United Utilities
helping life flow smoothly

United Utilities 2018/19 Annual Performance Report

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Introduction

A regulated water and wastewater company

United Utilities Water Limited (UUW) provides water and wastewater services to seven million people in the North West of England and represents the principal activity of United Utilities Group PLC. UUW is subject to regulation of price and performance by economic, quality and environmental regulators. Ofwat is the economic regulator of the water sector in England and Wales. The Drinking Water Inspectorate (DWI) and the Consumer Council for Water (CCW) are the main quality regulators and the Environment Agency (EA) and Natural England are the main environmental regulators, with Defra overseeing both areas. Maintaining good relationships with these bodies enables us to engage positively in order to influence future policy with the aim of achieving the best outcome for all of our stakeholders.

Five-yearly price reviews

One of the key aspects of the regulatory framework is the price review process, which determines required service levels and expected company revenues for five-year asset management planning (AMP) periods.

The last price review (PR14) set the assumed price, investment and service package that customers should receive for the current period, April 2015 to March 2020 period (AMP6). It also defined the incentive regimes which reward or penalise companies depending upon how their actual performance and expenditure compares to the assumed performance and expenditure levels.

The Annual Performance Report

The Annual Performance Report (APR) is designed to provide customers and other stakeholders with a detailed and transparent commentary on our performance in 2018/19 and to set out how this performance compares to the expectations set in the last price review. We complement the APR with a range of additional publications, as outlined on page 7 of this report.

The 2019 price review (PR19)

We published our business plan for the next five year period (AMP7) in September 2018. This plan set out our proposed price, investment and service package for the April 2020 to March 2025 period, with the plan also taking account of the impact of actual and predicted performance during the current period through the AMP6 incentive regimes.

In Ofwat's initial assessment of companies' plans, UUW was one of only three companies in the industry to be categorised as 'fast-track'. Ofwat said that it had set high standards for companies at PR19 and that the fast-track companies had submitted plans that set a new standard for the sector. Overall, UUW scored highest on Ofwat's criteria. As a result of the fast-track status UUW received an early draft determination in April 2019, with the final determination (FD) of the price, investment and service package required for the AMP7 period due to be published at the end of 2019.

Although the focus of this annual performance report remains on the company's performance during 2018/19, we have also provided **additional detail within this year's APR on the actual and anticipated performance for the full 2015-20 period** and summarised how the PR19 process will take account of this performance.

We have also **published a more detailed document (the PR14 Reconciliation) setting out how performance during AMP6 impacts revenues for the AMP7 period**.

Transparent reporting

This Annual Performance Report (APR) is one of a number of publications on our website that are designed to work together to ensure that the performance reporting of UUW and United Utilities Group is reliable, accurate and transparent.

The key report from a corporate and financial perspective is the **United Utilities Group PLC Annual Report and Financial Statements.**

This report is now published as an interactive web site on a dedicated micro site within the United Utilities website. This website, pictured right and available via this link, is designed to provide detailed information on the financial position and governance of the group and is mainly targeted at equity and debt investors.

Additionally, the United Utilities Water Limited Annual Report and Financial Statements provides detailed information on the financial position of UUW and forms the basis of the Regulatory Accounts, which are set out within this document.

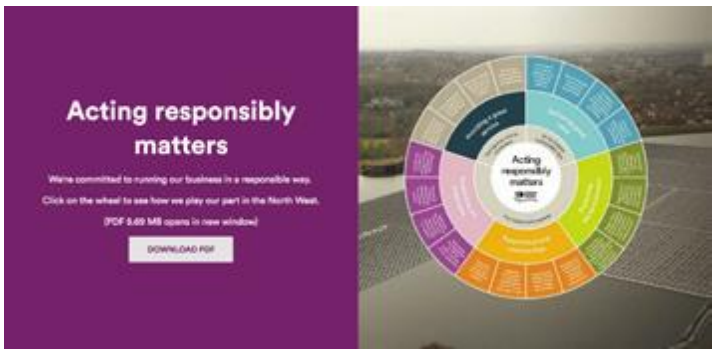
Other key performance information is published on our corporate responsibility website, pictured below, which is used to communicate relevant information more regularly than would be the case through a traditional annual report.

The website is designed to describe the way that the group has operated and demonstrate the extent to which we have upheld the highest standards of performance with respect to the way we work with employees, customers and our impact on the environment.

This website contains comprehensive additional guidance and supporting information for customers, including information on how they can contact us or our regulators in relation to a wide range of issues.

The Annual Performance Report complements these publications and the other information on our websites, by providing a suite of publications which are designed to provide a clear and representative view of our performance in the year.

Independent assessment of our reporting



As part of Ofwat's approach to monitoring and assuring delivery it expects companies to have processes in place to ensure that the information they publish can be trusted.

Ofwat uses the 'company monitoring framework' – a series of assessments of the quality of each company's information – to perform an annual assessment of the quality of each company's information.

In Ofwat's most recent assessment in January 2019, which covers both the 2017/18 financial reporting year and the September 2018 business plan submission, UUW was one of only two companies to retain the highest rating 'self- assurance' and one of only three companies to be placed in this category. This means that because there is a greater degree of confidence in the quality of our reporting, UUW is allowed more discretion in the assurance that we put in place and in the way that we consult with stakeholders on our plans and assurance.

Although we were pleased to have retained Ofwat's self-assurance categorisation, we have continued to actively seek feedback to continue to improve the quality of our assurance and the content and transparency of our reporting.

To support this objective, during the year we published and consulted on a "Risks, strengths and weaknesses and draft assurance report" and then following feedback published our "Final Assurance Plan" for our 2018/19 reporting. These publications are available on our website.

YourVoice

The YourVoice panel has played an integral role in monitoring, challenging and reporting on the delivery of the company's 2015-2020 business plan commitments.

As an independent body of individuals from different sectors and backgrounds and with a variety of different areas of expertise, YourVoice looks at how the company can continue to capture and strengthen the views of its customers in its activities. You can read more about the work of the panel here.

Comparing our performance against our peers

Operational performance

As companies generally developed their AMP6 performance measures independently, similar sounding measures can have different definitions. To provide clarity on the definitions that we have used, we have published detailed definitions, explanations and supporting information for our performance commitments on our website.

To allow a more meaningful comparison to be made, we have worked with regulators and the rest of the water industry to develop a suite of comparative information and performance measures. These measures are still subject to different interpretations between companies, but do provide a view of relative performance. This information is available on the Discoverwater website (see below).

As part of the PR19 process all companies have adopted these common measures, which will form part of their overall package of performance commitments, alongside each company's suite of bespoke measures. Details of the UUW's proposed performance commitments for the AMP7 period, including the common measures is set out on our website.

Financial performance

As well as describing our operational performance against the expectations set out in the PR14 price review, our Annual Performance Report also compares our financial performance against these expectations.

Although our APR contains information on a wide range of financial measures and metrics, the high level measure that Ofwat used at PR14 to set expectations on the range of potential returns that companies could achieve during the period was return on regulatory equity (RORE). Our APR provides a summary of how our reported RORE for 2018/19 compares against these initial assumptions.

The RORE metric is based upon a theoretical, efficient company with a notional capital structure. Ofwat has evolved its financial flows metrics through APR table 1F, which is designed to improve the transparency concerning actual financial flows to investors under actual capital structures and incorporating additional outperformance measures such as tax. This table is set out and explained in detail within this report.

Ofwat reviews the information published in each year's APRs and as part of its financial monitoring framework publishes an annual report called "Monitoring financial resilience report". The report provides useful summary level information on the relative performance and financial strength of the water and wastewater companies that Ofwat regulates. This report is available on the Ofwat website.

A range of publications

We have sought to continually improve the coverage and presentation of our reporting by taking on board the feedback we receive so as to increase the usefulness of and engagement with our reporting.

During 2018/19, we continued to report performance to YourVoice on a quarterly basis to allow the panel to evaluate how we are performing in delivering our commitments to customers.

We have also sought the panel's views on how we should communicate this performance to customers, with this feedback helping to shape the suite of documents and supporting information that we publish on our website.

We do recognise that the format and level of detail in the APR does not necessarily suit all customers and we have therefore complemented this document with a range of additional publications.

We have sought to provide a digital presentation of our reporting and have provided an enhanced website and home page (click here). This offers more direct content and an animation which helps to explain the key points and messages from the APR.

We also publish a shorter customer-focused version of the report which achieves the Crystal Mark for plain English. This is "Our performance 2018-19: a summary guide" and provides a succinct and more accessible summary of our performance - good and bad – and our progress in delivering against our performance commitments.

We have also published a number of more detailed technical documents on our website, to provide greater detail and transparency to some of the information, terminology and assumptions used within the main reports. The key regulatory reports that are published alongside this main APR document are set out in the table below:

Annual Performance Report	• A comprehensive, detailed and assured account of our performance (this document).
Delivering our promises - a summary guide	• An overview of our annual performance in line with the five customer promises that underpin our business plan for the AMP6 period.
Outcome definition document	• Detailed technical information on the nature, calculations and assumptions underpinning each of our outcomes and performance commitments.
Accounting methodology statement	• An overview of the process used to prepare the upstream services tables in the APR, with a methodology and commentary on significant movements in our upstream totex reporting.
YourVoice customer panel reflections	• Independent reflections and feedback on UUW's performance during 2018/19.

Coverage of this report

We have retained the same overall structure for this report that we used in 2017/18.

We have continued to include a UUW board overview of our performance and the company's actions during the year. We have also provided additional commentary to give a view of performance over the full five year period (2015–20) in addition to the detail on our actual performance in 2018/19. This five-year view has been updated to reflect this year's actual performance and an updated view of next year's performance.

This year we have provided additional information on our financial performance and financial flows, both within the executive summary and within the more detailed regulatory accounts. We have also sought to provide additional rigour to our risk and compliance statement by undertaking an independent review of the processes which support the board in signing this statement.

Our 2018/19 Annual Performance Report contains the following sections:

Introduction	• Puts the document in context and helps the reader to navigate within the document.
Board statement	• UUW Board overview of our performance and the choices made during the year.
Executive summary and overview	• Sets out the key elements and conclusions of the report.
Risk and compliance statement	• Board confirmation that UUW has complied with its relevant obligations in 2018/19.
Annual performance	• Detailed commentary on our performance in 2018/19 and summary of anticipated performance for the remainder of AMP6.
Regulatory accounts	• Detailed regulatory accounting data and disclosures, including copies of Ofwat's pro forma data tables.
Appendix 1 Assurance summary & findings	• A summary of the assurance undertaken to support this report, including the findings from this assurance.
Appendix 2 Outcome incentive calculations	• Provides the detailed calculations that support the index based performance commitments.

2018/19 United Utilities Water board statement

Governance and leadership

We, the United Utilities Water Limited's board of directors, supported by the executive team, are committed to achieving the very best results for the company, the customers it serves and its wider stakeholders.

As the board of directors, we set the purpose, strategy and values that we believe will promote the long-term sustainable success of the company, customers' interests, create value for shareholders and take account of our other stakeholders. Our intention is to hand over the business to our successors in a better and more sustainable position for the future. As individual directors, we are mindful of our statutory duty to act in the way each of us considers, in good faith, would be most likely to promote the success of the company for the benefit of its members as a whole as set out in s172 of the Companies Act 2006.

The executive directors are responsible for managing the business and implementing the strategy and supporting policies. The board's role is to ensure that management operates the business in accordance with the strategy and within the agreed risk and control framework.

The governance and leadership of UUW and of its ultimate parent company, United Utilities Group PLC (UUG) mirror each other. More information on the role of the board of directors, our strategy and strategic themes, our approach to promoting the long-term success of the UUG group and customers' interests can be found in the UUG Annual Report and Financial Statements (UUG ARFS) http://unitedutilities.annualreport2019.com/. Information on how we engage with our various stakeholders can also be found in the UUW ARFS. Our UUW ARFS also explains our compliance and approach with respect to the Ofwat 2014 board leadership, transparency and governance principles (BLTG principles).

The UUW board has full responsibility for all aspects of the company's business in accordance with its appointment as a water and sewerage undertaker under the Water Industry Act 1991. The UUW board are fully supportive of Ofwat's drive for higher standards of board governance throughout the industry and of the new licence condition to embed the 2019 BLTG principles. We believe our governance structures and processes, not least those in place addressing the FRC's UK Corporate Governance Code, will continue to deliver the high standards of corporate governance expected by Ofwat and deliver the overall objectives of the 2019 Ofwat BLTG principles.

Our purpose is to provide great service to customers and communities in the North West, creating long-term value for all of our stakeholders, in accordance with our strategic themes of providing the best service to customers, at the lowest sustainable cost and in a responsible manner. Our aim is to behave as a responsible business, our core values of customer focus, innovation and integrity provide both the framework for our business culture and the way in which employees go about their daily work.

We support the principles set out in Ofwat's publication "Putting the sector in balance" and recognise the need to provide a clear commitment to responsible financing and benefit sharing, which will contribute to building trust and confidence in the company and its treatment of a broad range of stakeholders. The way that we are implementing these principles is summarised below:

Implementing the principles needed to put the sector in balance

Our dividend policy is directly linked with delivery for customers

UUW's dividend policy for the 2015-20 regulatory period is to distribute:

- A base return of 5% on the equity portion of the Regulatory Capital Value;
- Non-appointed business profit; and
- An amount no greater than cumulative outperformance delivered compared to the assumptions made by Ofwat in the determination for the relevant period.

The board reviews the appropriateness of its dividend policy annually.

We have ensured appropriate linkage between delivery for customers and reward

Our remuneration policy is aligned to our purpose and strategic themes in order to incentivise great customer service and the creation of long-term value for all of our stakeholders. A detailed statement of directors' remuneration and standards of performance is set out within our Regulatory Accounts, Section 2 of our Annual Performance Report.

All directors of United Utilities Water Limited are also directors of United Utilities Group PLC and further details of their remuneration and how their performance measures are linked to our business strategy can be found in our UUG ARFS. http://unitedutilities.annualreport2019.com/governance/remuneration-committee-report/annual-statement-from-the-remuneration-committee-chair

Non-executive directors - The Chairman and non-executive directors do not participate in incentive arrangements (i.e. annual bonus or share schemes). Fees paid to non-executive directors' are set out in the UUG ARFS.

Executive directors - Through the annual bonus and long term plan (LTP), executive directors receive remuneration linked to the achievement of performance measures.

The 2018/19 bonus was based upon four main components:

- Underlying operating profit;
- Customer service in the year (measured through the Service Incentive Mechanism);
- Maintaining and enhancing services for customers (measured through a wholesale outcome delivery incentive composite and through a time, cost and quality index assessment of the delivery of the capital programme); and
- Personal objectives.

The LTP outcomes were measured over a three year period. LTP awards with a performance period ending 31 March 2019, and were based on three performance measures:

- Relative total shareholder return;
- Sustainable dividends; and
- Customer service excellence.

In determining the outcome of the incentive schemes, standards of performance are assessed by the UUG Remuneration Committee (the Committee) to ascertain whether targets have been achieved. In addition, the Committee also considers relevant reports from Ofwat in assessing the achievement of standards of performance.

We have ensured that the company is financially resilient for the long term

Our assessment of financial resilience is that we set the benchmark as the frontier company in the sector, providing the highest levels of protection to stakeholders. We attribute our financial strength and resilience to two key factors: subjecting ourselves to the rigour and scrutiny that comes with being a publicly listed company and our responsible and long term approach to financial risk management. We will look to maintain and build further on this during AMP7.

United Utilities Water Limited has a robust capital structure with gearing of 64 per cent as at 31 March 2019 (measured as net debt to 'shadow' regulatory capital value). This gearing level is within our target range, of 55 per cent to 65 per cent, and UUW has an equity buffer of £4.2bn; robust credit ratings of A3/A-, with Moody's and S&P respectively, and BBB+ with Fitch, all with a stable outlook; a prudent level of headroom and liquidity; a responsible approach to financial risk management and a UK leading approach to pension risk management.

