NORTHUMBRIAN WATER (iving water

ESSEX&SUFFOLK WATER living water

DATA ASSURANCE SUNNARY 2018/19

ABOUT THIS DOCUMENT

We publish a range of information about our services and performance, including how we are performing against the commitments we made in our 2015-2020 Business Plan. This helps to provide our customers and stakeholders with assurance that we are delivering what they have told us they need and want from Northumbrian Water and Essex & Suffolk Water.

It is important that we have robust assurance arrangements in place to make sure this information is accurate, clear and transparent. This is essential to building and maintaining a high level of trust and confidence with our customers and stakeholders.

In March 2019, following consultation with customers and stakeholders, we published our **Assurance Plan for 2019/20**. Consistent with guidance from our economic regulator, Ofwat, this document firstly assessed any strengths, risks and weaknesses associated with either meeting our obligations and commitments, or providing information of appropriate quality. It then detailed the checks, or assurance, we planned to put in place to address these risks and make sure we remain on track.

A significant proportion of this assurance is targeted at making sure that information that we publish in our **Annual Performance Report (APR)** is of appropriate quality. This assurance update sits alongside our APR and provides a summary of the outcome of this assurance.



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SUMMARY OF OUR ASSURANCE APPROACH

This section describes how our governance and assurance arrangements are used to make sure the information we provide can be trusted.

The diagram on **page 6** illustrates the tiers of assurance within this framework, including:

Board Oversight

The Board has ownership of the arrangements for governance and assurance of regulatory submissions and reporting. This is monitored and controlled through the Board's Audit Committee and Risk & Compliance Sub-committee, which report regularly 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. It also 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 many teams that are separate from the operational activities which monitor, capture and manage the data we report, for example, Intelligence and Analytics, Information Systems Security, and Health, Safety, Environment and Quality.

This also includes our Internal Audit Team. Accountable directly to the Audit Committee, the team provides strong, independent assurance. As such their remit sits across this tier and the following one.

Independent Assurance

Our business assurance teams are supplemented with external specialist providers where we require technical and/or external assurance.

In November 2017, we appointed PricewaterhouseCoopers LLP (PwC) as our external technical assurers. PwC's assurance practice is the largest in the UK and will provide both leadership and industry leading best practice when it comes to delivering assurance activities.

We engaged PwC to carry out technical assurance work on various non-financial performance areas for our Annual Performance Reporting 2018-19 and our PR19 Business Plan resubmission at the end of March 2019.

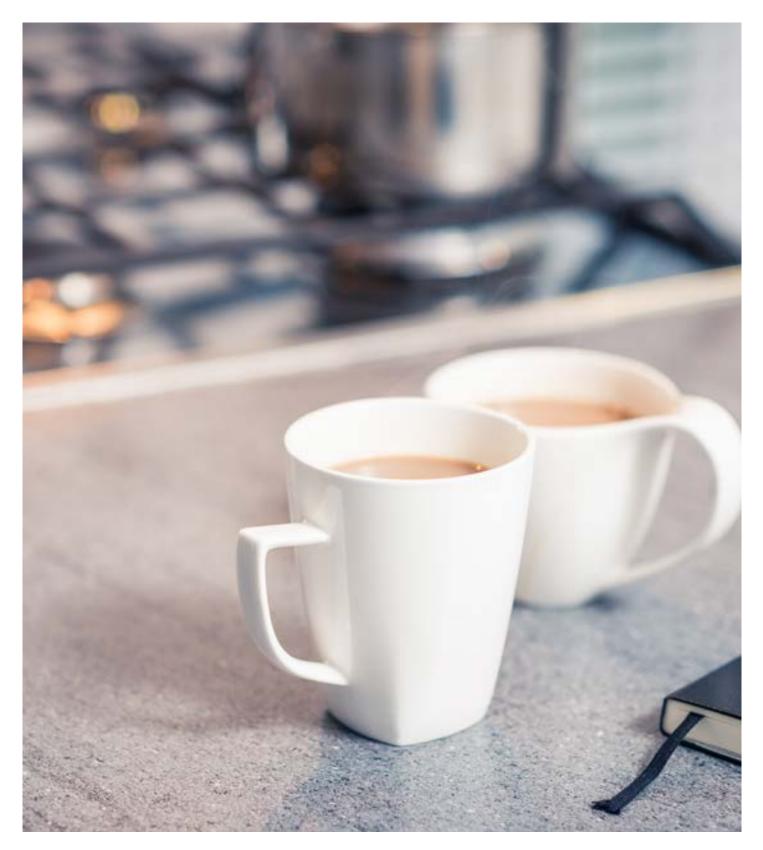
PwC has carried out work as a limited assurance engagement in accordance with the International Standard on Assurance Engagements 3000 (Revised) ["ISAE 3000"], issued by the International Auditing and Assurance Standards Board.

