

NORTHUMBRIAN WATER living water ESSEX&SUFFOLK WATER living water

OUR ASSURANCE PLAN FOR 2020/21

MARCH 2020



CONTENTS

03WELCOME TO OUR
ASSURANCE PLAN

HOW CUSTOMERS AND STAKEHOLDERS INFLUENCED THIS PLAN

OUR ASSESSMENT OF OUR AREAS OF STRENGTH, RISK AND WEAKNESS

07AREAS OF STRENGTH

13
AREAS OF RISK

20
AREAS OF WEAKNESS

OUR RECENT ASSURANCE ACTIVITY AND DRAFT PLAN FOR FUTURE ASSURANCE ACTIVITY



WELCOME TO OUR ASSURANCE PLAN

Northumbrian Water and Essex & Suffolk Water are both part of Northumbrian Water Limited. We supply water and wastewater services to just under 4.5 million people. Northumbrian Water provides water and wastewater services to 2.7 million people in North East 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's correct. This is what we mean by **assurance**.

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 our regulator, Ofwat.

We also need to make sure that we provide transparent, reliable information to enable our customers and stakeholders to hold us to account.

Our Assurance Plan for 2020/21 (this document) has been developed using valuable feedback from thousands of our customers and stakeholders from the consultation on our draft Assurance Plan that we published in November 2019

Its purpose is to tell you our views on our strengths, risks and weaknesses in relation to:

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

The remainder of the document shows the assurance activities we plan to complete to reduce risks and weaknesses.

NEW LOCAL INFORMATION ONLINE

In the last year, we launched our community portal, which allows our customers to check their local postcode for information about any interruptions to their water supply, roadworks or drinking water quality. This can be viewed **here**.

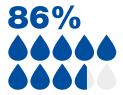


HOW CUSTOMERS AND STAKEHOLDERS INFLUENCED THIS PLAN

CUSTOMER AND STAKEHOLDER INVOLVEMENT

Our consultation on our strengths, risks and weaknesses and draft Assurance Plan was published on 30 November 2019 and closed on 10 January 2020. 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 a survey.

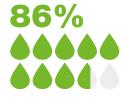
We were delighted to receive more than 6,500 responses from our customers containing rich qualitative insights, as well as quantitative feedback.



of our customers are confident that the information we publish will be correct and true.



of our customers say our plans to be a company you can trust are clear.



of our customers would not add anything further to the draft plan.

1,500 customers and stakeholders suggested more than 2,000 ideas for further information that we could include in the plan, which we have used to inform this Assurance Plan.

Customers told us that:

- We needed to be clearer about how our charges are set and how we ensure they are fair on those who are financially struggling.
 - **In response**, we have provided links to additional information on charges on p15 of this plan.
- We tried to keep the summary version simple to avoid overwhelming customers with too much detail, but some of you told us that you wanted more detail about our policies, procedures and performance.

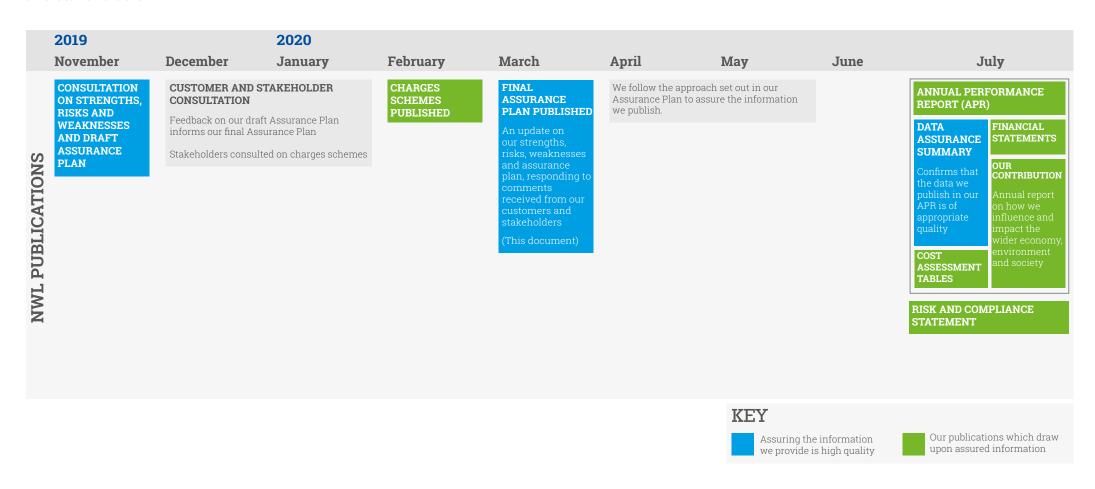
In response, we added web links to where this information can be found in both this plan and the summary. This means customers who want more information can easily find it.

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 draft Assurance Plan. The feedback we received was consistent with customers' views.

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



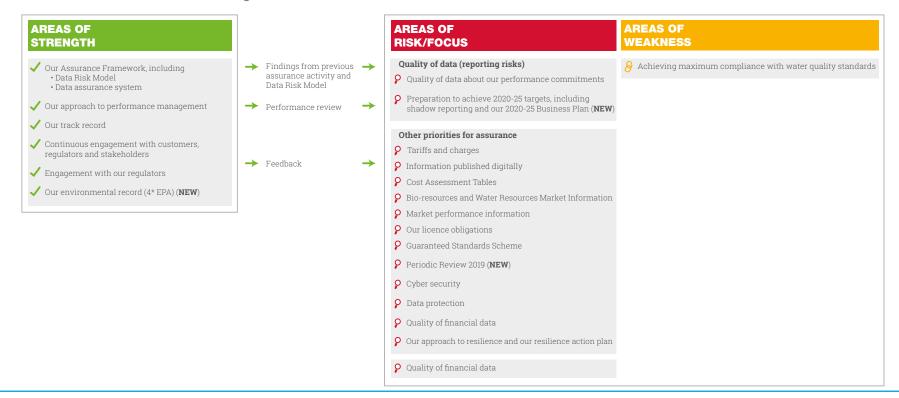
OUR ASSESSMENT OF OUR AREAS OF STRENGTH, RISK AND WEAKNESS

The table below summarises our assessment of strengths, risks and weaknesses related to:

- Providing quality information to customers and stakeholders so they can hold us to account
- Delivering our regulatory obligations and the performance commitments we made to our customers and stakeholders in our 2015-20 Business Plan, and our new 2020-25 Business Plan.

Each area's categorisation depends on their level of risk and their importance to our customers and stakeholders. The strengths and risks are largely the same as those covered in previous plans, and those included for the first time are flagged as (NEW). For more detail on each area, please see the following pages.

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



AREAS OF STRENGTH

OUR ASSURANCE FRAMEWORK

We have a well-established approach to corporate governance and assurance, which is summarised in our Assurance Framework (see next page).

We use the framework to make sure the information and data that we provide to our customers, stakeholders and regulators can be trusted.

Our framework has five tiers of assurance. as follows:

- **Board oversight:** Our Board takes ownership of the governance and assurance arrangements for regulatory submissions and reporting. This is monitored and controlled by the Board's Audit Committee and Risk and Compliance Sub-Committee, with regular reporting by these 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 positive 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. This includes our Internal Audit Team, which is directly accountable to the Audit Committee and provides strong, independent assurance. As such, their remit sits across this tier, and the following one, and
- **Independent assurance:** Our business assurance teams are supplemented with external specialist providers when we require technical and/or independent external assurance.