As part of our 2020-25 business plan submission, the board provided a high quality viability statement out to 2025 and has subsequently extended this to 2026. It demonstrates how our strong liquidity and capital solvency position, supported by our responsible approach to financial risk management, is able to absorb all modelled risk scenarios (including Ofwat's common and combined scenarios applied to each year of the viability period) without the need to take mitigating actions. In Ofwat's most extreme scenario our credit rating could reduce to Baa2/BBB. As we consider this to provide insufficient headroom above investment grade, mitigating actions would be considered to restore the ratings to an appropriate level.

In the event that mitigating actions were required we have a number of options available which provide significant scope to improve liquidity and the capital position. For example, a 5% increase in gearing would raise over £500m in new funding whilst in the event of an urgent need for cash, dividends could be deferred to improve liquidity and our capital position.

We have a responsible track record of sharing financial outperformance

Across AMP5 and AMP6, UUW has voluntarily committed over £600m of reinvestment for the benefit of services to customers and the environment. In doing so, the company chose to reinvest for the long term, rather than paying additional dividends, building confidence that we were taking a long term view of investing in the region.

In addition to the £250m that we had already committed to make available in the current regulatory period for resilience programmes for the benefit of customers, we have committed an extra £100m to provide an early start on the work required to meet some of the tougher targets for the 2020-25 period.

We have set a longer term strategy that is designed to strike the right balance between risk and return

As part of the work the board undertook to develop and challenge the AMP7 business plan, we committed to a balanced approach to dividends, gearing and benefit sharing which builds on our responsible track record.

Before dividends are considered, we will provide company funding of £71m towards financial support schemes for financially vulnerable customers. Base dividends will be set at a reasonable level, guided by the expected allowed regulatory return. Dividends above this level will be subject to consideration of safeguards on levels of gearing, delivery for customers, financial resilience and the impact on customers and other stakeholders including employees. We will explain our decisions on dividend policy every year.

We have committed that where dividend payments or gearing are much higher than expected in the plan there will be a benefit sharing arrangement which will see customers benefit from either lower bills, further targeted financial support and/or grants for community schemes. Customers will be consulted about the application of these funds, under the scrutiny of YourVoice. These approaches are incremental to voluntary approaches to benefit sharing, such as the reinvestment in services undertaken in AMP5 and AMP6.

This package should build confidence among stakeholders that the company remains committed to a significant and meaningful sharing of benefits with customers in the event that the business significantly outperforms the regulatory contract and that the company will maintain its track record of delivering fairly and responsibly in this area.

Ensuring that our strategic direction and day to day actions reflect customer expectations

Setting targets and delivering our obligations

Performance targets for 2015-20 were developed by speaking to thousands of customers and wider stakeholders across the North West of England to understand what they consider to be important about the services we provide and the levels of service they want. This engagement resulted in nine outcomes, each underpinned by specific 'measures of success' to allow our performance to be judged. In addition to delivering against these targets, the company must comply with a range of statutory obligations – including under the Water Industry Act 1991 – and broader duties to customers, the environment and other stakeholders. Further details of how we identify these requirements and manage the risks of compliance with them are set out in the Risk and Compliance Statement, within our Annual Performance Report.

To address the challenges customers tell us are important, we are implementing a Systems Thinking approach, designed to optimise how we use data, the way we manage our assets and how our people work on a day to day basis. This approach is ensuring that we can address asset and network problems before they affect customers and respond to incidents more quickly and effectively when they do occur.

Monitoring delivery of the strategy

The water industry is influenced and affected by a wide range of issues, from the health of the environment and the economy to long-term resilience needs to cope with a changing climate and growing population. Actively seeking to understand these external factors ensures we respond effectively to these drivers for change.

Views about our performance from different segments of customers are acted upon. Continuous feedback is obtained through weekly customer service research, through daily feedback from those impacted by our activities, by asking customers to rate our performance and from bespoke pieces of research.

We regularly ask customers how they think we are performing against our five-year business plan and what they value most from the services we provide so that we can get their views on what areas we need to focus on in the future. More information on our approach to, and engagement with, customers and wider stakeholders can be found in the UUG AFRS (http://unitedutilities.annualreport2019.com/strategic-report/how-we-create-value-for-stakeholders/overview).

Performance against our targets is reviewed at each scheduled board meeting. Where there is any risk to delivery of targets, these are highlighted and any proposed action plans reviewed.

Our risk identification and management activities are continuous and ongoing, with each functional area responsible for assessing, articulating and controlling relevant risks whilst considering long-term resilience. All risks are subject to formal governance and structured sign-off, with risk reports developed through an approach aligned with the UK Corporate Governance Code and reviewed at full and half year statutory accounting periods. Inextricably linked to the risk assessment process is the Risk Appetite Framework where significant risks are benchmarked against a general appetite boundary (representing a financial stress line for the Group) supplemented by specific risk appetites where necessary, with the outcome reported to the group board. More information on risk management can be found in the UUG ARFS (http://unitedutilities.annualreport2019.com/strategic-report/our-risk-management/principal-risks-and-uncertainties).

Managing risks and responding to change

We use the information from these monitoring processes to continually improve the service that we offer to customers. Priorities for service improvement and investment plans are considered through the annual company business planning and budget setting processes.

We have faced and managed a number of incidents during the current regulatory period. We were involved in a major water quality incident during 2015 and along with the rest of the industry in the spring of 2018 we needed to manage the impacts of the cold spell known as 'the beast from the east'.

Our culture is to behave as a responsible business, and so reviewing and learning from our experiences to improve performance and resilience. We see this as a key activity and ensure that the results of our lessons learned process capture both overarching themes together with specific detailed changes to areas, such as our business processes and procedures.

During summer 2018 the North West experienced an extended period of hot and dry weather. This resulted in unprecedented increases in demand for water, together with reductions in reservoir levels that mirrored those last seen in 1995 when a 14 month Temporary Use Ban (more commonly described as a hosepipe ban) was introduced across the region. This presented a significant risk of disruption to customers and we had to commit significant resources to planning for and mitigating the consequences of this event. The lessons that we had learnt from previous events and the additional monitoring and control capabilities that we have implemented through our Systems Thinking approach were instrumental in allowing us to manage these events in a way which ensured that no water restrictions were introduced for customers in the North West. Together with our partners, we are now reviewing what additional lessons can be learned from this experience and applied to future service risks.

Delivering for customers and stakeholders

Behaving as a responsible business is at the heart of our approach. The work we do delivers a wide range of benefits to a variety of stakeholder groups, creating long-term sustainable value for customers, shareholders, employees, the environment and communities in our region and have retained our World Class rating in the Dow Jones Sustainability Index for the eleventh consecutive year.

Customer service measures – including Ofwat's Service Incentive Measures – continue to show ongoing improvement and we have put in place what we consider to be an industry leading package of Priority Services for vulnerable customers and those in financial need.

In our 2017/18 board statement we recognised that our performance against our water Outcome Delivery Incentive (ODI) needed to improve and stated that we were committed to achieving this. We recognised that our water metrics over the first three years of the regulatory period had been impacted by a number of big bursts on our network and set out that we were seeking to minimise the impact of these events on customers and were working hard to improve performance in this area by, for example, increasing investment in emergency supply vehicles which pump water into the system on a short term basis whilst repairs are ongoing. We are therefore pleased that in 2018/19 we met all but one of our water service ODIs and earned a net outperformance payment of £7.9m in the year. Our wastewater performance has also remained strong. In the absence of any unforeseen events over the remainder of 2015-20, we expect to end the period with a cumulative net outperformance payment on ODIs.

We are delivering a low cost of debt which helps set industry benchmarks for efficient financing costs. The efficient delivery of our investment plan and our approach to innovation and Systems Thinking also gives us confidence in delivering totex outperformance of £100m against our AMP6 allowance, on a like-for-like basis.

As stated above we had already committed to sharing £250m of our anticipated net outperformance by reinvesting to improve resilience for the benefit of customers. This year we have increased the additional investment that we are making available in this regulatory period from £250m to £350m, to allow us to provide an early start on the work required to meet some of the tougher targets for the 2020-25 period.

Signed on behalf of the Board

Mark Clare

Senior independent non-executive director

Steve Mogford

Chief Executive Officer

This statement was approved at a meeting of the United Utilities Water Limited board on 25 June 2019 and signed off on its behalf by Mark Clare, Senior independent non-executive director and Steve Mogford, Chief Executive Officer.

Executive summary

Overview

This is our fourth Annual Performance Report for the 2015-20 period and covers the period from April 2018 to March 2019. This has been a strong year for UUW, helping to consolidate the progress that the company has made over recent years.

Our customer satisfaction scores this year are our best ever. Our continued focus on using cutting-edge innovation is leading to greater operating efficiency and delivering better services to customers. This approach has also helped us to achieve our best ever Outcome Delivery Incentive performance. In addition, on a like-for-like basis, we remain confident of delivering £100m of totex outperformance over the five-year period.

Our robust capital structure, and the responsible approach that we have taken to our balance sheet, has continued to provide resilience and future financial flexibility. Operating profit in the year was £611m, up £8m from last year. Dividends were more than supported by the value created, as demonstrated through Ofwat's financial flows analysis. In addition, in April 2019 we fully paid all outstanding pension deficit contributions, such that our pension schemes are now fully funded on a low risk self-sufficiency basis, meaning that they have minimal ongoing reliance on the company. As pension deficits are effectively another form of debt, which should be considered in the context of a company's overall capital structure and gearing position, this development positions UUW in a unique and strong position relative to others in the water sector. This responsible stewardship mitigates risk for all stakeholders.

Our plans for the future have also been well received. Ofwat's fast-track assessment of our 2020-25 business plan - which achieved the highest grades for the sector - reflects the quality of our future plans and the performance improvements we have already delivered.

In line with our established track record, in 2019/20 we will again be sharing some of our AMP6 outperformance with customers. We are increasing reinvestment in services by another £100m, taking the total additional investment to £350m in the 2015-20 period. We will be using this additional investment to accelerate the delivery of further performance improvements and facilitate a flying start to the next regulatory period.

Overall, we are well placed for the remainder of the current regulatory period and beyond as we maintain our focus on providing great service to customers and creating long-term value for all of our stakeholders.

Key headlines from the year are:

Putting customers first

- 10% real reduction in average household bills since 2010, alongside improving customer service
- The sector's most innovative assistance schemes supporting over 100,000 customers struggling to pay
- Achieved our best ever customer satisfaction SIM scores, anticipating an outperformance payment of around £16m for AMP6

Strong operational performance

- Pioneering Systems Thinking approach delivering sustained improvement in both operational performance and service for customers
- Leakage target met for 13 consecutive years
- Confident of delivering totex outperformance of £100m against our AMP6 scope
- Net wholesale ODI outperformance payment of £19m for the year

Strong financial performance

- Operating profit of £611m, up £8m
- Responsible dividend payments, more than supported by value created
- UUW IFRS pension surplus of £374m at 31 March 2019, with pension funding deficit eliminated in April 2019
- Robust capital structure providing resilience and future financial flexibility

Achieved fast-track status for AMP7

- Awarded the highest grades for the sector in Ofwat's initial assessment of company business plans
- Fast-track status secures greater certainty with a year to go before the start of AMP7
- AMP6 additional investment increased by £100m to facilitate a flying start to AMP7
- Total outperformance sharing now £350m in AMP6 and over £600m across AMPs 5 and 6

The report sets out our progress so far against our plans and targets for the 2015-20 (AMP6) period. It highlights where we have outperformed these expectations and also describes where we have failed to meet the targets. Where we have not met our targets we have set out the actions that we are planning to take to improve performance.

As set out in the introduction to this report our Annual Performance Report is one of a number of documents on our website which are designed to provide clear and transparent reporting on the performance of UUW as well as UUG.

The remainder of this executive summary and overview provides further detail on:

- **Our customer service and operational performance** against the outcomes and performance commitments set out within our PR14 business plan and the FD.
- **Our expenditure and revenues** relative to the assumptions made in the FD, for the wholesale and retail price controls.
- **Our financial performance and financial metrics**, relative to the assumptions made for UUW in the FD.
- **Our anticipated performance against the AMP6 incentive mechanisms**, and how this performance feeds into the PR19 process.

Our customer service and operational performance

Performance commitments

As part of our planning for the 2015-20 period, we spoke to thousands of people across the North West to understand what service they wanted from us. This highlighted five focus areas based on the things that customers and stakeholders told us were the most important features about the services we provide.

Each focus area has a number of 'outcomes', which set out what we are planning to achieve. These outcomes are based upon performance commitments, which have annual targets that allow customers and stakeholders to judge our performance.

At the 2014 Price Review, we set annual performance commitments based on customer willingness to pay for service or on the cost of service failure. Ofwat challenged some of the performance commitments associated with industry- wide measures to bring them in line with its estimate of upper quartile industry performance. Many of the performance commitments are challenging, and require a significant improvement on our 2010-15 levels of performance.

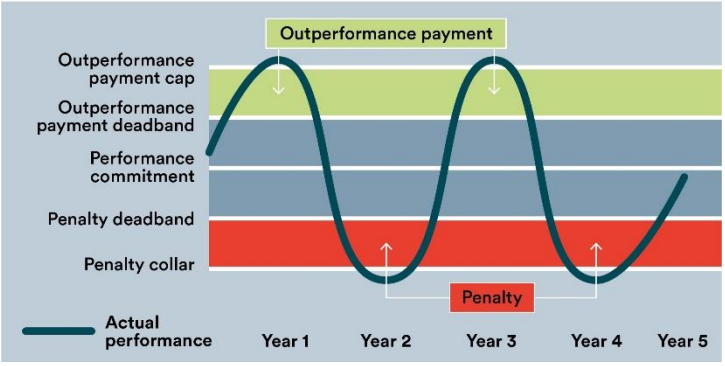
Out or underperformance payments

The majority of performance commitments carry a financial penalty if we underperform and for some of these we can also earn a financial outperformance payments if we outperform. There is a limit or 'cap' to the amount we can be rewarded for any measure in any given year. Similarly, there is a limit (known as a 'collar') to the amount we can be penalised for underperforming.

However, we don't always enter underperformance (penalty) or outperformance (reward) territory immediately. For some measures, we have to outperform (or underperform) beyond a certain level before there is a financial impact. This is to ensure that outperformance payments and penalties are applied where there is significant deviation from a target and not where the under or outperformance is attributable to natural or random variations only.

In a year beset by heavy rainfall, for example, it might be difficult to meet our sewer flooding commitment. That is why there is a margin or buffer built into this measure (known as the 'deadband'), which means we do not immediately incur a penalty as soon as we fall below target. Similarly, for some measures we don't enter instant outperformance payments as soon as we outperform a target. We have to get beyond the outperformance (reward) 'deadband' to start earning outperformance payments – to guarantee our great performance is the result of our own efforts and not the result of external factors, such as a mild winter, for example.

In the diagram below, the measure would result in outperformance payments for two years, in penalty for two years and in the deadband for the final year. Any net penalty or outperformance payments over the five years is included within the PR19 process for setting revenues and anticipated customer bills for the 2020-25 period.



Overview of the year

Our targets for the AMP6 period are challenging and required us to make significant improvements in some areas. To help us to manage these challenges we have accelerated our five-year investment programme to allow us to deliver operational improvements as early as possible and we are rolling out additional information technology to improve the way we apply our Systems Thinking approach to using our assets, our data and the way our people work on a day to day basis.

Our performance over the first three years of the period earned us an ODI overall outperformance payment of £2.2m. This year we have seen improved performance in many areas and we have met or outperformed 21 of our measures, and although we failed six of them we earned a net outperformance payment of £19.2m.

2018-19 was a very tough year. The year started with the aftermath of the severe cold spell known as the 'beast from the east'. This freeze followed by a rapid thaw caused severe and rapid ground movement, which resulted in a significant increase in water main bursts and required us to mobilise additional repair gangs to ensure that leakage levels could be kept under control.