The scope and conclusions from PwC's assurance activities on our Annual Performance Report for 2018-19 can be found in this Data Assurance Summary, **after page 22**.

Our Independent financial auditors, Deloitte, have provided assurance on Sections 1 and 2 of our APR for the year ended 31 March 2019 ('the Regulatory Accounting Statements'). This comprises of the regulatory financial reporting tables and the regulatory price review and other segmental reporting tables.

Deloitte's audit work is in accordance with International Standards on Auditing (UK) ('ISAs(UK)'), including ISA (UK) 800, and applicable law, except as stated in the section on Auditors' responsibilities for the audit of the Regulatory accounting statements within the Annual Performance Report, and having regard to the guidance contained in ICAEW Technical Release Tech 02/16 AFF 'Reporting to Regulators on Regulatory Accounts' issued by the Institute of Chartered Accounts in England and Wales.

Their full report can be found in the Annual Performance Report **here**.



ASSURANCE FRAMEWORK

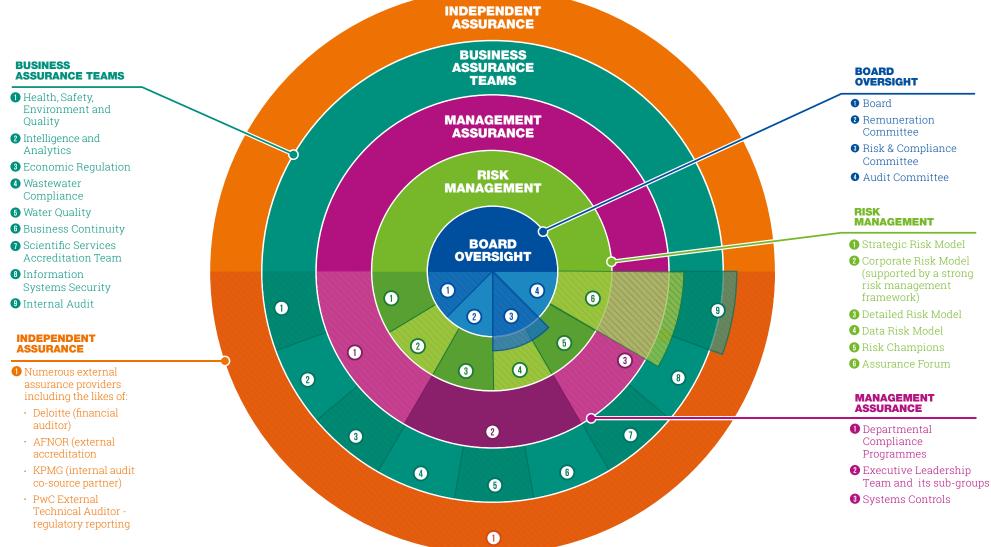


Figure 1: Our Assurance Framework

This assurance framework was applied to our 2015-2020 Business Plan and enabled our Board to satisfy itself that the information associated with the development of our performance commitments was robust.

The same framework applies to the information needed to report our performance against these commitments. A critical part of this framework is our approach to risk which includes the following steps:

- Understanding how data for each measure of success is managed from the point at which it is collected in the field, through the way it is collated in order to appear on a final report.
- Applying a formal risk assessment to each measure of success. This reviews:
 - 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.
 - Checks and balances, in the form of data quality controls are used to mitigate risks. These controls may be procedural, audit based, or built into our IT systems. We review the effectiveness of these controls as part of our risk assessment and they are rated as good, acceptable or ineffective.



OUR APPROACH TO IDENTIFYING STRENGTHS, RISKS AND WEAKNESSES

Our approach to identifying strengths, risks and weaknesses is based on an internal review and external engagement.

INTERNAL REVIEW

We conduct an internal review to identify any risks associated with providing information of appropriate quality or meeting our performance commitments. The results of previous assurance and audit activities are a valuable input into this exercise, as are robust processes to track progress against delivery of our performance commitments that highlight the need to make further interventions as and when required.

This is further strengthened by the Board and Audit Committee, which have reviewed our assessment of strengths, risks and weaknesses and Draft Assurance Plan. Our external partner, PricewaterhouseCoopers (PwC), has provided independent input to this review to make sure our approach is consistent with best practice. Feedback from all these parties has been reflected in this document.

As a regulated business, we have a duty to operate within a framework that aligns the interests of our customers, stakeholders and shareholders with statutory duties. Through Acts of Parliament and European Directives, legislation is in place covering all areas of our business including water supply, sewerage services, drinking water quality, environmental standards, customer service, flood and drought protection as well as the welfare of our employees and customers.

