUR STAKEHOLDERS

We continuously engage with external stakeholders, through regular conversations and performance reviews. We invited stakeholders to feed back on our consultation on our strengths, risks and weaknesses and our Draft Assurance Plan. Most of the feedback we received was from our Water Forum.

In response to comments from Forum members we have:

- Included a section on [page 27](#) in relation to our focus on call waiting times;
- Further content on maintaining affordability on [page 18](#), and
- A short section on learning from incidents and events on [page 23](#).

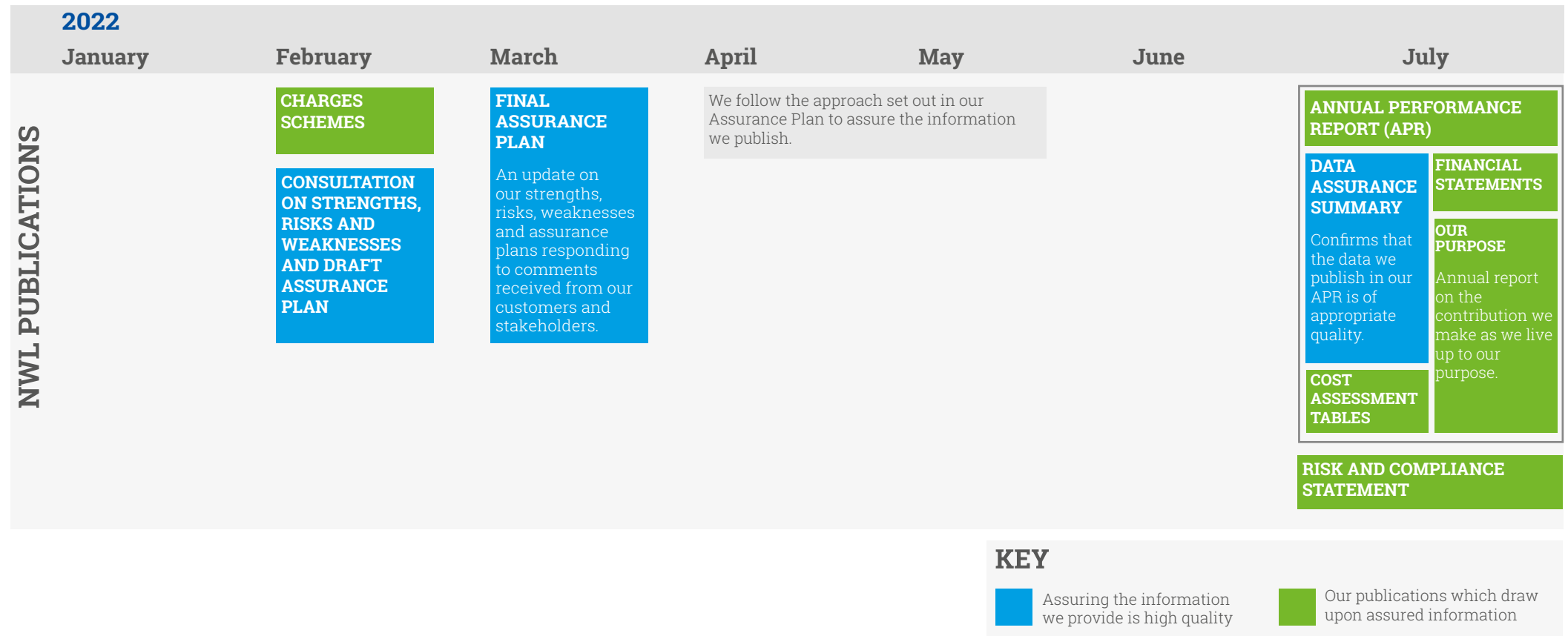
We will also ensure that these areas get due focus in this years APR.

In advance of next years assurance plan we will also conduct a more comprehensive review of our approach to assessing risks, strengths and weaknesses in light of the fact that this document is no longer a regulatory requirement. This will include a more holistic look at how we assess longer term risks and any other areas that are potentially in the public interest. We will also review our approach to consultation in line with this.



PROVIDING TRANSPARENT AND RELIABLE INFORMATION

Figure 1: Our annual cycle for assessing strengths, risks and weaknesses, developing our assurance plans and sharing information with customers and stakeholders.



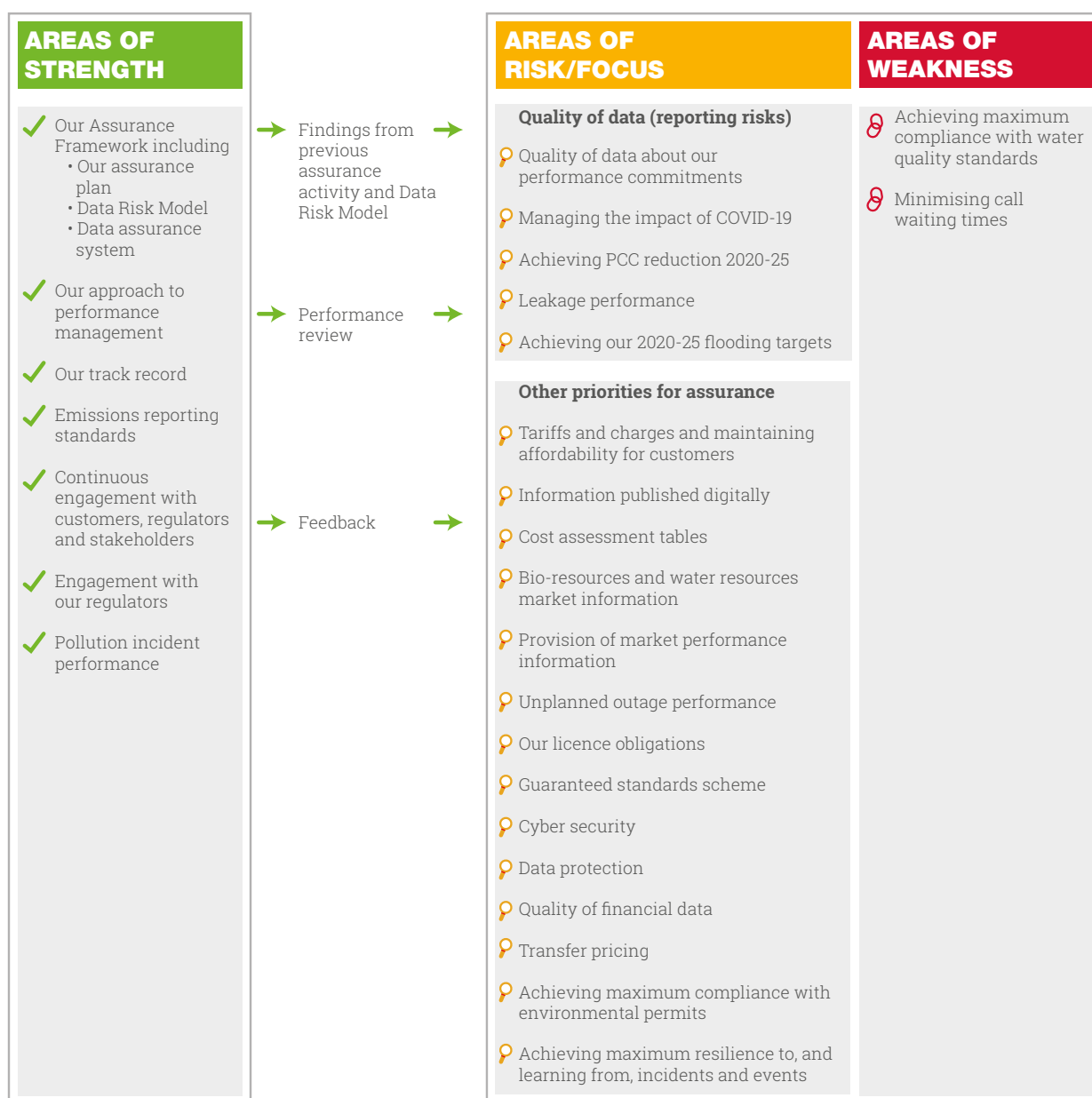
OUR APPROACH TO ASSESSING AREAS OF STRENGTH, RISK AND WEAKNESS

The diagram below summarises the strengths, risks and weaknesses we have associated with:

- Delivering our regulatory obligations and the performance commitments we made to customers and stakeholders in our 2020-25 Business Plan.
- Providing quality information to customers and stakeholders so they can hold us to account.

Each area's categorisation depends on their level of risk and their importance to our customers and stakeholders. For more detail on each area, please see the following pages.

Figure 2: Our view on our areas of strength, risk and weakness



AREAS OF STRENGTH

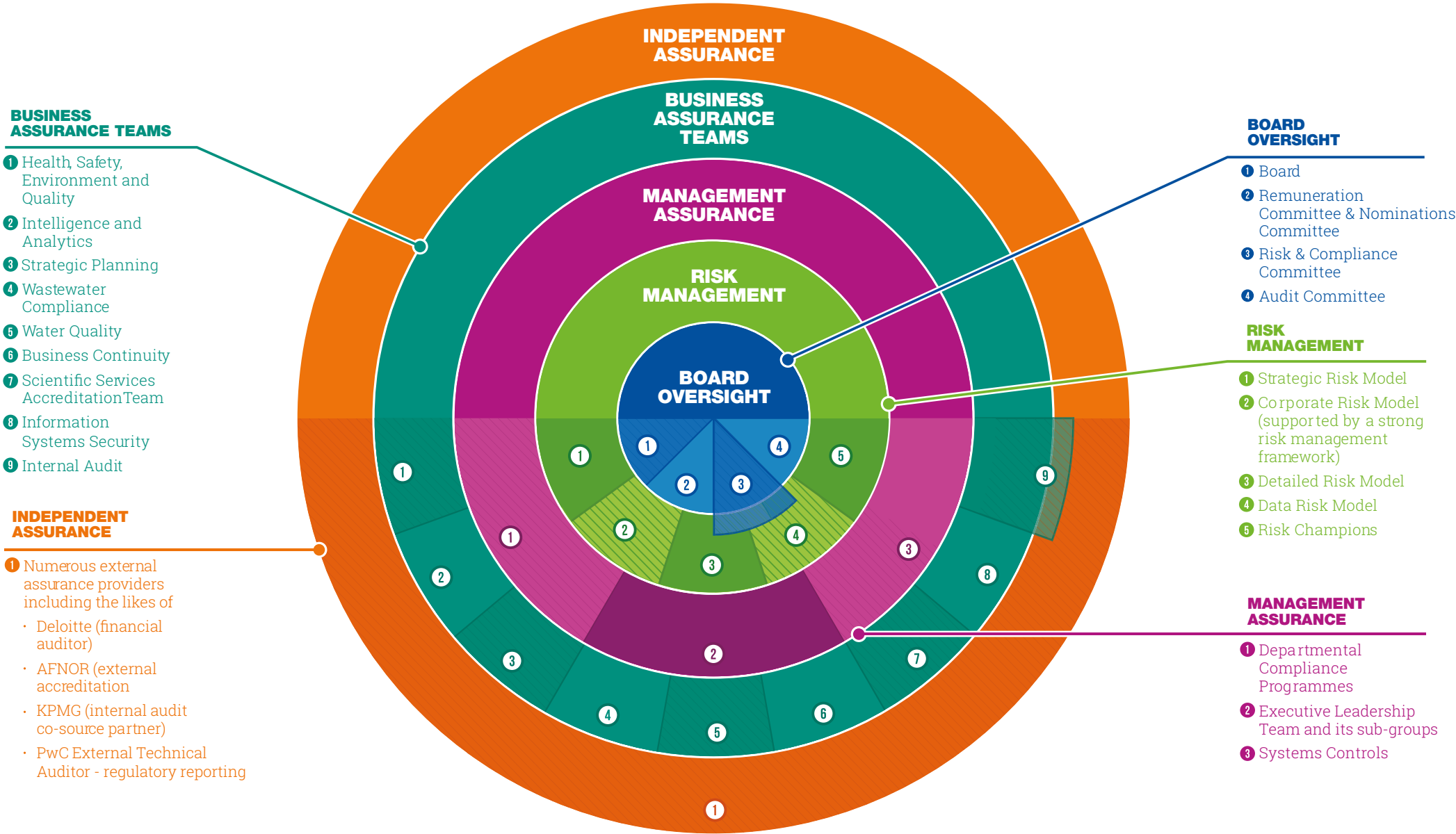
OUR ASSURANCE FRAMEWORK

We operate a well-established approach to corporate governance and assurance, which is summarised in our Assurance Framework (see [page 10](#)). We use the framework to ensure the information and data we provide to our customers, stakeholders and regulators can be trusted.

Our framework has five tiers of assurance, as follows:

- **Board oversight:** The Board has 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 Committee, with regular reporting by the committees to the Board.
- **Risk management:** We use a data risk assessment, and a strengths, risks and weaknesses review, to determine levels of risk and target assurance activity. This is a robust and mature process and is embedded within the company's risk activity. The Board sets the tone for risk management, determines the appropriate risk appetite, monitors the management of fundamental risk and approves major decisions affecting the company's risk profile.
- **Management assurance:** Our Executive Leadership Team (ELT) implements the Board's strategies and closely monitors performance. This includes making sure sufficient and suitable resources (human and financial) are applied to scrutinise performance and identify and manage risk. Our ELT makes sure there is appropriate assignment of responsibilities, corporate structures and reporting lines and accountabilities, supported by annual assurances on systems and controls.
- **Business assurance:** We have teams that are separate from operational activities which monitor, capture and manage the data we report. Specifically this includes our Internal Audit Team which is directly accountable to the Audit Committee. The team provides strong, independent assurance. As such their remit sits across this tier and the following one.
- **Independent assurance:** Our business assurance teams are supplemented with external specialist providers where we require technical and/or independent external assurance.

Figure 3: Our Assurance Framework.



OUR DATA RISK MODEL

Two critical parts of our internal approach are the Data Risk Model, and our data assurance system, which sit within the Risk Management tier.

Our Data Risk Model is used to understand and then mitigate risks associated with data errors. It includes the following steps:

1. Applying a formal risk assessment to the data we collect to understand:
 - The likelihood of a reporting error due to the complexity of a performance measure and the manner in which the data is collected.
 - The impact should an error occur, particularly with regard to customers' trust and confidence, financial incentives and penalties and our reputation.
2. Applying checks and balances, in the form of data quality controls to mitigate risks. These controls may be procedural, audit based, or built into our information systems. We review the effectiveness of these controls as part of our risk assessment and they are rated as good, acceptable or ineffective.

Findings from previous assurance activity, and outputs from our risk model, are used to identify areas of risk or weakness. These also inform which assurance provider we choose for each item of data, be it our Internal Audit Team or external independent assurance.

We want to ensure we have processes in place that continue to apply a quality assured approach to producing accurate and reliable data.

Confidence grades provide a reasoned basis for us to qualify the reliability and accuracy of the data we publish. Applying confidence grades ensures that we can identify areas where our data is of a high standard. They also ensure that we have action plans in place to improve data that falls below the standard confidence grade level.