The freeze-thaw was then quickly followed by an extended period of hot weather. Summer 2018 was the joint hottest on record together with 2006, 2003 and 1976 and was the fourth driest period across North West England in 81 years of record, receiving just 67% of long term average rainfall. The effects of this weather situation contributed to a series of events; ranging from an exceptional increase in water demand of half a billion litres per day, to a major multi-agency incident response to moorland fires.

This hot and dry weather pattern resulted in reductions in reservoir levels that mirrored those last seen in 1995 when a 14 month Temporary Use Ban (more commonly described as a hosepipe ban) was introduced across the region. In July 2018 we announced that a Temporary Use Ban (TUB) would come into effect in August, unless there was a significant change to the situation. However, we were able to manage these events in such a way which ensured that no water restrictions were introduced for customers in the North West. As a consequence of forward planning, our response during the summer, the support of customers in reducing their water demand, together with a change in the weather pattern, we were able to avoid the need for a TUB, withdrawing the notification on 2 August 2018.

The work we undertook in avoiding water restrictions in 2018 has increased our expenditure for the year above the values we had predicted in our 2018 APR. However, much of the work will provide resilience benefits in 2019 and beyond should such a confluence of exceptional events repeat itself. These longer term benefits include:

- A 70% increase in the number of mobile water tankers we own.
- An increase in the availability of our groundwater sources by 35 megalitres per day to help further mitigate the sensitivity of our mainly surface water system.
- An increase of up to 50% in the amount of water we can pump from Merseyside to Manchester creating more regional system flexibility.

We firmly believe that learning (and actively sharing lessons) from major events is critical to helping us continue to improve and we undertook internal exercises and joint exercises with our partners to understand how we can further improve the way that we manage major events like the ones we experienced in 2018. Key learning points from this period are:

- The need for flexibility in the Drought Plan to allow for reduced notification times for a Temporary Use Ban.
- A new approach to incident scenario planning considering combined effects from multiple concurrent incidents.
- Creating flexibility in our Drought Plan for localised issues affecting very specific areas of the region.

Despite this difficult backdrop, we achieved our best ever performance against our ODI's with a net outperformance payment of £19.2m and we achieved our best ever SIM scores and ended the period with a potential outperformance payment of £16m.

Operational performance

Despite the impact of the extreme weather, our performance in the clean water area has been very positive, with significantly improved performance against a number of measures and only one measure (the Water Quality Service Index) incurring a penalty in the year. We are pleased that the work we undertook and the new systems and processes that we implemented have increased the resilience of our water supplies and that we were able to beat our leakage target, for the thirteenth consecutive year. In addition, for the first time we were able to earn an outperformance payment against our measure for the average time that customers are off supply. We are also pleased that the work we initiated in agreement with the DWI following water quality incidents earlier in the period is now showing real benefits, with a significant reduction in the number of category 3 or above water quality incidents.

This extreme weather did not have as great an impact on the wastewater service, and we met or exceeded all of our targets with financial measures. The key areas of outperformance were the way we manage the previously private sewer network, which transferred to UUW in 2011, and in minimising pollution incidents. We have also outperformed and for the first time earned an outperformance payment against our sewer flooding index target. At the start of the five-year period, we needed to make significant improvements in our performance to avoid potentially significant penalties on this measure and we are therefore particularly pleased with the positive impact of the work that we have undertaken in this area.

At the beginning of the period we anticipated that although we would improve our performance, we might earn a net penalty against our ODIs, because our targets were getting increasingly tougher. As the plans and actions that we have put in place over the period have taken effect, we have been able to continually reassess our expectations and despite the fact that a number of our measures remain susceptible to one-off events, we anticipate ending the period having earned a net outperformance payment of anything between £30m and £60m.

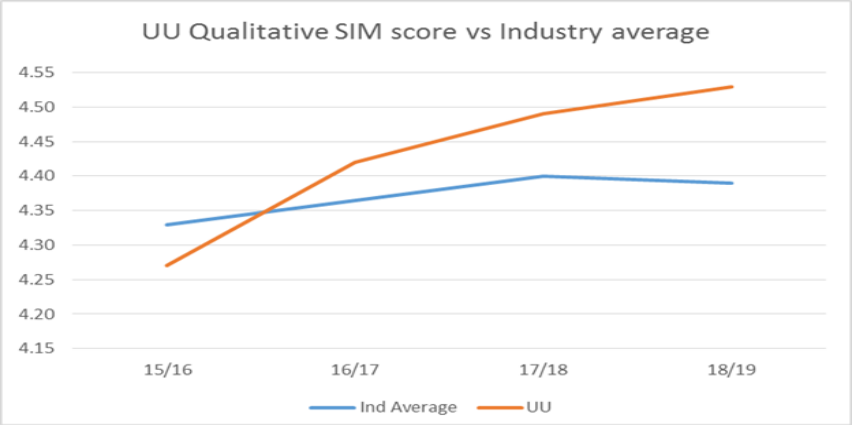
Customer service

Our target for customer service as measured through the Service Incentive Mechanism (SIM) has been to move to the upper quartile of the ten water and sewerage companies.

To meet this challenge we have transformed our retail business, with this transformation having the impact of both significantly reducing our cost to serve in this area and also significantly expanding and improving the range of services that we provide to customers.

This improved performance has been reflected in our improving SIM scores over the period with our overall SIM score increasing further to 88 points, finishing the year as an upper quartile company in our peer group.

SIM will be measured by Ofwat over the first four years of the period only and we calculate that our upper quartile position should generate an outperformance payment of £16m, assuming Ofwat applies the same methodology to its calculation as in the previous AMP.



Performance against our performance commitments during the first four years of the AMP6 period is set out in the table on the following page. This table groups the commitments into five focus areas that customers told us were important to them as part of the last price review process. This table is then followed by a summary of our performance in 2018/19 in each of these key focus areas.

2018/19 performance

Performance against our performance commitment targets during the first four years of the AMP6 period is set out below. Fuller details of our performance against each of these measures is set out in Section 1 Outcome delivery.

Operational Performance Summary (2018/19)

Performance Commitment	Actual Performance				Commitment		
	15/16	16/17	17/18	18/19	18/19	Pass/Fail	Value £m
Providing you with great water							
Drinking Water Safety Plan risk score	4.3	4.3	4.3	4.8	≤ 4.3	Pass	See note 1
Water quality events DWI category 3 or above	35	22	27	6	≥ 9	Pass	See note 2
Water Quality Service Index	120.5	116.9	98.6	101.2	≥ 145.9	Fail	**(3.62)**
Average minutes supply lost per property (a year)	16:42	13:33	13:09	9:10	≤ 12.00	Pass	**11.26**
Reliable water service index	16.4	77.8	70.83	98.5	≥ 100	Fail	See note 3
Security of supply index (SoSI)	100	100	100	100	= 100	Pass	See note 2
Total leakage at or below target	10.8	23.4	9.1	6.7	≥ 0	Pass	See note 3
Resilience of impounding reservoirs	161.60	164.2	165.4	165.7	≥ 164.9	Pass	See note 2
Thirlmere transfer into West Cumbria	2	5	25	57	≥ 53	Pass	See note 4
Disposing of your wastewater							
Private sewers service index	91.69	91.9	85.0	89.3	< 100	Pass	**7.38**
Wastewater network performance index	90.95	89.5	86.2	90.7	< 95.6	Pass	See note 2
Future flood risk	16472	16,418	16,395	16,379	< 16,247	Fail	Reputational
Sewer flooding index	100.8	94.4	70.0	61.7	< 70.30	Pass	**0.57**
Giving you value for money							
Number of free water meters installed	27,197	32,447	36,615	32,069	≥47,421	Fail	Reputational
Customers saying that we offer value for money	50	52	52	58	52	Pass	Reputational
Per household consumption	303	305	311	314	286	Fail	Reputational
Delivering customer service you can rely on							
Service incentive mechanism (SIM) (see note 5)	82	85.44	86.87	87.64	UQWASC	Pass	See note 5
Customer Experience Programme (see note 6)	0.001	0.363	2.576	5.685	10.860	n/a	See note 6
Delivering our commitments to developers	95%	98%	94%	89%	94%	Fail	Reputational
Protecting and enhancing the environment							
Contribution to rivers improved – water (Km)	36.8	82.6	80.6	50.5	≥ 6.6	Pass	**0.18**
Contribution to bathing waters improved	0.47	0.66	1.49	4.21	≥ 3.78	Pass	See note 2
Protecting rivers from deterioration due to growth	48.0	48	210.5	322.9	≤ 316.7	Pass	See note 2
Maintaining our wastewater treatment works	91.5	58.7	30.5	39.2	≤ 54.32	Pass	See note 2
Contribution to rivers improved wastewater (Km)	0.75	47.0	120.7	178.9	≥ 173.4	Pass	**0.20**
Wastewater (category 1 & 2) pollution incidents	4	2	0	1	≤ 3	Pass	See note 2
Wastewater category 3 pollution incidents	136	150	129	143	≤ 195	Pass	**3.28**
Satisfactory sludge disposal	100.00	100	100	100	= 100	Pass	See note 2
Totals							
Total incentive position							19.2

Notes to the table

1 The measurement of this risk assessment was changed by the DWI this year so reported performance is no longer comparable with the target.

2 No outperformance payment due this is an underperformance only incentive.

3 No incentive payment due because performance falls within the deadband.

4 The Thirlmere transfer measure compares progress on the project against original expectations, although we are ahead of schedule the penalty or outperformance payment is only assessed at the end of the five year period.

5 The table records our actual performance for SIM our target is to be upper quartile for water and sewerage companies (UQWASC).

6 The Customer Experience Programme monitors depreciation (based upon expenditure) on the programme, a value lower than the target means that efficiencies have been delivered with these efficiencies passed on to customers.

Providing you with great water

Outcomes:	Performance:
a) Your drinking water is safe and clean b) You have reliable supply of water now and in the future	Seven out of nine measures achieved Net outperformance payment of £7.64m (water)

What do customers want?

Customers told us that they were happy with the quality of their water but, in some instances, would like its taste, smell and appearance to be improved. Customers also expect reliable, uninterrupted water supplies, and to have enough water in the North West to keep the taps flowing for many years to come, even in the face of long-term issues such as climate change.

How have we done?

Our performance against water quality and availability measures has met or exceeded our targets for seven out of nine measures.

Despite the extreme weather we experienced during the year, we maintained our 100% performance level against our longer term security of supply target and exceeded our leakage target for the thirteenth year running. We know that customers regard leakage as a priority area and have recognised this by putting plans in place to reduce leakage levels further in the future. Customers can also help by saving water - for water saving tips visit our website.

Over recent years we have been focusing on improving the way that we can identify, respond to and manage the impact of mains bursts. This has involved managing water pressure, focusing investment on poor condition water mains that supply a large number of customers and in expanding our 'water on wheels' fleet which allows us to restore water supplies through tankered water whilst we are repairing damaged mains. This work is now delivering real benefits, with a significant improvement against the reliable water service index and an outperformance payment against the average minutes of supply lost measure.

Good progress is being made on our major project to construct a pipeline to transfer water from Thirlmere reservoir into West Cumbria. We are aiming to deliver this project as soon as possible and are running ahead of the planned delivery date of March 2022 although this is still heavily dependent on the weather and potential construction difficulties. More details of our work in West Cumbria can be found on our website.

We also continue to deliver a very high level of water quality. Despite this, we failed this year to meet our increasingly tough targets for our Water Quality Service Index. Our performance against this index was mainly impacted by the number of complaints we have received about discoloured water. We are seeking to improve performance through an extensive and ongoing mains cleaning programme that will reduce the risk of customers receiving discoloured water. However, as a consequence of the extreme hot and dry weather that we experienced in the year, we needed to delay the implementation of this programme as it requires substantial volumes of water.

Mean zonal compliance, which measures performance against 39 water quality standards, also contributes to this index. Although our performance remains very high at 99.93% our performance commitment is set at 100%. Meeting such a target is challenging, not least due to the influence of customers' own internal plumbing on several water quality parameters.

We have been working closely with the Drinking Water Inspectorate to learn lessons from incidents we experienced earlier in this five-year period. We have been implementing a transformation plan delivering improvements at water treatment works and across the water network to meet our increasingly challenging water quality targets. As a result of this, the number of water quality events that we report to the Drinking Water Inspectorate has significantly reduced this year allowing us to outperform our target for the measure.

Disposing of your wastewater

Outcomes:	Performance:
a) Your wastewater is removed and treated without you ever noticing b) The risk of flooding for homes and businesses is reduced	Three out of four measures achieved Net outperformance payments of £7.9m (wastewater)

What do customers want?

Customers told us they want a reliable wastewater service that works well behind the scenes, and reduced sewer flooding, provided in a cost effective way that does not adversely affect bills.

How have we done?

We have met 3 out of 4 of our measures in this area.

We continue to focus on reducing the impact of flooding of customers' homes by targeting schemes that are designed to reduce the risk of flooding homes and in areas that are more likely to experience flooding. Our recent investments in improved resilience and the use of our Integrated Control Centre have allowed us to improve the effectiveness of our investment in the network and to be able to respond more effectively to incidents when they do occur. We have also been undertaking an extensive sewer cleaning programme to help us continue to improve our performance.

Our targets for sewer flooding are very stretching, with performance against the measure being extremely sensitive to severe weather events. In the first two years of this investment period we suffered from major storms and, whilst the most extreme events are excluded from our reported numbers, these storms do inevitably contribute to the overall number of flooded properties and we failed to achieve our targets in both years, incurring a penalty in 2016/17.

In the last two years we have not seen the same number of extreme storms and have been able to beat our flooding target. This year we exceeded it by enough to earn an outperformance payment. Further improvement is still planned, although the targets become even more challenging and our performance will still be heavily impacted by the weather. We will therefore continue to review our operational and investment decisions on a regular basis to help reach the optimal position against this measure.

Despite our encouraging performance on sewer flooding, we did not meet the target for our 'future flood risk' measure. This measure looks at the overall risk of properties being flooded and although we have reduced the risk this year, our target has also got tougher and we did not improve sufficiently to achieve it.

This year has seen the overall operational performance of our sewerage network, as measured through the wastewater network performance index, remain high. While we have seen a small increase in the numbers of sewer blockages, sewer collapses and equipment failures, performance levels remain better than the targets included within this Index measure.

In 2011 a large number of previously privately owned sewers transferred to UUW ownership for the first time. We measure performance on these assets separately. We believe that we manage this network in a more proactive way than some other water companies. This approach means that we do spend more than if we managed these assets in a purely reactive way, but it has the benefit of a better level of performance. As a result of this approach and the acceleration of investment in this area, we have again outperformed our performance commitment target and earned outperformance payments.

Giving you value for money

Outcomes:	Performance:
a) Bills for you and future customers are fair	One out of three measures achieved No financial incentives apply

What do customers want?

Customers want bills that are fair and affordable, with support for those who struggle to pay and money spent on projects that will deliver real improvements to services and the region as a whole. Our priority should be our core water and wastewater services, but we should maximise opportunity for partnership working to bring about environmental enhancements.

How have we done?

This year we've exceeded our value for money measure with 58% of customers saying our services provided value for money, but there is still more we can do. We recognise that perceptions of 'value' are driven by greater understanding of the work we do, so we continue to take opportunities to talk about how customers can save money as well as promoting the wider services we provide.

We continue to be committed to helping those customers who are struggling to pay, to help them to get back on track. In January, we hosted our second North West Affordability Summit, which was attended by over 100 representatives from across the North West, including debt advice charities, food banks, credit unions and housing associations. At this year's summit we launched the North West Financial Hardship Hub (read more here), which has been developed in conjunction with experts including Citizens Advice and housing associations and has been dubbed a 'TripAdvisor' for financial advice.

This work underpins our Priority Services initiative, which provides targeted support and tailored assistance for customers experiencing short or long-term personal or financial difficulties in their lives. Over 73,000 customers are now registered for our Priority Services support scheme.