We review and monitor compliance with these obligations on a regular basis and report each year in our **Annual Performance Report** that the company has a full understanding of, and is meeting, its obligations. This requires our Board to confirm that it has satisfied itself that the company has sufficient processes and internal systems of control to fully meet those obligations.

EXTERNAL REVIEW

CONTINUOUS CUSTOMER AND STAKEHOLDER ENGAGEMENT

The relationships we have with our customers and key stakeholders are very important. We actively engage with them to provide assurance that we are meeting expectations and to maintain trust and confidence. Our key stakeholders in this context are:

- Our Customers.
- Our Water Forums (Customer Challenge Groups).
- The Consumer Council for Water (CCWater).
- Ofwat.
- The Drinking Water Inspectorate (DWI).
- The Environment Agency (EA).
- Local Authorities.

Engagement is achieved through regular conversations and performance review meetings with these stakeholders; understanding their expectations relating to performance, data reporting and communications, while being open to constructive feedback.

Our customers are at the heart of everything we do, the services we provide are essential for life and wellbeing, and our customers should always have trust and confidence in what we do. Assurance that we are delivering the services that our customers and stakeholders need and want begins with an extensive programme of customer research, participation and engagement to gain insights about their views and priorities.

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



Our innovative customer research, participation and engagement programme for our 2015-20 Business Plan was planned around three phases of gathering customer insights:

Phase 1	Phase 2	Phase 3
Exploring what we know, what we need to know and gathering insights to complement our existing evidence.	Engaging with our customers and stakeholders through a variety of innovative approaches to explore and understand the services that are important to them. Gathering customers' valuations of the services we provide as well as their appetite for us being the best service provider, using our innovative service valuation tool.	Acceptability of our 2020-2025 Business Plan that is shaped by our customers' and stakeholders' preferences.

The insight and valuable feedback we are receiving through our engagement has helped us shape our 2020-2025 Business Plan, so that it is high quality, ambitious and innovative.

Having multiple communication channels open for our customers is important, in order to make it easy for customers to talk to us. Supporting this is our website, **www.welivewater.co.uk**, which provides information on our performance in a customer friendly way, telling our stories alongside facts and figures on performance. We also require assurance that we are providing great customer service in line with our 'Unrivalled Customer Experience Strategy' and Inclusivity Strategy.

Benchmarking ourselves against others is a key part of making sure that we are delivering the right services, in particular helping to identify any areas where we may need to improve, or to adopt any best practices from elsewhere in the industry, or beyond.

Effective benchmarking is only possible if robust comparative information is available. We took an active and leading role in the development of the industry's strategic dashboard, which makes it easy for customers and stakeholders to view industry comparative performance information. We signpost our customers and stakeholders to the strategic dashboard from **www.welivewater.co.uk**.

We make full use of this comparative information as part of our engagement activities, enabling our customers and stakeholders to provide a more informed view of their future requirements. Feedback from our customer and stakeholder research and engagement, alongside other insight, is provided to our Board, ELT and Water Forums on a regular basis. Our ELT and Independent Non-Executive Directors are regular attendees at customer engagement events and Water Forums meetings.

SPECIFIC ENGAGEMENT FINDINGS FOR OUR 2017/18 ASSURANCE PLAN

OUR CUSTOMERS

Our Consultation on Strengths, Risks and Weaknesses and Draft Assurance Plan was published on 30 November 2018 and closed on 11 January 2019. We also published a summarised version on our **www.welivewater.co.uk** websites. Following this publication, we emailed 150,000 customers, whose email address we hold, inviting them to comment on our consultation. We were absolutely delighted to receive almost 2,000 responses from our customers, containing rich qualitative insights as well quantitative feedback.



81% of our customers who responded said our draft Assurance Plan was clear



of our customers who responded thought that there was nothing missing from our draft Assurance Plan



86% of our customers who

of our customers who responded said our draft Assurance Plan gave them confidence and trust in NW/ESW

Where customers thought that there was something missing from our Draft Assurance Plan, we asked them what was missing. Similarly, where customers said that our Draft Assurance Plan did not give them confidence and trust in NW/ESW, we asked them why.

The main feedback from customers was that:

- We needed to be clearer in relation to how we protect their personal data and the measures we take to ensure appropriate cyber security. In response we included more detail in our Plan.
- We needed to share more detail around policies and procedures. In response, we added a number of signposts to such detail in our Plan.
- We should use less jargon and be more specific about actions we are going to take. In response, we reviewed our language and had customer facing documents reviewed by the Plain English Campaign.

The comments that we received from customers that related to operational matters have been shared within the company so that we can improve service.