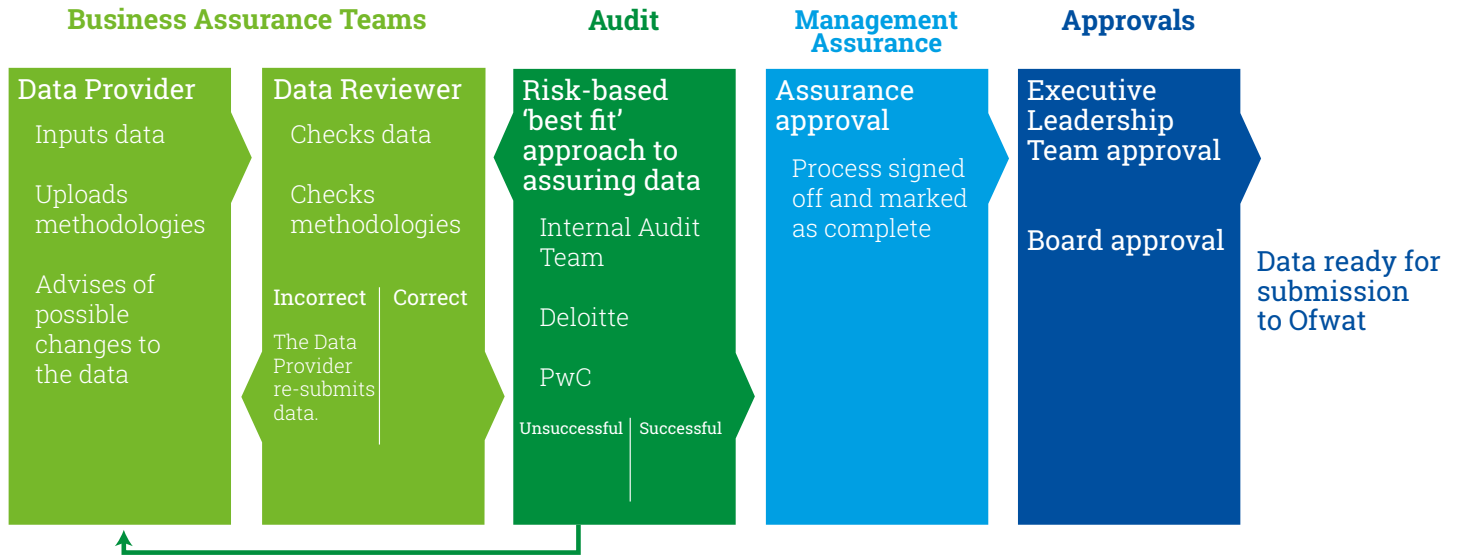
Our assurance of the data we produce will include comments from auditors on the suitability of the confidence grading that has been applied. Assurance providers will also provide their opinion where they differ to that which has been applied by our data teams.



OUR DATA ASSURANCE SYSTEM

Our data assurance system is an automated workflow system used to upload, manage and assure the data required to produce our APR, providing a robust audit trail for each piece of data. The system is summarised in Figure 4, below.

Figure 4: Our Data Assurance System.



OUR APPROACH TO PERFORMANCE MANAGEMENT

A key part of maintaining trust and confidence is delivering the performance commitments (or service levels) that our customers and stakeholders expect - in particular, the performance commitments we set out in our 2020-25 Business Plan.

We have a robust approach to performance management which is centered on our balanced scorecard. This is used to track performance against our performance commitments alongside other key measures such as employee engagement.

Our balanced scorecard is reviewed monthly by our Executive Leadership Team and also at our regular Board meetings. It is cascaded throughout the company via bi-monthly team briefings, giving all of our employees a clear understanding of our current performance and their role in meeting our targets. It enables action plans to be initiated quickly if performance in any area should start to deteriorate.

This ongoing performance review is used to identify areas of risk and weakness in this assurance plan. Targets are set annually and, as well as reflecting the commitments made in our business plan, also take account of benchmarking against other companies' performance.

Effective benchmarking is only possible if robust comparative information is available. We take information from 'Discover Water' and publish it on our own websites. We report how we have performed compared to other water companies and what steps we are taking to keep our performance on track. You can read our publication [here](#).

OUR TRACK RECORD

Another important element of maintaining trust and confidence is our track record. In addition to having a strong focus on meeting our performance commitments, we have been recognised by several independent awarding bodies for exceptional performance in a broader sense including:

- **World's Most Ethical Company List (2022)**

We are the only water company in the world, and one of just three UK based companies, to be on this list. It's the eleventh time we have received this global recognition from the Ethisphere Institute.

- **Business in the Community (2021) Named a Responsible Business Champion for Environment**

Judges recognised that our work is rooted in the natural environment and the communities it serves. Their 'Caretakers of water in our regions' initiative embraces this responsibility – safeguarding the environment and water supply in their operations for future generations.

- **Water Industry Awards Company of the Year (2020 and 2018)**

In 2020 judges were impressed with the clearly commitment to customer service, innovation, resilience and its people.

- **British Water Supply Chain Top Water Company (2019)**

We were named the UK's top water company in the British Water 2019 annual performance awards, as voted by suppliers, eight times in the last ten years.

- **Customer Initiative of the Year (Water Industry Awards 2019)**

For our Water Without the Worry campaign aimed at promoting the extra support – both financial and practical – that we provide to customers in a range of difficult circumstances.

- **Data Project of the Year (Water Industry Awards 2019)**

For our Water Poverty Eradication Modelling. This innovative project is utilising big data to support our goal of eradicating water poverty across our operating areas by 2030.

- **Sunday Times Best Companies List (2019)**

We achieved 19th place in the Top 25 Best Big Companies to work for. This was purely based on feedback from our employees.

- **British Quality Foundation UK Excellence Award (2018)**

For our positive impact on the world, through improving and advancing the economic, environmental and social conditions in the communities we serve.

- **IT Initiative of the Year Utility Week Awards (Water Industry Awards 2018)**

For the implementation of our new customer billing system, which modernised and improved the way we support and service our customers' accounts.

- **Transformation and Innovation Award Utility Week Awards (Water Industry Awards 2018)**

With judges highlighting our "culture in which innovation is everyone's job" and giving special mention to our Innovation Festivals.

- **Competent Operator Scheme National accreditation**

In 2019 we were the first water company to be accredited by the Energy & Utility Skills, for securing the strict quality standards for water quality operations.

- **Leading Utilities of the World**

In 2018 we joined the world's most forward-thinking network of water and wastewater utilities, as defined by the networks 14 distinct innovation areas. Members represent the gold standard of utility innovation and performance throughout the developed world's water sector.

- **Living Wage**

In 2017 we were accredited by the Living Wage Foundation as a Living Wage employer, reflecting our belief that a hard day's work deserves a fair day's pay.

As a responsible business with a strong track record, it is important to us that we demonstrate leadership and make a wider contribution to life within our regions. We are particularly proud that our external recognition reflects leading performance across a broad spectrum of our business activities over a sustained period.

EMISSIONS REPORTING STANDARDS

Annual Greenhouse Gas emissions at NWL have more than halved in the last 12 years and the Company continues as an industry leader in green energy generation, purchasing and usage. To ensure transparency and to underline our commitment to emissions reductions, for 2020/21 we completed a third-party verification of our emission reports to ISO14064-1. This is considered the gold standard for emissions reporting and attaining this standard is a considerable achievement. We also continue to champion the involvement of the Carbon Accounting Workbook which is used to assess levels of emissions.

POLLUTION INCIDENT PERFORMANCE

We are delighted to remain a Frontier Company for pollution incident performance and are determined to maintain this position. To do so we have developed our **Pollution Incident Reduction Plan** which outlines initiatives that will improve operational performance.

Examples of the work we are doing include:

- Deploy further monitoring, early warning capability and increased business intelligence across our wastewater system with increased coverage of sites on eSCADA telemetry with appropriate alarm generation;
- Develop innovative new sensors and monitors, such as a rising main burst sensor;
- Target our customer behaviour change campaigns with the launch of 'Bin the Wipe' programme, fats, oils and greases (FOG) work with food outlets and Trade Effluent response in order to reduce pollution risk; and
- Target capital maintenance programmes to maintain asset health, such as refurbishment of pumping stations and treatment works, sewer lining, dual manhole risk reduction and storm overflow ancillary programmes.

CONTINUOUS CUSTOMER AND STAKEHOLDER ENGAGEMENT

We continually engage with our customers and stakeholders to assure them that we are meeting their expectations and to maintain their trust and confidence. Our goal is to give every single customer the opportunity to have a strong voice and engage with us, with at least 2m customers participating by 2025.

We carry out a programme of bespoke research and engagement activity around strategic aspects of service, including operations, inclusivity, charges and the future. This is complemented by regular customer research activity to understand trends in satisfaction, monitor the success of campaigns and understand service priorities.

We hold regular conversations and performance review meetings with our stakeholders, to understand their expectations relating to performance, data reporting and communications. Our key stakeholders in the context of this document are:

Our customers.

- The **Northumbrian Water** and **Essex & Suffolk Water Forum** (our independent Customer Challenge Groups).
- The Consumer Council for Water (CCWater).
- Ofwat.
- The Drinking Water Inspectorate (DWI).
- The Environment Agency (EA).

The Water Forum provide independent assurance to Ofwat on our performance and the quality of our customer service (annual reporting), our customer participation and engagement; our work in communities and with regards to the environment and sustainability. Feedback from our customers, including as part of this consultation, is used to inform this Assurance Plan.

ENGAGEMENT WITH OUR REGULATORS

We have an ongoing system in place to capture, log and respond to all regulatory communications.

We have an internal team that monitors and coordinates responses to requests for information and other correspondence from our regulators.

The team identifies the right internal expert(s) to liaise with who then deliver a high quality, timely response as required. This process is overseen by a senior manager or Director.

All feedback, determinations and responses from our regulators are logged and stored on our company intranet and are used to inform this Assurance Plan.

AREAS OF RISK AND HOW WE PLAN TO ASSURE THEM

This section sets out those areas where either data errors, other failures or oversights, could have the greatest impact on our customers, and in turn on their trust and confidence in us.

These are the areas which we will focus on in our Draft Assurance Plan. The risks are largely the same as those covered in previous plans and those areas included for the first time are flagged as (NEW).

QUALITY OF DATA RELATING TO OUR PERFORMANCE COMMITMENTS

Many of our PCs have financial incentives associated with them. If we deliver better performance, we could earn a financial reward. Alternatively, if we deliver poor performance, we could incur a financial penalty. Failure to report performance accurately could result in an incorrectly calculated reward or penalty, which could significantly undermine our reputation, as well as reduce customer and stakeholder confidence.

To mitigate this risk, data associated with each of our measures of success will receive risk-based assurance as detailed in our Draft Assurance Plan.

Any penalties or rewards will be calculated using the methodology stated in our Final Determination from the Periodic Review 2019 (PR19) or where the Competition Market Authority (CMA) amended the methodology, we use their Final Report 2021. This is subject to robust assurance, involving internal and external audit review, including our Water Forum.

MANAGING THE IMPACT OF COVID-19

During the COVID-19 pandemic, the vital importance of delivering clean water, and taking away wastewater has never been so clear, and our teams and partners continue to provide our customers with this essential public service in the face of the pandemic. Keeping our employees safe continues to be our first priority: we have enabled our customer and support teams to work from home, in line with government guidance,

as well as taking measures to ensure that our operational and field workers can continue to carry out their essential work safely.

Whilst the COVID-19 pandemic has continued throughout 2021, rising inflation from increased gas, electric, petrol and food prices may affect the ability of our customers to pay bills. Inflation has risen to 4.2% as of November 2021. We understand how difficult this time has been for many of our customers and we built on our existing 'Water without the Worry' campaign through direct communications to customers. Since the start of the pandemic we have been able to offer payment breaks to over 8,000 customers. The large majority of these payment breaks have now come to an end with only a very small minority, approximately 100 still active. We have added nearly 7,000 additional customers with affordability issues to our social tariffs since April 2021. We anticipate that the number of customers able to take advantage of our social tariff will increase as we obtain a datashare with the Department for Work & Pensions. The number of customers of the Priority Services Register has risen by over 9,000 customers since April 2021, with now over 52,000 signed up.

The impact of the pandemic has brought this responsibility into even sharper focus. Recognising this we were one of the first businesses to sign the 'C-19 Business Pledge'.

This pledge commits us to helping our customers, employees and communities as our part in helping the country pull through the COVID-19 crisis. We chose as a business not to furlough any staff, with those who could not carry on their normal work either trained to support other parts of the business or given the opportunity to help others in our communities.

This included delivering essential food and prescriptions, and making welfare phone calls to vulnerable, isolated people. We also made facilities and employees available to help the NHS vaccinate the public. The COVID-19 situation is not over yet and we will continue to respond to government guidance as it develops and ensure that we keep delivering our key services safely, and look after our employees, customers and communities.

Our regulator, Ofwat has already undertaken an initial consultation with companies with the aim of understanding how the pandemic has affected operations, employees and performance. We will continue to work with them to understand how best to reflect the impact of COVID-19 in relation to our PCs (in particular Per Capita Consumption) for 2020-25 and any other aspects of our regulatory framework.

ACHIEVING PCC REDUCTION 2020-25

Per Capita Consumption (PCC) is a performance commitment which measures the amount of water used per person per day for domestic households (i.e. excludes business customers).

In our business plan, we committed to reduce PCC by 5.3% by 2025 equivalent to 142.6 litres per person, and to 118 litres per person per day (three year average) by 2040.

COVID-19 led to an initial UK wide lockdown starting on 26 March 2020. This led to increased household consumption as a result of:

- Increased water use as a result of the increased personal hygiene measures;
- Water use shifted from schools and offices to homes as schools were closed and employees worked from home;
- Increased staycations with customers either staying at home and/or holidaying in the UK;
- Larger impact in the south east as commuting into London reduced;
- Changes to lifestyle choices with more time being spent at home meaning over 3m more people gardening nationally, more purchases of small swimming pools and increases in other water-using activities, and
- The Met Office assessed 2020 as being 'remarkable' in terms of weather. 2020 was ranked in the top ten for all three variables; temperature, rainfall and sunshine. It was the fifth warmest April on record, the driest May on record and the sunniest April and May on record.

The impacts above have meant that rather than decreasing PCC over the last year, it actually increased from 149.6 in 2019/20 to 165.7 in 2020/21, moving the three year average from 150.6 to 156.3 litres per person per day.

The scale of impact COVID-19 had on water use is unparalleled. All water companies with the exception of South West Water (who received less tourism than normal) have seen levels of PCC increase over the last year.

We are in continued dialogue with Ofwat regarding PCC targets. Ofwat has already consulted on a proposal to change the PCC ODI from an 'in-year' assessment to 'end-of-period' assessment.

In the meantime, and from the moment it was understood that the impacts of the COVID-19 pandemic would not be short-term, we took steps to re-focus our strategy, further understand the impacts through internal and external research, and playing a leading role in the launch of the WaterUK and Waterwise led 'Water's Worth Saving' national campaign.

Our water efficiency programmes continued to be delivered and engagement with customers still took place including:

- Face-face visits to customers home to video call visits with plumbers;
- Assemblies and workshop delivery in schools (Super Splash Heroes) to development of a suite of interactive curriculum led KS2 teacher resources to use in the classroom (The Ripple Effect);
- Leaky loo repairs in homes to support over the phone/video calls to provide advice on adjustments and repairs.

Our internal and external research covered the following in order to understand, quantify and explain the impacts:

- Active involvement in industry work to assess impact of COVID on demand by Artesia,
- Met Office collaboration to understand the impact of weather on demand; and
- Customer survey sent to 50,000 customers (3000+ responses) to understand changes in people's lives and where and how water was being used differently.

Our role in the Water's Worth Saving campaign led to 20 million customers interacting with posts on water efficiency.

Our long-term ambition to reduce PCC has not changed. Delivery between 2020-25 will continue to grow, adapt and develop as the challenges of COVID-19 evolve in order to maximise water savings. However our original business plan commitment of a 5.3% reduction against our original 2019/20 baseline performance of 150.6 litres is not achievable but that does not mean we stop working towards our long-term vision of 118 by 2040.

PCC reduction will not happen without a combined effort across industry stakeholders, and NWL will to play its part. Supportive policy changes are required on water labelling linked to minimum product standards and building regulations. Continued collaborative action is required by all stakeholders in order to reach the long-term PCC goals.

LEAKAGE

Leakage is defined by Ofwat as “the loss of water from the supply network, which escapes other than through a controlled action”. It includes all losses of treated water between treatment works and customer stop taps. It does not include leaks on internal plumbing within customers' premises, nor does it include losses of untreated water. This means that it does not include leakage from raw water pipelines, or process losses in treatment works.

We report leakage in line with the Ofwat calculation methodology as documented in Ofwat's final reporting guidance, against our two separate performance commitments for the Northumbrian, Essex and Suffolk regions.