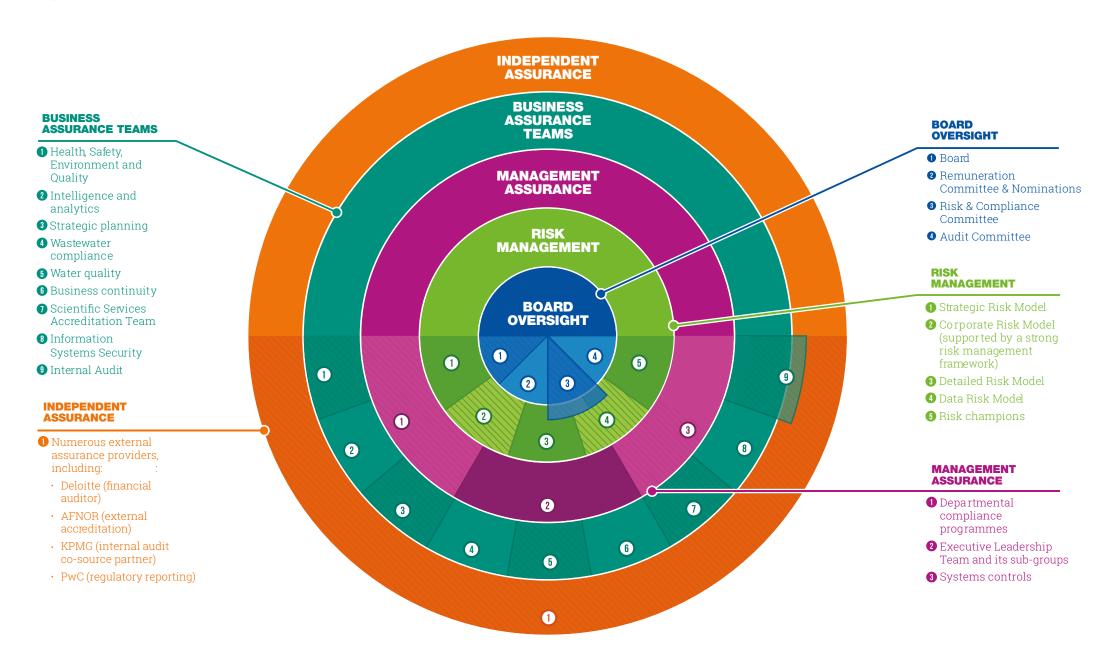
OUR ASSURANCE PLAN

Ofwat awarded us 'Exceeds Expectations' for our 2018 Assurance Plan, which indicates that Ofwat placed a good degree of trust and confidence in us.

Ofwat no longer publish assurance assessments, but continue to scrutinise and challenge our approach to data quality and assurance of our performance reporting. They will do this through spot checks, deep dives and requiring companies to address data inaccuracies and gaps.

This year, they have assessed the quality of information included in our Business Plan. including information on our performance since 2015. Through new board leadership principles, Ofwat are also scrutinising what our Board is doing to ensure accurate and accessible information is provided about company performance.

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 our reputation.
- 2. Applying checks, 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. They also inform the choice of assurance provider for each item of data, i.e. our Internal Audit Team or external independent assurance.

We want to make sure we use processes that continue to quality assure the production of 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 at a high standard, so that we can put 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 on confidence grading, where they differ to those 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 Annual Performance Report (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 (PCs, or service levels) that our customers and stakeholders expect - in particular the PCs we set out in our 2015-20 and 2020-25 Business Plans.

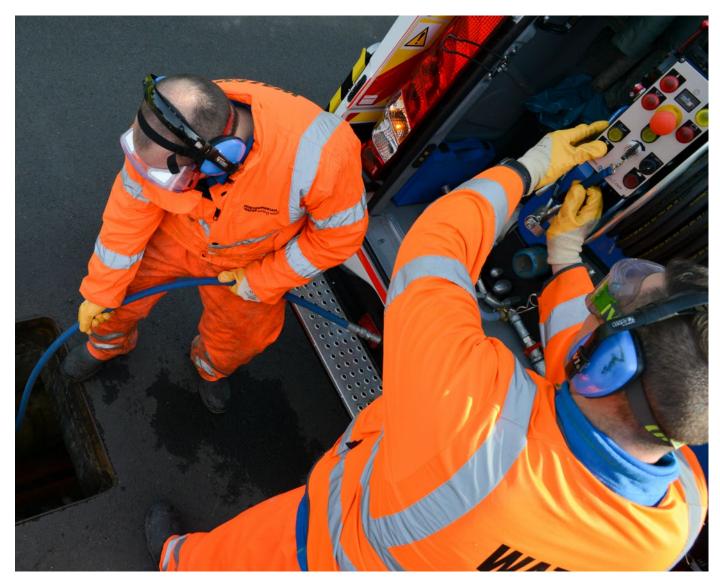
We have a robust approach to performance management, which is centred on our company scorecard. This is used to track performance against our PCs, alongside other key measures like employee engagement.

Our scorecard is reviewed monthly by our Executive Leadership Team, and also at Board meetings. It is communicated throughout the company via team briefings every two months, giving all our employees a clear understanding of our current performance and their role in meeting our targets. This enables action plans to be initiated quickly if performance in any area starts to deteriorate.

This ongoing performance review is used to identify areas of risk and weakness in this assurance plan. Targets are set annually which reflect the commitments made in our Business Plan, and also take account of how we compare against other companies' performance.

Effective benchmarking is only possible if robust comparative information is available. We have taken an active and leading role in the development of the industry's strategic dashboard - Discover Water. The dashboard makes it easy for customers, stakeholders and regulators to compare the performance of water companies in England and Wales.

We take information from Discover Water and publish it on our own websites. We also report on 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 Northumbrian Water publication here and our Essex & Suffolk Water publication here



OUR TRACK RECORD

Another important element of maintaining trust and confidence is our track record. In addition to focussing on meeting our performance commitments, we are recognised by independent organisations for exceptional performance more generally, including:

- **World's Most Ethical Company List (2020)** We are the only water company in the world, and one of just four UK based companies. to be on this list. It's the ninth time we have received this global recognition from the Ethisphere Institute:
- **Sunday Times Best Companies List (2019)** We achieved 19th place in the Top 25 Best Big Companies to work for. This was based purely on feedback from our employees;
- **Customer Initiative of the Year (Utility** Week. 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 (Utility Week, 2019) for our Water Poverty Eradication Modelling. This innovative project is using big data to support our goal of eradicating water poverty across our operating areas by 2030;
- **British Water supply chain top water** company (2019) for the eighth time in nine years, we were voted the UK's top water company by suppliers:
- **Competent Operator Scheme (2019)** This national accreditation from Energy and Utility Skills was for securing their strict standards for water quality operations;

- **Water Industry Achievement Awards** Company of the Year (2018) Judges were impressed by our work and performance on minimising supply interruptions and sustainable drainage;
- **Transformation and Innovation Award** (Utility Week, 2018) with judges highlighting our "culture in which innovation is everyone's job" and giving special mention to our Innovation Festivals:
- IT Initiative of the Year (Utility Week, 2018) for the implementation of our new customer billing system, which modernised and improved the way we support and service our customers' accounts:
- **Leading Utilities of the World (2018)** In October this year we joined this network of the world's most forward-thinking water and wastewater utilities, as defined by the network's 14 distinct innovation areas. Members represent the gold standard of utility innovation and performance throughout the developed world's water sector:
- Business in the Community (2018) The judges said we are putting responsible practices at the core of our business, and are helping create healthy communities with successful businesses at their heart:
- Living Wage Employer (2017-18) We are accredited by the Living Wage Foundation, reflecting our belief that a hard day's work deserves a fair day's pay;
- The Royal Society for the Prevention of Accidents (RoSPA) (2017-18) We were recognised for our well-developed health and safety management systems and our culture

- and commitment to the wellbeing of not only employees but all those who interact with us;
- **Green Apple Environment Awards for Environmental Best Practice (2017)** We were recognised for the effective strategy. approach and results of our Every Drop Counts campaign, which encourages customers to save water, and
- The British Quality Foundation UK Excellence Award (2018) The judges awarded us the UK Excellence Award for our positive impact on the world, through improving and advancing the economic, environmental and social conditions in the communities we serve

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.