OUR STAKEHOLDERS

The majority of our engagement with stakeholders is carried out on a continuous basis, through regular and ongoing conversations and performance reviews. In addition to this we actively consulted with our key stakeholders to seek feedback on our Consultation on Strengths, Risks and Weaknesses and Draft Assurance Plan. The feedback that we received was welcomed, with only one respondents saying that we should use less jargon.

Our Water Forums (customer challenge groups) have reviewed our Consultation on Strengths, Risks and Weaknesses and Draft Assurance Plan in detail.

"In engaging its customers before it finalised its Assurance Plan, Northumbrian Water continues to demonstrate a willingness to listen and act upon feedback and challenge. As the Water Forums, we will continue to ensure that the best possible customer insights are used when the Company takes decisions on plans and procedures that address the areas of risk and weakness identified within the plan."

REGULATORY GUIDANCE AND FEEDBACK

We have considered the latest regulatory guidance and feedback when developing our **Final Assurance Plan for 2019**. On 31 January 2019, Ofwat published its Company monitoring framework: 2018 assessment. Ofwat assessed each company under 12 areas. We were delighted that we continued to 'exceed expectations' for our Assurance Plan.

For two of the other areas assessed (Water Resources Management Plan and market information, and Cost Assessment) Ofwat raised minor concerns. We had already recognised that we had weaknesses in Cost Assessment and have put in place robust assurance arrangements to make sure that the minor concerns in that area are addressed. This relates to operational data that is used to feed Ofwat's cost models, and is described in more detail on **page 19**.

We will also seek to strengthen our assurance approach in line with timescales for the next Water Resources Management Plan and align assurance with PR24 (Price Review 2024).

We were disappointed that because of the minor concerns, Ofwat re-categorised our 'self assured' status to 'targeted'. This means that we have to carry out a Consultation on our Strengths, Risks and Weaknesses and Draft Assurance Plan. We always want to demonstrate best practice and be open and transparent with our customers and stakeholders, and we had already completed that exercise. The outputs from that engagement have been used to inform Our Final Assurance Plan for 2019/20.

In June 2019 Ofwat issued a proposal to impose a penalty on Southern Water Services Limited. The proposal was for a penalty of £37.7m, exceptionally reduced to £3m for significant breaches of its licence conditions and its statutory duties. This is on the basis that Southern Water has also undertaken to pay customers about £123m over the next five years. The majority of this amount is due to apparent misreporting of sample data relating to their wastewater treatment works. This misreporting meant that some penalties were avoided resulting in the above fine and undertaking being proposed.

We have reviewed the findings of Ofwat and Southern's investigations in detail alongside our own processes, we have no concerns that anything similar is happening at Northumbrian Water. Nevertheless, we will seek to learn from what went wrong at Southern Water and further strengthen our controls and assurance processes where we can. We, along with all other water companies, have also received a letter from Ofwat which we will respond to. We have been recognised as the world's most ethical water company (by Ethisphere) and our values are incompatible with the deliberate concealment of regulatory failures or misrepresentation of performance.

OUR STRENGTHS, RISKS AND WEAKNESSES

OUR STRENGTHS, RISKS AND WEAKNESSES

The figure below summarises our assessment of strengths, risks and weaknesses associated with providing quality information and delivering on our regulatory obligations and the performance commitments we made to our customers and stakeholders as part of our 2015-20 Business Plan.

Figure 2: How we assess areas of strength, risk and weakness



Our Assurance Plan 2018/19 shares full details of our Strengths, Risks and Weaknesses. The remainder of this document focuses on our priorities for Data Assurance.



The following tables focus on the assurance activity we planned to carry out to make sure we are adequately managing data assurance and that the information published in our **Annual Performance Report** is of appropriate quality. The right hand column indicates the assurance actually carried out and the findings.

To be completely transparent and open, we have included a section on the financial reporting assurance that is applied to our Annual Performance Report and Regulatory Accounts by Deloitte.

Our **Final Assurance Plan** sets out in detail our risk based approach for assuring this data, including a breakdown of specific assurance activities for each measure of success, along with assurance providers. Details are provided in the following Data Assurance Summary tables.