In 2020/21 our leakage performance deteriorated from the previous year and we reported a failure against our performance commitments in both regions. This was largely due to an outbreak in leakage that occurred during the winter of 2021 which was much more severe than expected. This also meant that we commenced 2021/22 in a poor position, from which it has been difficult to recover. Throughout the summer of 2021 we have implemented additional activities with the aim of reducing leakage, including:

- A desktop analysis of domestic consumption to better define the split between customer use and network leakage.
- Commissioning 50 new pressure management schemes to reduce network pressures.
- Surveying over 8,000km of distribution mains by satellite to identify points of interest for further investigation, increasing the productivity of our existing leak detection resources.
- Increasing repair crews to clear the backlog of winter work and to repair additional leakage jobs every week.

We are also investigating other potential activities to seek further reductions including:

- Reviewing all components of the water balance calculation.
- Optimising the outlet settings on all our pressure reducing valves, including advanced controllers, to maximise the leakage benefit.
- Carrying out a deep dive on our top 50 leakiest DMA's to truly understand the root cause of the problem and apply the best long-term solution. This could be done through several innovative technology solutions which are currently being assessed.



ACHIEVING OUR 2020-25 FLOODING TARGETS

Sewer flooding is a challenging area for us but we have made significant steps in reducing sewer flooding risk in line with our targets for the first year of the new investment period.

Our performance and overall sewer flooding position is monitored formally on a monthly basis, with detailed weekly focussed meetings for key measures such as internal flooding, repeat internal flooding and repeat external sewer flooding. This process has already allowed us to identify a number of additional activities to improve our year end position. This includes significantly building on our extremely successful Bin the Wipe pilot study, where we successfully met our initial target of 50,000 properties. We are now targeting a further 50,000 properties over the next year.

We believe these additional activities, as well as further efficiencies will improve our overall sewer flooding performance.

TARIFFS AND CHARGES

Water and wastewater services should be affordable for all customers, whatever their circumstances. The amounts our customers pay for their water (and wastewater) services change on 1 April each year and are determined by the Charges Schemes we publish in January and February of each year. When we change our charges, we follow the rules set out in legislation and by Ofwat.

We have a well-established timetable for the production and approval of our tariffs and charges scheme. Our timetable includes key stages for producing our charges, assurance from our Internal Audit Team and external assurance experts, and review and approval by our Charges and Markets Leadership Group and the Board.

The CMA's final findings regarding our price review with Ofwat have an impact on the future level of customer bills. These changes will be applied to customer bills from 2022/23 until the end of the price period, 2024/25.

AFFORDABILITY

We continue to focus our promotional activities on highlighting to customers the support we can offer with bills. Since the last quarter of 2021 we have carried out a focussed communication approach directed at stakeholders we work with as well as direct to customer messaging, social media campaigns and radio promotion. Our messaging is not just around our financial support schemes but also linked to savings for customers from metering, and water efficiency. We have adapted our save water messaging to give practical tips and link to energy so customers can save water and energy costs.

During February and March 2022, our main unmetered billing period, all bills have lead with support messages, our envelopes signpost help with your bills and have a QR code link to the appropriate area of our website for more information. We have also updated the bills so that every page has a help and support message.

The week commencing 28 March 2022 has been Stepchange's debt awareness week and we have aligned our messages this week to promote their services and highlight the help that customer struggling with household bills can get.

We will continue to proactively offer our support to customers throughout 2022 as we know that households will continue to face increasing costs as the year progresses.

INFORMATION PUBLISHED DIGITALLY

Our customers and stakeholders refer to our websites for information. Our newly designed and much improved websites went live in October 2019 and are now well established.

Our Internal Audit team worked closely with our Think Digital Group during its development and will continue to liaise with the team to ensure good governance and assurance processes are in place to allow accurate and up to date information being posted on the website.

COST ASSESSMENT TABLES

Since 2016, we have provided cost assessment tables to Ofwat which cover all aspects of performance, including financial and operational metrics. This cost assessment information has helped inform Ofwat's cost modelling for the PR19 process. Our approach to providing governance and assurance to the cost assessment tables follows the same process as we currently have in place for Annual Performance Reporting (APR).

As part of the PR19 process we resubmitted asset data in relation to pumping stations which is used as cost drivers in Ofwat's cost models. Further assurance was applied to the resubmitted data.

In 2021/22, all cost assessment data will be submitted as an integral part of our APR. The steps that we will take to assure this data are set out on [page 44](#), which include checks by our internal and external audit teams, along with extensive testing.

BIORESOURCES AND WATER RESOURCES MARKET INFORMATION

Companies are also required separately to provide Ofwat with standardised and defined information on bio-resources and water resources activities. This is to enable potential market participants to identify opportunities to supply services.

We have updated our water resources market information on our website and do this annually. Our most recent update invited any parties that could supply water to our Hartismere resource zone to get in touch with us.

These are relatively new requirements, so are included as areas of risk. Our Internal Audit Team continues to work with our Bio-Resources and Water Resources Teams to improve information.

MARKET PERFORMANCE INFORMATION

The Water Act 2014 set out the legal framework for the opening of the competitive non-household retail market. The market commenced operation on 1 April 2017. The market codes that govern the operation of the market have a performance framework within them – the Market Performance Framework (MPF). The MPF details a range of performance standards that all trading parties must comply with and it also details the reporting requirements for trading parties that are applicable. All trading parties are responsible for the assurance and submission of the required data. The market operator, Market Operator Services Ltd (MOSL), has responsibilities for the operation of the central market and the collation and presentation of market performance related information. Market and operational performance metrics are collected by MOSL and published to all trading parties. This is intended to provide confidence to all parties that companies are complying with their obligations.

Providing this performance data is a relatively new requirement. It was therefore initially identified as a risk for us. The reporting processes involved are now established and subject to review by our Internal Audit Team.

UNPLANNED OUTAGE

Our unplanned outage metric is an industry wide performance commitment that measures the extent to which our water treatment works (WTW) are unable to deliver their peak production capacity of treated water due to unplanned “outages”.

Outages due to planned maintenance or changes to raw water quality are not included in this measure.

This metric was designed to measure the health of our assets i.e. if a WTW was left unmaintained or designed with single points of failure, it is likely that on occasions it would be unable to deliver its peak capacity, and this would be captured by the unplanned outage metric.

We are committed to reduce our Unplanned Outage to 2.34% by 2024/25. In 2017/18 we achieved 7.88%, but saw this performance worsen in 2019/20 to 9.82%. However, we have been able to reduce the level of unplanned outage since 2019/20, to 5.69% in 2020/21. Achieving 2.34% by 2024/25 will be challenging and we are continuing our activities to improve performance, including:

- Ensure that any outage is recorded accurately through annual external audits and root causes assessed;
- Develop strategies (investment, planned maintenance) to achieve peak week production capacity;
- Schemes will be delivered in a largest benefit with lowest cost first, and
- Investment will be balanced with Water Safety Plan emerging risks.

OUR LICENCE OBLIGATIONS

This area of risk is based on our need to comply with our licence obligations including those introduced following the opening of the non-household retail market. Companies that fail to meet their legal obligations are failing their customers. In referring to obligations, we mean those covered by the Water Industry Act 1991 and our Instrument of Appointment (the Licence).

To ensure that we comply with these obligations, we will follow a robust process to review and approve:

- The duties and obligations covered by the relevant legislation.
- The business owners and sponsors for each of the obligations.
- A risk assessment of each duty/obligation.
- Documentation of the policies and procedures which we rely on to ensure compliance.
- The effectiveness of the governance of these policies and procedures.



GUARANTEED STANDARDS SCHEME

We believe world class customer service is about getting it right first time, every time. We must meet certain standards by law. However, we aim to improve on many of these and include others that we believe demonstrate an unrivalled customer experience. The guaranteed standards scheme (GSS) sets out the minimum standard of service our customers can expect, and how we will compensate them if things go wrong.

'Our Promise' contains all our guaranteed standards, including those required by legislation as minimum.

Any miscalculation of GSS payments, a failure to pay or misreporting our performance would be considered a breach of the regulations. Formal investigation and subsequent fines from the regulator could have a significant financial and reputational impact.

Following Ofwat's 'Out in the Cold' review of water companies' performance in response to the 'Beast from the East', the regulator expressed concern that customer compensation was not enough. We have acted on Ofwat's recommendations and made changes to our GSS payments from 1 October 2019.

Therefore, this area remains a risk and consequently a priority for assurance. Our processes for identifying, reporting and issuing failure payments to customers are well established. We have a full time GSS Compliance Auditor to focus on this specific area.

CYBER SECURITY

Customers have indicated that they would like to know more about how we protect their personal data and prevent and manage cyber-attacks on our information systems.

We take cyber security extremely seriously and are committed to making sure we manage our systems securely by continuing to invest in our Technology, People and Processes.

As a Critical National Infrastructure company, we must also comply with the Networking and Information Systems Directive to ensure our systems that control the production and distribution of water are secure.

To mitigate the risk associated with this area, we:

- Ensure information is protected to an appropriate level, based upon the impact of its disclosure, modification or loss.
- Comply with all relevant information management legislation, regulations and standards.
- Ensure that employees are trained and clear about their responsibilities around cyber security, and that we expect them to take their legal and moral role seriously.
- Manage the security of all computer systems and supporting infrastructure through the implementation of appropriate technical security controls.
- Control access, through the implementation of user names, passwords and system privileges.
- Ensure that security is an integral part of information systems, including segregation of duties, change control procedures and approval processes.
- Ensure that the measures described here apply equally to data that is held in the cloud, as well as to data we hold on our own premises.
- Ensure information security events and weaknesses are formally managed, to allow timely corrective action to be taken.
- Have processes to encrypt data, where appropriate.
- Protect critical information systems from the effects of major failures or disasters, by deploying appropriately resilient infrastructure.
- Ensure redundant equipment, media and papers are disposed of securely.
- Use regular and up to date training to ensure a robust Cyber Security culture is embedded right across the business and is led from the top.
- Ensure Board review and approval of the Cyber Security policy.
- To assure this, we comply with ISO270001 for cyber security, liaise with the National Cyber Security Centre to ensure that we are responding appropriately to new and emerging threats, and take action to reduce any risks identified by the regular external audits and independent security tests we will commission.

For more information see our [Information Security Policy Statement](#).

DATA PROTECTION

We are committed to protecting information (personal data) about our customers and employees. Meeting our data protection obligations is essential in the protection of this information and respecting the privacy rights of individuals. To ensure we are meeting our obligations and maintaining our reputation as an ethical and trustworthy company we are:

- Making sure we are ethical, fair, transparent and lawful when we use personal data.
- Only using personal data where we have a specified, explicit and legitimate reason for doing so.
- Making sure we have the personal data we need, but no more, to make the right decisions.
- Keeping personal data accurate and up-to-date.
- Only keeping personal data for as long as we need it to meet our purposes, and disposing of it promptly, and securely, afterwards.
- Allowing everyone access to their personal data when they wish, not using it in a way which may cause inappropriate harm or distress, and respecting their rights under the GDPR.
- Making sure that personal data is always protected under our Information Security Policy, and following best practice procedures and guidance to prevent its unauthorised use, disclosure, damage or loss.
- Ensuring that personal data is not transferred to another country, unless privacy rights are adequately protected in the recipient territory.

To assure this, we have an Information Access Team who work across the business on continuous compliance improvement, and they ensure departments follow our privacy policy, procedures and training.

For more information see our [Data Protection Policy Statement](#).

QUALITY OF FINANCIAL DATA

Under our assurance framework, the following will be externally assured: Our Annual Report and Financial Statements, Regulatory Accounting Statements, Statement of Sufficiency, Long Term Viability Statement and any additional regulatory information.

TRANSFER PRICING

Transfer pricing accounting occurs when goods or services are exchanged between divisions of the same company.

As part of our regulatory duties, we are required to comply with Regulatory Accounting Guideline RAG 5.07 – Guideline for transfer pricing in the water and sewerage sectors. RAG5 states that Appointees are under a duty to trade at arm's length and to ensure that there is no cross-subsidy with respect to transactions between the appointed business (the licenced water and sewerage company) and both associated companies and the non-appointed business (the commercial part of the company).

We report on all associated transactions each year in our APR. Our compliance with RAG5 is checked by our Independent Auditors and we carry out competitive tendering of contracts with associates whenever possible.

We noted the Ofwat investigation into Wessex Water transfer pricing obligations published in June 2021. Whilst we believe that our position to be different from Wessex's, we instituted a review of all our RAG5 activity to be concluded in early 2022. We will act on any recommendations from that review and report on them in our APR.



DISCHARGES FROM WASTEWATER TREATMENT WORKS

In November, we, along with all other wastewater companies, were contacted by the Environment Agency (EA) and OFWAT in relation to flows and storm discharges from Wastewater Treatment Works, asking for some specific information as part of a cross-industry investigation.

The water industry, EA and Ofwat have worked closely together to tackle the challenges presented by discharges developing the Water Industry Natural Environment Programme (WINEP), and a shared participation in the Storm Overflows Taskforce that launched in August 2020. During the current business planning period that goes up to 2025 we are installing new monitoring equipment, as agreed with Ofwat and the EA, and have been following a clear plan to address any issues that arise and continuously improve our environmental performance.

We will continue to work with the investigation which is ongoing. As custodians of the environment, we will also continue to carry out further investigations to make sure everything we can do to deliver the best possible outcomes for our environment is done.

Further information on how we are reporting this can be found on our website [here](#). We will update our customers, stakeholders and regulators in due course as we continue these investigations. We expect to include a more substantive update on this topic in our 2021/22 Annual Performance Report.

ACHIEVING MAXIMUM RESILIENCE TO, AND LEARNING FROM, INCIDENTS AND EVENTS

On 26 November 2021 unprecedented and extreme weather events affected our customers through the impact of Storm Arwen. A rare red warning was issued by the Met Office across the east coast of Scotland and north east England, with gale speeds of 98mph recorded at Brizlee Wood in our Northumberland area. This is the highest weather alert that the Met Office can issue. As well as high winds and damaging gales the storm brought some of the highest waves to our coastline, snow and then freezing temperatures. During this period we saw unprecedented devastation and disruption in our region including loss of human life and injury, significant damage to property including tens of thousands of trees bringing down powerlines and widespread disruption to essential services.

The storm has been designated a major civil emergency incident for regions in the North East.

NWL worked hard through our local resilience groups that have been established with Government partners, emergency services and others to ensure that the essential services we provide to our customers continue and to support partner organizations and the communities we collectively serve.

The storm resulted in the loss of power to a large number of our sites and pumping stations and as a result customers in some areas had their water supply interrupted. Our teams faced challenging conditions but nevertheless worked around the clock to fix problems, install back-up power sources, deliver bottled water to customers and, ultimately, restore supplies.

As with all major civil emergencies, we are conscious that there will be many things that we can learn from the experience to improve the resilience of ourselves and the region. With that in mind we intend to engage with other local partners and utilities to undertake a strategic review of the experience and the actions of different parties, in addition to our own internal exercise. We will report back on the outcome of this review in our 2021/22 Annual Performance Report.

We will also apply additional scrutiny to both GSS payments (p18/43) and interruptions to supply ODIs (26/33/34) in relation to Storm Arwen. This is to ensure that a. any associated GSS payments are made fully in line with associated rules, and b. that any associated ODI impact is reported in line with regulatory definitions.

On 1 February 2022 NWL issued a boil notice to customers in Darlington following a technical fault at **Broken Scar Treatment Works**. The boil notice was promptly lifted when tests passed quality standards. Thankfully incidents of this nature are incredibly rare for us. We will conduct a lessons learned exercise which will incorporate an exercise to obtain **feedback from customers**. We will elaborate on the outcome of this exercise in our APR.

AREAS OF WEAKNESS

We have robust governance, assurance and risk management arrangements in place on an ongoing basis which cover operations, planning and regulatory reporting. Our processes highlight points of detail which we address in the spirit of continuous improvement, to enhance the robustness of our data and the quality of information we provide to customers and stakeholders.

We have identified the following weaknesses associated with meeting our Performance Commitments this year.