OUR ENVIRONMENTAL RECORD (NEW)

In July 2019, we were named by the Environment Agency as the only water and wastewater company in the UK to achieve four stars in our Environmental Performance Assessment. We are now leading the sector in how we care for the environment, which includes leading performance in minimising pollution of rivers and coastal waters. Our 2019 environmental Performance Commitments will be published in July 2020, and have committed to significantly reducing our carbon emissions in our 2020-25 Business Plan, to net zero by 2027.

CONTINUOUS CUSTOMER AND STAKEHOLDER ENGAGEMENT

We continuously 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 two million 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 our customers' priorities.

We also 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:
- Our **Water Forum** (our independent Customer Challenge Groups);
- The Consumer Council for Water (**CCWater**):
- Ofwat:
- The Drinking Water Inspectorate (**DWI**), and
- The Environment Agency (**EA**).

The Water Forum provides independent assurance to Ofwat on the quality of our customer service (annual reporting), our customer participation and engagement; our work in communities, and regarding the environment and sustainability.

Feedback from customers and stakeholders is used to inform this Assurance Plan.

ENGAGEMENT WITH OUR REGULATORS

We have a system in place to capture, log and respond to all regulatory communications, as well as an internal team that monitors and coordinates responses to information requests and other correspondence from our regulators. This team identifies the right internal experts to liaise with, who then deliver a high quality, timely response. This process is overseen by a senior manager or director.

All feedback, publications, notices, consultations, determinations and responses from our regulators are logged and stored on our company systems, and 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, or 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 continue to focus on in Our Assurance Plan. The risks are largely the same as those covered in previous plans, and those 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 have to pay 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 customers' and stakeholders' confidence in us.

To mitigate this risk, data associated with each of our measures of success will receive risk-based assurance, as detailed in this plan. Any penalties and rewards will be calculated in accordance with the applicable Periodic Review (PR) methodology (PR14 for performance during

2014-19 and PR19 for 2020-25). This is subject to robust assurance, involving internal and external audit review, including our Water Forum.

PREPARATION FOR DELIVERING OUR 2020-25 PLAN (NEW)

We have some extremely stretching performance targets for 2020-2025, and are starting work early to develop our plans to achieve them. Some of our ambitious goals that these targets support include achieving zero water poverty by 2030 and net zero carbon emissions by 2027.

We also aim to drastically increase the identification of customers who would benefit from our **priority services**, such as passwords to protect customers against bogus callers, and bottled water deliveries in emergencies.

Our Business Plan defines the optimum mix of activities, including investing in new assets and changing the way we operate our existing assets.

We will also, where appropriate, work with our customers to improve customer service, change customer behaviour and develop new and innovative ways of working.

We will assure the data that we are preparing to support the delivery of our business plan. Starting this year, we will report on some new areas of performance. For example, our new flooding measures will require a lot of scrutiny in order to refine their definitions. We will elaborate on the assurance of these new measures in next year's Assurance Plan.

BUSINESS PLAN SHADOW REPORTING

Companies have been working together to develop consistent definitions and reporting guidance for various metrics. This is to inform the setting of Performance Commitments from 2020 onwards

These metrics include:

- Leakage;
- Supply Interruptions;
- Mains Bursts;
- Unplanned Outage;
- Per Capita Consumption;
- Risk of severe restrictions in a drought;
- Internal sewer flooding incidents;
- External sewer flooding incidents;
- Sewer Collapses;
- Risk of sewer flooding in a storm;
- · C-MeX (2019-20 reporting only), and
- D-MeX (2019-20 reporting only).

Information has been collected alongside the Annual Performance Report since 2017 through "shadow" (i.e. "unpublished") reporting. This data has been assured to the same degree as other regulatory reporting areas.

Companies are expected to demonstrate full compliance with the new reporting guidance before the end of March 2020, in order to start reporting this information to the regulator from April 2020.

A shadow reporting year has been introduced for C-MeX and D-Mex (customer and developer satisfaction measures), which will have run from 1 May 2019 to 31 March 2020.

TARIFFS AND CHARGES

We want water and wastewater services to be affordable for all our 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 every January and February. When we change our charges, we follow the rules set by law, and those set by Ofwat.

We have a well-established process for producing and approving our tariffs and charges schemes. This ensures that we do not risk a charging error, which could impact our customers. Our timetable includes deadlines for producing our charges, assurance from our Internal Audit Team and external assurance experts, and dates for review and approval by our Charges Steering Group and Board.

Our charges incorporate our social tariffs, which are **discount schemes** for customers who are genuinely struggling to pay their water and wastewater bills. Our ambitious goal is to achieve zero water poverty in our areas by 2030.

We appreciate that the finances and ownership of water companies have been discussed in the news this year. For a full explanation of our ownership model and how our finances work, please see the **Our Finances Explained** document.

INFORMATION PUBLISHED DIGITALLY

Our customers and stakeholders look for information on our websites. We have now designed an improved governance framework for our new websites, which were built in 2019.

The build was overseen by our Think Digital Steering Group. Our Internal Audit team worked with this group to create a clear process for how we assure the quality of key information posted on the website. This includes having named owners for all information, set dates for when information goes live and expires, and regular reviews of information to ensure it continues to be accurate.

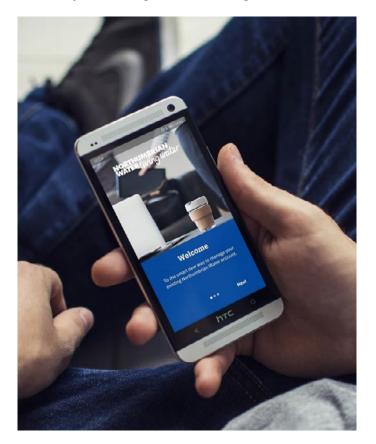
COST ASSESSMENT TABLES

Since 2016, we have provided cost assessment tables to our water regulator, Ofwat. These cover all aspects of performance, including financial and operational areas. Ofwat uses this information to determine their cost models for reasonable and efficient costs they can allow the whole water industry. Their assessment of efficient costs is an important way that they set price controls.

Our governance and assurance of the cost assessment tables follows the same process as our **Annual Performance Report** (APR).

As part of our PR19 business planning process, we needed to resubmit asset data about our sewage pumping stations' capacity. Further assurance was applied to the resubmitted data.

In 2020-21. PwC and our internal audit team will check the data we report, testing the reported data against the source data to verify that it's been appropriately measured, recorded, collated and reported. Testing will include both the accuracy and completeness of reported data.



BIORESOURCES AND WATER RESOURCES MARKET INFORMATION

The requirement for us to submit cost assessment tables was introduced by Ofwat in 2017/18. Ofwat uses the tables to develop its cost models.

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

These are relatively new requirements, so are included as areas of risk. Our Internal Audit Team continues to work with our bioresources and water resources teams to improve information.

As part of each Periodic Review process, we produce Water Resources Management Plans (WRMPs), in which we prepare water supply and demand forecasts to demonstrate that we have an efficient, sustainable, secure supply of water for a 40-year planning period for both of our operating areas.

The WRMPs are prepared following DEFRA's Water Resources Management Plan (England) Direction, DEFRA's Guiding Principles for Water Resources Planning, and the Environment Agency's (EA) Water Resources Planning Guideline.

All components of the water supply and demand forecasts, including climate change scenarios, have been prepared using methods recommended in the Water Resources Planning Guideline, and agreed with the EA.

The key approach, assumptions and strategy are approved by the Board, and each piece of data is provided by someone of appropriate skill and experience, peer reviewed internally, and externally assured.

Our approach has been validated by DEFRA and the EA, with the Secretary of State approving our WRMPs for publication.

MARKET PERFORMANCE FRAMEWORK

The Water Act 2014 set out the legal framework for the opening of the competitive non-household retail market. Market Operator Services Ltd (MOSL) was established in 2015 as a not-for-profit company to operate, develop and design this new market.

The market performance framework monitors how retailers and wholesalers perform. Market and operational performance metrics are collected by MOSL. 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, and as such has been identified as a risk for us. Our Internal Audit Team is working with our Wholesale Team to assure our reporting processes.