QUALITY OF DATA RELATING TO MEASURES OF SUCCESS AND PERFORMANCE COMMITMENTS

Areas of risk	Planned assurance activity 2019/20 (applied to 2018/19 performance)	Completed	Assurance Findings / Response
DRINKING WATER QUALITY COMPLIANCE This is our overall drinking water quality compliance based on 39 water quality parameters determined by the Drinking Water Inspectorate.	 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 		 PwC performed independent assurance procedures in relation to specific Drinking Water Quality annual performance information. The independent assurance report, including the assurance opinion, can be found on page 23 onwards.
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 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 2020-2021 onwards. The review in 2018/19 will assess whether we are on track to meet 2020 targets (glide path approach to meeting future reporting requirements). We will continue to participate fully in ongoing industry wide work to improve consistency of reporting for this metric. 		 Our Internal Audit Team carried out a system audit and reviewed final year and performance data. No material issues were found. Our Internal Audit Team has worked closely with the reporting team to ensure we are compliant with new guidance due to be introduced from 2020/21.
POLLUTION INCIDENTS This measure is the number of category 3 pollution, 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 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. 	✓ ✓ ✓	 PwC performed independent assurance procedures in relation to specific Pollution Incidents and annual performance information. The independent assurance report, including the assurance opinion, can be found on page 23 onwards.

Areas of risk	Planned assurance activity 2019/20 (applied to 2018/19 performance)	Completed	Assurance Findings / Response
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 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 2020-2021 onwards. The review in 2018/19 will assess whether we are on track to meet 2020 targets (glide path approach to meeting future reporting requirements). We will continue to participate fully in ongoing industry wide work to improve consistency of reporting for this metric. 		 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 in 2020. This review confirmed progress is on track to fully comply.
SERVICE INCENTIVE MECHANISM (SIM) The SIM measure indicates the level of customer satisfaction with company service. It comprises of a combined score of quantitative (volumes of complaints) and qualitative (survey) figures. There is an associated penalty and reward set by Ofwat. SIM was introduced in 2010 and has driven customer service improvements across the industry since its introduction. SIM is due to be replaced by a new measure from 2020-21 known as C-MEX (Customer Measure of Experience) and D-MeX (Developer Services Measure of Experience). Both of these new measures will incentivise companies to provide an excellent customer experience across both the retail and wholesale parts of the value chain.	 Our Internal Audit Team will confirm understanding of the SIM reporting process by performing interviews, walkthroughs and evidence inspection. Internal Audit will ascertain how regulatory guidance for SIM 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 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. As the industry moves towards replacing SIM with a new measure (C-MeX and D-MeX), we are working closely with our teams and the industry to ensure assurance is at the forefront of our new processes and reporting. 	 <	 No material issues were found as a result of our Internal Audit Team's review of the data reported from the relevant systems.
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 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. 	 	 Our Internal Audit Team found no material issues or exceptions in the data reported from the recording system.

Areas of risk	Planned assurance activity 2019/20 (applied to 2018/19 performance)	Completed	Assurance Findings / Response
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 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. 		 Our Internal Audit Team found no material issues or exceptions in the data reported from the recording system.
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 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. 	 	 Our Internal Audit Team found no material issues or exceptions in the data reported from the recording system.
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 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. 	 	 PwC performed independent assurance procedures in relation to specific Sewage Treatment Works Discharge Compliance and annual performance information. The independent assurance report, including PwC's assurance opinion, can be found on page 23 onwards.
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 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.	~	 No issues were identified when verifying the final designated bathing water numbers against those reported independently by the Environment Agency.
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 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. 	 	 PwC performed independent assurance procedures in relation to Leakage Incidents and annual performance information. The independent assurance report, including the assurance opinion, can be found on page 23 onwards. PwC also performed enquiries with responsible teams to gain an understanding of our revised approach to Leakage from 2020/21 onwards.

Areas of risk	Planned assurance activity 2019/20 (applied to 2018/19 performance)	Completed	Assurance Findings / Response
PROPERTIES EXPERIENCING POOR WATER PRESSURE The measure is the number of properties regularly experiencing water pressure below the minimum standard.	 PwC will confirm understanding of the poor pressure reporting process by performing interviews, walkthroughs and evidence inspection. Internal Audit will ascertain how regulatory guidance for poor pressure 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. 	✓ ✓ ✓	 PwC performed independent assurance procedures in relation to properties experiencing poor water pressure and annual performance information. The independent assurance report, including PwC's assurance opinion, can be found on page 23 onwards.
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 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. 	 	 Our Internal Audit Team found no material issues or exceptions in the data reported from the recording system.
OUTCOME DELIVERY INCENTIVE CALCULATION Calculation of rewards or penalties for performance commitments which have financial incentives attached.	 Our Internal Audit Team will audit the calculation inputs and outputs from our internal ODI model and ensure consistency with Ofwat Table 3A. For reporting year 2018/19, this will include potential penalty/reward review. 	 	 Our Internal Audit team verified that the outputs from our ODI model were consistent with Ofwat Table 3a. This included a review of the penalty / reward areas. There were no issues identified.
ANNUAL ENVIRONMENTAL 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 Forums in 2016 which ensured an independent review of our social and environmental activity is maintained going forward.	 The Water Forums will continue to be actively involved and challenge us to better understand the impact of our decisions before they are taken. The Water Forums will review our activities and performance and report back on them in our environmental report (known as "Our Contribution"). 	 	 Our Water Forums have been 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. Our Water Forums full review is described in our annual report called "Our Contribution" which can be accessed via this link.
 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). 	 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). 	~	 Assurance checks by our Internal Audit Team confirmed customer survey numbers matched back to source data provided.