ACHIEVING MAXIMUM COMPLIANCE WITH WATER QUALITY STANDARDS

We supply drinking water that must meet strict quality standards. Performance against these standards is monitored by us and reported to the Drinking Water Inspectorate (DWI), in line with the regulations they stipulate.

The DWI scrutinize water company sample data, reports and returns and ask companies to make improvements if responses and remedial measures are not far reaching enough. The DWI also undertake targeted audit programmes to ensure all assets and systems involved in delivering drinking water to customers are effective and water quality is respected and protected.

Water quality is measured through the Compliance Risk Index (CRI), this index is based on any sample failures that occur from the 80,000 or so samples taken from our water treatment works, our treated water storage reservoirs and from customers properties. Samples are taken by accredited samplers and analysed in an accredited laboratory to ensure confidence in the sample results. A perfect CRI score is 0.00. This is equivalent to 100% compliance with all standards at all times. We routinely score very high levels of compliance – greater than 99.9%.

Each year only a tiny fraction of the 80,000 or so water quality tests breaches a standard. The risk index considers the nature of the test failed, the

location that the sample was taken from and the company response to any issues identified by our investigations. The CRI is a cumulative score with each failure adding to the annual total. It is possible to reduce the overall number of failures, but still achieve the same or worse score, depending on the type and location of failures that have occurred.

We are committed to sustaining, and where possible improving, water quality. We developed and published our Long Term Water Quality plan in May 2018. This sets out our short, medium and long term actions to deliver water quality improvements. In addition to the long term plan we have developed a Service Delivery Strategy (SDS) which looks at historic sources of non compliance and develops plans to make improvements in CRI over time.

Our management of water quality is from source to tap. We actively engage with landowners and the agricultural sector to practice catchment management, this includes activities such as peatland restoration, managing the land surrounding where we abstract water from, abstraction management, to reduce the risk of water samples failing drinking water quality tests because of pesticides. We also take the right amount of water from each source. This ensures we take the best quality raw water for treatment. In 2015-20 we invested £89m to replace four water treatment works, improve chemical dosing, and install new filters and other treatment equipment. Some of our investment highlights include:

- Investing £21m to build two new water treatment works in north Northumberland to help improve drinking water quality for more than 25,000 people.
- Refurbishing our water treatment works, including £60m to modernise our Horsley works, which supplies Tyneside.

During 2020-25 we are investing c£30m in two water treatment works to protect against raw water deterioration. We are also installing UV systems at a third works to bolster the disinfection process. Water is stored in the distribution system in assets called service reservoirs.

These store treated drinking water close to villages, towns and cities, ready for customer to use.

These assets require maintenance and in 2015-20 we spent in the region of £30m. For 2020-25 our planned expenditure is forecast to be £29m.

In our networks we are also removing iron pipes from our distribution system and lead pipes (which connect the water main to the kitchen tap in properties built before 1970), and we undertake routine maintenance of our whole network. During 2015-20 these activities cost c £59m. For 2020-25 removing old iron mains and lead service pipes are forecast to cost £80m. All these actions will improve the quality of water entering our network and maintain that quality throughout our water's journey. This will help ensure that when tested at the end of the network in customers' homes, it achieves 100% compliance with drinking water quality standards.

Investment in our assets is only a part of the picture - our systems and processes are just as important. We want our people to have the right skills, values and behaviours to deliver our ambitious goals around water quality. We have a programme of continuous improvement for our treatment and network teams, to ensure we always make the right decisions in order to provide safe water, of a consistent quality. In 2018, we were one of the first companies to be awarded the revised Competent Operator Scheme certification by Energy & Utility Skills, which assesses operators against "trailblazer" standards. We continue to develop our procedures to protect and respect water quality and test our teams by assessing their competence against these Standard Operating Procedures.

We have a Food Factory vision for water treatment. This makes sure that everyone complies with strict food hygiene standards and understands their performance on a daily basis. We have embedded continuous improvement techniques and lean manufacturing processes into these teams. For example, our performance framework encourages behavioural conversations about site scorecards. These ensure that everyone is aware of company targets and takes responsibility for caring for our equipment.

As water leaves our treatment works, our Keep It Right principle encourages network teams to sustain these high standards, right up to our customers' taps.

To minimise the amount of lead and nickel entering our drinking water, we treat drinking water by adding a small amount of phosphate at our treatment works. The phosphate interacts with the plumbing metals found in customers properties and forms a stable layer, reducing the potential for sample test failures. The amount of phosphate added has always been carefully controlled, However, in 2019 our Asset Intelligence team undertook analysis to further optimize the amount of phosphate required to protect customers plumbing systems and further improve compliance. We also have a routine programme of work to flush the system to keep our water close to customers' properties healthy.

Drinking water quality however, is not just about samples passing analysis in a laboratory. The scope and scale of the work we undertake and the Drinking Water Inspectorate's remit are both much wider, as noted above, it includes programmes of work to improve assets and service, audit activity, event management, training and competence.

The Event Risk Index (ERI) was introduced by DWI to recognise that nationally around 500 water quality events were occurring each year, but they were unrecognised by the DWI suite of performance measures. A water quality event is when things haven't gone quite right and there is a potential or actual impact on quality. For example, this could be discolouration of customer supplies that a customer experiences first hand, or an event could be a technical issue in the operation of a treatment works and completely invisible to customers.

The DWI provide water companies with guidance about when a water quality event has to be declared. These events may or may not be noticed by our customers and therefore customer communications are only utilised when the nature of the event requires it. The index measures how the company limits any impact and puts remedial measures in place and how quickly we do that, it is sensitive to scale and duration. It is a national comparative measure and our 2020 performance was impacted adversely by a discolouration event in Ingleby Barwick near Stockton-on-Tees, this was caused by an increase in flow from the supplying works to meet hot weather related customer demand. The flow was 10% higher than the usual peak flow and this caused a disturbance to discolouration material within the network, some 345 contacts were received from the supplied area over two days.

The DWI annual audit programme allows the DWI to see first hand how assets are functioning and how they are operated. The audits are far reaching covering all aspects of water quality. Their programme is risk based and so responds to issues reported by the sector to them. In 2020 the DWI audit programme focused on five themes; Notice Compliance, Disinfection, Service Reservoirs, Water Quality Zones, Groundwater Works. As an output of the audit programme DWI publish the audit findings and learning points for the sector. The DWI rightly expect companies to act upon the information and learning and so drive sector-wide improvements. In addition the DWI also expect every company to have in place an asset improvement programme to ensure the asset base can deliver the right quality and quantity of drinking water to customers. Water companies focus on managing water quality risks and where DWI see a lack of progress with these risks will issue Enforcement Notices. These Enforcement Notices formalise remedial steps and ensure risks to water quality are managed.

In 2020 we have entered into a transformation programme with DWI. This is a programme of work whereby together work more closely to improve water quality. The DWI is also working with Severn Trent Water, South West & Bournemouth Water, Southern Water, Thames Water and United Utilities on their transformation programmes. There are four main themes to the programme with DWI, these are; service reservoir asset maintenance, risk assessment, policy and procedures and a hazard review of all WTW.

A revised programme of service reservoir maintenance has been identified. This addresses the small change in performance that was noted in last year's assurance report. It also addresses a small number of assets that are difficult to take out of service for inspection and maintenance and catches up a backlog of assets requiring inspection. It is good to have DWI support to maintain these important assets and put more focus on quality.

The remaining three programme areas are less defined and we will be working closely with DWI over the next few months on the details to develop short and medium term plans to better address these aspects of water quality.



MINIMISING CALL WAITING TIME

We recognise that average call wait times in have been longer than we would have liked over the last year.

Billing Centre

In our Billing team the average wait time peaked in February 2021 at 11 mins 47 seconds. Over the past year we have been focussed on reducing the average wait times and have undertaken a number of interventions. To support with the peak of Annual Billing during February and March we recruited additional temporary resource in early January 2022 to allow training to be completed prior to the call volumes increasing.

When a customer contacts us by telephone they go through an Interactive Voice Response (IVR), an automated phone system technology that allows them to select the option they require, for example choose 1 for no water, choose 2 for flooding etc. The routing on the IVR was changed to enable the simpler calls such as change of occupier and making a payment to be directed to less experienced advisors and the more complex calls relating to changes to payment plans to be directed to more experienced advisors. This ensures that customers queries can be resolved quickly during the initial contact.

Shift profiles were also changed to match the call profile i.e. we receive more change of occupier and payment calls during normal working hours (9am to 5pm) and more complex debt or affordability calls appear to make up a higher proportion of calls later in the day. Again, this allowed us to match the call type to the skill set of the advisors available.

Performance in terms of wait times and service level has improved over recent months. Comparing February 2020 to February 2021 we have seen an improvement across a number of metrics including:

- Average wait times reduced from 11 minutes 47 seconds to 7 minutes 19 seconds
- Service level (% of calls answered within 120 seconds) increased from 25% to 46%
- Abandonment rate reduced from 41% to 27%

Operations Centre

Average call wait times in the Operations Call Centre are largely driving by weather events or issues on the network. Within the last six months we have experienced a number of storm events which have impacted performance.

Additional temporary resource was recruited during September to improve service level and reduce wait times. This has stabilised performance and we are now answering calls 82% of calls within 120 seconds and average wait times during February were 1 minute 11 secs with only 6% of calls being abandoned. This is the strongest performance we have seen for a number of years.



OUR RECENT ASSURANCE ACTIVITY AND DRAFT PLAN FOR FUTURE ASSURANCE ACTIVITY

Our governance and assurance processes are embedded into the management and culture of the company and are designed to ensure risks are promptly identified, updated on a regular basis and appropriate mitigation prioritised to meet the risk appetite.

We also use our risk based approach to ensure that an appropriate balance of varied assurance providers are selected. These include our own Internal Audit Team as well as external technical assurance by PwC and financial assurance provision by Deloitte.

In general, areas of risk that already form part of our annual or cyclic audit activity are assured by our Internal Audit Team. For example, assurance of the Guaranteed Standards Scheme (GSS) entails coverage across many processes and systems (e.g. Interruptions to water supply, sewer flooding, SIM) and we therefore include these in the Internal Audit Team's annual assurance programme

Newly emerging areas of risk are assured by our external auditors, PwC. Similarly, areas of risk that require a more technical approach (e.g. leakage) also form part of PwC's agreed assurance programme.

Our financial auditor, Deloitte, provides independent audit and assurance on financial reporting in our **Annual Report and Financial Statements** and our **Annual Performance Report**.

The following tables contain a summary of the findings of the assurance activity we carried out for the reporting period 2020/21. The tables also detail our planned assurance activity that will apply to the reporting period 2021/22.



QUALITY OF DATA RELATING TO MEASURES OF SUCCESS AND PERFORMANCE COMMITMENTS FOR 2020-25

Areas of risk	Assurance activity completed during 2021/22	Planned assurance activity for 2022/23
<p>CUSTOMER MEASURE OF EXPERIENCE (C-MEX) This is an Ofwat common definition. C-MeX is a mechanism to incentivise excellent levels of service for residential customers. Each company receives a C-MeX score based on results from two surveys. These are a customer service survey and a customer experience survey. A company's overall score is out of 100.</p>	<p>Our Internal Audit Team carried out a system audit and successfully reviewed final year end performance data. Results from the systems audit highlighted recommendations to improve processes.</p> <p>The actions are reported to Management and Audit Committee and monitored until completion by our Internal Audit Team. There is no detrimental effect on the quality of the final year performance data reported in our APR.</p>	<p>Our Internal Audit Team will confirm understanding of the reporting process for C-MeX by performing interviews, walkthroughs and evidence inspection. Our Internal Audit Team will ascertain how regulatory guidance for reporting this measure has been interpreted and assess whether it is appropriate.</p> <p>Test procedures by our Internal Audit Team will agree data back to underlying systems as well as sample testing to verify that it has been appropriately measured, recorded, collated and reported. Testing will take into account the accuracy and completeness of the reported data.</p>
<p>DEVELOPER SERVICES MEASURE OF EXPERIENCE (D-MEX) This is an Ofwat common definition. D-MeX is a mechanism to incentivise companies to provide developer services customers with excellent levels of service. These customers include small and large property developers, self-lay providers, new appointees and some residential customers.</p> <p>Each company receives a D-MeX score based on two components - qualitative and quantitative surveys. These are a customer service survey and a customer experience survey. A company's overall score is out of 100.</p>	<p>Our Internal Audit Team carried out a system audit and successfully reviewed final year end performance data. Results from the systems audit highlighted recommendations to improve processes.</p> <p>The actions are reported to Management and Audit Committee and monitored until completion by our Internal Audit Team. There is no detrimental effect on the quality of the final year performance data reported in our APR.</p>	<p>Our Internal Audit Team will confirm understanding of the reporting process for D-MeX by performing interviews, walkthroughs and evidence inspection.</p> <p>Our Internal Audit Team will ascertain how regulatory guidance for reporting this measure has been interpreted and assess whether it is appropriate.</p> <p>Test procedures by our Internal Audit Team will agree data back to underlying systems as well as sample testing to verify that it has been appropriately measured, recorded, collated and reported. Testing will take into account the accuracy and completeness of the reported data.</p>
<p>WATER QUALITY COMPLIANCE (CRI) This is an Ofwat common definition. The Compliance Risk Index (CRI) is a measure designed to illustrate the risk arising from treated water compliance failures. It aligns with the approach taken by DWI. A CRI score is calculated for every individual compliance failure..</p>	<p>PwC performed independent assurance procedures in relation to specific water quality compliance performance information.</p> <p>The independent assurance report, including the assurance opinion, can be found on page 37 of our Assurance Statement for year ending 2020/21.</p>	<p>NWL will obtain independent assurance from PwC in relation to a number of non-financial performance areas including CRI. Within the work performed by PwC in reaching its conclusion over the Selected Information as a whole, the procedures that impact CRI will include:</p> <ul style="list-style-type: none"> • Re-performing calculations performed by management based on central records • Inspecting detailed breakdowns of each of the data points recorded within the Selected Information • Obtaining and inspecting underlying documentary evidence on a sample basis • Inspecting corporate systems which store data relevant to the Selected Information • Checking for consistency between data points with common inputs • Inspecting third party or publicly available data and tracing this back to Northumbrian Water Limited's records
<p>INTERRUPTIONS TO SUPPLY GREATER THAN THREE HOURS. This is an Ofwat common definition. This measures the performance of companies in terms of the average number of minutes lost per customer for the whole customer base for interruptions that lasted three hours or more.</p>	<p>Our Internal Audit Team carried out a system audit and successfully reviewed final year end performance data. Results from the systems audit highlighted recommendations to improve processes.</p> <p>The actions are reported to Management and Audit Committee and monitored until completion by our Internal Audit Team. There is no detrimental effect on the quality of the final year performance data reported in our APR.</p>	<p>Our Internal Audit Team will confirm understanding of the reporting process for interruptions to supply by performing interviews, walkthroughs and evidence inspection.</p> <p>Our Internal Audit Team will ascertain how regulatory guidance for reporting this measure has been interpreted and assess whether it is appropriate.</p> <p>Test procedures by our Internal Audit Team will agree data back to underlying systems as well as sample testing to verify that it has been appropriately measured, recorded, collated and reported. Testing will take into account the accuracy and completeness of the reported data.</p> <p>We will apply particular scrutiny that the impact of Arwen on Interruptions ODIs is reflected in a way consistent with the guidance.</p>