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

- The duties and obligations covered by relevant legislation;
- Who owns and is responsible for each of the obligations;
- A risk assessment for each duty or obligation;
- Documentation of the policies and procedures we rely on to ensure compliance, and
- The governance of these policies and procedures.

GUARANTEED STANDARDS SCHEME

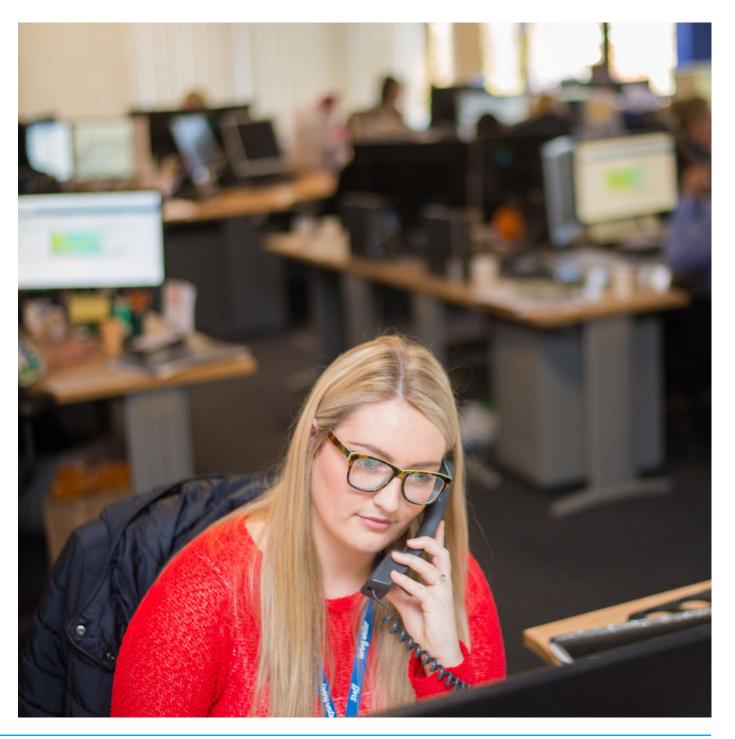
We believe world class customer service is about getting it right first time, every time. We must meet certain standards by law, but aim to improve on many of these and include others that we believe demonstrate an unrivalled customer experience.

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 to you contains all our guaranteed standards, including those required by legislation, as a minimum.

Any miscalculation of GSS payments 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 wasn't enough. We acted on Ofwat's recommendations and made changes to our GSS payments from 1 October 2019.

We are currently reviewing our system for enhanced GSS payments with employees and our customers, to ensure that these are fit for the future.

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



CYBER SECURITY

Customers have indicated that they would like greater awareness of how we protect our systems and information from cyber-attacks. We take cyber security extremely seriously and are committed to making sure we manage our systems securely.

As a critical national infrastructure company, we have a responsibility to adhere to the **Networking and Information Systems Directive** to ensure that our systems that control the production and distribution of water are secure.

The National Cyber Security Centre gives us updates on cyber security risks, the Centre for Protection of National Infrastructure updates us on terrorist activity, and the MetOffice gives us proactive weather updates because we are a Category 2 Responder under the Civil Contingencies Act.

To reduce the risk to our cyber security, we will make sure that:

- Information is protected to an appropriate level, based upon the impact of its disclosure, modification or loss:
- We comply with all relevant information management legislation, regulations and standards:
- Employees are trained about their responsibilities for cyber security, and that we expect them to take their legal and moral role seriously;
- We manage the security of all computer systems and supporting infrastructure, through appropriate technical security controls;
- We control information access through user names, passwords and system permission levels;

- Security is an integral part of information systems, including segregation of duties, change control procedures and approval processes;
- Information security events and weaknesses are formally managed, to allow timely corrective action to be taken;
- We have processes to encrypt any appropriate data;
- We protect critical information systems from the effects of major failures or disasters, by using appropriately resilient infrastructure;
- Redundant equipment, media and papers are disposed of securely;
- A robust cyber security culture is embedded right across the business, and led from the top, and
- Our Board reviews and approves our cyber security policy.

Our information security policy states also that: "We prevent unauthorised access and damage to both business premises and information through physical controls like barriers and access cards. Buildings and equipment are appropriately protected from physical threats, and redundant equipment, media and papers are disposed of securely".

DATA PROTECTION

Information about our customers and employees (personal data) is one of our most valuable assets. Whenever we use personal data, we are committed to protecting everyone's privacy rights. Respecting those rights, and meeting our obligations under the **General Data Protection Regulation (GDPR)** is essential if we are to maintain our reputation as an ethical and trustworthy company. To reduce the risk

associated with this area, we will make sure that we:

- Are ethical, fair, transparent and lawful when we use personal data;
- Only use personal data when we have a specified, explicit and legitimate reason;
- Have the personal data we need, but no more, to make the right decisions;
- Always protect personal data in line with our Information Security Policy, and follow best practice to prevent its unauthorised use, disclosure, damage, or loss;
- Do not transfer personal data outside the European Economic Area, unless privacy rights are adequately protected in the recipient territory;
- Keep personal data accurate and up-to-date;
- Only keep personal data for as long as we need it, then disposing of it promptly and securely afterwards, and
- Allow everyone access to their personal data when they wish, not use it in ways that may cause inappropriate harm or distress, and respect their rights under the GDPR.

For more information see our **privacy web page**.



QUALITY OF FINANCIAL DATA

The following will be externally assured, under our Assurance Framework:

- Annual Report and Financial Statements;
- Statement of Sufficiency;
- · Long Term Viability Statement, and
- Any additional regulatory information.

ENSURING RESILIENCE

As well as meeting our Performance Commitments (PCs) in the short term, another important aspect of maintaining trust and confidence is ensuring that we can maintain service levels for customers, both in the long term, and during unexpected events. We call this resilience.

Our customers tell us that resilience means a strong, reliable and affordable service that will stand the test of time, cope with change and bounce back from difficult situations.

We manage large and complex infrastructure networks. If we fail to invest in their resilience, our customers and the environment could experience significant impacts. We will continue to deliver reliable and resilient services by anticipating change, planning ahead, and making the right long-term decisions about how to run our business

We will also ensure that we comply with customer and regulator expectations on resilience. This means making sure that robust governance and processes are in place to allow us to deal effectively with short-term shocks to our systems and operations, as well as planning for the long term.

To provide regional resilience leadership, we will be the first water company to appoint a Chief Resilience and Sustainability Officer to manage 'resilience in the round' through our Resilience Framework (see Figure 5 on the next page).

Our Resilience Framework is an effective way to show the interdependency and complexity of our business systems across corporate, financial and operational aspects. It provides a structure for us to achieve resilience in the round by taking an integrated and systematic approach to understanding risk and resilience challenges across all of our business areas.

The concentric circles in the framework illustrate lines of defence between external threats and the challenges to resilience, and our ability to maintain delivery of our services. The outer ring represents our approach to corporate resilience through managing corporate risk. We view this as the first line of defence, and as being essential to good operational and financial resilience. The inner rings show our approach to managing operational and financial risks both now and into the future.

To be resilient in the round, each of the areas in our Resilience Framework must contribute to resilience.

Since drafting our new plan for 2020-25, we've developed a Resilience Action Plan to strengthen our approach further.

To assess resilience within our business, our Risk & Compliance Committee regularly review current and emerging risks and challenges to our business systems, critical assets and operational processes. We record these risks in our Corporate Risk Register and publish the principal risks in our **Annual Report and Financial Statements**. This ensures that we are open and transparent with customers regarding the risks we face and manage each day.

The success of our resilience approach has been illustrated by the robustness of our services during recent events:

- During the very dry summer of 2018, we maintained a strong water resource position across both our regions which meant that we did not need to consider introducing supply restrictions for customers. Our forward plans for managing water resources indicate that none of our customers are at risk of experiencing severe supply restrictions during a 1 in 200 year drought, and
- Our approach to planning for extreme events resulted in minimum disruption for our customers during the 'Beast from the East' extremely cold weather event earlier in 2018.