OTHER RISKS

UTHER RISKS			
Areas of risk	Planned assurance activity 2019/20 (applied to 2018/19 performance)	Completed	Assurance Findings / Response
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.	 We have a well-established timetable for the production and approval of our tariffs and charges scheme. This includes the key stages for producing our charges and the dates for review and approval by our Charges Steering Group and the Board. We have already engaged an independent firm of accountants to carry out assurance of our tariff model in readiness of Indicative Primary Wholesale charges that were published in October 2018. Our Internal Audit Team will provide assurance of the charge multiplier inputs and will also provide assurance for the final 2019/20 charges publication of average bill information. 	 	 Reviews of our tariffs and charges production were followed as per the timetable set out and approval was provided by our Charges Steering Group and Board. Assurance checks by an Independent firm of accountants were performed as set out in our programme. Assurance checks of allowed revenue and charge multiplier inputs by our Internal Audit Team resulted in no exceptions being reported.
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 over the next year or so 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 new website platforms will have built in strong governance and assurance processes. This will include: Business ownership of individual web page content. Regular reviews of web page content to ensure it is fit for purpose and kept up to date. Consistency of information with other published documents. All information published on our websites will have been assured to the appropriate level. Our Internal Audit Team will be actively involved in ensuring appropriate controls and mitigating actions are in place throughout the course of the website development. Test procedures by our Internal Audit Team 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. 		 Our Internal Audit Team continue to assist in the development of a good governance structure that is aligned to our digital publishing model. Digital Standards, Strategies and policies are also in development and Internal Audit are contributing to these as they materialise.
COST ASSESSMENT TABLES Since 2016, we have provided cost assessment tables to Ofwat which cover all aspects of performance, including financial and operational metrics. The cost assessment information helps inform Ofwat's cost modelling for the 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.	 Both PwC and our Internal Audit Team will confirm understanding of the reporting process for this area by 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. 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. 		 Audit programmes are assigned to PwC and our Internal Audit team in line with our Data Risk model which helps inform the choice of assurance provider for each item of data in the Cost Assessment Tables. PwC and our Internal Audit team 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. We will work with the reporting teams to improve the data going forward where these fall below the standard level. We collected these internally as they are not required by OFWAT. Recommendations made by PwC and Internal Audit to improve the quality of the information reported where areas of risk were highlighted will be monitored through to completion.

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Areas of risk	Planned assurance activity 2019/20 (applied to 2018/19 performance)	Completed	Assurance Findings / Response
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 Internal Audit Team will confirm understanding of the reporting process for these areas by performing interviews, walkthroughs and evidence inspection. Our Internal Audit Team will ascertain how regulatory guidance has been interpreted and assess whether it is appropriate. Test procedures by Internal Audit 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 audit programme for these reporting areas was revised to allow both PwC and our Internal Audit team to undertake reviews in their respective areas of responsibility. As part of their ongoing programme PwC performed independent assurance procedures in relation to Water Resources Market Information. The independent assurance report, including the assurance opinion, can be found on page 23 onwards. Assurance checks of the Bioresources Market Information by our Internal Audit Team found no material issues or exceptions.
 MARKET PERFORMANCE FRAMEWORK (MPF) 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 will confirm understanding of the reporting process for this area by performing interviews, walkthroughs and evidence inspection. Our Internal Audit Team will ascertain how regulatory guidance has been interpreted and assess whether it is appropriate. Test procedures by Internal Audit 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 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 has also be made with MOSL for clarification on some aspects of the market code.
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.	 Our Internal Audit Team will review the systems and processes in place to ensure obligations are being met. Our assurance process includes review and approval by our Executive Leadership Team members. 	 	 A review of the high/medium risk licence obligations have been reviewed by senior managers and approved by Executive Leadership Team members to ensure compliance. Our Internal Audit Team have provided assurance to the process to ensure reviews have taken place in line with the programme and provided feedback where required.