We've not however, met our target for free meters installed. To try to ensure we can reach as many customers as possible we continue to promote meters to customers we believe would benefit from a meter. We ran a recent campaign featuring consumer champion Gloria Hunniford, whose video is on our website (view video) and dispels common myths on meters and shows how customers could save with a meter.

We have also not reached our targeted reduction in the amount of water each household uses, with this year seeing another increase in demand, with particularly high demand occurring in the hot and dry summer of 2018. We have, however, continued to promote water efficiency and water meters to customers throughout the year. We have delivered significant programmes of water efficiency, including giving out and offering free home visits to install water saving devices, as well as running competitions, summer events, press/radio/bus advertising and undertaking digital campaigns. Online activity by customers can be seen to increase following such campaigns.

Further water efficiency initiatives are ongoing and planned, particularly our project using water data to influence customer behaviour to save water and money. The factors that influence how much water customers use are wide ranging and highly complex, and this measure is difficult to control. Although a number of additional initiatives and trials are being considered there is a risk we won't meet our targets for 2019/20.

We are aware that we cannot deliver environmental and social challenges on our own. By supporting partners with similar aims as ourselves, we are able to work together and, in most cases, attract further funding from other sources – helping our customers' money go even further.

Partnerships are offering a great way of connecting communities with issues. We have contributed to our Love My Beach partnership by undertaking coastal modelling and through employees volunteering to help to keep our region's beaches tidy. We also continue to support local communities through contributions and schemes such as our community partnership with Youth Focus North West, which has focused on one of our region's major issues of affordability and budgeting through co-creating the 'managing your money' training module.

Delivering customer service you can rely on

Outcomes:	Performance:
a) You're highly satisfied with our service and find it easy to do business with us	One measure passed, one provisionally passed and one measure not achieved Expect to earn an outperformance payment of c£16m

What do customers want?

Customers want great service from us every time they get in touch – with easy access to our services and information, for problems to be resolved quickly and professionally, and great communication about those issues we can't solve straight away.

How have we done?

We have met one measure, conditionally met another (SIM) and failed to meet one of the measures in this area. We have delivered further improvements in customer satisfaction over the year and a step change in performance since 2015. This has been achieved through a strong customer focus, combining higher levels of investment to improve resilience, greater use of technology to deliver better customer service and our leading approach to supporting vulnerable customers.

This improvement is reflected in our performance on the Service Incentive Mechanism (SIM), where we achieved our best ever score this year against Ofwat's qualitative SIM measure. Our target for SIM is to be in the top quarter of the water and sewerage companies in the England and Wales water industry.

Ofwat are only measuring SIM for the first four years of the AMP6 period, with our target being to finish in the top quarter of the water and sewerage companies in the England and Wales water industry. Although this assessment is relative to other companies and can only be finalised when all companies have reported their performance, we anticipate that we will achieve our target of an upper quartile position and expect to earn an outperformance payment of c£16m, based on a consistent application of Ofwat's SIM mechanism from the previous regulatory period.

This improved performance is mirrored across other customer satisfaction metrics. For example, in August 2018 we were awarded the Institute of Customer Service's 'ServiceMark with distinction', being one of only 13 companies nationally to achieve this award with distinction.

During the year we also completed the implementation of our wide ranging Customer Experience Programme. This programme focused on implementing new systems processes and technologies, to allow us to better respond to what customers want from us and deliver major improvements in our customer service. The final part of this programme, our new debt manager system went live on 17 March 2019, with our agents now fully trained and actively using the new functionality to support management of our customer debt.

Through this programme and other operational changes we have improved many of our key processes and introduced new services that customers want and value, such as 'Moving Home' and 'Priority Services'. The programme has also introduced improvements in digital contact channels and a new Mobile App.

One of our objectives in this area is to continue to provide an improving service to developers, local authorities and highway authorities. We are therefore disappointed that we saw a temporary dip in our performance against this measure in the year following an internal re-organisation. We are, however, confident that we will be able to deliver a better overall standard of service. Our detailed performance and a comparison to industry average performance in this area can be seen on our website.

The non-household retail market is now open to competition allowing business customers' choice about who provides them with services such as billing, meter reading and customer services. If you are a business customer and want to know more, go to the open water website.

Protecting and enhancing the environment

Outcomes:	Performance:
a) The North West's bathing and shellfish waters are cleaner through our work and that of others b) The natural environment is protected and improved in the way we deliver our services c) Our services and assets are fit for changing climate and our carbon footprint is reduced	We have achieved eight out of eight measures Achieving outperformance payments of £0.2m (water) and £3.5m (wastewater)

What do customers want?

North West customers are passionate about our coastlines, recognising the link between good bathing water, tourism and the economic health of our local communities. They expect us to protect and enhance the areas of natural beauty under our ownership and work to reduce our carbon footprint.

How have we done?

We are pleased to have been able to meet or beat our targets on all eight of our measures in this area.

We are delivering two main wide-ranging programmes of work that aim to improve the environment in this five-year period. The first focuses on inland and river water quality, the second focuses on bathing and coastal water quality.

We have continued to make good progress in delivering our river water quality programme, having successfully delivered all of the schemes that were included in this year's programme and delivering the schemes at Ambleside and Oakmere earlier than planned.

Overall, we have also made good progress on our bathing waters programme. During the year we completed a number of planned schemes and accelerated the delivery of an additional scheme that will improve bathing waters off the Fylde Coast. Unfortunately, due to planning difficulties, we have had to delay the completion of two schemes in the Ulverston area to later in the summer.

We have two measures relating to pollution incidents. The first looks at category 1 and 2 incidents (the more serious incidents), and the second at category 3 incidents (which are less serious). We have implemented a number of process, data and training initiatives to minimise pollution incidents, including our environmental compliance green tick campaign. As a result of these we have consistently outperformed both of these measures throughout the first four years of the period.

We have also continued to provide a level of compliance and reduced level of risk at our wastewater treatment works and have outperformed our performance target again this year. This improved performance is the result of the acceleration of our expenditure programmes coupled with the benefits of additional automation and control installed to enhance on-site or remote monitoring and management of key assets.

The by-product of treating wastewater is known as bioresources. Our bioresources treatment and disposal activities continue to meet environmental requirements. We are continuing to make better use of this valuable resource by promoting the use of bioresources as an alternative to fertiliser and by abstracting energy. We have made significant progress in increasing the quantity of renewable energy generated from our bioresources.

We set ourselves a target of reducing our greenhouse gas emissions by 50 per cent from the 2005/06 baseline by 2020 and achieving a 60 per cent reduction by 2035. We have already exceeded both of those targets with our carbon emissions now 71 per cent below the 2005/06 baseline. We recognise our obligation to mitigate climate change and will continue to explore ways to lower our emissions. Further details can be found in our environmental policy, which was refreshed and published in October 2018.

Anticipated performance in 2019/20

In 2018 we expected to end the AMP6 period in a net positive position across the two wholesale price controls with a net outperformance payment of £10m. During 2018/19 we substantially outperformed our expectations and as a result anticipate ending the period having earned a net outperformance payment of anything between £30m and £60m.

We have included a central estimate of £45m in the table below, which shows a relatively small net penalty for the water and retail services, with a larger net outperformance payment for the wastewater service. Although many of our measures are very susceptible to weather and we could as easily end up with a higher or lower outperformance payment.

Actual and anticipated outperformance payments and penalties for the remainder of the 2015-2020 period

Performance Commitment	Actual Incentive (£m)				Forecast Incentive (£m)	AMP 6 Total (£m)
	2015/2016	2016/2017	2017/2018	2018/2019	2019/2020	
A2: Water quality events DWI category 3 or above	-0.4	-0.6	-0.7	0	-1.2	-3.0
A3: Water Quality Service Index	0.2	-3.6	-3.6	-3.6	-3.6	-14.2
B1: Average minutes supply lost per property (a year)	0	0	-6	11.3	1.7	7.0
B2: Reliable water service index	-8	-8.0	-8	0	0	-23.9
B3: Security of supply index (SoSI)	0	0	0	0	0	0
B4: Total leakage at or below target	0	9.1	0	0	0	9.1
B5: Resilience of impounding reservoirs	0	0	0	0	0	0
B6: Thirlmere transfer into West Cumbria	0	0	0	0	21.6	21.6
C1: Contribution to rivers improved - water programme	0.1	0.2	0.2	0.2	0	0.6
Water service total (applied as an RCV uplift) (12/13 prices)						**-2.8**
S-A1: Private sewers service index	7.4	7.4	7.4	7.4	7.4	36.9
S-A2: Wastewater network performance index	0	0	0	0	0	0
S-B2: Sewer flooding index	0	-1.5	0	0.6	0	-0.9
S-C1: Contribution to bathing waters improved	0	0	0	0	0	0
S-D1: Protecting rivers from deterioration due to population growth	0	0	0	0	0	0
S-D2: Maintaining our wastewater treatment works	0	0	0	0.0	-4.4	-4.4
S-D3: Contribution to rivers improved wastewater (Km)	0	0.4	0.4	0.2	-0.1	0.9
S-D4a: Wastewater (category 1 & 2) pollution incidents	0	0	0	0	0	0
S-D4b: Wastewater category 3 pollution incidents	3.3	3.3	3.3	3.3	3.3	16.4
S-D5: Satisfactory sludge disposal	0	0	0	0	0	0
Wastewater service total (applied as an RCV uplift) (12/13 prices)				-		**48.9**
R-A2: Customer experience programme	0	0	0	0	-5.7	-5.7
Household retail total (applied as a revenue reduction) (outturn prices)						**-5.7**

Note - The values shown in the table above are subject to a number of factors that are not entirely within management control - most notably the weather - and as such the actual outturn position could potentially vary significantly from this position.

The potential variability and key factors that could influence our future performance against each of these measures is set out in Section 2 of this report. Full details of the PR14 reconciliation, which shows how this anticipated performance would be reflected in future revenue allowances, are provided on our website.

Our expenditure and revenues

Introduction

The PR14 price review process was structured around two wholesale price controls and two retail price controls.

The wholesale business undertakes the operational activities of collecting, treating and distributing water to customers and then collecting, treating and managing the sludge produced by the wastewater treatment process. At PR14 two separate price controls were established for our wholesale services; water and wastewater.

The retail business undertakes the customer contact and billing activities. At PR14 two separate price controls were established for our retail services. One of these was for retail services for household customers, which we continue to operate. The other retail services was for business and other non-household customers. The non-household retail market opened to competition in April 2017, following which UUW exited the non-household retail market and non-household customers have been able to obtain their retail services from a number of retailers. Further details of the non-household retail market can be found on the Open Water website.

This section of the executive summary of our APR sets out how we have performed against the PR14 expenditure and revenue assumptions for the wholesale price controls and the household retail price control. The following section sets out how this expenditure has impacted upon the financial performance of the company.

Wholesale

Overview of the wholesale price controls (assumed expenditure and allowed revenue)

As set out in the previous section of this summary, the performance expectations of the wholesale services were set out in terms of performance commitments with associated outcome delivery incentives. The PR14 process also determined the assumed levels of total expenditure (totex) that were required to deliver these performance levels and to continue to meet our other regulatory and statutory obligations.

These expenditure assumptions, for the water and wastewater services, were then used to determine the amount of revenue that would need to be recovered from customers to allow the business to finance the delivery of the operational and capital expenditure programmes that would be required during the AMP6 period, to continue to finance the borrowing required to fund previous investment programmes and to pay tax on our operations.

The PR14 determination also defined the incentive regimes that are in place to reflect changes between allowed totex levels and actual totex levels, with the totex incentive regime designed to work together with the outcome delivery incentives to drive improvements in performance and efficiency.

Totex incentivisation

The totex investment regime takes a holistic view of capital and operating expenditure (capex and opex) to generate a total expenditure level (totex).

Any variance between the initial totex assumptions and actual expenditure over the full five-year period will be assessed through the totex incentive mechanism as part of the price review process for the 2020-25 period. This mechanism ensures that if we have been able to make greater efficiencies than assumed in the FD, then approximately half of the saving would be retained by the company and approximately half would be returned to customers. Similarly, if our expenditure is higher than the determined allowance, approximately half of the increased expenditure would be recovered from customers and approximately half would be paid for by the company.

The impact of any net variance to the PR14 assumptions will be assessed as part of the PR19 price review process which concludes in 2020 and will then be reflected in customer bills during subsequent periods. Details of our PR14 reconciliation for totex are published on our website.

Interaction of operational and financial incentives

The totex incentive regime is designed to work alongside the outcome delivery incentive regime to ensure that companies are incentivised to strike the right balance between expenditure and performance. This approach is designed to encourage companies to innovate and to achieve efficiencies or improved service levels, rather than simply setting fixed (or capped) expenditure allowances and performance requirements.

Wholesale expenditure

Our wholesale totex expenditure, compared to the totex expenditure levels set out in the PR14 final determination, is shown in the table below.

Wholesale expenditure for the first four years of the AMP6 period (12/13 prices)

Measure	Cumulative spend April 2015 to March 2019		
	FD assumption (£m)	Actual (£m)	Variance (£m)
Wholesale totex (Water)	1,888	2,084	+196
Wholesale totex (Wastewater)	2,392	2,509	+117
Shadow RCV (March 2019)	11,404	11,624	+220

Information from APR Tables 4B and 4C

Expenditure in 2015/16 and 2016/17 was significantly higher than assumed across both the wholesale controls. 2017/18 expenditure in water was in excess of the FD whereas 2017/18 wastewater expenditure was lower than assumed in the FD. The 'shadow' RCV takes account of differences between actual spend, timing and performance compared with those assumed in the FD. In 2018/19 expenditure across wholesale was broadly in line with FD expectations, with water expenditure £65m higher and wastewater expenditure £60m lower than assumed in the FD (in outturn prices).

Wholesale expenditure acceleration

The key reason for the increased expenditure in the early part of AMP7 is because we chose to accelerate the expenditure programme to enable us to target better service levels to customers, improve performance against our outcomes and to drive future sustainable efficiency savings.

Despite this increase in expenditure, we remain on track to outperform the efficiency challenge set by the FD and deliver our programmes of work for approximately £100m lower than the expenditure levels assumed in the FD.

We have committed to reinvest a substantial portion of our overall outperformance in a £250m programme of resilience work, designed to provide additional customer and environmental benefits both over the rest of the AMP and in the longer term, and have recently announced a further £100m of reinvestment to help us make a flying start to AMP7.

In 2018/19, expenditure in the water service remained higher than assumed in the FD as the reduction in expenditure on our originally assumed programmes of work was offset by the impact of reinvestment together with the additional costs that we incurred in managing and building increased resilience in response to the hot and dry summer of 2018. Expenditure on wastewater was not as affected by the dry summer and, as planned, expenditure levels were below the FD assumption. Overall, 2018/19 expenditure was broadly in line with the FD and the chart below summarises the five-year position (in outturn prices).

Actual and forecast totex vs the FD

Following publication of the FD, Ofwat provided revised guidance (RAG 2.07) on cost allocation. This sets out that capital expenditures and associated depreciation of assets should be reported in the service of principal use of that asset, with recharges made to the other services that use the asset. UUW has complied with this guidance.

Importantly, our capital delivery continues to be achieved in an increasingly effective and efficient manner as measured by our internal time, cost and quality index (TCQi). This has improved over AMP6 and in 2018/19 was as high as 95% (up from 90% in 2015/16), meaning that, on average, 95% of our capital expenditure in the last year was delivered to time, at the budgeted cost and meeting the high level of quality required.

Household retail

Overview of the retail price controls and incentives

The PR14 process determined an allowed 'cost to serve', plus an assumed margin that could be recovered for providing retail services to household customers. The allowed cost reduced through the AMP6 period, with no allowance being made for inflation and therefore the targets become progressively more difficult through the period.