More detail can be found in our **Business Plan**.

WE ARE RESILIENT AND PROVIDE CLEAN **DRINKING WATER AND EFFECTIVE SEWERAGE SERVICES; NOW AND FOR FUTURE GENERATIONS**

- Resilient wastewater services
- 2 Resilient water services
- Output
 Understanding customer priorities
- 4 Business continuity and recovery
- 5 Planning for resilient services in the long-term

WE TAKE CARE TO PROTECT AND **IMPROVE THE ENVIRONMENT IN EVERYTHING WE DO, LEADING** BY EXAMPLE

- 6 Resilient water environment and ecosystems
- Sustainable and efficient use of energy
- Sustainable management of our wastes

OUR FINANCES ARE SOUND, STABLE AND ACHIEVE A FAIR BALANCE BETWEEN CUSTOMERS AND INVESTORS

- 9 Affordable services for customers
- 10 Long-term financial planning
- 11 Financial monitoring and reporting

WE ARE AN INNOVATIVE AND EFFICIENT COMPANY

- 12 Intelligent asset management
- 13 Innovation and new technology
- 14 Enhanced cyber security and data protection



WE WORK IN PARTNERSHIP WITH COMPANIES AND ORGANISATIONS TO ACHIEVE THE GOALS THAT ARE MOST IMPORTANT TO OUR CUSTOMERS

- 15 Integrated Approach
- 16 Reliable supply chain
- 17 Integrated catchment-based approach
- 18 Co-creation with our partners

WE ARE PROUD TO SUPPORT OUR COMMUNITIES BY GIVING TIME AND RESOURCES TO THEIR IMPORTANT CAUSES

19 Building successful and resilient economies within our regions

OUR PEOPLE ARE TALENTED, COMMITTED AND INSPIRED TO DELIVER GREAT SERVICES TO OUR CUSTOMERS

- Providing a healthy and safe place to work
- 21 Our people acting in line with our values
- 22 Providing a great place to work

AREAS OF WEAKNESS

We have robust governance, assurance and risk management arrangements, which cover operations, planning and regulatory reporting. Our processes highlight details 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 one area of weakness associated with meeting our Performance Commitments this year. This is achieving maximum compliance with drinking water quality standards. This section details this area of weakness, and the arrangements to strengthen our performance.

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. We routinely score very high levels of compliance - greater than 99 9%

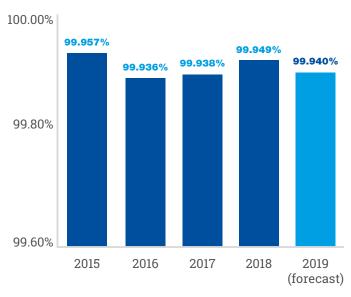
Each year, a small number of water sample test failures impact on our performance. Of the 80,000 or so tests carried out each year, a small proportion can fail. Both the type and number of failures are considered in the compliance calculation. Therefore, it is possible to reduce the number of failures, but still achieve the same or worse compliance, depending on the types of failures that have occurred

None of these failures is a risk to health because safeguards are built into our strict standards. Our best performance was in 2015, with 29 failures and compliance of 99.957%.

Our Performance Commitment (PC) for this outcome is measured as a three year average. The target has tightened for the 2017-19 average, and our forecast performance for 2019 now means that it's not possible for us to achieve this more stringent target. We will therefore have to pay a financial penalty.

We are committed to improving water quality. However, water quality performance is also influenced by weather, operational issues like damage to our network, and customer plumbing.

Figure 6: Number of drinking water quality compliance failures.



We work very hard to deliver improvements to our treatment works, our distribution network, and keeping our water close to customers' properties healthy by regularly flushing the system.

Our current improvements include managing the land surrounding where we abstract water from, and ensuring we take the right amount of water from each source. This ensures we take the best quality raw water for treatment. We are also investing £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 (WTWs) in north Northumberland, to help improve drinking water quality for more than 25,000 people;
- Refurbishing our WTWs, including £60m to modernise our Horsley WTW, which supplies Tyneside, and
- Abstraction management projects in Essex, to reduce the risk of water samples failing drinking water quality tests because of pesticides in the environment.

We are also removing iron pipes from our networks, 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. From 2015 to 2019, these network improvements will have cost £59m.

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 network is only 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 therefore have a programme of continuous improvement for our treatment and network teams.

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 optimise the amount of phosphate we add at our treatment works. Phosphate forms a protective mineral layer within plumbing systems, and therefore reduces how much our water comes into contact with metals like lead or nickel, which are often found in older or refurbished plumbing systems. We also correct the acidity of our drinking water at most of our northern water treatment works Water Treatment Works (WTWs) to reduce

the risk of corrosion of our water mains, and stabilise our water's chemistry. This reduces the amount of iron and lead in our drinking water. We are enhancing this capability at four of our northern WTWs.

We will continuously focus on stabilising the amount of acidity, phosphate and chlorine in our drinking water, to ensure that we consistently add the right amount of chemicals to keep it safe and clean while it moves through our network and into our customers' homes.

We target our cleaning of water mains by flushing areas where we can see minor deteriorations in drinking water quality. This will reduce the risk of positive tests for metals, which adversely affects our Compliance Risk Index (CRI) score.

From 2020, we will use the DWI's Compliance Risk Index measure as our Performance Commitment. The DWI is measuring water companies against the new measure now, and has stopped other reporting of drinking water quality compliance. All the work described above, along with our plans for 2020-25, will enable us to achieve upper quartile (top 25%) Compliance Risk Index performance. This new measure is aimed at giving a better indication of risks to meeting water quality standards.

Company level information is available from the DWI website **here**.

OUR RECENT ASSURANCE ACTIVITY AND PLAN FOR FUTURE ASSURANCE

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 technical 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 2019/20. The tables also detail our planned assurance activity that will apply to the reporting period 2020/21.



QUALITY OF DATA RELATING TO MEASURES OF SUCCESS AND PERFORMANCE COMMITMENTS FOR 2015-20

Areas of risk	Assurance activity completed during 2019/20	Planned assurance activity for 2020/21
DRINKING WATER QUALITY This is our overall drinking water quality compliance based on 39 water quality parameters determined by the Drinking Water Inspectorate.	 Successful external assessment of procedures and UKAS accreditation retained. Internal HSEQ Team review of water quality QA procedures. PwC performed independent assurance procedures in relation to specific Drinking Water Quality annual performance information. The independent assurance report from PwC, including their assurance opinion, can be found in our 'Data Assurance Summary' which can be viewed here. 	 Robust quality assurance procedures audited by our QA Team. External assessment of above processes to retain UKAS certificate. PwC to confirm understanding of the reporting process for this area by performing interviews, walkthroughs and evidence inspection. PwC will ascertain how regulatory guidance has been interpreted and assess whether it is appropriate. Test procedures carried out by PwC will agree data back to underlying systems as well a 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.
INTERRUPTIONS TO WATER SUPPLY This measure is calculated using the total duration of all water supply interruptions of more than three hours, divided by the number of properties the company supplies, to give an average interruption time in minutes and seconds per year. The measure includes planned interruptions, unplanned interruptions and interruptions caused by the actions of third parties, for example resulting from a power cut. The measure will be assessed on the company's regulatory year performance.	 Our Internal Audit Team successfully carried out a system audit and reviewed final regulatory year end performance data. There were no material issues identified. Our Internal Audit Team has also worked closely with the systems reporting team to make sure we are compliant with new regulatory guidance due to be introduced from 1 April 2020. 	 Our Internal Audit Team will confirm understanding of the reporting process for interruptions to supply by performing interviews, walkthroughs and evidence inspection. Our Internal Audit Team will ascertain how regulatory guidance for reporting interruptions to supply has been interpreted and assess whether it is appropriate. 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. Our Internal Audit Team will also audit progress against revised reporting guidance due to be introduced from 1 April 2020. The review in 2019/20 will assess whether we are on track to meet 2020 targets (glide path approach to meeting future reporting requirements). See also 'Shadow Reporting' on page 14.
POLLUTION INCIDENTS This measure is the number of category 3 pollution incidents attributable to our operations. It includes the number of category 3 pollution events from a discharge or escape of a pollutant from the company's water and sewerage assets affecting rivers or coastal waters.	 PwC performed independent assurance procedures in relation to specific pollution incidents and annual performance information. The independent assurance report from PwC, including their assurance opinion, can be found in our 'Data Assurance Summary' which can be viewed here. 	 PwC to confirm understanding of the reporting process for pollution incidents by performing interviews, walkthroughs and evidence inspection. PwC will ascertain how regulatory guidance for pollution incidents have been interpreted and assess whether it is appropriate. Test procedures by PwC will agree data back to underlying systems as well a 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.
SEWER FLOODING Includes internal and external flooding and repeat flooding. These measures track the number of properties that have been affected by an escape of sewage from the company's sewerage network.	 Our Internal Audit Team carried out a system audit and successfully reviewed final year end performance data. No inconsistencies were identified in the data. Our Internal Audit Team also reviewed progress to meet future reporting requirements due to be implemented from 1 April 2020. This review confirmed progress is on track to fully comply. 	 Our Internal Audit Team will confirm understanding of the reporting process for sewer flooding by performing interviews, walkthroughs and evidence inspection. Internal Audit will ascertain how regulatory guidance for sewer flooding has been interpreted and assess whether it is appropriate. 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. Our Internal Audit Team will audit progress against revised reporting guidance due to be introduced from 1 April 2020. The review in 2019/20 will assess whether we are on track to meet 2020 targets (glide path approach to meeting future reporting requirements).