Areas of risk	Planned assurance activity 2019/20 (applied to 2018/19 performance)	Completed	Assurance Findings / Response
GUARANTEED STANDARDS SCHEME (GSS) Customers of water and sewerage companies are entitled to guarantee minimum standards of service, as laid down by the Government. These are set out in the Water Supply and Sewerage Services (Customer Service Standards) Regulations 2008 (the GSS Regulations). 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 the GSS.	 Our Internal Audit Team will confirm understanding of the GSS reporting processes by performing interviews, walkthroughs and evidence inspection. Internal Audit will ascertain how GSS 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. 	 	 As part of their annual audit programme our Internal Audit Team carried out a review of GSS compliance. This covers areas such as customer contact, complaints and supply interruptions. The results from this year's review highlighted recommendations to improve the service we provide to our customers. These were reported to the GSS Compliance Group and Audit Committee and agreed actions will be monitored until completion by our Internal Audit Team.
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.	 The recommendations made by PwC in its assessment of our resilience framework will be reviewed and monitored through to completion. The appointment of a Chief Resilience Sustainability Officer will help us further develop a sustainable vision with supporting strategies for our resilience framework. Appropriate governance and assurance processes will be a key focus for inclusion as we develop our resilience framework. 	 	• We will provide Ofwat with a first version of our action plan for how we will develop and implement an integrated approach to resilience in August. Given the complex and changing nature of this topic we will also commit to ongoing updates to keep Ofwat informed. We intend to appoint a Chief Resilience and Sustainability Officer who will lead on developing and implementing our resilience strategy. Our action plan will outline our approach to developing and implementing a systems based approach to resilience.
DATA PROTECTION/SECURITY This measure was highlighted by customers as a growing concern in their feedback to our draft consultation. This area of 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. The scope for risk covers loss of key IS business systems, a Data Protection Act breach, loss of data from IS systems, accidental or malicious release of sensitive / inaccurate information.	 We will work closely with the Drinking Water Inspectorate (DWI) as well as taking advice from Government intelligence services to make sure the security of our operational infrastructure is enhanced in line with the European Network Information Security (NIS) Directive. We follow a continuous improvement cycle of information security enhancements that includes an appropriate level of risk management. This is verified and supported by independent external technical auditors and third party security specialists where needed. Our Information Access Team will work closely with teams across the business to ensure processes and procedures are implemented with privacy in mind. This will be 'spot' audited to ensure compliance. Through continuation of our Privacy Impact Assessment we will maintain good visibility of our data processing. Our use of the content security tools available also provides the visibility we need in order to protect personal data. 		 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. Our security posture across all three domains (technical, people and process) have been enhanced in line with compliance of ISO27001. We have had external audits and independent security testing has been undertaken. Findings from these have been risk assessed and acted upon accordingly. We continue to place significant focus on employee awareness and deliver cyber security and data protection training across the entire business.

QUALITY OF FINANCIAL DATA

For completeness, we have also described below the assurance that our financial auditors,Deloitte, have provided on our Annual Report and Financial Statements and elements of our Annual Performance Report (APR).

Areas of risk	Planned assurance activity 2019/20 (applied to 2018/19 performance)	Completed	Assurance Findings / Response
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 will audit and express an opinion on the financial statements in accordance with applicable law and International Standards on Auditing (UK and Ireland). 	~	 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.
 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 will audit and express an opinion on the financial statements in accordance with applicable law and International Standards of Auditing (UK and Ireland). 	~	 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.
 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 will carry out agreed upon 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. 	 	Deloitte carried out the agreed procedures. No exceptions were noted.
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 will carry out the agreed 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. 	\$	 Deloitte carried out the agreed 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
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 will carry out agreed upon procedures to review the impact of the stress test scenarios on the Company's financial plan and key financial ratios. 	~	• Deloitte carried out the agreed procedures. No exceptions were noted.



Independent Limited Assurance Report to the Directors of Northumbrian Water Limited

The Board of Directors of Northumbrian Water Limited engaged us to provide limited assurance on the information described below and set out in Northumbrian Water Limited's Annual Performance Report and associated data tables for the year ended 31 March 2019.

Disclaimer

- PwC accepts no liability (including liability for negligence) to each recipient in relation to PwC's report. The report is provided to each recipient for information purposes only. If a recipient relies on PwC's report, it does so entirely at its own risk;
- No recipient will bring a claim against PwC which relates to the access to the report by a recipient;
- Neither PwC's report, nor information obtained from it, may be made available to anyone else without PwC's prior written consent, except where required by law or regulation;
- PwC's report was prepared with Northumbrian Water Limited's interests in mind. It was not prepared with any recipient's interests in mind or for its use. PwC's report is not a substitute for any enquiries that a recipient should make. PwC's report is based on historical information. Any projection of such information or PwC's opinion or views thereon to future periods is subject to the risk that changes may occur after the report is issued. For these reasons, such projection of information to future periods would be inappropriate;
- PwC will be entitled to the benefit of and to enforce these terms; and
- These terms and any dispute arising from them, whether contractual or non-contractual, are subject to English law and the exclusive jurisdiction of English courts.