Areas of risk	Assurance activity completed during 2021/22	Planned assurance activity for 2022/23
<p>LEAKAGE This is an Ofwat common definition. This measure enables all companies to report annual average leakage for the defined year. Average annual leakage is defined as the sum of distribution system leakage, including service reservoir losses and trunk main leakage plus customer supply pipe leakage. It is reported as the annual arithmetic mean daily leakage expressed in mega-litres per day (Ml/d).</p>	<p>PwC performed independent assurance procedures in relation to leakage performance information. The independent assurance report, including the assurance opinion, can be found on page 37 of our Assurance Statement for year ending 2020/21.</p>	<p>NWL will obtain independent assurance from PwC in relation to a number of non-financial performance areas including leakage. Within the work performed by PwC in reaching its conclusion over the Selected Information as a whole, the procedures that impact leakage will include:</p> <ul style="list-style-type: none"> • Re-performing calculations performed by management based on central records • Inspecting detailed breakdowns of each of the data points recorded within the Selected Information • Obtaining and inspecting underlying documentary evidence on a sample basis • Inspecting corporate systems which store data relevant to the Selected Information • Checking for consistency between data points with common inputs • Inspecting third party or publicly available data and tracing this back to Northumbrian Water Limited's records
<p>PER CAPITA CONSUMPTION (PCC) This is an Ofwat common definition. PCC allows companies to report annual average per capita consumption for the defined year following a reasonable level of accuracy, applying consistent and reliable methods and common assumptions.</p> <p>Annual average per capita consumption is the sum of measured household consumption and unmeasured household consumption divided by the total household population. This is reported at the whole company level for this PC.</p>	<p>PwC performed independent assurance procedures in relation to PCC performance information. The independent assurance report, including the assurance opinion, can be found on page 37 of our Assurance Statement for year ending 2020/21.</p>	<p>NWL will obtain independent assurance from PwC in relation to a number of non-financial performance areas including PCC. Within the work performed by PwC in reaching its conclusion over the Selected Information as a whole, the procedures that impact PCC will include:</p> <ul style="list-style-type: none"> • Re-performing calculations performed by management based on central records • Inspecting detailed breakdowns of each of the data points recorded within the Selected Information • Obtaining and inspecting underlying documentary evidence on a sample basis • Inspecting corporate systems which store data relevant to the Selected Information • Checking for consistency between data points with common inputs • Inspecting third party or publicly available data and tracing this back to Northumbrian Water Limited's records
<p>POLLUTION INCIDENTS This is an Ofwat common definition. The Environmental Performance Assessment (EPA) was introduced in 2011 and updated in February 2017. There were some adjustments to wording in version 3 in 2019.</p> <p>This measures the total number of pollution incidents (category 1 - 3) in a calendar year emanating from a discharge or escape of a contaminant from a company sewerage asset affecting the water environment. We report the total number of pollution incidents (cat 1-3) per 10,000km of sewer length.</p>	<p>PwC performed independent assurance procedures in relation to pollution incidents performance information. The independent assurance report, including the assurance opinion, can be found on page 37 of our Assurance Statement for year ending 2020/21.</p>	<p>NWL will obtain independent assurance from PwC in relation to a number of non-financial performance areas including pollution incidents. Within the work performed by PwC in reaching its conclusion over the Selected Information as a whole, the procedures that impact pollution incidents will include:</p> <ul style="list-style-type: none"> • Re-performing calculations performed by management based on central records • Inspecting detailed breakdowns of each of the data points recorded within the Selected Information • Obtaining and inspecting underlying documentary evidence on a sample basis • Inspecting corporate systems which store data relevant to the Selected Information • Checking for consistency between data points with common inputs • Inspecting third party or publicly available data and tracing this back to Northumbrian Water Limited's records

Areas of risk	Assurance activity completed during 2021/22	Planned assurance activity for 2022/23
<p>RISK OF SEVERE RESTRICTIONS IN A DROUGHT</p> <p>This is an Ofwat common definition. The drought resilience metric measures the percentage of the customer population the company serves who are at risk of experiencing severe restrictions (for example, standpipes or rota cuts) in a 1 in 200-year drought, on average, over 25 years.</p>	<p>PwC performed independent assurance procedures in relation to risk of severe restrictions in a drought performance information. The independent assurance report, including the assurance opinion, can be found on page 37 of our Assurance Statement for year ending 2020/21.</p>	<p>NWL will obtain independent assurance from PwC in relation to a number of non-financial performance areas including risk of severe restrictions in a drought. Within the work performed by PwC in reaching its conclusion over the Selected Information as a whole, the procedures that impact the risk of severe restrictions in a drought will include:</p> <ul style="list-style-type: none"> • Re-performing calculations performed by management based on central records • Inspecting detailed breakdowns of each of the data points recorded within the Selected Information • Obtaining and inspecting underlying documentary evidence on a sample basis • Inspecting corporate systems which store data relevant to the Selected Information • Checking for consistency between data points with common inputs • Inspecting third party or publicly available data and tracing this back to Northumbrian Water Limited's records
<p>MAINS REPAIRS</p> <p>This is an Ofwat common definition. Companies report mains bursts repairs per 1,000km of mains. Mains bursts include all physical repair work to mains from which water is lost. This is attributable to pipes, joints or joint material failures or movement, or caused by conditions or original pipe laying or subsequent changes in ground conditions.</p>	<p>Our Internal Audit team carried out a system audit and successfully reviewed final year end performance data. Results from the systems audit highlighted recommendations to improve processes.</p> <p>The actions are reported to Management and Audit Committee and monitored until completion by our Internal Audit Team. There is no detrimental effect on the quality of the final year performance data reported in our APR.</p>	<p>Our Internal Audit Team will confirm understanding of the reporting process for unplanned outage by performing interviews, walk throughs and evidence inspection.</p> <p>Our Internal Audit Team will ascertain how regulatory guidance for reporting this measure has been interpreted and assess whether it is appropriate.</p> <p>Test procedures by our Internal Audit Team will agree data back to underlying systems as well as sample testing to verify that it has been appropriately measured, recorded, collated and reported. Testing will take into account the accuracy and completeness of the reported data.</p>
<p>UNPLANNED OUTAGE</p> <p>This is an Ofwat common definition. The measure is used as a means of assessing asset health for abstraction and water treatment activities. It is defined as the annualised unavailable flow, based on the peak week production capacity (PWPC) for each company.</p>	<p>PwC performed independent assurance procedures in relation to unplanned outage performance information. The independent assurance report, including the assurance opinion, can be on page 37 of our Assurance Statement for year ending 2020/21. .</p>	<p>NWL will obtain independent assurance from PwC in relation to a number of non-financial performance areas including unplanned outage. Within the work performed by PwC in reaching its conclusion over the Selected Information as a whole, the procedures that impact the unplanned outage will include:</p> <ul style="list-style-type: none"> • Re-performing calculations performed by management based on central records • Inspecting detailed breakdowns of each of the data points recorded within the Selected Information • Obtaining and inspecting underlying documentary evidence on a sample basis • Inspecting corporate systems which store data relevant to the Selected Information • Checking for consistency between data points with common inputs • Inspecting third party or publicly available data and tracing this back to Northumbrian Water Limited's records

Areas of risk	Assurance activity completed during 2021/22	Planned assurance activity for 2022/23
<p>SEWER COLLAPSES This is an Ofwat common definition. It measures the number of sewer collapses per 1,000km of all sewers that have not been identified proactively by the company and causing an impact on service to customers or the environment.</p>	<p>Our Internal Audit team successfully carried out a review of the final year end performance data. No material issues were identified during the audit.</p>	<p>Our Internal Audit Team will confirm understanding of the reporting process for unplanned outage by performing interviews, walk throughs and evidence inspection.</p> <p>Our Internal Audit Team will ascertain how regulatory guidance for reporting this measure has been interpreted and assess whether it is appropriate.</p> <p>Test procedures by our Internal Audit Team will agree data back to underlying systems as well as sample testing to verify that it has been appropriately measured, recorded, collated and reported. Testing will take into account the accuracy and completeness of the reported data.</p>
<p>TREATMENT WORKS COMPLIANCE This is an Ofwat common definition. This measures performance of sewerage assets to treat and dispose of sewage in line with the discharge permit conditions imposed on sewage treatment works.</p> <p>The discharge permit compliance metric is reported as the number of failing sites and not the number of failing discharges.</p>	<p>PwC performed independent assurance procedures in relation to treatment works compliance performance. The independent assurance report, including the assurance opinion, can be found on page 37 of our Assurance Statement for year ending 2020/21.</p>	<p>NWL will obtain independent assurance from PwC in relation to a number of non-financial performance areas including treatment works compliance. Within the work performed by PwC in reaching its conclusion over the Selected Information as a whole, the procedures that impact treatment works compliance will include:</p> <ul style="list-style-type: none"> • Re-performing calculations performed by management based on central records • Inspecting detailed breakdowns of each of the data points recorded within the Selected Information • Obtaining and inspecting underlying documentary evidence on a sample basis • Inspecting corporate systems which store data relevant to the Selected Information • Checking for consistency between data points with common inputs • Inspecting third party or publicly available data and tracing this back to Northumbrian Water Limited's records
<p>PRIORITY SERVICES REGISTER – REACH This is an Ofwat common definition. The PSR measures the number of households on the company's PSR as a proportion of all households in the company's region. In order to meet the performance commitment, companies must comply with two criteria on data checking:</p> <ol style="list-style-type: none"> 1. Companies will attempt to make contact with a minimum of 45% households on the PSR in the first year and 90% of households every two years of subsequent years to 2025. 2. Companies will need to ensure that details, including any change in circumstances, are reconfirmed for at least 17.5% of households in the first year and 35% of households every two years for all subsequent years to 2025. 	<p>Our Internal Audit Team successfully carried out a review of the final year end performance data. No material issues were identified during the audit.</p>	<p>Our Internal Audit Team will confirm understanding of the reporting process for the priority services register by performing interviews, walkthroughs and evidence inspection.</p> <p>Our Internal Audit Team will ascertain how regulatory guidance for reporting this measure has been interpreted and assess whether it is appropriate.</p> <p>Test procedures by our Internal Audit Team will agree data back to underlying systems as well as sample testing to verify that it has been appropriately measured, recorded, collated and reported. Testing will take into account the accuracy and completeness of the reported data.</p>

Areas of risk	Assurance activity completed during 2021/22	Planned assurance activity for 2022/23
<p>SATISFACTION OF CUSTOMERS WHO RECEIVE ADDITIONAL NON-FINANCIAL SUPPORT This measures the customer satisfaction score of customers who receive non-financial support through the PSR. This performance measure applies to households only. The score will be determined from a telephone survey where customers who are on the PSR are asked to rate their overall satisfaction with the PSR services the company provides.</p> <p>Customers score their satisfaction with the company's performance between one and ten, with a greater score indicating a greater level of satisfaction. 1,000 customers will be surveyed throughout the year to provide an annual score.</p>	<p>Our Internal Audit Team confirmed that the results from the satisfaction survey were consistent with the customer surveys carried out by our accredited external research partner.</p>	<p>Our Internal Audit Team will verify customer survey numbers used for publishing are consistent with the customer surveys carried out by our accredited external organisations and recognised industry bodies.</p>
<p>SATISFACTION OF CUSTOMERS WHO RECEIVE ADDITIONAL FINANCIAL SUPPORT This measures the customer satisfaction score of customers who receive additional financial support through one of the company's SupportPLUS tariffs or WaterSure. This performance measure applies to households only. The score will be determined from a telephone survey where customers who are receiving financial support for either water arrears or ongoing charges are asked to rate their overall satisfaction with the services the company provides. Customers score their satisfaction with the company's performance between one and ten, with a greater score indicating a greater level of satisfaction. 1,000 customers will be surveyed throughout the year to provide an annual score.</p>	<p>Our Internal Audit Team confirmed that the results from the satisfaction survey were consistent with the customer surveys carried out by our accredited external research partner.</p>	<p>Our Internal Audit Team will verify customer survey numbers used for publishing are consistent with the customer surveys carried out by our accredited external organisations and recognised industry bodies.</p>
<p>AWARENESS OF ADDITIONAL NONFINANCIAL SUPPORT The percentage of household customers who, when asked, have awareness of the company's additional nonfinancial support service, the PSR. The annual calculation is (total number of customers who answer yes / total number of customers surveyed) x 100.</p> <p>The measure is determined annually through market research conducted by an external third party used to determine if customers are aware of the PSR. The higher the percentage score, the better the performance. The score is based on a telephone survey to ask customers if they are aware of the PSR that the company can offer to those customers who need extra support.</p> <p>Customers score their awareness with a yes/no answer.</p>	<p>Our Internal Audit Team confirmed that the results from the satisfaction survey were consistent with the customer surveys carried out by our accredited external research partner.</p>	<p>Our Internal Audit Team will verify customer survey numbers used for publishing are consistent with the customer surveys carried out by our accredited external organisations and recognised industry bodies.</p>

Areas of risk	Assurance activity completed during 2021/22	Planned assurance activity for 2022/23
<p>AWARENESS OF ADDITIONAL FINANCIAL SUPPORT The percentage of household customers who have awareness of the company's additional financial support services. This includes customers that are signed up to one of the company's SupportPLUS tariffs or WaterSure. The score is based on a telephone survey to ask customers if they are aware of the additional financial support services that the company can offer to customers who need extra support. This includes the company's SupportPLUS tariffs and WaterSure. Customer's score their awareness with a yes/no answer.</p> <p>2,000 customers are surveyed annually (500 quarterly), and the results are presented as an annual % of awareness.</p>	<p>Our Internal Audit Team confirmed that the results from the satisfaction survey were consistent with the customer surveys carried out by our accredited external research partner.</p>	<p>Our Internal Audit Team will verify customer survey numbers used for publishing are consistent with the customer surveys carried out by our accredited external organisations and recognised industry bodies.</p>
<p>RESPONSE TIME TO WRITTEN COMPLAINTS This is the annual average time taken to respond to written complaints in working days. The duration to respond to a complaint is from the date of receipt into the business to the date a response is issued. This measure uses the CCW definition of a written complaint, which covers complaints by post, email, web or fax. The company will align with any changes to the definition by CCW.</p>	<p>Our Internal Audit Team successfully carried out a review of the final year end performance data. No material issues were identified during the audit.</p>	<p>Our Internal Audit Team will confirm understanding of the reporting process for written complaints by performing interviews, walk throughs and evidence inspection.</p> <p>Our Internal Audit Team will ascertain how regulatory guidance for reporting this measure has been interpreted and assess whether it is appropriate.</p> <p>Test procedures by our Internal Audit Team will agree data back to underlying systems as well as sample testing to verify that it has been appropriately measured, recorded, collated and reported. Testing will take into account the accuracy and completeness of the reported data.</p>
<p>VISIBLE LEAK REPAIR TIME This measure is the average number of calendar days that it takes to find and fix visible leaks reported to us by customers. This is measured over the April to March year. A customer report of a visible leak will be recorded at the time the contact with the company started in the company's corporate systems. Once the leak is found and then the job to fix the leaking pipe is completed, the time and date of the completion will also be recorded in the company's systems. The difference between the two gives the time taken to repair the leak. The CMA has confirmed that this measure excludes leaks on customer owned supply pipes.</p>	<p>PwC performed independent assurance procedures in relation to visible leak repair time performance. The independent assurance report, including the assurance opinion, can be found on page 37 of our Assurance Statement for year ending 2020/21.</p>	<p>NWL will obtain independent assurance from PwC in relation to a number of non-financial performance areas including visible leak repair time. Within the work performed by PwC in reaching its conclusion over the Selected Information as a whole, the procedures that impact visible leak repair time will include:</p> <ul style="list-style-type: none"> • Re-performing calculations performed by management based on central records • Inspecting detailed breakdowns of each of the data points recorded within the Selected Information • Obtaining and inspecting underlying documentary evidence on a sample basis • Inspecting corporate systems which store data relevant to the Selected Information • Checking for consistency between data points with common inputs • Inspecting third party or publicly available data and tracing this back to Northumbrian Water Limited's records.
<p>CUSTOMERS' PERCEPTION OF TRUST Customers' perception of trust. The 'mean' customer satisfaction score out of ten based on a quarterly independent customer tracking survey.</p> <p>The survey covers only household customers and consists of 500 completed interviews each quarter, a total of 2,000 interviews annually. The sample size should be selected to give a reasonable statistical significance for the purpose of the performance commitment.</p>	<p>Our Internal Audit Team confirmed that the results from the satisfaction survey were consistent with the customer surveys carried out by our accredited external research partner.</p>	<p>Our Internal Audit Team will verify customer survey numbers used for publishing are consistent with the customer surveys carried out by our accredited external organisations and recognised industry bodies.</p>