The initial cost to serve allowance was based upon assumed numbers of customers through the period, as well as the numbers of customers who are metered or un-metered and customers who receive one or both of the wholesale services. Total allowed cost to serve levels for each year therefore vary depending upon actual customer numbers.

There is no cost sharing mechanism for retail costs. Any variations in actual cost to service compared to the allowed level of costs impact company returns – not customer bills – in the period. The table below shows the variance between allowed and actual costs in 2018/19.

2018/19 comparison between allowed and actual cost to serve (out turn prices)

Measure	Ofwat FD assumption	2018/19 Actual	Variance
Cost to serve excluding margin	£103.4m	£110.9m	£7.5m

2018/19 performance – household retail

Our household retail performance in 2018/19 against the allowed cost to serve and assumed revenue set out in the FD is shown in the table above.

Household retail operating costs in 2018/19 were £2.7m lower than in 2017/18 (£113.6m). This further reduction in our cost to serve has demonstrated the benefits that are being delivered through our customer experience programme. Our assumed cost to serve will not increase in line with inflation and will continue to reduce during the period, which will require us to continue to deliver further efficiency in our operations.

Our bad debt costs have benefitted from the continuing positive impact of billing and collections initiatives. In 2018/19 we have seen the continuation of the significant uptake in the number of customers taking advantage of our financial assistance schemes with a consequent benefit on bad debt. This has been supported by the continued success of our Town Action Planning initiatives which engages with customers in our most deprived areas,

Household bad debt has reduced to its lowest ever level of 3.5 per cent of regulated revenue, down from 4.2 per cent last year. Although our performance this year has been encouraging, bad debt will remain a challenge given the high levels of deprivation in the UUW region and will be an area of continued focus as we drive for further improvement.

Actual household customer numbers at 3.0 million, were 22,319 higher than in 2017/18 and 21,998 higher than assumed in the PR14 FD. This change has primarily been driven by higher than forecast new connections and the benefits of residency validation and gap site identification activities.

Impact of our performance on the PR14 incentive regimes

In September 2018 we published our business plan for the 2020-25 (AMP7) period. This plan takes account of the impact of our performance during the current 2015-20 (AMP6) period, through the incentive regimes that were defined as part of the last price review process (PR14).

To support this process, in July 2018, we published and provided Ofwat with detail of our actual performance to that point and our anticipated performance for the remainder of the AMP6 period against each of the AMP6 incentive mechanisms. We have published an update of this information showing 2018/19 actual performance and updated predictions for our 2019/20 performance alongside our APR. This information, called our July 2019 PR14 reconciliation update is available via https://www.unitedutilities.com/corporate/about-us/our-future-plans/looking-to-the-future/

There are eight PR14 incentive regimes that generate adjustments to PR19 revenues or Regulatory Capital Value (RCV):

- **Water and Wastewater wholesale performance commitments** – the cumulative five-year penalty or outperformance payment for the financial performance commitments within each price control (Water and Wastewater) is calculated. If this is a penalty this is applied as a revenue reduction. If this is an outperformance payment it is applied as a RCV uplift.
- **Household Retail performance commitments** – other than SIM we have one penalty only performance commitment, with any penalty applied to household retail cost to serve.
- **Service Incentive Mechanism (SIM)** – measures the number of complaints and the quality of the way companies handle complaints. Performance is assessed relative to other water companies and full details of how incentives will be calculated are still to be determined by Ofwat.
- **Water and Wastewater wholesale totex** - the cumulative five year actual totex for each wholesale price control is compared against totex levels assumed at PR14. Approximately half of any under or overspend is shared with customers through revenue and RCV adjustments, which reduce or increase future bills.
- **Wholesale Revenue Forecasting Incentive Mechanism (WRFIM)** – annual adjustment to revenues to account for any over or under recovery of allowed revenue in previous years. A penalty is also applied if companies over or under recover by 2% more or less than the allowed revenue.
- **Household retail mechanism** – adjusts the allowed cost to serve to reflect differences between the actual number of customers in each cost to serve category and the number expected at PR14.
- **Land Sales** – reduces the RCV to reflect the net proceeds, after the deduction of all off setting costs, of disposals of land.
- **Water trading incentives** – revenue adjustment applied for water trades to or from other water companies.

In addition to these ten PR14 incentive mechanisms, wholesale revenues and RCV will also be adjusted to reflect the finalisation of the adjustments from previous price reviews, the details of which were determined and published by Ofwat in December 2017. Additionally a notified item was defined in PR14 for significant variances in water rates. As our actual costs for water rates are broadly in line with expectations we will not be applying this notified item.

The net impact of all of these adjustments, including the prior AMP adjustments are set out in the table below. The 2019 update values are larger than the equivalent 2018 values due to the additional expenditure which we are planning to undertake and the better than anticipated performance against our ODI's this year.

Net Impact of adjustments

	2018 view		2019 update	
	RCV	Revenue	RCV	Revenue
Wholesale water	£17.9m	(£0.6m)	£58.2m	£30.6m
Wholesale wastewater	(£32.8m)	(£0.3m)	£14.9m	£7.6m
Household retail	n/a	£14.1m	n/a	£16.0m
UUW Total	(14.8m)	£13.2m	£73.1m	£54.2m

Our financial performance

Overview of the PR14 determination

Ofwat developed the PR14 determinations for all companies based upon a notional capital structure (rather than basing them on company specific capital structures). It applied a common weighted average cost of capital for all (non-enhanced) companies of 3.60% to determine wholesale revenue allowances. Margins of 1% and 2.5% were applied to the household retail and non-household retail price controls respectively.

To demonstrate that the plan was financeable, the anticipated performance against a key suite of equity and debt financial indicators was set out as part of each company's determination.

In addition, Ofwat set out the assumed notional base case return against the company's regulatory equity (RORE). For UUW this value was 5.63%.

The overall determination and incentive package was therefore positioned to be sufficiently broad and challenging that companies needed to manage diverse risks and utilise available opportunities in order to earn a balanced return for investors, whilst delivering the best possible package of price and service to customers and the environment.

Overview of the PR19 business plan and price determination

All water companies, including UUW, published and submitted their PR19 business plans to Ofwat in September 2018. This process will set prices for the 2020-25 period for four wholesale price controls (water resources, water network plus, wastewater network plus and bioresources) and the household retail price control.

In January 2019, Ofwat published its initial assessment of plans (IAP) and we were pleased that UUW was one of just three companies in the industry to attain fast track status. This meant that we received an early draft determination (DD) in April 2019, enabling us to make a flying start to AMP7, and we benefit from a reward equivalent to an annual 0.1% of regulated equity, worth around £25m across the 2020-25 period. In May 2019 we submitted our representations on the DD to Ofwat and we will continue to work constructively with the regulator until the final determinations are published in December 2019.

Non fast-track companies had to re-submit all or parts of their plans in April 2019 and will receive their DDs in July 2019, which we will assess for any common industry issues and possible implications for UUW. These companies then have until late August 2019 to submit representations to their respective DDs. All companies will receive their FDs on 11 December 2019.

2018/19 performance – UUW financial performance

Overall, we have delivered a strong set of financial results for the year ended 31 March 2019.

An increase in Retail Price Index (RPI) inflation has increased both revenues and our RCV. As the growth in RPI inflation was slower than last year, we have benefited from a reduction in our index-linked financing charge for the year. Overall, we continue to maintain a strong balance sheet and solid credit ratings.

Over 2015-20 we have financing requirements totalling around £2.5bn to cover refinancing and incremental debt, supporting our five-year investment programme, and we have now raised all of this requirement. We were the first UK utility to issue Consumer Price Index (CPI) linked debt in anticipation of Ofwat's transition away from calibration of price controls using RPI and we have subsequently issued more of this type of debt. We continue to be one of the sector leaders in the issuance of CPI index-linked debt.

We have locked in a low cost of debt for 2015-20, with an appropriate mix of index-linked and nominal debt; and our hedging policy means we are well placed to manage future financing costs. We have a robust liquidity position providing headroom to cover our projected financial needs into late 2020 and have published a seven year, long term viability statement.

We have a responsible and sustainable dividend policy, supporting the group's policy of targeting an annual growth rate of at least RPI inflation through to 2020.

The following pages of this executive summary cover our financial performance through an overview of our income statement, our financial position and a range of key financial metrics. The overall impact of this performance upon return is also assessed through our return on regulatory equity (RORE) and financial flows.

Additional detail is provided within Section 2: Regulatory Accounts.

Income statement

Our income statements for the years ending 31 March 2018 and 31 March 2019 are summarised in the table below. This should be read in conjunction with the high level commentary following the table and the detailed information provided within Section 2: Regulatory Accounts.

Financial measures for the years ending 31 March 2018 and 31 March 2019

Financial Measure (£m)	2017/18	2018/19
Revenue	1,710.6	1,783.1
Operating Profit	602.5	610.6
Profit before tax	371.7	366.0
Profit after tax	302.4	303.3

Information from APR Table 1A

In 2018/19, regulated revenue increased by £73m, to £1.78 bn, mainly reflecting an increase in our allowed regulatory revenue for the wholesale price control. Partly offsetting this increase, consistent with Ofwat's annual wholesale revenue forecasting incentive mechanism (WRFIM), revenue was reduced in 2018/19 by £8m, reflecting actual volumes being higher than our original assumptions during AMP6 and reductions relating to the 2014/15 AMP5 'blind year'.

Operating profit of £611m was up £8m from 2017/18 reflecting the £73m increase in revenue, largely offset by dry weather related costs and additional increases in infrastructure renewals expenditure and depreciation.

Profit before tax of £366m was down £6m. There was an £8m increase in operating profit plus a £31m reduction in net interest expense, mainly due to the impact of lower RPI inflation on our index-linked debt. However, this was more than offset by a £34m fair value movement on financial instruments (from a gain of £27m in 2017/18 to a loss of £7m in 2018/19) and an £11m reduction in other income, primarily due to a fall in diversion income received.

Reported profit after tax of £303m was up £1m from 2017/18, reflecting a small decrease in the total tax charge across the two years.

Financial position

Our financial position for the years ending 31 March 2018 and 31 March 2019 is summarised in the table below. This should be read in conjunction with the high level commentary following the table and the detailed information provided within Section 2: Regulatory Accounts.

Financial position for the years ending 31 March 2018 and 31 March 2019

Financial Position	2017/18	2018/19
Total assets (£m)	12,491	12,738
Total liabilities (£m)	10,199	10,448
Net asset value and total equity (£m)	2,292	2,290
(Decrease)/Increase in net cash (£m)	317	(176)
Net Debt (£m)	7,122	7,394
Ofwat RCV (£m)	11,010	11,404
'Shadow' Regulatory Capital Value (£m)	11,214	11,624
Gearing (%)	64.7	64.8

Information from APR Tables 1C, 1D, 1E and 4C

Net assets were similar year-on-year, down just £2m, with the £249m increase in liabilities offset by a £247m increase in assets, both impacted by continued significant investment in our capital investment programme. There was a £176m reduction in cash, mainly due to the timing of finance raised towards the end of last year, reflecting operational financing requirements.

Reported net debt (Table 1E), which includes preference share capital, was up by £272m. This increase primarily reflects regulatory capital expenditure, payments of dividends, interest and tax and the inflationary uplift on index-linked debt.

The 'Shadow' regulatory capital value increased by £410m as a result of the impact of RPI inflation, together with the size and the acceleration of our investment programme.

Reported gearing (which uses Ofwat RCV) increased marginally by 0.1% to 64.8%. Based on the shadow RCV, gearing is lower at 63.6%.

The acceleration of totex spend has resulted in increasing gearing at the beginning of the AMP. This is due to the additional spend in the earlier years of the AMP increasing net debt, but not yet being fully reflected in RCV. This would have resulted in a reduction in gearing in the last year of the AMP, as the timing differences unwind, to end AMP6 closer to the nominal gearing level of 62.5% assumed by Ofwat in setting the PR14 FD.

However, due to the company's responsible approach to sharing of outperformance and managing its pension position, the additional £100m of planned reinvestment recently announced, along with the c£80m acceleration payment relating to UUW (total of c£100m for UU Group) made in April 2019 to eliminate the company's pension deficits and move the pension schemes into self-sufficiency, indicates that gearing is likely to remain at around 65% at the end of AMP6.

This still represents a robust capital structure and supports a solid A3 credit rating with Moody's. With UUW having eliminated its pension deficit position and with a lower scheduled AMP7 capital programme, compared with AMP6, gearing is expected to reduce across the 2020-25 period.

Financial metrics

Our performance against the key financial measures set out in the FD for the years ending 31 March 2018 and 2019 is summarised in the table below. This should be read in conjunction with the high level commentary following the table and the detailed information provided within Section 2: Regulatory Accounts.

Financial metrics for the years ending 31 March 2018 and 31 March 2019

Financial ratios	Notes	Ofwat FD assumption	2017/18 actual	2018/19 actual
Cash interest cover ratio (ICR)	1	3.28	6.04	5.77
Adjusted cash interest cover ratio (ACICR)	1	1.65	2.98	2.80
Funds from operations (FFO)/debt	1	10.25%	11%	11%
Regulatory gearing (net debt/RCV)	1	59.83%	64.69%	64.84%
Credit rating	1	Investment grade	A- Stable	BBB+ Stable

Information from PR14 Final Determination company specific appendix – United Utilities and APR Table 4H

Notes:

1. Ofwat FD ratios are derived on a notional capital structure with a notional cost of debt and reflect 100% of IRE expensed in the income statement.

The interest cover ratios illustrate a company's ability to pay interest on its outstanding debt. The cash interest cover looks at the ratio of funds from operations (FFO) before the payment of interest, to cash interest payable. The adjusted cash interest cover adjusts the numerator by subtracting regulatory depreciation which is an approximation of the capital cost that would be incurred if companies were to maintain the RCV at the same level. Both metrics remain comfortably above the Ofwat FD assumptions.

The FFO/Debt ratio is calculated by taking the net cash generated from operating activities, adjusting for changes in working capital and dividing by net debt. This ratio is often used by credit rating agencies to look at the ability of companies to repay their debt and to fund their capital expenditure requirements. It should, however, be noted that each credit rating agency has its own approach to the calculation of these ratios which may differ from the Ofwat calculation shown here. For example, applying Standard & Poor's (S&P's) usual methodology, which deducts all interest to derive FFO compared to Ofwat's metric which deducts cash interest only, S&P's FFO/Debt for 2018/19 would be lower at around 9.8%, compared to 10.8% under Ofwat's FFO/Debt metric.

The debt to RCV gearing ratio measures the proportion of debt in a company's capital structure relative to its regulatory capital value. This ratio is often used by credit rating agencies to assess a company's level of leverage and capital strength. The movement on this metric is explained on the previous page.

Reported credit rating, representing the lowest corporate credit rating of UUW, showed a deterioration from A- to BBB+ in the year. Whilst our credit ratings from Moody's (A3) and S&P (A-) remained unchanged from the prior year, for 2018/19 Fitch also published a solicited corporate credit rating for UUW (no solicited Fitch rating in 2017/18). Fitch rated UUW's issued debt as A-. However, the UUW corporate rating, as requested in this APR metric, was BBB+.

Overall, these 2018/19 metrics reflect the good set of results that we have been able to publish.

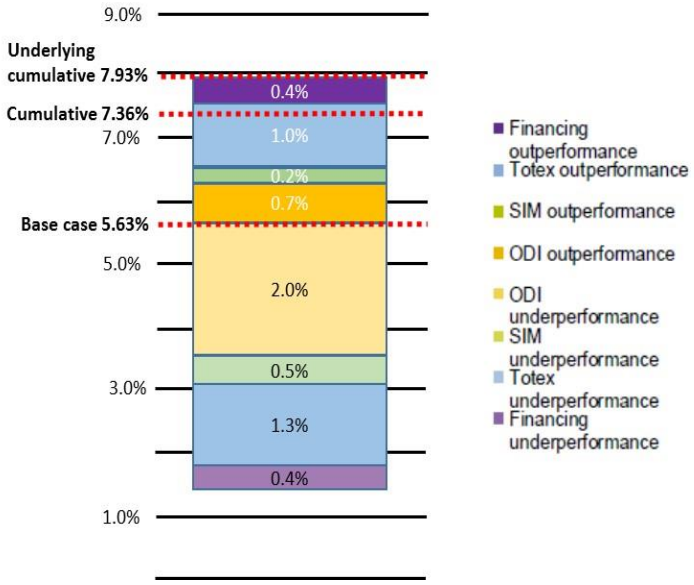
Return on Regulatory Equity (RORE)

The UUW FD set out the theoretical range of returns that UUW could expect to earn dependent on its actual performance in the period, with this return being expressed as a return on the regulated equity of the business (RORE).