Our conclusion

Based on the procedures we have performed and the evidence we have obtained, nothing has come to our attention that causes us to believe that the Selected Information for the year ended 31 March 2019 has not been prepared, in all material respects, in accordance with the Reporting Criteria.

This conclusion is to be read in the context of what we say in the remainder of our report.

Selected Information

The scope of our work was limited to assurance over the Selected Information summarised in

https://www.nwl.co.uk/ assets/documents/Reporting Criteria Ass essment APR table.pdf, alongside the Reporting Criteria against which it was assessed. Our assurance does not extend to information in respect of earlier periods or to any other information included in the Annual Performance Report and associated cost assessment tables 2019.

Professional standards applied and level of assurance

We performed a limited assurance engagement in accordance with International Standard on Assurance Engagements 3000 (Revised) 'Assurance Engagements other than Audits and Reviews of Historical Financial Information' issued by the International Auditing and Assurance Standards Board. A limited assurance engagement is substantially less in scope than a reasonable assurance engagement in relation to both the risk assessment procedures, including an understanding of internal control, and the procedures performed in response to the assessed risks.

Our Independence and Quality Control

We applied the Institute of Chartered Accountants in England and Wales (ICAEW) Code of Ethics, which includes independence and

other requirements founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behaviour.

We apply International Standard on Quality Control (UK) 1 and accordingly maintain a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements

Our work was carried out by an independent team with experience in the water industry and assurance.

Understanding reporting and measurement methodologies

The Selected Information needs to be read and understood together with the Reporting Criteria, which Northumbrian Water Limited is solely responsible for selecting and applying. The absence of a significant body of established practice on which to draw to evaluate and measure non-financial information allows for different, but acceptable, measurement techniques and can affect comparability between entities and over time. The Reporting Criteria used for the reporting of the Selected Information are as at 31 March 2019.

Work done

We are required to plan and perform our work in order to consider the risk of material misstatement of the Selected Information. In doing so, we:

- made enquiries of Northumbrian Water Limited's management, including those responsible both for compiling the Annual Performance Report as a whole;
- made enquiries of staff charged with preparing and reviewing specific data points or data tables for inclusion within the Annual Performance Report; and
- evaluated the design of the key structures, systems, processes and controls for managing, recording and reporting the Selected Information.
- performed limited substantive testing on a selective basis of the Selected Information to test that data had been appropriately measured, recorded, collated and reported.

Our testing procedures included, but were not limited to:

Re-performing calculations performed by management based on central records;

Inspecting detailed breakdowns of each of the data points recorded within the Selected Information;

Obtaining and inspecting underlying documentary evidence on a sample basis;

Visiting a sample of Sewage Treatment Works and Sludge Treatment Centres;

Inspecting corporate systems which store data relevant to the Selected Information;

Checking for consistency between data point with common inputs; and

Inspecting third party or publically available data and tracing this back to Northumbrian Water Limited records to determine the completeness of reporting.

Northumbrian Water Limited's responsibilities

As explained in the Directors' Responsibilities and Declarations to the Annual Performance Report, the Directors of Northumbrian Water Limited are responsible for:

- designing, implementing and maintaining internal controls over information relevant to the preparation of the Selected Information that is free from material misstatement, whether due to fraud or error;
- establishing objective Reporting Criteria for preparing the Selected Information;
- measuring and reporting the Selected Information based on the Reporting Criteria; and
- the content of the Annual Performance Report for the year ended 31 March 2019.

Our responsibilities

We are responsible for:

- planning and performing the engagement to obtain limited assurance about whether the Selected Information is free from material misstatement, whether due to fraud or error;
- forming an independent conclusion, based on the procedures we have performed and the evidence we have obtained; and
- reporting our conclusion to the Directors of Northumbrian Water Limited.

This report, including our conclusions, has been prepared solely for the Board of Directors of Northumbrian Water Limited in accordance with the agreement between us, to assist the Directors in reporting on annual performance. We permit this report to be disclosed in the Annual Performance Report for the year ended 31 March 2019, to assist the Directors in responding to their governance responsibilities by obtaining an independent assurance report in connection with the Selected Information. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the Board of Directors and Northumbrian Water Limited for our work or this report except where terms are expressly agreed between us in writing.

Price at the re Coopers LLP

PricewaterhouseCoopers LLP Chartered Accountants Cambridge 10 July 2019



ESSEX&SUFFOLK WATER (iving water

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

Designed by NWG Marketing

www.nwl.co.uk | www.eswater.co.uk www.welivewater.co.uk