Areas of risk	Assurance activity completed during 2021/22	Planned assurance activity for 2022/23
<p>PERCENTAGE OF HOUSEHOLDS IN WATER POVERTY Percentage of households spending more than 3% of their disposable income on their water and sewerage charges, after housing costs. The measurement calculation is (number of households whose bill > 3% of income / total number of households) x 100.</p> <p>The number of total households is the number of connected households held within the company's billing databases. The database will be validated against income values to identify those in water poverty using credit reference data.</p>	<p>Our Internal Audit Team successfully carried out a review of the final year end performance data. No material issues were identified during the audit.</p>	<p>Our Internal Audit Team will confirm understanding of the reporting process for assessing the percentage of households in water poverty by performing interviews, walkthroughs and evidence inspection.</p> <p>Our Internal Audit Team will ascertain how regulatory guidance for reporting this measure has been interpreted and assess whether it is appropriate.</p> <p>Test procedures by our Internal Audit Team will agree data back to underlying systems as well as sample testing to verify that it has been appropriately measured, recorded, collated and reported. Testing will take into account the accuracy and completeness of the reported data.</p>
<p>GAP SITES The percentage of properties on the Valuation Office Rating list which have been matched to our corporate database of connected non-household properties. Those which don't match are investigated as gap sites.</p> <p>The number of properties on the VOA rating list which have been matched to the company's corporate database (ie are connected and either classified as void or billed) as a percent of the total number of properties on this list.</p> <p>The number of properties on the VOA rating list which have been matched to the company's corporate database (ie are connected and either classified as void or billed) as a percent of the total number of properties on this list.</p>	<p>Our Internal Audit Team successfully carried out a review of the final year end performance data. No material issues were identified during the audit.</p>	<p>Our Internal Audit Team will confirm understanding of the reporting process for gap sites by performing interviews, walkthroughs and evidence inspection.</p> <p>Our Internal Audit Team will ascertain how regulatory guidance for reporting this measure has been interpreted and assess whether it is appropriate.</p> <p>Test procedures by our Internal Audit Team will agree data back to underlying systems as well as sample testing to verify that it has been appropriately measured, recorded, collated and reported. Testing will take into account the accuracy and completeness of the reported data.</p>
<p>VOIDS The number of household properties classified as void as a percentage of the total number of household properties served by the company.</p> <p>Void properties are defined as properties, within the company's supply area, which are connected for either a water service only, a wastewater service only or both services but do not receive a charge, as there are no occupants. Additionally, a property connected for both services that is not occupied, only counts as one void property. The proportion of void properties will be measured as an average over the year. The same method to calculate the average will be used each year.</p>	<p>PwC performed independent assurance procedures in relation to void property performance information. The independent assurance report, including the assurance opinion, can be found on page 37 of our Assurance Statement for year ending 2020/21.</p>	<p>NWL will obtain independent assurance from PwC in relation to a number of non-financial performance areas including voids. Within the work performed by PwC in reaching its conclusion over the Selected Information as a whole, the procedures that impact voids will include:</p> <ul style="list-style-type: none"> • Re-performing calculations performed by management based on central records • Inspecting detailed breakdowns of each of the data points recorded within the Selected Information • Obtaining and inspecting underlying documentary evidence on a sample basis • Inspecting corporate systems which store data relevant to the Selected Information • Checking for consistency between data points with common inputs • Inspecting third party or publicly available data and tracing this back to Northumbrian Water Limited's records

Areas of risk	Assurance activity completed during 2021/22	Planned assurance activity for 2022/23
<p>INTERRUPTIONS TO SUPPLY GREATER THAN 12 HOURS This measure is a count of the total number of properties that experience an interruption of 12 hours (or more) in each year. All properties interrupted that are identified through the common measure (interruptions greater than three hours) that are impacted for 12 hours or more are recorded.</p>	<p>Our Internal Audit Team carried out a system audit and successfully reviewed final year end performance data. Results from the systems audit highlighted recommendations to improve processes.</p> <p>The actions are reported to Management and Audit Committee and monitored until completion by our Internal Audit Team. There is no detrimental effect on the quality of the final year performance data reported in our APR.</p>	<p>Our Internal Audit Team will confirm understanding of the reporting process for interruptions to supply greater than 12 hours by performing interviews, walkthroughs and evidence inspection.</p> <p>Our Internal Audit Team will ascertain how regulatory guidance for reporting this measure has been interpreted and assess whether it is appropriate.</p> <p>Test procedures by our Internal Audit Team will agree data back to underlying systems as well as sample testing to verify that it has been appropriately measured, recorded, collated and reported. Testing will take into account the accuracy and completeness of the reported data.</p> <p>We will apply particular scrutiny that the impact of Arwen on Interruptions ODIs is reflected in a way consistent with the guidance</p>
<p>DISCOLOURED WATER CONTACTS The number of customer contacts of discoloured water – brown/orange/black recorded in a calendar year in line with DWI information letter IL01/2006. The number of times the company is contacted by consumers due to drinking water not being clear, reported per 10,000 population. The calculation is the number of contacts for appearance multiplied by 10,000 divided by the resident population as reported to the DWI.</p>	<p>PwC performed independent assurance procedures in relation to discoloured water contacts performance information. The independent assurance report, including the assurance opinion, can be found on page 37 of our Assurance Statement for year ending 2020/21.</p>	<p>NWL will obtain independent assurance from PwC in relation to a number of non-financial performance areas including discoloured water contacts. Within the work performed by PwC in reaching its conclusion over the Selected Information as a whole, the procedures that impact discoloured water contacts will include:</p> <p>Re-performing calculations performed by management based on central records</p> <ul style="list-style-type: none"> Inspecting detailed breakdowns of each of the data points recorded within the Selected Information Obtaining and inspecting underlying documentary evidence on a sample basis Inspecting corporate systems which store data relevant to the Selected Information Checking for consistency between data points with common inputs Inspecting third party or publicly available data and tracing this back to Northumbrian Water Limited's records
<p>TASTE AND SMELL CONTACTS The number of customer contacts of taste and smell (odour) of drinking water recorded in a calendar year in line with DWI information letter IL01/2006. This is reported per 10,000 people. The number of times the company is contacted by consumers due to the taste and odour of drinking water, reported per 10,000 population.</p> <p>Calculation is the number of contacts for all taste and odour contacts multiplied by 10,000 divided by the resident population as reported to the DWI.</p>	<p>PwC performed independent assurance procedures in relation to taste and smell contacts performance information. The independent assurance report, including the assurance opinion, can be found on page 37 of our Assurance Statement for year ending 2020/21.</p>	<p>NWL will obtain independent assurance from PwC in relation to a number of non-financial performance areas including taste and smell contacts. Within the work performed by PwC in reaching its conclusion over the Selected Information as a whole, the procedures that impact taste and smell contacts will include:</p> <p>Re-performing calculations performed by management based on central records</p> <ul style="list-style-type: none"> Inspecting detailed breakdowns of each of the data points recorded within the Selected Information Obtaining and inspecting underlying documentary evidence on a sample basis Inspecting corporate systems which store data relevant to the Selected Information Checking for consistency between data points with common inputs Inspecting third party or publicly available data and tracing this back to Northumbrian Water Limited's records
<p>EVENT RISK INDEX (ERI) The number of customer contacts of taste and smell (odour) of drinking water recorded in a calendar year in line with DWI information letter IL01/2006. This is reported per 10,000 people. The number of times the company is contacted by consumers due to the taste and odour of drinking water, reported per 10,000 population. Calculation is the number of contacts for all taste and odour contacts multiplied by 10,000 divided by the resident population as reported to the DWI.</p>	<p>PwC performed independent assurance procedures in relation to ERI performance information. The independent assurance report, including the assurance opinion, can be found on page 37 of our Assurance Statement for year ending 2020/21.</p>	<p>NWL will obtain independent assurance from PwC in relation to a number of non-financial performance areas including ERI. Within the work performed by PwC in reaching its conclusion over the Selected Information as a whole, the procedures that impact ERI will include:</p> <p>Re-performing calculations performed by management based on central records</p> <ul style="list-style-type: none"> Inspecting detailed breakdowns of each of the data points recorded within the Selected Information Obtaining and inspecting underlying documentary evidence on a sample basis Inspecting corporate systems which store data relevant to the Selected Information Checking for consistency between data points with common inputs Inspecting third party or publicly available data and tracing this back to Northumbrian Water Limited's records

Areas of risk	Assurance activity completed during 2021/22	Planned assurance activity for 2022/23
<p>INTERRUPTIONS TO SUPPLY BETWEEN ONE AND THREE HOURS Percentage that the average time the water supply is interrupted is greater than one hour and less than three hours in the report year as a proportion of the baseline. The baseline is the average of the years 2018-19, 2019-20 and 2020-21. This bespoke measure aligns with the common interruptions measure but is calculated for all interruptions above one hour and less than three hours.</p>	<p>Our Internal Audit Team carried out a system audit and successfully reviewed final year end performance data. Results from the systems audit highlighted recommendations to improve processes.</p> <p>The actions are reported to Management and Audit Committee and monitored until completion by our Internal Audit Team. There is no detrimental effect on the quality of the final year performance data reported in our APR.</p>	<p>Our Internal Audit Team will confirm understanding of the reporting process for interruptions to supply between one and three hours by performing interviews, walk throughs and evidence inspection.</p> <p>Our Internal Audit Team will ascertain how regulatory guidance for reporting this measure has been interpreted and assess whether it is appropriate.</p> <p>Test procedures by our Internal Audit Team will agree data back to underlying systems as well as sample testing to verify that it has been appropriately measured, recorded, collated and reported. Testing will take into account the accuracy and completeness of the reported data.</p> <p>We will apply particular scrutiny that the impact of Arwen on Interruptions ODIs is reflected in a way consistent with the guidance.</p>
<p>INTERNAL SEWER FLOODING This is an Ofwat common definition. This definition covers two measures of flooding incidents, both of which include flooding due to overloaded sewers (hydraulic flooding) and due to other causes (FOC). We report the number of internal sewer flooding incidents per 10,000 sewer connections including sewer flooding due to severe weather events.</p>	<p>Our Internal Audit Team carried out a system audit and successfully reviewed final year end performance data. Results from the systems audit highlighted recommendations to improve processes.</p> <p>The actions are reported to Management and Audit Committee and monitored until completion by our Internal Audit Team. There is no detrimental effect on the quality of the final year performance data reported in our APR.</p>	<p>Our Internal Audit Team will confirm understanding of the reporting process for internal sewer flooding by performing interviews, walk throughs and evidence inspection.</p> <p>Our Internal Audit Team will ascertain how regulatory guidance for reporting this measure has been interpreted and assess whether it is appropriate.</p> <p>Test procedures by our Internal Audit Team will agree data back to underlying systems as well as sample testing to verify that it has been appropriately measured, recorded, collated and reported. Testing will take into account the accuracy and completeness of the reported data.</p>
<p>RISK OF SEWER FLOODING IN A STORM This is an Ofwat common definition. This measure requires companies to report on the risk of sewer flooding during an extreme wet weather event for the defined year. The metric is based on some complex information.</p> <p>This measure will record the percentage of the regions population at risk from internal hydraulic flooding from a 1 in 50-year storm.</p>	<p>Our Internal Audit Team successfully carried out a review of the final year end performance data. No material issues were identified during the audit.</p>	<p>Our Internal Audit Team will confirm understanding of the reporting process for risk of sewer flooding in a storm by performing interviews, walk throughs and evidence inspection.</p> <p>Our Internal Audit Team will ascertain how regulatory guidance for reporting this measure has been interpreted and assess whether it is appropriate.</p> <p>Test procedures by our Internal Audit Team will agree data back to underlying systems as well as sample testing to verify that it has been appropriately measured, recorded, collated and reported. Testing will take into account the accuracy and completeness of the reported data.</p>
<p>SEWER BLOCKAGES The total number of sewer blockages on the company's sewer network (including sewers transferred in 2011) in a reporting year. A blockage is an obstruction in a sewer which causes a reportable problem (not caused by hydraulic overload), such as flooding or discharge to a watercourse, unusable sanitation, surcharged sewers or odour.</p> <p>The company will not include proactively cleaned silt or other blockages that are removed which are not reported to it by customers or stakeholders and have no customer impact. The company will include blockages that are as a result of third-party interference.</p>	<p>Our Internal Audit Team successfully carried out a review of the final year end performance data. No material issues were identified during the audit.</p>	<p>Our Internal Audit Team will confirm understanding of the reporting process for sewer blockages by performing interviews, walk throughs and evidence inspection.</p> <p>Our Internal Audit Team will ascertain how regulatory guidance for reporting this measure has been interpreted and assess whether it is appropriate.</p> <p>Test procedures by our Internal Audit Team will agree data back to underlying systems as well as sample testing to verify that it has been appropriately measured, recorded, collated and reported. Testing will take into account the accuracy and completeness of the reported data.</p>

Areas of risk	Assurance activity completed during 2021/22	Planned assurance activity for 2022/23
<p>EXTERNAL SEWER FLOODING This measures the absolute number of the company's external sewer flooding incidents per year including incidents caused by severe weather. External flooding is defined as flooding within the curtilage of a building normally used for residential, public, community and business purposes. Flooding event: is defined as the escape of water from a sewerage system, irrespective of size as evidenced by standing water, running water or visible deposits of silt or sewage solids. It includes flooding due to overloaded sewers (hydraulic flooding) and due to other causes (FOC). Number of incidents is defined as the number of curtilages flooded during each flooding event from a public sewer including incidents on sewers transferred under the Transfer of Private Sewers Regulations 2011 and pumping stations transferred in 2016.</p> <p>Severe weather is defined as individual rainfall events with a storm return period greater than 1 in 20 years. Flooding incidents caused by severe weather should be included in this measure.</p>	<p>Our Internal Audit Team carried out a system audit and successfully reviewed final year end performance data. Results from the systems audit highlighted recommendations to improve processes.</p> <p>The actions are reported to Management and Audit Committee and monitored until completion by our Internal Audit Team. There is no detrimental effect on the quality of the final year performance data reported in our APR.</p>	<p>Our Internal Audit Team will confirm understanding of the reporting process for external sewer flooding by performing interviews, walk throughs and evidence inspection.</p> <p>Our Internal Audit Team will ascertain how regulatory guidance for reporting this measure has been interpreted and assess whether it is appropriate.</p> <p>Test procedures by our Internal Audit Team will agree data back to underlying systems as well as sample testing to verify that it has been appropriately measured, recorded, collated and reported. Testing will take into account the accuracy and completeness of the reported data.</p>
<p>REPEAT SEWER FLOODING The number of internal sewer flooding incidents in properties which have flooded internally more than once in the last five years. It includes flooding from the public and transferred network and includes severe weather events. Repeat flooding incidents are defined as internal flooding more than once within a five-year period.</p> <p>This is calculated as five years prior to the most recent flooding incident, ie if an incident occurred on 24 April 2018, the company would check back to and include 25 April 2013 to determine if this classed as a repeat for this measure.</p> <p>A flooding incident is the escape of water from a sewerage system, irrespective of size as evidenced by standing water, running water or visible deposits of silt or sewage solids. Any flooding due to jetting is included unless the water is fully contained within a toilet bowl. Flooding due to third party action shall be included in all cases.</p>	<p>Our Internal Audit Team carried out a system audit and successfully reviewed final year end performance data. Results from the systems audit highlighted recommendations to improve processes.</p> <p>The actions are reported to Management and Audit Committee and monitored until completion by our Internal Audit Team. There is no detrimental effect on the quality of the final year performance data reported in our APR.</p>	<p>Our Internal Audit Team will confirm understanding of the reporting process for repeat sewer flooding by performing interviews, walk throughs and evidence inspection.</p> <p>Our Internal Audit Team will ascertain how regulatory guidance for reporting this measure has been interpreted and assess whether it is appropriate.</p> <p>Test procedures by our Internal Audit Team will agree data back to underlying systems as well as sample testing to verify that it has been appropriately measured, recorded, collated and reported. Testing will take into account the accuracy and completeness of the reported data.</p>