The RORE value reported in our APR is designed to measure the returns (after tax and interest) that a company has earned by reference to the notional regulated equity, where regulatory equity is calculated from the RCV and notional net debt (62.5% of RCV).

The notional base case RORE that was assumed in the FD was 5.63% and was assumed to be able to vary between 1.4% and 7.9%, depending upon actual performance in the period.

UUW has steadily increased RORE over the four years of AMP6. In 2015/16 RORE was 6.30%, increasing to 7.26% in 2016/17, 7.67% in 2017/18 and 8.20% in 2018/19. This results in a cumulative RORE for AMP6 to date of 7.36%. Adjusting for the discretionary resilience reinvestment and one-off GMP and dry weather spend to date, cumulative underlying RORE is higher at 7.93% (this does not include the £100m of 'flying start' reinvestment which is scheduled to be incurred in the 2019/20 financial year).



Although the cumulative value is within the expected range published by Ofwat and exceeds the assumed base case, comparisons between these two values need to be made with care. The assumed return within the FD is based on a theoretical, efficient company with a notional capital structure and a notional cost of debt, whereas the actual values reflect the UUW actual company-specific position. This means that the numbers are not directly comparable.

The impact of our operational and financial performance on the key factors that are used to determine RORE is set out below.

Wholesale totex and retail operating costs - Although we incurred significantly more wholesale totex than assumed in the early part of the AMP6 period, the majority of the increased expenditure has been the acceleration of expenditure as opposed to additional spend. As such, the acceleration should have no overall impact on return over the five years. However, our responsible approach to reinvestment of £350m of outperformance (outlined below) does have an impact on the calculated returns although this will deliver other benefits.

We had committed to invest an additional £250m in the AMP6 period to improve our operational resilience and we have now increased this by a further £100m to help make a flying start to AMP7. In addition, we anticipate incurring a total of c£80m on atypical dry weather related spend (of which we incurred £66m in 2018/19). Taking account of our £100m of like-for-like totex outperformance, we therefore expect to report a total overspend against the AMP6 allowed totex of c£340m. The 2018/19 proportion of this is overspend is included in the current year RORE calculations and the additional £100m, described above, and the residual resilience and dry weather related spend will be included in the 2019/20 RORE calculations.

The base case RORE figure of 5.63% included a non-household retail margin of 0.11%. This has been removed following the transfer of the non-household retail business to the Water Plus joint venture on 1 June 2016.

Increased pension deficit recovery and compensation costs are not accounted for in the totex incentive mechanism and as such do not feature in the RORE calculation and have to be funded by the business.

Outcome delivery incentives - In 2018/19, our good operational performance has delivered net ODI outperformance payments of £19.2m, equivalent to 0.53% of RORE. This takes the cumulative four-year payment figure for ODIs to 0.15% of RORE. These figures only represent the first four years of performance, whereas actual outperformance payments or penalties are calculated at price control level at the end of the AMP.

SIM - This is a measure of relative intercompany performance. We have performed well on SIM during 2018/19. We have estimated an earned outperformance payment of c£16m based on our relative AMP6 performance, assuming Ofwat applies the same methodology to its calculation as in the previous AMP, and this increased reported RORE in 2018/19 by 0.4%. No adjustments were made in the previous three years.

Financing - The balance of the increase in the calculated actual RORE relates to financing. Ofwat's central case RORE value for UUW was based on a theoretical, efficient company with a notional capital structure and a notional cost of debt. This means that the values are not directly comparable with the actual performance calculated based on actual, company specific, figures.

Financial flows

Ofwat's vision for the water sector in England and Wales is one where customers, the environment and wider society have trust and confidence in vital public water and waste water services.

As described above in Ofwat's PR14 base case RORE value for each water company was based on a theoretical, efficient company with a notional capital structure and a notional cost of debt.

To improve the transparency concerning financial flows to investors, Ofwat require companies to complete and submit data for the current year and the cumulative four-year position of the AMP6 period to date in their APRs. A summary of our cumulative 2015-19 performance is provided below and Table 1F of this APR provides more detail.

As expected, total actual earnings reported within the financial flow metrics will be different from total RORE, due to a number of differences between the calculations. Unlike RORE, financial flows incorporate the out/(under) performance in corporation tax as well as the actual performance adjustments from 2010-15, but excludes estimated SIM out/(under)performance. Financial flows also adjust the base return to adjust for actual gearing, whereas the RORE uses notional gearing of 62.5%.

Average financial flows[1] for the four years ending 31 March 2019

Financial ratios	Notional returns and notional regulatory equity	Actual returns and notional regulatory equity	Actual returns and actual regulatory equity
Adjusted return on regulatory equity	6.27%	6.13%	6.27%
● Financing	0.00%	2.29%	2.35%
● Operational performance[2]	0.00%	-0.43%	-0.44%
Total earnings	6.27%	7.99%	8.18%
RCV growth from RPI inflation	2.50%	2.50%	2.50%
Total shareholder return	8.78%	10.49%	10.68%
Net dividend	4.00%	6.86%	7.02%
Retained value	4.78%	3.63%	3.66%

[1] Information based upon current Ofwat guidance values may change in future years if guidance changes

[2] Operational performance includes totex, ODI and Retail out/(under) performance, but excludes SIM

Financing outperformance has resulted in a total shareholder return in excess of the rate assumed by Ofwat at PR14. In line with our dividend policy, this higher return, earned from outperformance, has been distributed.

Based on Ofwat's financial flows calculations (2012/13 prices), UUW has generated an average annual total shareholder return of 10.68% (or £377m) across the four years to 31 March 2019. Dividends have averaged 7.02% (or £248m), meaning that UUW has retained an average annual value of 3.66% (or £129m) across the period. In addition, average dividend cover (based on accounting profits) for the first four years of AMP6 is well above 1.0x. **This underlines UUW's responsible approach to financing and dividend distribution**.

Within this overall return is a net reduction from operational performance. This, as expected, reflects our discretionary reinvestment programme, along with atypical dry weather related spend and the Pension GMP charge, partly offset by a positive contribution from a good overall ODI performance.

Therefore, a more representative view of underlying performance can be derived by adjusting for this discretionary resilience reinvestment and one-off GMP and dry weather spend to date and this would increase the average annual retained value to above 4%, further supporting our responsible approach to dividend distribution.

Given our gearing is closely in line with Ofwat's notional capital structure the differences in return calculated on the company's notional and actual equity are relatively small.

The detailed methodology of the financial flows data has continued to evolve. However, the changes to the methodology for 2018/19 should enable more meaningful comparative assessments to be made once other water companies' information has been published.

Annual Perfomance Report
Risk and Compliance Statement

United Utilities

helping life flow smoothly

Risk and compliance statement

UUW Board's Risk and Compliance Statement 2018/19

The Board of United Utilities Water Limited (the Company or UUW, where the context requires), is required by Ofwat to provide an annual statement confirming its compliance with the relevant statutory, licence and regulatory obligations for the provision of services to its customers for the report year 2018/19. This statement is complementary to other statutory Board statements.

The Statement

The Board considers that the Company has applied its processes and internal systems of control in a manner that has enabled it to satisfy itself, to the extent that it is able to do so from the facts and matters available to it, that the Company:

- Has a full understanding of and has complied with its relevant statutory, licence and regulatory obligations in all material respects in 2018/19.
- Has taken appropriate steps to understand and meet customer expectations.
- Has sufficient processes and internal systems of control to fully meet its obligations.
- Has appropriate systems and processes in place to identify, manage, mitigate and review its risks.

Departures from this statement are set out in a table following the compliance statement.

Managing compliance with our obligations

The primary statutory and regulatory obligations relevant to our functions as a Water and Sewerage Undertaker are set out in either the Water Industry Act 1991 or in our Instrument of Appointment - the "Licence". The Licence also requires us to meet the requirements imposed under any other statutory and regulatory obligations as necessary to fully discharge our duties as a Water and Sewerage undertaker.

We have an established compliance working group, which maintains a log of our key obligations, together with a list of the internal policies, associated risk assessment and assurance activities for each obligation. Each obligation also has an owner who is a member of the working group and a named owner of each obligation's linked policy, who usually is more senior and often at Executive or CEO level. The group also carries out horizon scanning to identify new legislation.

The Board manages the effective and efficient delivery of its obligations and operation of everyday activities within the business by the interaction of:

- **Authorisations, approvals and procedures.** These are set out in the United Utilities Group PLC (UUG) Internal Control Manual (ICM) to provide guidance to employees as to the system of internal controls that they must follow when acting on behalf of UUW and UUG as a whole. The ICM sets out a framework within which underlying detailed procedures and policies operate.
- **Policies.** The Board has adopted an overriding set of business principles. These are supported by a range of underlying policies that provide guidance to its employees as to how they should conduct themselves when acting on behalf of UUW and UUG as a whole. Everybody working for or on behalf of UUW must comply with the policies (to the extent they are applicable to their roles). Failure to do so may result in disciplinary action being taken. This could lead to dismissal and possible civil or criminal proceedings in serious cases.
- **Governance and control.** The Board delegates responsibility for specific matters to a number of committees and working groups. This provides a framework that employees are expected to be aware of and comply with, where relevant to their role, to ensure business decisions are taken in accordance with best business governance practices.

To oversee and take decisions affecting the execution of its obligations, the UUW board:

- Receives and reviews performance reports from the relevant employees of the Company.
- Receives and reviews reports and presentations from the UU Corporate Audit Team, and the financial and technical Auditors.
- Receives and reviews reports and presentations from the wholesale, customer service and people, economic regulation and strategy and finance directorates.
- Has access to executive and senior managers in the Company to verify information.

Should a significant regulatory risk or issue materialise during the report year, then UUW will update Ofwat and any other relevant water industry regulator, to demonstrate that the company is aware of and is responding appropriately to manage that risk or issue. During 2018 the North West of England experienced an extended period of hot and dry weather, the effects of this weather situation contributed to a series of events; ranging from an exceptional increase in water demand of half a billion litres per day, to a major multi-agency incident response to moorland fires. As these events presented a potential risk to customer service, we ensured that Ofwat and our environmental and water quality regulators, were kept informed of the nature and extent of the issue and of the way we planned for and managed the incident.

Understanding and meeting customer expectations

Customer service sits at the core of everything we do. Our strong focus on customer service has driven substantial and sustained improvements over recent years. We have delivered further improvements in customer satisfaction over the year and a step change in performance since the start of AMP6. This improvement is reflected in our Service Incentive Mechanism (SIM) performance for which we have achieved our best ever score this year against Ofwat's qualitative SIM measure.

Our investment priorities and performance targets for the 2015-2020 period were shaped by listening to customers and stakeholders and understanding their priorities for the years ahead. This work resulted in a series of outcomes, which represent what we are aiming to achieve in the areas that customers and stakeholders told us were most important to them.

Each outcome is underpinned by specific performance commitments which allow customers and stakeholders to judge our performance. The performance commitments provide a transparent mechanism that allows us to demonstrate to customers whether the performance they have received from us has met or not met expectations. Some of these measures also contain outcome delivery incentives (ODI) with performance against these measures potentially resulting in outperformance or underperformance payments.

We believe that our ODIs reflect customer priorities and provide strong incentives for us to become more innovative and more efficient, both protecting customers against under-delivery and where merited, rewarding us for outperformance in areas where customers said they were willing to pay more to receive improved service.

To support the development of our business plan for the 2020 – 25 period, we carried out our most extensive customer engagement programme ever, as well as continuing to track customer sentiment through our quarterly customer tracker.

Our customer challenge group, YourVoice, has also continued to play a valuable role in challenging our customer engagement and improving the transparency of our reporting. Throughout the year we have continued to work with YourVoice, to demonstrate how we are delivering on our performance commitments during the AMP6 period and also to ensure that our performance commitments and ODIs for the AMP7 period reflect customer views. YourVoice's comments on our performance during the year are published on our website at https://www.unitedutilities.com/corporate/about-us/performance/yourvoice/.

We believe that it is important to be transparent and to provide information to customers and stakeholders that they can trust and that enables them to understand how the company is performing. The summary of the assurance that has been undertaken and the findings from that assurance are set out Appendix 1 of our 2018/19 Annual Performance Report. Ofwat judges whether companies have consistently met the high standards that customers and other stakeholders expect through its annual company monitoring framework assessment. In Ofwat's most recent (2018) assessment UUW retained the highest categorisation of "self-assured" and is the only water company to have achieved this status for the three years that the AMP6 categorisation has been published.

Processes and systems of control

The directors have a reasonable expectation that the processes and systems of control the company uses are adequate for it to meet its obligations.

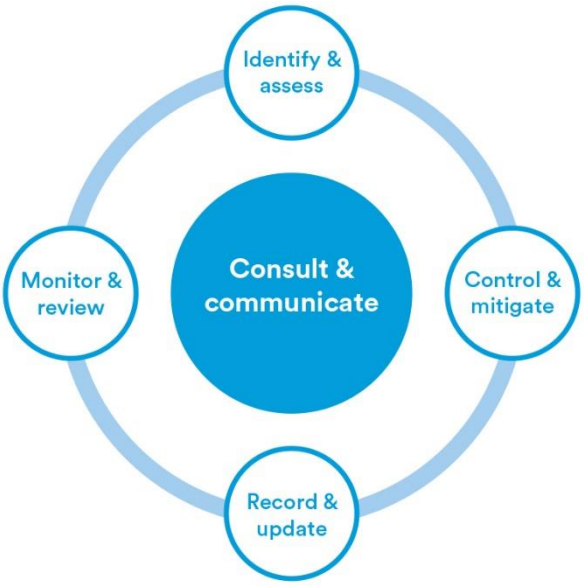
This opinion, taking into account the relatively stable and regulated nature of the business is based, amongst other matters, upon a review of the company's performance for 2018/19, the results of the annual management control self-assessment, the work of Corporate Audit and a review of the company's risk and issues process and register. The processes and systems of control used to support the 2018/19 statement are subject to independent review.

In respect of this Statement, assurance is provided by:

- **Using UUW's established processes and methodologies for reporting performance.** This requires data providers, their managers and business unit directors to produce and approve Performance and Compliance Statements that set out the evidence to support the reported performance and control checks that have been applied. Operational performance data is collected at month 6, month 9 and at year-end.
- **Comparing the reported outturn performance with our company business plan targets, regulatory targets and predicted future performance.** This exercise allows variances to be identified and explored. Where required, explanatory statements are sought from business managers. These statements are analysed and assessed by the Economic Regulation Team and findings are reported to the relevant Executive Directors, with any material issues highlighted to the UUW Board.
- **Requiring Business Unit Directors to complete an annual management control self-assessment questionnaire.** The self-assessment serves as one input to the Board's annual review of internal control effectiveness in accordance with good governance principles. The self-assessment questions are intended to assess the design and application of internal controls, highlighting the incidence of significant weaknesses in either the design or operation of key controls during the period that have had, or could have, a material impact on the company's performance or condition.
- **Reviews undertaken by UUW's Corporate Audit team and Technical Auditor of the Company's processes,risks and controls.** Their findings are reported to the Board to aid the Board's decision to approve the annual Risk and Compliance Statement.
- **The Group Audit & Risk Board's (GARB's)** review and monitoring of compliance with governance processes, risk management and the internal control framework to identify emerging themes and trends. GARB reviews any issues and receives summary level reports (typically by exception) arising in relation to, Corporate Audit activities, Management control self-assessment activities, the Risk Management framework as well as other key compliance activities**.**
- **Additional independent review (addended to this statement).** In addition to the established internal processes and systems of control, to support our 2018/19 risk and compliance statement, we employed Jacobs to undertake a review of our approach to risk assessment and of the approach and processes we follow to assess compliance with our obligations. The results of this review were presented to and discussed with the UUW Board and are appended to this statement.