Areas of risk	Assurance activity completed during 2019/20	Planned assurance activity for 2020/21
SATISFACTION WITH TASTE AND ODOUR OF TAP WATER This is the number of complaints received from customers because they are dissatisfied with the taste or odour of their tap water. The measure matches Drinking Water Inspectorate reporting guidance.	Our Internal Audit Team found no material issues or exceptions in the data reported from the recording system.	 Our Internal Audit Team will confirm understanding of the reporting process for this area by performing interviews, walkthroughs and evidence inspection. Internal Audit will ascertain how regulatory guidance has been interpreted and assess whether it is appropriate. 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.
DISCOLOURED WATER COMPLAINTS This is the number of complaints received from customers because they are dissatisfied with the appearance of their water because it is discoloured; described as black, orange or brown.	Our Internal Audit Team found no material issues or exceptions in the data reported from the recording system.	 Our Internal Audit Team will confirm understanding of the reporting process for this area by performing interviews, walkthroughs and evidence inspection. Internal Audit will ascertain how regulatory guidance has been interpreted and assess whether it is appropriate. 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.
SEWER COLLAPSES This measure counts the number of collapsed sewers that we experience. We report separately on collapses relating to assets which transferred into water company ownership in October 2011.	Our Internal Audit Team found no material issues or exceptions in the data reported from the recording system.	 Our Internal Audit Team will confirm understanding of the sewer collapses reporting process by performing interviews, walkthroughs and evidence inspection. Internal Audit will ascertain how regulatory guidance for sewer collapses has been interpreted and assess whether it is appropriate. 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.
SEWAGE TREATMENT WORKS DISCHARGE COMPLIANCE This is a measure of the effectiveness of our Sewage Treatment Works to treat wastewater to an appropriate standard before it is returned to the environment, as stipulated in Environment Agency consents.	 PwC independently assured our specific Sewage Treatment Works Discharge Compliance and annual performance information. The independent assurance report from PwC, including their assurance opinion, can be found in our 'Data Assurance Summary' which can be viewed here. 	 PwC to confirm understanding of the reporting process for this area by performing interviews, walkthroughs and evidence inspection. PwC will ascertain how regulatory guidance has been interpreted and assess whether it is appropriate. Test procedures by PwC 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. In light of the investigations by Ofwat into Southern Water's failings in relation to their management, operation and performance of its wastewater treatment works, we are confident that the strong safeguards in place at NWL would prevent any such misconduct occurring here. Our Internal Audit Team will conduct assurance work in respect of current Wastewater Treatment Works sampling regime to ensure compliance.
BATHING WATER COMPLIANCE This is the number of designated bathing waters that meet the regulatory 'sufficient' standard based on the results of the independent testing of seawater by the Environment Agency during the bathing water season.	No issues were identified when verifying the final designated bathing water numbers against those reported independently by the Environment Agency.	No additional assurance is planned at this stage by our Internal Audit Team other than to check the final designated bathing water numbers as reported by the Environment Agency.

Areas of risk	Assurance activity completed during 2019/20	Planned assurance activity for 2020/21
PROPERTIES EXPERIENCING POOR WATER PRESSURE The measure is the number of properties regularly experiencing water pressure below the minimum standard.	 PwC independently assured our data on properties experiencing poor water pressure and annual performance information. The independent assurance report from PwC, including their assurance opinion, can be found in our 'Data Assurance Summary' which can be viewed here For 2019-20 reporting, assurance for this area of risk will revert back to our Internal Audit Team. 	 Our Internal Audit Team will confirm understanding of the poor water pressure reporting process by performing interviews, walkthroughs and evidence inspection. Internal Audit will ascertain how regulatory guidance for poor water pressure has been interpreted and assess whether it is appropriate. 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.
WATER MAINS BURSTS This is the annual number of water mains bursts and is determined by the number of completed repairs to burst water mains.	Our Internal Audit Team found no material issues or exceptions in the data reported from the recording system.	 Our Internal Audit Team will confirm understanding of the water mains bursts reporting process by performing interviews, walkthroughs and evidence inspection. Internal Audit will ascertain how regulatory guidance for water mains bursts has been interpreted and assess whether it is appropriate. 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.
CUSTOMER SURVEYS This includes surveys undertaken by CCWater and other independent bodies. A number of surveys are conducted that ask customers independently about their overall satisfaction with the service the company provides. Overall customer satisfaction. Keeping customers informed. Domestic customer satisfaction (Net Promoter Score). Value for money (water services) Value for money (sewerage services).	Assurance checks by our Internal Audit Team confirmed customer survey numbers matched back to source data provided by our external accredited research providers.	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 (e.g. CCWater).