Areas of risk	Assurance activity completed during 2021/22	Planned assurance activity for 2022/23
<p>ABSTRACTION INCENTIVE MECHANISM (AIM) The abstraction incentive mechanism (AIM) reduces abstraction of water at environmentally sensitive sites when flow or levels are below an agreed point otherwise known as a trigger. The trigger point is based on a level or flow, below which the AIM is considered to be 'switched on'.</p> <p>This trigger will usually be related to the point at which damage is caused and is intended to prevent this from happening or ameliorate the negative impacts.</p>	<p>PwC performed independent assurance procedures in relation to AIM performance information. The independent assurance report, including the assurance opinion, can be found on page 37 of our Assurance Statement for year ending 2020/21.</p>	<p>NWL will obtain independent assurance from PwC in relation to a number of non-financial performance areas including AIM. Within the work performed by PwC in reaching its conclusion over the Selected Information as a whole, the procedures that impact AIM will include:</p> <ul style="list-style-type: none"> • Re-performing calculations performed by management based on central records • Inspecting detailed breakdowns of each of the data points recorded within the Selected Information • Obtaining and inspecting underlying documentary evidence on a sample basis • Inspecting corporate systems which store data relevant to the Selected Information • Checking for consistency between data points with common inputs • Inspecting third party or publicly available data and tracing this back to Northumbrian Water Limited's records
<p>BATHING WATER COMPLIANCE The percentage of designated bathing waters in the company's northern operating area which are classified as Good or Excellent status each year, as reported by Defra. The classifications are based on a four-year average of sample results at each beach.</p>	<p>PwC performed independent assurance procedures in relation to bathing waters performance information. The independent assurance report, including the assurance opinion, can be found on page 37 of our Assurance Statement for year ending 2020/21.</p>	<p>NWL will obtain independent assurance from PwC in relation to a number of non-financial performance areas including bathing water compliance. Within the work performed by PwC in reaching its conclusion over the Selected Information as a whole, the procedures that impact bathing water compliance will include:</p> <ul style="list-style-type: none"> • Re-performing calculations performed by management based on central records • Inspecting detailed breakdowns of each of the data points recorded within the Selected Information • Obtaining and inspecting underlying documentary evidence on a sample basis • Inspecting corporate systems which store data relevant to the Selected Information • Checking for consistency between data points with common inputs • Inspecting third party or publicly available data and tracing this back to Northumbrian Water Limited's records
<p>WATER ENVIRONMENT IMPROVEMENTS Length of publicly accessible water environment in kilometres in the reporting year which has had improvements delivered across at least two aspects of access, facilities and recreation, water quality, wildlife and biodiversity. Each of these aspects of the water environment has an associated length measured in kilometres. The length of water environment enhanced as measured under this performance commitment will relate to lengths of publicly accessible water environment areas in the company's regions where improvements have been delivered in the year.</p>	<p>Our Internal Audit Team were taken through the assurance process that has been developed in conjunction with the new Water Environment Governance Group (WEGG). This group is a regulatory group closely linked to our Water Forum, with three shared members and a joint but independent sub-group chair.</p> <p>Internal Audit consider the processes in place to be very robust and the levels of assurance from both our internal governance and the WEGG is such that there is a very high degree of confidence in the accuracy of reporting for this measure.</p>	<p>The assurance process for this ODI can be found here. Independent Water Environment Governance Group (WEGG) will provide a statement confirming that this process has been followed, and that the corresponding length/km of improvements reported is correct. Our internal audit team will provide further checks of the same.</p>

Areas of risk	Assurance activity completed during 2021/22	Planned assurance activity for 2022/23
<p>GREENHOUSE GAS EMISSIONS This measures the annual reductions in operational greenhouse gas emissions from a 2019-20 baseline expressed in tonnes CO₂e (carbon dioxide equivalent). Emissions are calculated through the UK Water Industry Research Ltd (UKWIR) Carbon Accounting Workbook published on 8 May 2019. The company will provide external third-party assurance that all data relating to operational greenhouse gas emissions is compliant with the version of the international carbon reporting standard (ISO 14064, Part 1) which is in effect at the time of PR19 final determinations publication, and assured following an audit by an appropriately qualified independent third party. For avoidance of doubt the scope of assurance excludes data sourced from the carbon accounting workbook. The scope of the assurance includes the 2019-20 baseline</p>	<p>In the Final Determination to Companies dated December 2019, it was confirmed that assurance was to be provided externally by third party.</p> <p>This means that for operational carbon it includes that for all data collection relating to greenhouse gas emissions is compliant with the international carbon reporting standard (ISO 14064 Part 1) and a third part assure this.</p> <p>In line with CEMARS programme we have successfully met the scheme requirements and gained certification to CEMARS.</p> <p>The audit report findings can be found on page 37 of our Assurance Statement for year ending 2020/21.</p>	<p>Our third-party external assurance partner, CEMARS will ensure that all data relating to operational greenhouse gas emissions is compliant with the version of the international carbon reporting standard (ISO 14064 Part 1).</p> <p>The scope of the assurance provision excludes data sourced from the carbon accounting workbook and includes the 2019-20 baseline.</p> <p>Any areas identified as not yet compliant will be noted and included in plans that set out actions and timescales to achieve compliance when reporting.</p> <p>In advance of our 2020/21 APR we requested that Ofwat permit is to report emissions using a newer version of the Carbon Accounting Workbook – which addresses a number of shortfalls in the May 2019 version. At the time of writing we are still awaiting a conclusion from Ofwat on this matter</p>
<p>BIORESOURCES Percentage of the total amount of sludge, in tonnes dry solids (tDS), produced each year that has been effectively treated by an advanced sludge treatment process (Advanced Anaerobic Digestion) and beneficially recycled to land.</p> <p>The performance commitment will include sludge and organic wastes imported from other WaSCs or third parties that have been traded under the bioresources price control. The traded quantities of sludge would be added to the raw tDS figures treated and produced.</p>	<p>PwC performed independent assurance procedures in relation to bioresources performance information. The independent assurance report, including the assurance opinion, can be found on page 130 of our Assurance Statement for year ending 2020/21.</p>	<p>NWL will obtain independent assurance from PwC in relation to a number of non-financial performance areas including bioresources. Within the work performed by PwC in reaching its conclusion over the Selected Information as a whole, the procedures that impact bioresources will include:</p> <ul style="list-style-type: none"> • Re-performing calculations performed by management based on central records • Inspecting detailed breakdowns of each of the data points recorded within the Selected Information • Obtaining and inspecting underlying documentary evidence on a sample basis • Inspecting corporate systems which store data relevant to the Selected Information • Checking for consistency between data points with common inputs • Inspecting third party or publicly available data and tracing this back to Northumbrian Water Limited's records
<p>BRITISH STANDARDS INSTITUTION AWARD FOR INCLUSIVE SERVICES This measure assesses the quality of the Priority Services scheme using the British Standard for Inclusive Service Provision certification BS 18477. To meet its targets for this performance commitment the company must maintain the BS 18477 standard throughout the 2020-25 period. If this certification from BSI is not in place on 31 March of the reporting year, the performance commitment is reported as not maintained.</p> <p>The performance commitment applies each reporting year, and demonstration that the certification is in place must be tested and reported each reporting year. The BS 18477 certification is awarded by BSI Group (also known as the British Standards Institution).</p>	<p>Our Internal Audit Team confirmed sight of the certification of BS18477 showing that we had 'maintained' assessment.</p>	<p>There are no specific assurance requirements set out for this measure other than to confirm we have 'maintained' or 'not maintained' certification of BS18477.</p>

Areas of risk	Assurance activity completed during 2021/22	Planned assurance activity for 2022/23
<p>DELIVERY OF WATER RESILIENCE ENHANCED PROGRAMME This performance commitment measures the delivery of the company's water resilience enhancement programme. Completion is determined on full completion of the respective milestones when the measures are in operation and providing clear benefit to customers. The required scope of the milestones are as set out by the company in submissions to Ofwat in advance of draft determinations.</p>	<p>Our Internal Audit Team successfully reviewed progress against the relevant milestones set out for this performance commitment. An appropriately qualified external third-party assurance report is required at the next PR review.</p>	<p>For this measure, we are required to provide an assurance report at the next price review (PR24) from a third-party assurance partner to:</p> <p>Confirm that the scope expected to be delivered for each milestone is equivalent or greater to the required scope.</p> <p>Confirm expected completion of each scheme and assesses any likely delay in any individual milestone beyond 31 March 2025.</p>
<p>DELIVERY OF LEAD ENHANCEMENT PROGRAMME This performance commitment measures the percentage delivered of the company's lead enhancement programme. This is limited to delivering pipe replacements on the customer side (supply pipe) in the following categories: vulnerable groups, rural supplies, hotspots. To reflect the different unit costs involved with replacing lead pipes for these groups, each category has a different contribution to the overall scheme delivery measure.</p> <p>For the purposes of this performance commitment, no property can be counted in more than one category. Replacement of lead pipes covers all activities, including pipes whose long-term lead health risk is removed through the use of innovative technologies developed in the future and approved by the DWI.</p>	<p>Our Internal Audit Team successfully reviewed progress against the relevant milestones set out for this performance commitment.</p>	<p>Our Internal Audit Team will confirm understanding of the reporting process for the lead replacement programme by performing interviews, walk throughs and evidence inspection.</p> <p>Our Internal Audit Team will ascertain how regulatory guidance for reporting this measure has been interpreted and assess whether it is appropriate.</p> <p>Test procedures by our Internal Audit Team will agree data back to underlying systems as well as sample testing to verify that it has been appropriately measured, recorded, collated and reported. Testing will take into account the accuracy and completeness of the reported data.</p>
<p>DELIVERY OF SMART WATER METERING ENHANCEMENT PROGRAMME This measures the percentage delivered of the company's smart metering programme. This is limited to installing new smart meters and replacing existing basic meters with smart meters. To reflect the different unit costs involved, each category has a different contribution to the overall scheme delivery measure. For the purposes of this performance commitment, no double counting is permitted between categories.</p>	<p>Our Internal Audit Team successfully reviewed progress against the relevant milestones set out for this performance commitment.</p>	<p>Our Internal Audit Team will confirm understanding of the reporting process for the smart metering programme by performing interviews, walk throughs and evidence inspection.</p> <p>Our Internal Audit Team will ascertain how regulatory guidance for reporting this measure has been interpreted and assess whether it is appropriate.</p> <p>Test procedures by our Internal Audit Team will agree data back to underlying systems as well as sample testing to verify that it has been appropriately measured, recorded, collated and reported. Testing will take into account the accuracy and completeness of the reported data.</p>
<p>DELIVERY WASTEWATER RESILIENCE ENHANCEMENT PROGRAMME This covers the cumulative number of sites in the company's wastewater resilience enhancement programme where the required scope of flood mitigation work has been delivered.</p> <p>The programme measure covers 141 sewage treatment sites. The company will publish an Assurance Report in advance of the next price review from an appropriately qualified external third party.</p>	<p>Our Internal Audit Team successfully reviewed progress against the relevant milestones set out for this performance commitment. An appropriately qualified external third-party assurance report is required at the next PR review.</p>	<p>For this measure, we are required to provide an assurance report at the next price review (PR24) from a third-party assurance partner to:</p> <p>Confirm that the scope expected to be delivered for each milestone is equivalent or greater to the required scope.</p> <p>Confirm expected completion of each scheme and assesses any likely delay in any individual milestone beyond 31 March 2025.</p>

OTHER RISKS

Areas of risk	Assurance activity completed during 2021/22	Planned assurance activity for 2022/23
<p>DELIVERY OF CYBER RESILIENCE ENHANCEMENT PROGRAMME This performance commitment measures the delivery of the company's cyber resilience enhancement programme. The relevant milestones are:</p> <ul style="list-style-type: none"> • Creation of a Security Operations Centre and incident management response capability. • Enhancing the company's cyber security function through various solutions. <p>Delivery is determined by full completion of the respective milestones when the measures are in operation and providing clear benefit to customers.</p>	<p>Our Internal Audit Team successfully reviewed progress against the relevant milestones set out for this performance commitment.</p>	<p>Our Internal Audit Team will confirm understanding of the reporting process for the cyber resilience programme by performing interviews, walk throughs and evidence inspection.</p> <p>Our Internal Audit Team will ascertain how regulatory guidance for reporting this measure has been interpreted and assess whether it is appropriate.</p>
<p>DELIVERY OF HOWDON STW ENHANCEMENT This performance commitment measures the progress of the delivery of the company's Howdon STW expansion scheme. Progress will be expressed in the number of months delivered late.</p> <p>The scheme comprises of building new assets which will complement existing treatment processes on site at Howdon STW to accommodate future growth and also to build in redundancy when required to safeguard from loss of service now and into the future. Completion of the upgrades is scheduled for 2024/25.</p>	<p>Our Internal Audit Team successfully reviewed progress against the relevant milestones set out for this performance commitment. An independent assurance report by a third party is required by July 2024.</p>	<p>We continue to monitor and review our delivery plans for this scheme, and in particular whether projected growth is materialising as expected. We are also checking whether the associated ODI appropriately incentivises the best outcome for customers in light of any variations in growth, and may request changes if this turns out not to be the case.</p> <p>The assurance requirements for this measure sets out that an independent report by a third party is published by July 2024 setting out the expected dates that all milestones will be functionally completed and successfully commissioned.</p>
<p>NWL INDEPENDENT VALUE FOR MONEY SURVEY The measures take the mean score of responses from household customers asked about their overall satisfaction with the service the company provides. The measure is the annual score from the 'value for money' question taken from this independent domestic customer survey. Customers score their satisfaction with performance between one and ten, and a greater score indicates a greater level of satisfaction. Two thousand customers will be surveyed throughout the year to provide an annual result. Five hundred interviews will be completed quarterly in line with the Market Research Society code of conduct.</p>	<p>Our Internal Audit Team confirmed that the results from the satisfaction survey were consistent with the customer surveys carried out by our accredited external research partner.</p>	<p>Our Internal Audit Team will verify customer survey numbers used for publishing are consistent with the customer surveys carried out by our accredited external organisations and recognised industry bodies.</p>

Areas of risk	Assurance activity completed during 2021/22	Planned assurance activity for 2022/23
<p>DRAINAGE AND WASTEWATER MANAGEMENT PLANS (DWMPs) This covers the cumulative percentage of catchments in which Northumbrian Water operates the company implements the Level 1 water company DWMP in accordance with the guideline: A framework for the production of Drainage and Wastewater Management Plans, published September 2018 and updated May 2019. The percentage will be calculated as a simple average of the catchments that are completed according to the guidelines and published divided by the total number of catchments and expressed as a percentage.</p>	<p>Our Internal Audit Team successfully reviewed progress against the relevant milestones set out for this performance commitment.</p>	<p>Our Internal Audit Team will confirm understanding of the reporting process for the DWMP by performing interviews, walk throughs and evidence inspection.</p> <p>Our Internal Audit Team will ascertain how regulatory guidance for reporting this measure has been interpreted and assess whether it is appropriate.</p> <p>Test procedures by our Internal Audit Team will agree data back to underlying systems as well as sample testing to verify that it has been appropriately measured, recorded, collated and reported. Testing will take into account the accuracy and completeness of the reported data.</p>
<p>DELIVERY OF WATER INDUSTRY NATIONAL ENVIRONMENT PROGRAMME REQUIREMENTS This measure assesses whether or not the company 'met' or 'not met' all of its requirements for WINEP, in the reporting year. This measure tracks the completion of required schemes in each year, as per the latest WINEP programme published by DEFRA. If any scheme is not delivered by the time specified in the WINEP tracker titled 'Completion Date (DD/MM/YY)', the company will report 'not met'. All WINEP schemes will be included including those reported under other performance commitments. The performance commitment will measure against the latest WINEP tracker in the year in which performance is being reported. Therefore, performance for 2020/21 will be reported based on the latest WINEP programme on the 31 March 2021 and the schemes which have been delivered by this date.</p>	<p>Our Internal Audit Team successfully reviewed progress against the relevant milestones set out for this performance commitment. The EA provides confirmation that the performance has been correctly reported.</p>	<p>The performance commitment will measure against the latest WINEP tracker in the year in which performance is being reported.</p> <p>Performance for 2020/21 will be reported based on the latest WINEP programme as of 31 March 2022 and the schemes that have been delivered by that date.</p> <p>The Environment Agency (EA) will confirm that performance has been correctly reported.</p> <p>We will set out our APR any areas that have not been met and include any interactions this performance measure has with any other performance measures.</p>
<p>WATER INDUSTRY NATIONAL ENVIRONMENT PROGRAMME (WINEP) The cumulative number of schemes completed each year. The performance commitment is limited to schemes that were confirmed on 1 April 2019 within the Water Industry National Environment Programme (WINEP) and therefore had green status. Each scheme completed by the company must be signed off by the Environment Agency for it to count towards the measure.</p>	<p>Our Internal Audit Team successfully reviewed progress against the relevant milestones set out for this performance commitment. The EA provides confirmation that the performance has been correctly reported.</p>	<p>Each scheme completed by the company requires sign off by the Environment Agency (EA) in order for it to be counted towards the measure.</p> <p>We will secure confirmation from the EA that performance has been correctly reported. The view of the EA will be definitive.</p>