Where material issues are identified and/or the Board considers it is unable to support the expectations of the Statement then exceptions are set out in a table at the end of this statement.

Risk Management



Our risk management framework underpins the delivery of our purpose and strategy and enables us to focus on providing a sustainable and resilient service for all customers and stakeholders for years to come.

In our day-to-day operations we encounter a wide variety of risks which can challenge the quality, cost-effectiveness and timescales for the delivery of our aims and ambitions. We anticipate and mitigate these risks through an embedded risk management framework which includes:

- A consistent and reliable enterprise-wide risk management process;
- A governance and reporting structure which enables the board to oversee and direct the control of risk;
- Definition of risk appetite by the board with an overarching general risk appetite supplemented where appropriate by specific risk appetites for certain risks;
- An ISO 31000:2018 aligned assessment and mitigation process; and
- Policies, practical guidance and training programmes to enable our people to identify, quantify and manage risk effectively.

Our risk identification and management activities are continuous and ongoing, with each functional area responsible for assessing, articulating and controlling relevant risks. We use a forward-looking approach to take into account new and emerging areas of concern and assess the long-term impact of risk. The identified risks cover a wide range of potential events including; regulatory and legal, core operations and service provision, functional service and support and hazard-based risks.

Our approach is in accordance with the UK Corporate Governance Code and incorporates reporting to the group board for every full and half year statutory accounting period. This enables the board to:

- Determine the nature and extent of the principal risks it is willing to take in achieving its strategic objectives;
- Oversee the management of those risks and provide challenge to executive management where appropriate;
- Express an informed opinion on the long-term viability of the company; and
- Monitor risk management and internal control systems and review their effectiveness.

The approach to corporate risk management and principal risks and uncertainties are set out in the http://unitedutilities.annualreport2019.com/strategic-report/our-risk-management/principal-risks-and-uncertainties.

In respect of regulatory reporting UUW has maintained its tailored risk management and assurance approach that has been used in our previous regulatory reporting periods. This process identifies high-risk elements of our reporting and ensures that action plans are established to manage or mitigate the risks and appropriate governance and assurance is in place.

The regulatory reporting risk assessment process and final assurance plan for our 2018/19 regulatory reporting are set out on the UU web site:

Appendix 1 of the Annual Performance Report provides confirmation that this assurance plan has been implemented and sets out the findings of that assurance.

Confirmation of key reporting requirements

Corporate governance

United Utilities continues to fully support Ofwat's drive for the highest standards of board leadership, transparency and governance in the industry. United Utilities Group PLC (UUG) is compliant with the UK Corporate Governance Code (the UKCG Code) as disclosed most recently in the 2018/19 annual report. United Utilities Water Limited (UUW), as required by its licence, has also had regard to the UKCG Code since 2008 and has reported annually on its application in the corporate governance section of its annual report.

As set out in the UUW Code on board leadership, transparency and governance, published on 26 June 2018, the Board is satisfied that its current practices and application of the UKCG Code at both holding company and regulated company level are entirely consistent with the Principles published by Ofwat. The Code can be found via the attached link.

Links between directors pay and standards of performance (Water Industry Act section 35A)

As required by section 35A of the Water Industry Act 1991UUW has published a Statement of directors' remuneration and standards of performance, which can be found in Section 2.5 of our Annual Performance Report. Included within this statement are details of the arrangements and the remuneration that have been paid or become due during 2018/19 to the directors of the company as a result of arrangements for linking the remuneration of the directors of the company to standards of performance in connection with the carrying out by the company of the functions of a relevant undertaker.

Confirmation of sufficient financial and management resources (Licence Condition I17)

The directors have issued a certificate under paragraph I17 of condition of the Licence stating that the Company will have available to it sufficient financial and management resources and facilities to enable it to carry out, for at least 12 months, its regulated activities. This certificate also confirms that in respect of the wholesale business, the company has contracts with any associate company with the necessary provisions and requirements concerning the standard of service to be supplied to ensure compliance with the company's obligations as a water and sewerage undertaker. This certification statement can be found in Section 2.5 of our 2017/18 Annual Performance Report.

Confirming of availability of rights and assets (licence condition K)

The directors have issued a certificate as required by paragraph 3.1 of licence condition K, confirming that as at 31 March 2019, if a special administration order had been made under section 23 of the Water Industry Act 1991 in respect of UUW, the company would have had available to it sufficient rights and assets to have enabled the special administrator to manage the affairs, business and properties of the company so that the purpose of the order could have been achieved. This certification statement can be found in Section 2.5 of our 2018/19 Annual Performance Report.

Transactions with associated company (licence condition I4)

The directors of UUW have declared, to the best of their knowledge that all appropriate transactions with any other business or activity of the appointee or any associated company have been disclosed and material transactions with associated companies are at arm's length so that neither gives to nor receives from the other any cross-subsidy. The materiality level of transactions used for reporting is 0.5 per cent of turnover. Information in respect of transactions between UUW and any other business or activity of the appointee or associated company is set out in Section 2.5 of our 2018/19 Annual Performance Report.

Maintaining investment grade credit rating (licence condition I30)

UUW has current credit ratings for its senior unsecured long term debt obligations of A3/A-/A- with Moody's, S&P and Fitch respectively, all on stable outlook. Assuming no significant changes to existing ratings agencies' methodologies or sector risk assessments, UUW aims to maintain, as a minimum, credit ratings of A3/BBB+ with Moody's and S&P, respectively.

Long Term Viability statement

As set out in the long term viability statement on pages 179 to 181 of this Annual Performance Report, the directors have assessed the viability of UUW, taking account of UUW's current position, the potential impact of the principal risks facing the business in severe but reasonable scenarios, and the effectiveness of any mitigating actions. This assessment has been performed in the context of UUW's prospects as considered over the longer term. Based on this viability assessment, the directors have a reasonable expectation that the company will be able to continue in operation and meet its liabilities as they fall due over the seven year period to March 2026.

Outcome delivery

Performance against the outcomes and performance commitment targets set out in the PR14 final determination, is monitored on a monthly basis throughout the business, as part of internal company scorecard reporting. Annual and longer-term performance summaries are also reported on a regular basis through the year to the UUW Board and to the customer challenge group YourVoice.

Full details of the 2018/19 performance against these outcomes along with a view of potential longer-term performance is included within Section 1.1 of our 2018/19 Annual Performance Report. Actions that are being undertaken to address any measures where we have not met the target are also set out within the report.

Signed on behalf of the Board

Steve Mogford

Chief Executive Officer

Mark Clare

Senior independent non-executive director

This statement was approved at a meeting of the board of directors of United Utilities Water Limited on 25 June 2019 and signed off on its behalf by Mark Clare, Senior independent non-executive director and Steve Mogford, Chief Executive Officer

2018/19 departures from the compliance statement

The Board considers that the Company has applied its processes and internal systems of control in a manner that has enabled it, to the extent that it is able to do so from the facts and matters available to it, to identify material departures from the obligations as set out below:

Description of duty/obligation	Purpose of duty / obligations	Disclosure
Defra statement of obligations	National Environmental Programme (NEP) 5	As part of the 2014 price review process, our CEO Steve Mogford wrote to inform Ofwat and the Environment Agency (EA) that we would not be able to meet the preferred consent dates for three projects, but that we would seek to deliver these projects as early as practical. Following the PR14 final determination, we worked with the EA to agree a number of revisions to the environmental programme, with these changes being formalised in "NEP5". As part of this process we agreed revised dates for the three projects highlighted in Steve Mogford's letter. Three subsequent changes have occurred since the NEP5 programme was finalised as a result of which we are seeking to replace schemes CHR0012 (WFD) and CHR021 (WFD) with equivalent schemes at Motherby and Barrow Nook. The final project relates to addressing dissolved oxygen concentrations in the Manchester Ship Canal where we would not have not been able to access the canal on terms that would be reasonable to our customers. We are working closely with the EA to identify an alternative strategy for the Ship Canal. Details of the delivery of this programme are set out in section 2 of the APR with a detailed five year view of the programme provided within the UUW PR14 reconciliation submission, which is published on our website.
Defra statement of obligations	Bathing Waters Directive Programme	We have been delivering a programme of improvement works at treatment works or overflows to improve bathing water compliance. In 2018/19 due to unforeseen planning difficulties, we were unable to deliver two schemes, Ulverston WwTW Storm Tanks and Dragley Beck combined sewer overflow, to the regulatory delivery dates. We are now making good progress with these schemes and they are due to complete in summer 2019. To mitigate this delay we accelerated delivery of improvements at Ambleside WwTW by a year and we completed a major bathing water improvement scheme at Anchorsholme pumping station in March, ahead of its regulatory date. Full details of the delivery of this programme are set out in section 2 of the APR with a full five year view of the programme provided within the UUW PR14 reconciliation submission, which is published on our website.
Environmental Permitting (England and Wales) Regulations 2010	WwTW and WTW discharge permit compliance	Four WwTW and one WTW were classified as failing their discharge permits in 2018. We achieved an overall compliance of 98.7% for the Environmental Agency's Environmental Performance Assessment (EPA) % discharge compliance measure. This level of performance is ahead of the target set for the performance commitment, "maintaining our wastewater treatment works".
Water Industry Act 1991 **Water Supply Requirements**	Duties of water undertakers with respect to water availability	As a result of the Habitats Directive the Environment Agency (EA) will revoke our abstraction licence from Ennerdale Water. UUW has implemented a series of short-term measures to mitigate the risk to supply, with a long-term solution to transfer water from Thirlmere reservoir to the West Cumbria supply zone underway.
UUW Instrument of Appointment (licence) **Condition J and Condition L**	Condition J (Levels of service information and service targets) Condition L (Underground asset management plans).	Condition J creates obligations regarding the setting, monitoring and reporting of service targets. Condition L creates obligations regarding the preparation, review and revision of underground asset management plans. Because of changes to the regulatory approach we are no longer required to fulfil these obligations.
Water Industry Act 1991 **Information provisions**	Obligation on wastewater companies to maintain maps of their sewers.	In common with all other wastewater companies in England and Wales, not all of our sewers are mapped because the cost of doing so is generally agreed to be uneconomic.

Risk and compliance statement – Appendix

2018-19 Risk and compliance statement – assurance statement

The following statement was prepared by Jacobs and presented to and discussed with the UUW Board on 25 June 2019.

JACOBS

United Utilities Technical Assurance Framework

United Utilities

2018-19 Risk & Compliance

12 June 2019

Final

United Utilities Technical Assurance Framework

Project No:	B2349200.A.CS.OE.AR-19-05
Document Title:	2018-19 Risk & Compliance
Document No.:	
Revision:	
Date:	11June 2019
Client Name:	United Utilities
Client No:	
Project Manager:	Helen Twelves
Author:	Helen Twelves

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Letter of Assurance

12 June 2019

Attention:

The Board

Haweswater House

Lingley Mere Business Park

Lingley Green Avenue Great Sankey

Warrington WA5 3LP

Subject: 2018-19 Risk and compliance statement – assurance statement

As set out in IN 19/06, Ofwat requires companies to publish an annual risk and compliance statement. The purpose of this is for the Board to confirm that the company;

- has a full understanding of all its relevant statutory, licence and regulatory obligations and has taken steps to understand and meet customer expectations;
- is meeting all its relevant statutory, licence and regulatory obligations; and
- is taking appropriate steps to identify, manage, mitigate and review any risks they face.

Companies are required to do this within the context of the Company Monitoring Framework (CMF).

In preparing the statement, companies are required to consider their obligations in both legislation and their licences. As with other company information, it is important that stakeholders can have trust and confidence in your risk and compliance statement. To support this, you have asked us to provide assurance in this area by reviewing the processes that support the declarations in your statement.

Our review focused on both your approach to risk assessment and the approach and processes you follow to assess your compliance with your obligations. The United Utilities Corporate Risk Management Framework is a United Utilities Group Process, and your risk appetite was assessed using a United Utilities Group scale. We did not review the process you use to assess whether non-compliance with legislation falls below your risk appetite. Therefore, we did not consider whether the risk threshold and risk appetite was appropriate for the Appointed Business as a whole or for the various Appointed Business price controls.

As part of our risk based approach we met with Craig Percival, Corporate Risk Manager to review your corporate risk assessment process and with David Wood, Senior Regulatory and Commercial Solicitor to review the role of the Compliance Working Group (CWG), and with James Taylor, Head of Audit and Risk. We also reviewed the Economic Regulation team process used to sign off compliance with your Licence and the Water Industry Act 1991. Following our initial observations you provided us with some additional material about your governance framework.

Observations

Our main observations are as follows:-

- During our review we evidenced that as a company you have established appropriate systems and processes for identifying, managing, mitigating and reviewing risk.
- You recognise the importance of risk management, and have an established and comprehensively documented process to monitor and manage risk, which is then cascaded through the business.

- The CWG is a United Utilities Group wide working group and its role is to support your ability to comply with your key external obligations by maintaining a log of these obligations together with a list of the internal policies, associated risk assessment and assurance activities for each obligation. Each obligation also has an owner who is a CWG member and a named individual who maintains the information. There is also a named owner of each obligation's linked policy who is usually more senior and may be executive or CEO level. The CWG also carries out horizon scanning to identify new legislation. Your Licence is not included in the CWG process.
- You told us that Business Unit Directors are required to complete an annual management control self-assessment (MCSA). This assessment provides confirmation that reporting processes and systems of control are robust, and any actions identified during the report year have been addressed, or have actions scheduled.
- The process to demonstrate compliance with your Licence obligations and the Water Industry Act 1991 is owned by Economic Regulation. Individual obligations are delegated to the appropriate areas of the business, and these owners sign off compliance with support from Economic Regulation. The Strategy and Regulation Director signs off overall compliance on the basis of these individual management control self-assessments.
- Your Board signs off compliance with your high level internal policy documents. These documents, which you are currently reviewing and updating, are high level statements of your policy and do not map directly to individual and any new obligations.
- Your internal audit programme focuses on policies and procedures to support compliance and is designed to cover your obligations over a 5 year period. The internal audit team undertake cyclical reviews of processes and procedures and updates its internal assurance programme to target emerging risk areas.
- The supporting material we reviewed was accessible and clearly drafted, although some of the material, including parts of the online Internal Control Manual (ICM) and the corporate risk management framework was either out of date, for example the yearly financial month end schedule; or had not been updated in line with the timings set out in the document, for example your high level company corporate risk management policy. Subsequent to our audit an updated risk management policy has been approved and you have confirmed that it has been updated on the ICM. We also note that in 2019-20 you are planning to transition the ICM to a new intranet site (pipeline).
- The Group Audit & Risk Board (GARB) reviews and monitors compliance with governance processes, risk management and the internal control framework and identifies emerging themes and trends. GARB reviews any issues and summary level reports (typically by exception) arising in relation to Corporate Audit activities, management control self-assessment activities, the Risk Management framework as well as other key compliance activities. The GARB is chaired by the CEO and any Board member can attend at their request, with others invited by exception dependent on the agenda.

Recommendations

On the basis of our work on your assurance and from our experiences working with other water companies, we are able to identify a number of recommendations that would embed best practice and help develop your processes further. We recommend that:

- your risk and compliance statement for 2018-19 should note exceptions and associated areas for improvement;
- where areas of exception and potential compliance risks have been identified they are noted and addressed in your assurance plan;
- your risk and compliance statement links to your APR where you can provide further information on your performance; and
- you continue to review your supporting risk and compliance material and documentation to ensure that it is current.