Areas of risk	Assurance activity completed during 2019/20	Planned assurance activity for 2020/21
GREENHOUSE GAS EMISSIONS This is a measure of the annual amount of operational greenhouse gas emissions the company produces based on the Carbon Accounting Workbook. It is reported in kilotonnes of carbon dioxide equivalent (ktCO2e). From April 2019, there is a requirement for all larger UK companies to report publicly on their global energy use and carbon emissions within their Directors' Report. Known as Streamlined Energy & Carbon Reporting (SECR), this new requirement has been implemented by the Department for Business, Energy and Industrial Strategy (BEIS).	Our Internal Audit Team found no material issues or exceptions in the data reported from the recording systems to produce our overall greenhouse gas emissions information.	 Our Internal Audit Team will confirm understanding of the reporting process by performing interviews, walkthroughs and evidence inspection. Internal Audit will ascertain how the guidance has been interpreted and assess whether it is appropriate. 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. We are working with our external partners to ensure we will be compliant with SECR reporting requirements from 1 April 2019 onwards.
LEAKAGE The measure is based on the volume of water leaking from the company's water supply assets. The annual average is applied to give a figure for mega litres per day (MI/d). It includes any uncontrolled losses between water treatment works and customers' internal stop taps. It does not include customers' internal plumbing losses.	 PwC performed independent assurance procedures in relation to leakage incidents and annual performance information. The independent assurance report from PwC, including their assurance opinion, can be found in our 'Data Assurance Summary' which can be viewed here. PwC also performed enquiries with responsible teams to gain an understanding of our revised approach to leakage from 1 April 2020. 	 PwC will confirm understanding of the leakage reporting process by performing interviews, walkthroughs and evidence inspection. PwC will ascertain how regulatory guidance for leakage has been interpreted and assess whether it is appropriate. Test procedures by PwC 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.
OUTCOME DELIVERY INCENTIVE CALCULATION Calculation of rewards or penalties for performance commitments which have financial incentives attached.	• Our Internal Audit Team verified that the outputs from our ODI model were consistent with Ofwat Table 3a. This included a review of the potential penalty / reward areas. No material issues were identified.	 For reporting year 2019/20, we will include final penalty/reward calculations for the full period 2015-16 to 2019-20. We will engage PwC to provide assurance of the calculation inputs and outputs from our internal ODI model and ensure completeness and consistency with Ofwat Table 3a.
ANNUAL ENVIRONMENTAL REPORT (OUR CONTRIBUTION REPORT) The company is committed to publishing an independent annual review of its environmental performance which was originally undertaken by The Corporate Responsibility Groups (CRAGs). Full responsibility was formally transferred to our Water Forum in 2016 which ensured an independent review of our social and environmental activity is maintained going forward.	 In their roles to represent customers, the Water Forum were able to challenge our thinking and be actively involved in seeing and interacting with many examples of our environmental, social and economic projects and initiatives. The Water Forum position statement is described in our annual report called "Our Contribution" which can be viewed here. 	 The Water Forum will continue to be actively involved and seek to understand and constructively challenge our plans. The Water Forum will review our activities and performance and report back on them in our environmental, social and economic impact report (known as "Our Contribution"). Our Internal Audit Team will also provide verification on data included in the report to ensure consistency across our external publications.

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

Areas of risk	Assurance activity completed during 2019/20	Planned assurance activity for 2020/21
In September 2018, companies published their business plans for the 2020-25 period. These set out their proposed service and investment levels for the period. Our business plan contains a new suite of performance commitments and outcome delivery incentives, which will replace the current set of 2015-20 performance commitments. Many of the performance commitments contain metrics that are included within our existing measures, however, there are also a number of new metrics and measures that we will be required to deliver and to report our progress against. To ensure that we are able to report future performance against these new metrics in a reliable, accurate and transparent way, we will implement a process alongside our existing reporting processes to ensure we are ready for 2020-25 reporting from the start.		 This is a new area of risk for inclusion in our Draft Assurance Plan. We want to incorporate our new performance commitments for 2020-155 into existing regulatory reporting processes. It will be important that clear guidance for the measures are in place and understood at all levels of the business. Any issues associated with production or delivery of the performance commitments needs to be independently reviewed and action plans put in place to resolve recommendations made from this process. Both PwC and our Internal Audit Team will confirm understanding of the new guidance and new processes to ensure we are compliant with reporting of the performance commitments from April 2020.
Companies have been working together, co-ordinated by Water UK and supported by Ofwat, to develop consistent definitions and reporting guidance for a number of metrics to help inform the setting of outcome performance commitments from 2020 onwards. These include: Leakage Supply Interruptions Mains Bursts Unplanned Outage Per Capita Consumption Risk of severe restrictions in a drought Internal sewer flooding incidents External sewer flooding incidents Sewer Collapses Risk of sewer flooding in a storm C-MeX D-MeX Information has been collected alongside APR reporting since 2017 through "shadow" (i.e. "unpublished") reporting and the data has been subjected to the same level of assurance as other regulatory reporting areas. Companies are expected to demonstrate full compliance with the new reporting guidance by the end of March 2020 in order to commence regulatory reporting as from 1 April 2020.	 We have provided assurance for the 'shadow reporting' metrics annually for the period 2016-17 to 2018-19. We have included the metrics in our Assurance Plan for 2019/20 as there is a requirement to be fully compliant with the new reporting guidance which becomes effective from 1 April 2020. Following recommendations made from an initial pilot exercise conducted during 2018-19, a shadow reporting year has been introduced for C-MeX and D-Mex, which will run from 1 May 2019 to 31 March 2020. This shadow reporting year will inform Ofwat on how future reporting will run for 2020-2025. 	 Both PwC and our Internal Audit Team will confirm understanding of the reporting processes for "Shadow Reporting" metrics. This will include performing interviews, walkthroughs and evidence inspection. PwC and our Internal Audit Team will ascertain how regulatory guidance has been interpreted and assess whether it is appropriate. Test procedures 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.

OTHER RISKS

Areas of risk	Assurance activity completed during 2019/20	Planned assurance activity for 2020/21
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. 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.	 Reviews of our tariffs and charges production were followed as per the timetable set out and approval was provided by our Charges Steering Group (CSG) and Board. Assurance checks by an Independent firm of accountants were performed as set out in the tariffs and charges statement. Assurance checks of allowed revenue and charge multiplier inputs by our Internal Audit Team resulted in no exceptions being reported. 	similar approach to previous years with our internal Charges Steering Group (CSG) being responsible for overseeing the charges setting process. • We have engaged Ernst & Young to build a new tariff model incorporating new price controls that we intend to use for 2020/21 tariff setting. The model will be assured by our external partner and the model assumptions reviewed by our CSG.
INFORMATION PUBLISHED DIGITALLY The information we publish on our websites helps to inform our customers and stakeholders of the many services we provide and how we are performing. We want our information to be accurate and reliable and ensure that it is easy for customers and stakeholders to access the documents that they are interested in. As we make some major changes to our websites we will incorporate good governance and assurance procedures as well as making sure that the website content is easy to read and understand for our customers and stakeholders.	Our Internal Audit Team have been actively involved in providing guidance to the project team to ensure appropriate controls and mitigating actions were in place throughout the course of the website development and in readiness for the new website going live in October 2019.	Following the launch of our newly developed websites in October 2019, our Internal Audit Team will provide assurance on the new processes and procedures in place.

Areas of risk

Assurance activity completed during 2019/20

Planned assurance activity for 2020/21

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 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).

- Our audit programmes are assigned to PwC and our Internal Audit team in line with our Data Risk model which helps inform the appropriate assurance provider for each item of data in the regulatory Cost Assessment Tables.
- Both PwC and our Internal Audit Teams confirmed understanding of the reporting processes for their agreed audit programmes by performing interviews, walkthroughs and evidence inspection.
- This was followed by performing test procedures to agree data back to underlying systems and undertaking sample testing to verify that data had been appropriately measured, recorded, collated and reported.
- Confidence grades provide a reasoned basis for us to qualify the reliability and accuracy of the data we publish. It also helps us identify areas where our data is of a high standard and to have action plans in place to improve data where it falls below the standard confidence grade level. For 2018/19, we assigned confidence grades to all non-financial cost assessment data lines. We will work with teams to improve the data going forward where these fall below the standard
- Recommendations made by both our PwC and Internal Audit Teams to improve the quality of the information reported where areas of risk were highlighted are to be monitored through to completion.
- We have assured key asset data in relation to pumping stations, used by Ofwat as cost drivers, which was resubmitted as part of the PR19 process following Ofwat's initial assessment plans.

- Both PwC and our Internal Audit Team will confirm understanding of the reporting process for this area by performing interviews, walkthroughs and evidence
- PwC and our Internal Audit Team will ascertain how regulatory guidance has been interpreted and assess whether it is appropriate.
- Test procedures 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.
- We will follow up on the recommendations made by PwC to improve the quality of the information reported from our asset records where areas of risk were highlighted last year. We anticipate marked improvement in our asset information through our ongoing intelligent asset management (iam) programme. The iam programme aims to help us become consistently leading in asset management by having better quality, more reliable and readily available data so that we can make better, faster and more proactive decisions.
- During 2019/20 improvements have been made in cleansing data from legacy systems. This has also included site surveys to confirm and collect additional information about our assets where gaps exist e.g. capacities, flows etc.
- Our Internal Audit Team are monitoring this progress to help improve the reporting of this data going forward.