Areas of risk	Assurance activity completed during 2021/22	Planned assurance activity for 2022/23
<p>COST ASSESSMENT TABLES Since 2016, we have provided cost assessment tables to Ofwat which cover all aspects of performance, including financial and operational metrics. The cost assessment information helps inform Ofwat's cost modelling for the Periodic Review process. Our approach to providing governance and assurance to the cost assessment tables follows the same process as we currently have in place for Annual Performance Reporting (APR).</p>	<p>PwC performed independent assurance procedures in relation to the cost assessment tables allocated. The independent assurance report, including the assurance opinion, can be found on page 37 of our Assurance Statement for year ending 2020/21.</p> <p>Our Internal Audit Team successfully carried out a review of the final year end performance data for their allocated cost assessment tables. No material issues were identified during the audit.</p>	<p>The scope of assurance activity across the cost assessment tables has been split between PwC and our Internal Audit Team.</p> <p>NWL will obtain independent assurance from PwC in relation to a number of non-financial performance areas including the cost assessment tables. Within the work performed by PwC in reaching its conclusion over the Selected Information as a whole, the procedures that impact the cost assessment tables will include:</p> <ul style="list-style-type: none"> • Re-performing calculations performed by management based on central records • Inspecting detailed breakdowns of each of the data points recorded within the Selected Information • Obtaining and inspecting underlying documentary evidence on a sample basis • Inspecting corporate systems which store data relevant to the Selected Information • Checking for consistency between data points with common inputs • Inspecting third party or publicly available data and tracing this back to Northumbrian Water Limited's records <p>For cost assessment tables allocated to our Internal Audit Team, they will confirm understanding of the reporting processes by performing interviews, walk throughs and evidence inspection.</p> <p>Our Internal Audit Team will ascertain how regulatory guidance for reporting the measures have been interpreted and assess whether they are appropriate.</p> <p>Test procedures by our Internal Audit Team will agree data back to underlying systems as well as sample testing to verify that these have been appropriately measured, recorded, collated and reported. Testing will take into account the accuracy and completeness of the reported data.</p>
<p>TARIFFS AND CHARGES The bills paid by our customers and the wholesale charges paid by non-household customers in both our areas of supply are determined by the tariffs and charges published in January and February each year.</p> <p>We are required to publish our tariffs and charges to comply with our legal obligations. These set out the company's charges for the services we provide and the terms and conditions of those charges.</p>	<p>Reviews of our tariffs and charges production were followed as per the timetable set out and approval was provided by our Charges Steering Group and Board.</p> <p>Assurance checks by an Independent firm of accountants were performed as set out in our programme.</p> <p>Assurance checks of allowed revenue and charge multiplier inputs by our Internal Audit Team resulted in no exceptions being reported.</p>	<p>Our Internal Audit Team will confirm understanding of the reporting process for tariffs and charges by performing interviews, walk throughs and evidence inspection.</p> <p>Our Internal Audit Team will ascertain how regulatory guidance for reporting this measure has been interpreted and assess whether it is appropriate.</p> <p>Test procedures by our Internal Audit Team will agree data back to underlying systems as well as sample testing to verify that it has been appropriately measured, recorded, collated and reported. Testing will take into account the accuracy and completeness of the reported data.</p>
<p>CUSTOMER CONTACT Customer contacts form part of our annual internal audit programme and covers areas such as customer contact, complaints, and supply interruptions.</p>	<p>Our Internal Audit Team carried out a review of customer contacts. This forms part of our annual audit programme and covers areas such as customer contact, complaints, and supply interruptions. Results from the audit highlighted recommendations to improve our processes.</p> <p>The actions are reported to Management and Audit Committee and monitored until completion by our Internal Audit Team. There is no detrimental effect on the quality of the final year performance data reported in our APR.</p>	<p>As part of an annual assurance programme, our internal audit team reviews end to end processes and both financial and regulatory reporting controls in our key systems. This includes several audits of the Customer Contact and Billing system (CC&B) as it holds both key financial and regulatory data.</p> <p>For CC&B regulatory reporting, the key audits we carry out annually include GSS audits (particularly account queries and complaints and appointments) and C-MeX and priority services reporting which is included in our APR assurance programme. As for all audits, findings are reported to management and our audit committee, with agreed actions being tracked to completion.</p>

Areas of risk	Assurance activity completed during 2021/22	Planned assurance activity for 2022/23
<p>BIORESOURCES AND WATER RESOURCES MARKET INFORMATION Companies are required to provide Ofwat with standardised and defined information to enable potential market participants to identify opportunities to supply services in these areas. We publish market information so that stakeholders can have trust and confidence in the information and to reflect current market status.</p>	<p>Market information audits had not been completed at the time of the Assurance Statement publication with our APR back in July 2021. We can report that assurance checks of the water resources and bioresources market information by our Internal Audit Team found there to be no material issues or exceptions.</p>	<p>Our Internal Audit Team will confirm understanding of the reporting process for bioresources and water resources market information by performing interviews, walk throughs and evidence inspection.</p> <p>Our Internal Audit Team will ascertain how regulatory guidance for reporting this measure has been interpreted and assess whether it is appropriate.</p> <p>Test procedures by our Internal Audit Team will agree data back to underlying systems as well as sample testing to verify that it has been appropriately measured, recorded, collated and reported. Testing will take into account the accuracy and completeness of the reported data.</p>
<p>MARKET PERFORMANCE INFORMATION The Market Performance Framework (MPF) is intended to provide confidence to trading parties and the Market Operator (MOSL) that they and their peers are complying with their obligations.</p> <p>The MPF consists of a number of elements that monitor and report performance against a range of predefined standards and timescales. These standards are the Market Performance Standards (MPS) and the Operational Performance Standards (OPS).</p> <p>The MPS measure both retailer and wholesaler performance, while the OPS solely measure wholesaler performance. We are required to submit key performance indicators to the market operator MOSL who then publish the information on their website. The information is used by retailers, Ofwat and MOSL to ensure service to all customers in the market is compliant.</p>	<p>Internal Audit had not undertaken any assurance work at the time of publishing our Assurance Statement alongside our APR in July 2021. We are yet to complete our assurance work in this area of activity but plan to complete this before the end of this regulatory year (31 March 2022).</p>	<p>Our Internal Audit Team will confirm understanding of the reporting process for market performance information by performing interviews, walk throughs and evidence inspection.</p> <p>Our Internal Audit Team will ascertain how regulatory guidance for reporting this measure has been interpreted and assess whether it is appropriate and in accordance with the Competition Act (level playing field provision).</p> <p>Test procedures by our Internal Audit Team will agree data back to underlying systems as well as sample testing to verify that it has been appropriately measured, recorded, collated and reported. Testing will take into account the accuracy and completeness of the reported data.</p>
<p>OUR LICENCE OBLIGATIONS As part of our Risk and Compliance Statement we must make sure we have a full understanding of and are meeting all our relevant statutory license and regulatory obligations.</p> <p>We must also ensure that there are sufficient processes and internal systems of control to fully meet those obligations and have appropriate systems and processes in place to allow us to identify, manage and review key risks.</p>	<p>Our Internal Audit Team review our Licence Obligations on a Biannual basis given there has been no significant changes to them from their previous review last year. We will review and report further on these in our 2022 report.</p>	<p>Our Internal Audit Team will confirm understanding of the reporting process for meeting our licence obligations by performing interviews, walk throughs and evidence inspection.</p> <p>Our Internal Audit Team will ascertain how regulatory guidance for reporting has been interpreted and assess whether it is appropriate.</p> <p>Additional focus will be placed on a review of our RAG5 procedures. Any recommendations from the review will be shared with our Executive Leadership Team and monitored through to completion.</p>

Areas of risk	Assurance activity completed during 2021/22	Planned assurance activity for 2022/23
<p>GUARANTEED STANDARDS SCHEME (GSS) Customers of water and sewerage companies are entitled to guaranteed minimum standards of service, as set out by the Secretary of State. Where a company fails to meet a standard then it is required to make a specified payment to the customer affected. The scheme applies to all customers of water and sewerage companies.</p> <p>Some companies operate schemes that go further than GSS. Following Ofwat's 'Out in the Cold' review of water companies' performance in response to the 'Beast from the East', they expressed concern that the compensation customers were getting was not enough. Ofwat made recommendations designed to address these concerns and expected companies to reflect on them when setting their own compensation schemes. We have acted on the recommendations made by Ofwat and have implemented changes to our GSS payments with effect from 1 October 2019. This involves changes to our systems for recording failures and the automation of payments to customers.</p>	<p>Our Internal Audit Team carried out a review of GSS compliance. This forms part of their annual audit programme.</p> <p>Results from the audit highlighted recommendations to improve our processes. These are reported to the GSS Compliance Group and Audit Committee and agreed actions will be monitored until completion by our Internal Audit Team.</p>	<p>GSS by performing interviews, walk throughs and evidence inspection.</p> <p>Our Internal Audit Team will ascertain how regulatory guidance for reporting this measure has been interpreted and assess whether it is appropriate.</p> <p>Test procedures by our Internal Audit Team will agree data back to underlying systems as well as sample testing to verify that it has been appropriately measured, recorded, collated and reported. Testing will take into account the accuracy and completeness of the reported data.</p> <p>We will pay particular attention to GSS payments in relation to Storm Arwen.</p>
<p>DATA PROTECTION This measure was also highlighted by customers as a concern. Information about our customers and employees (personal data) is one of our most valuable assets. We include data protection as a Corporate 'Risk' and are committed to protecting privacy rights.</p>	<p>The Information Access Team ensured strong links are built with teams across the business. We have maintained the Data Protection Champions network in departments, our regular slots on leadership team meetings and monthly newsletters for teams to ensure privacy is regularly on the agenda.</p> <p>Due to the social restrictions in place during the global pandemic, and the temporary shift to widespread working from home, workplace spot audits have not been possible this year, although we maintained our engagement with the business to monitor and assess the compliance risks.</p> <p>Privacy Impact Assessments have been undertaken where required across the business to ensure privacy compliance is considered, privacy by design takes place, and identified risks are managed and mitigated where necessary.</p>	<p>Our Information Access Team will continue to work closely with teams across the business to ensure processes and procedures are implemented with privacy in mind. They will also carry out 'spot' audits to ensure compliance. By continuing to use Privacy Impact Assessments, we will maintain good visibility of our data processing.</p> <p>Content security tools help provide the visibility we need to protect personal data. We will continue to focus on employee awareness of data protection. Ensuring all employees receive robust and up to date training embeds data protection across the business.</p>
<p>ANNUAL REPORT AND FINANCIAL STATEMENTS We have a legal obligation, under the Companies Act, for our Annual Report and Financial Statements to be externally audited. This is to make sure that they are properly prepared in accordance with Generally Accepted Accounting Principles and the Companies Act and that they represent a true and fair view of our financial position and profits.</p>	<p>Deloitte carried out their audit and reported their findings to our Audit Committee.</p> <p>They produced an unqualified audit opinion which can be found in the Annual Performance Report and Financial Statements on our websites.</p>	<p>Deloitte will audit and express an opinion on the financial statements in accordance with applicable law and International Standards on Auditing (UK and Ireland).</p>

QUALITY OF FINANCIAL DATA

We also have a number of financial areas where assurance is provided by our financial auditors, Deloitte. These are included in our Annual Report and Financial Statements and elements of our Annual Performance Report (APR).

Areas of risk	Assurance activity completed during 2021/22	Planned assurance activity for 2022/23
<p>REGULATORY ACCOUNTING STATEMENTS</p> <p>We have a requirement under our Instrument of Appointment and Ofwat's Regulatory Accounting Guidelines, for the Regulatory Financial Statements in the APR to be externally audited. This covers:</p> <ul style="list-style-type: none"> • The regulatory policies and disclosures. • Regulatory Financial Statements (tables 1A to 1E). • Appointed business taxation. • Price review and other segmental reporting (tables 2A to 2J). • Transactions with associated companies. 	<p>Deloitte carried out their audit and reported their findings to our Audit Committee.</p> <p>They produced an unqualified audit opinion which can be found in the Annual Performance Report and Financial Statements on our websites.</p>	<p>Deloitte will audit and express an opinion on the financial statements in accordance with applicable law and International Standards on Auditing (UK and Ireland).</p>
<p>ADDITIONAL REGULATORY INFORMATION</p> <p>We report additional regulatory information in tables 4A to 4I of the APR. This includes:</p> <ul style="list-style-type: none"> • Non-financial information on households billed and volumes of water produced. • Additional analysis of totex and unit costs. • Key financial metrics. 	<p>Deloitte carried out the agreed upon procedures. No exceptions were noted.</p>	<p>Deloitte will carry out the agreed procedures which broadly comprise confirming that the information contained in the tables has been calculated in a consistent manner with Ofwat's Regulatory Accounting Guidelines, agreeing information back to supporting documentation and verifying the accuracy of calculations.</p> <p>For tables 4D to 4F Deloitte will also confirm that the information has been prepared in accordance with the Company's accounting separation methodology.</p>
<p>STATEMENT OF SUFFICIENCY OF FINANCIAL RESOURCES</p> <p>STATEMENT OF SUFFICIENCY OF FINANCIAL RESOURCES</p> <p>We have a requirement, under our Instrument of Appointment, to submit a certificate from the Directors stating that we have available sufficient financial resources and facilities to allow us to carry out our regulated activities for at least 12 months and sufficient management resources to enable us to carry out our functions.</p>	<p>Deloitte carried out the agreed procedures.</p> <p>They confirmed that no matters had come to their attention to indicate any inconsistency between this Statement and information obtained during the course of their audit work on the Regulatory Financial Statements, in respect of financial resources.</p>	<p>Deloitte will carry out the agreed upon procedures.</p> <p>Deloitte will review the statement of sufficiency of financial resources and identify any inconsistencies between the statement and information obtained during its audit of the Regulatory Financial Statements.</p>
<p>FINANCIAL RESILIENCE</p> <p>We have a requirement, under Ofwat's Regulatory Accounting Guidelines, to produce a long-term viability statement, confirming that the Company is financially viable over the longer term.</p> <p>This includes stress testing our forward-looking financial plans under a number of adverse scenarios. Our viability statement can be found in the Annual Report and Financial Statements on our websites.</p>	<p>Deloitte carried out the agreed upon procedures. No exceptions were noted.</p>	<p>Deloitte will carry out the agreed procedures to review the impact of the stress test scenarios on the Company's financial plan and key financial ratios.</p>

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Northumbrian Water Limited (registered in England and Wales with Company No. 02366703) trades and operates as 'Northumbrian Water' in the North East of England and as 'Essex and Suffolk' in the South East of England.