BIORESOURCES AND WATER RESOURCES MARKET INFORMATION

In 2015-16, Ofwat carried out analysis and consulted on a regulatory approach designed to promote market development in Bioresources (also known as sludge) and Water Resources activities.

Since then, 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.

- Our audit programme was revised to allow both PwC and our Internal Audit Team to undertake reviews in their respective areas of responsibility for these reporting areas.
- As part of their ongoing programme PwC independently assured our Water Resources Market Information.
- The independent assurance report from PwC, including their assurance opinion, can be found in our 'Data Assurance Summary' which can be viewed here
- Assurance checks of the Bioresources Market Information by our Internal Audit Team found no material issues or exceptions.
- Both PwC and our Internal Audit Team will confirm understanding of the reporting process for Bioresources (Internal Audit) and water resources market information (PwC). This will include performing interviews, walkthroughs and evidence
- PwC and our Internal Audit Team will ascertain how regulatory guidance has been interpreted and assess whether it is appropriate.
- Test procedures 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.

Areas of risk	Assurance activity completed during 2019/20	Planned assurance activity for 2020/21
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. The MPF consists of a number of elements that monitor and report performance against a range of pre-defined standards and timescales. These standards are the Market Performance Standards (MPS) and the Operational Performance Standards (OPS). The MPS measure both retailer and wholesaler performance, whilst the OPS solely measures wholesaler performance. We are required to submit a number of 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.	 Our Internal Audit Team carried out an audit of the key controls and processes in place within our Wholesale Operations and Compliance Teams. This looked at the effectiveness of processing retailer requests and performance reporting to ensure we meet market framework compliance. The findings from the audit were shared with our Audit Committee and recommendations made will be monitored through to completion and reported back to management. Contact was also made with MOSL for clarification on some aspects of the market code. MOSL has subsequently requested information from companies regarding interpretation of some aspects of the market performance standards to help them understand the extent of differences in interpretation. 	 Our focus of assurance will be targeted towards compliance with OPS. Our Internal Audit Team will confirm understanding of the reporting process by performing interviews, walkthroughs and evidence inspection. Internal Audit will ascertain how the guidance has been interpreted and assess whether it is appropriate. 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.
OUR LICENCE OBLIGATIONS As part of our Risk and Compliance Statement we must ensure we have a full understanding of and are meeting all of our relevant statutory license and regulatory obligations. 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.	 Following Ofwat's simplification and modification of all instruments of Appointment, a review of the revised licence and statutory obligations was carried out by our Internal Audit Team. Our revised list of our high/medium risks was updated by our Internal Audit Team and shared with our Executive Leadership Team. 	 Our Internal Audit Team will review the systems and processes in place to ensure obligations are being met. Our assurance process includes review of our high/medium risks by Senior Managers in the business and approval by our Executive Leadership Team members.

Areas of risk Planned assurance activity for 2020/21 Assurance activity completed during 2019/20 GUARANTEED STANDARDS As part of their annual audit programme our Internal Audit SCHEME (GSS) Team carried out a review of GSS compliance. This covers areas such as customer contact, complaints and Customers of water and sewerage companies are supply interruptions. entitled to guaranteed minimum standards of The results from this review highlighted recommendations whether it is appropriate. to improve the service we provide to our customers. These 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. 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.

- were reported to the Audit Committee and agreed actions will be monitored until completion by our Internal Audit Team.
- Our Internal Audit Team will confirm understanding of the GSS reporting processes following implemented recent changes by performing interviews. walkthroughs and evidence inspection.
- Internal Audit will ascertain how GSS guidance has been interpreted and assess
- 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.

CYBER SECURITY

This measure was highlighted by customers that they would like to know more about. This risk already appears on our Corporate 'Risk' register but is also included here to demonstrate our commitment to providing assurance in a very important area.

We take the threat of cyber security extremely seriously and we are committed to ensuring we manage our systems securely.

- Following the introduction of the Network and Information Systems Directive (NIS-D), we have liaised with DWI to enhance the security of our operational infrastructure. Our NIS-D reports have been submitted and reviewed by the DWI. and this remains one of our top priorities going forward.
- The strength of our cyber security across all three domains (technical, people and process) has been enhanced, in line with compliance with ISO27001.
- We have had external audits and independent security testing to assess our cybersecurity. Findings from this process have been risk assessed and acted upon accordingly.
- We continue to place significant focus on employee awareness of cybersecurity, and regularly deliver cyber security training across the entire business.

- We liaise closely with the DWI and National Cyber Security Council (NCSC) to confirm that our strategy and risk mitigation is proportionate to the new and emerging threats we face.
- We will regularly check and test our security controls and educate employees about potential attempts they may face to manipulate them into divulging confidential or personal information.
- We continue to enhance our technical security solutions, including implementing new controls where improvement is identified. Our priorities for enhancing security take into account the ever changing external threats to our business. legislation, and technology landscape.
- We will continue to focus on employee awareness of cyber security. Ensuring all our employees receive robust and up to date training embeds cyber security across the business.

Areas of risk	Assurance activity completed during 2019/20	Planned assurance activity for 2020/21
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.	 Both external audits and independent security testing have been undertaken on our data protection. Findings from these have been risk assessed and acted upon accordingly. We place significant focus on employee awareness, and provide regular data protection training across the entire business. 	 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. Content security tools also 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.
RESILIENCE Resilience is the ability to cope with, and recover from, disruption, and anticipate trends and variability in order to maintain services for people and protect the natural environment, now and in the future.	 We provided Ofwat with our Action Plan for developing and implementing an integrated approach to resilience in August 2019. Given the complex and changing nature of this topic we will also commit to ongoing updates to keep Ofwat informed. Our Action Plan outlines our approach to developing and implementing a systems based approach to resilience. 	 We will progress implementation of our resilience action plan. We intend to appoint a Chief Resilience and Sustainability Officer who will lead on developing and implementing our resilience strategy. Assurance against resilience risks will be strengthened through delivery of our resilience Action Plan. This will be overseen by PA Consulting who will continue to bring independent expertise to this area.

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 2019/20	Planned assurance activity for 2020/21
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 ensure 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.	 Deloitte carried out their audit and reported their findings to our Audit Committee. They produced an unqualified audit opinion which can be found in the Annual Performance Report and Financial Statements on our websites. 	Deloitte will audit and express an opinion on the financial statements in accordance with applicable law and International Standards on Auditing (UK and Ireland). Output Deloitte will audit and express an opinion on the financial statements in accordance with applicable law and International Standards on Auditing (UK and Ireland).
REGULATORY ACCOUNTING STATEMENTS 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: 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.	 Deloitte carried out their audit and reported their findings to our Audit Committee. They produced an unqualified audit opinion which can be found in the Annual Performance Report and Financial Statements on our websites. 	Deloitte will audit and express an opinion on the financial statements in accordance with applicable law and International Standards on Auditing (UK and Ireland). Output Deloitte will audit and express an opinion on the financial statements in accordance with applicable law and International Standards on Auditing (UK and Ireland).
ADDITIONAL REGULATORY INFORMATION We report additional regulatory information in tables 4A to 4I of the APR. This includes: Non-financial information on households billed and volumes of water produced. Additional analysis of totex and unit costs. Key financial metrics.	Deloitte carried out the agreed upon procedures. No exceptions were noted.	 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. For tables 4D to 4F Deloitte will also confirm that the information has been prepared in accordance with the Company's accounting separation methodology.

Areas of risk	Assurance activity completed during 2019/20	Planned assurance activity for 2020/21
STATEMENT OF SUFFICIENCY OF FINANCIAL RESOURCES 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.	 Deloitte carried out the agreed upon procedures. 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. 	 Deloitte will carry out the agreed upon procedures. 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.
FINANCIAL RESILIENCE 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. 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.	Deloitte carried out the agreed upon procedures. No exceptions were noted.	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.

NORTHUMBRIAN WATER living water

ESSEX&SUFFOLK WATER living water

Northumbrian Water Limited Northumbria House Abbey Road Pity Me Durham DH1 5FJ