Based upon the observations and the recommendations set out in this letter, we therefore consider that:

you have a full understanding of the company's relevant obligations (as you have interpreted the scope required for this exercise); and

you have appropriate systems and processes in place to run your business and identify and manage risks in a way that meets the relevant obligations (as you have interpreted the scope of these).

Yours sincerely

Glen Hawken

Technical Assurance Director

07876 448155

Glen.Hawken@jacobs.com

1. 2018/19 performance

Introduction and coverage

This section of our Annual Performance Report sets out how we have performed against the service, expenditure and revenue assumptions made in the 2014 price review and is set out in the following sections:

1.1 Outcome delivery

1.2 Wholesale totex

1.3 Wholesale revenue and current cost financial performance

1.4 Retail expenditure and revenues

How this information relates to other sections of the APR

The way that the 2018/19 performance section relates to other sections of the APR and the information contained within these sections is summarised below:

- The Regulatory Accounts which support much of the information used in Section 1 are set out in Section 2.
- The detailed pro forma tables that are specified by Ofwat and populated by all water and sewerage companies are included within Section 2.3 and 2.6 of the regulatory accounts.
- Appendix 1 sets out the assurance that has been undertaken to support the information contained within the APR.
- Appendix 2 provides detail of the calculations used to support our "index measures".

Related publications

Two key documents that support the information or use the information set out in this section of our APR are:

- **Detailed technical explanations** – of our outcomes and performance commitments are set out in the document "Outcome definition documents" which is published on our website, and is available via this link.
- **PR14 reconciliation update** – This sets out how our actual or anticipated performance against all of the PR14 (AMP6) incentive mechanisms would translate into revenue and AMP7 opening RCV adjustments, through the PR19 process. This document is published on our website, and is available via this link.

As each company developed their own performance commitments for the AMP6 period, it is difficult to compare performance between companies. To begin to allow a more meaningful comparison to be made, we have worked with regulators and the rest of the water industry to develop a suite of comparative information and performance measures. These measures are still subject to different interpretations between companies, but do provide a view of relative performance. The information from our Annual Performance Report and other water companies equivalent reports, will be used to update this information, which will be available on the Discover Water website.

1.1 Outcome delivery

Supporting data tables (See Section 2.5)

Table 3A sets out our performance against our eleven outcomes and twenty seven performance commitments (PCs). For each PC table 3A sets out the actual 2018/19 performance and compares this to the 2018/19 performance target and to performance levels in previous years. Where relevant it also shows whether this performance would generate a financial outperformance payment or penalty and whether we are anticipating that we will achieve an overall penalty or outperformance payment over the full five-year period.

A number of our PCs are indices made up from a basket of sub-measures. Performance against each of these sub-measures is set out within **Table 3B** "sub-measure performance table". Details of the calculations used within these indices are set out in **appendix 2**

Table 3C provides information on the four water abstraction sites in the UUW region which are subject to the abstraction incentive mechanism. The level of abstraction from these four sites is also assessed within our water service PC "C1 Contribution to rivers improved – water service".

Table 3D provides details of the build-up of our Service Incentive Mechanism (SIM) score this is also discussed within the commentary to our retail and customer service PC "A-1: Service incentive mechanism (SIM)".

Overview of our performance

At PR14 we developed eleven outcomes and twenty seven performance commitments (PCs). Twenty one of these PCs had financial outcome delivery incentives (ODIs). All of our AMP6 ODIs are 'end of period', meaning they are reconciled at the end of the five year period, rather than during the period.

To seek to manage the challenges set by our PCs we accelerated our investment programmes and began to implement a 'systems thinking' approach which integrates the use of our assets, leverages real time data from our assets and employs new work processes and technology.

This approach has continued to bring improvements in our underlying operational performance, with 2018/19 seeing our best ever performance, as measured by our financial outcome delivery incentives, with a net reward of £19.2m in the year.

Targets for many of our measures continue to get tougher in the final year of the period, although we believe that in the round we should be able to meet this challenge and expect to earn a net outperformance payment over the full five year period of between £30m and £60m.

The anticipated position for each PC is set out below. Details of how this performance would impact upon allowed revenues and customer bills in AMP7 is set out in the document "**PR14 reconciliation**", which is published on our website.

Coverage of the following section of the APR

For each of our twelve water services, eleven wastewater services and four household retail performance commitments, this section of the APR details:

- The actual level of performance attained from 2015/16 to 2018/19.
- The anticipated levels of performance in 2019/20.
- Instances where performance has, or is expected to, exceed the deadband level and therefore trigger the application of the outcome delivery incentive (ODI).
- The expected levels of underperformance penalties or outperformance payments generated through the financial outcome delivery incentives (ODIs) and the methodology utilised to calculate that position.
- Commentary detailing the internal and external factors that have influenced the levels of performance seen over the AMP.
- Commentary detailing the future risks, opportunities and uncertainties that could influence the forecast position.

It must be noted that although we have provided a view of potential future performance levels in this document, actual performance levels during 2019/20 will be subject to a number of factors, many of which are outside of our direct control.

1.1 a) Water Service performance commitments

2018/19 Annual performance summary

Performance against our water service outcomes in 2018/19 and the cumulative performance in the AMP6 period to date, is set out in the table below. Further information on each measure is provided within this section of our Annual Performance Report, with details of the calculation of the index scores and associated incentives provided in Appendix 2.

Water Service Operational Performance Summary (2018/19)

Performance Commitment	Actual performance levels				Performance Commitment		Financial incentives	
	2015/16	2016/17	2017/18	2018/19	2018/19	Pass/ Fail	2018/19 Annual (£m)	2018/19 Cumulative (£m)
A1: Drinking Water Safety Plan risk score [1]	4.3	4.3	4.3	4.8	≤ 4.3	Fail	N/A	N/A
A2: Water quality events DWI category 3 or above	35	22	27	6	≤ 9	Pass	0	-1.788
A3: Water Quality Service Index	120.465	116.923	98.645	101.182	≥ 145.9	Fail	-3.619	-10.630
B1: Average minutes supply lost per property	16:42	13:33	13:09	09:10	≤ 12:00	Pass	11.258	5.296
B2: Reliable water service index	16.45	77.84	70.83	98.46	≥ 100	Fail	0	-23.922
B3: Security of supply index (SoSI)	100.00	100.00	100.00	100.00	100.00	Pass	0	0
B4: Total leakage at or below target	10.8	23.4	9.1	6.7	≥ 0	Pass	0	9.148
B5: Resilience of impounding reservoirs	161.61	164.25	165.42	165.72	≥ 164.87	Pass	0	0
B6: Thirlmere transfer into West Cumbria	2	5	25	57	≥ 53	Pass	0	0
C1: Contribution to rivers improved - water	36.85	82.55	80.56	50.48	≥ 6.6	Pass	0.185	0.610
D1: Developers, local and highway authorities [1]	95.2%	97.5%	93.8%	89.0%	≥ 94.0%	Fail	N/A	N/A
E1: Number of free water meters installed [1]	27,197	32,447	36,615	32,069	≥ 47,421	Fail	N/A	N/A
Water Service (net outperformance / underperformance) £m							**7.8**	**-21.3**

1 These measures are reputational only

Forecast future performance

Actual performance against our water service outcome delivery incentives in the first four years of the AMP6 period, together with forecast performance for the remaining year of the period, is set out in the table below. Further information on each measure, including the rationale and potential risks and opportunities associated with the future performance projections is set out for each measure in the detailed commentary provided in the following pages.

Information on the way that the predicted performance and incentive payments would impact upon allowed revenues for the 2020 – 2025 period (AMP7) is set out in "United Utilities Water PR14 reconciliation update (July 2019)", which is available on our website.

It must be recognised that the performance projections set out for many of the outcome delivery incentives in the table below will be subject to a number of factors, not all of which are in our direct control. Therefore the projections set out in the table below are indicative values only.

Actual and forecast performance of the water services performance commitments and a projected view of financial performance at the end of AMP6

Performance Commitment	Incentive Type	Actual					Forecast	Projected AMP6 performance
		2015/16	2016/17	2017/18	2018/19	To date	2019/20	
A2: Water quality events DWI category 3 or above	Underperformance only	-0.4	-0.6	-0.7	0	-1.8	-1.2	-3.0
A3: Water Quality Service Index	Outperformance and underperformance	0.2	-3.6	-3.6	-3.6	-10.6	-3.6	-14.2
B1: Average minutes supply lost per property (a year)	Outperformance and underperformance	0	0	-6.0	11.3	5.3	1.7	7.0
B2: Reliable water service index	Outperformance and underperformance	-8.0	-8.0	-8.0	0	-23.9	0	-23.9
B3: Security of supply index (SoSI)	Underperformance only	0	0	0	0	0	0	0
B4: Total leakage at or below target	Outperformance and underperformance	0	9.1	0	0	9.1	0	9.1
B5: Resilience of impounding reservoirs	Underperformance only	0	0	0	0	0	0	0
B6: Thirlmere transfer into West Cumbria	Outperformance and underperformance	0	0	0	0	0	21.6	21.6
C1: Contribution to rivers improved - water	Outperformance and underperformance	0.1	0.2	0.2	0.2	0.6	0	0.6
Water Service net: 2015/16 to 2018/19 financial incentive						**-21.3**	**AMP6**	**-2.8**

Notes

1 The numbers in the table above have been rounded to one decimal place therefore the annual underperformance and outperformance payments may not appear to add up to the amounts reported in the current financial position and projected AMP6 performance columns.

2 Reputational only performance commitments are not included in the table.

Relative intercompany performance

We have measured our water performance in AMP6 against 12 stretching performance commitments. This year we have achieved or outperformed against seven of these measures.

In the summer of 2018, the UK experienced a prolonged period of hot and dry weather resulting in exceptional demand from customers. To safeguard continuity of supplies and protect our water resources, we expect to spend additional totex of just under £80 million of which £66 million has been incurred in 2018/19. The activities taken to safeguard continuity of supply during the summer contributed to us outperforming our leakage target and water supply interruptions target. We continue to build on our "Systems thinking" approach which is helping us to reduce the frequency and severity of interruptions to supply and respond to them in a way that minimises customer impact. We have also maintained a healthy supply-demand balance, reflected in the Security of Supply Index, and supported the improving condition of rivers around the region.

Our overall water quality continues to be good with an improvement in our water quality service index and DWI category 3 and above events measure compared with the prior year. Plans are in place to deliver further water quality improvements going forward.

Our performance last year across a range of measures published on the Discover Water website showed our water performance to be around industry average performance. Performance against five of the water measures published on the Discover Water website for 17/18 was slightly below industry average.

Comparable data for 2018/19 is not available until later in the year; although we have seen an improvement in performance this year against three of these measures (number of times companies contacted about the appearance of their water; taste and smell of their water; and leakage) we anticipate that our performance will remain slightly below industry average. Last year the number of properties experiencing poor pressure, average minutes lost associated with water supply interruptions and the water quality measure mean zonal compliance were all above industry average performance. We have seen a deterioration in mean zonal compliance however we have achieved further improvements in poor pressure and average minutes lost performance.

A1 Drinking Water Safety Plan risk score

Performance Summary

We have reported that we failed to meet our performance commitment for this measure in 2018/19 because we have revised our assessment to meet changes to the DWI reporting requirements. This change has lead to us assessing a greater number of risks and changing the way we assess water quality risks in catchment. Both of which have resulted in a higher risk score. We anticipate that the current level of performance will be maintained next year.

Measure description

This performance commitment measures the level of risk identified through the drinking water safety plan process, with the target designed to ensure that risk levels do not increase. The original performance commitment target for this measure that was included within our business plan and confirmed in the FD was 3.9. This value was based upon the DWI reporting requirements at that time and which had been used for previous years reporting.

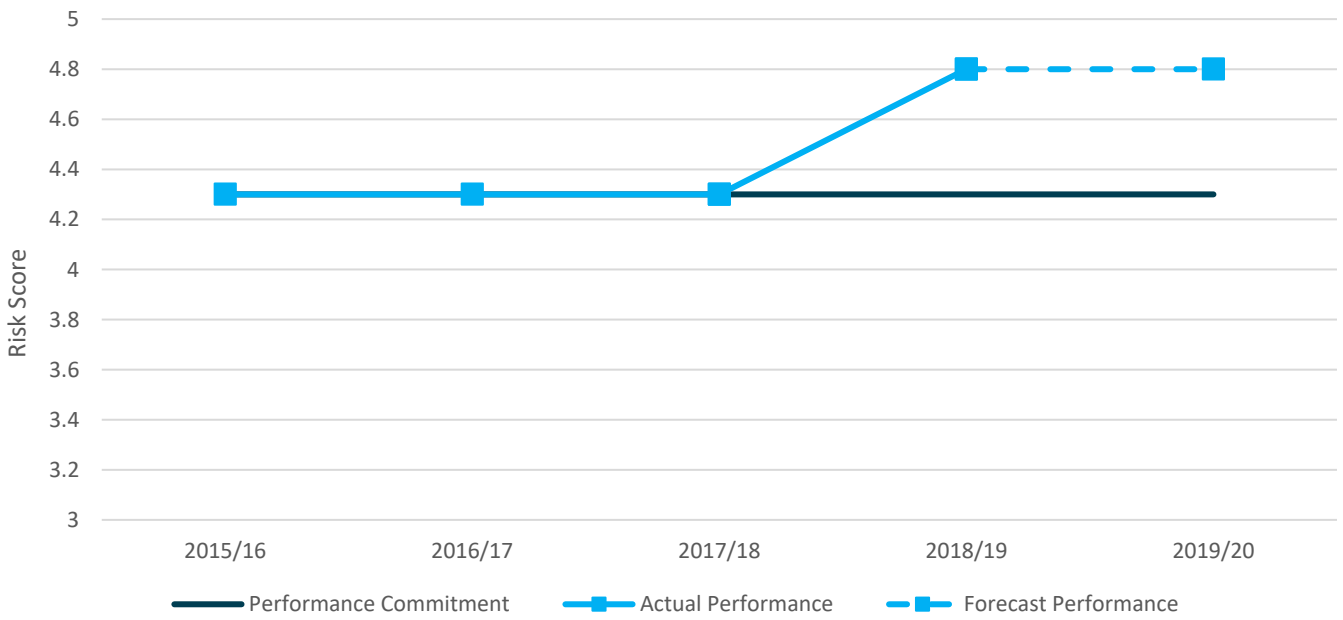
Following publication of the FD, there was a change in DWI reporting requirements as set out in DWI Information Letters 02/2014 and 01/2015. This meant that risk reporting has moved away from hazardous events to hazards. One hazardous event may have several hazards associated with it and this has resulted in an increase in the number of risk scores and consequently the number of elevated risks scores. Based upon the revised methodology the like-for-like score changed to 4.3.

This year the risk score has increased again as a result of a change in our methodology to meet new reporting requirements. The scope of the risk assessment has been extended to include all hazards within the Water Supply (Water Quality) Regulations at each stage within the supply system as required by information letter 02/2018. The information letter also requires risk scores for individual hazards to be carried forward through the supply system. These changes have increased the number of hazards assessed and in some instances the score resulting in an increase in the overall risk score.

Actual and forecast performance for the 'Drinking Water safety Plan risk score' performance commitment

Drinking water safety plan risk score	2015/16	2016/17	2017/18	2018/19	2019/20
Target	4.3	4.3	4.3	**4.3**	4.3
Actual/ Forecast	4.3	4.3	4.3	**4.8**	4.8
Pass/ Fail	Pass	Pass	Pass	**Fail**	**Fail**
Outperformance/ Underperformance	Reputational	Reputational	Reputational	**Reputational**	Reputational

Drinking Water Safety Plan risk score- AMP6 actual and forecast performance against performance commitment



Overview of performance to date

The score has been consistent at 4.3 from 2015 until 2018. Although there has been an increase in 2018/19 to 4.8. This is due to changes in methodology. There have been no significant incidents or events which have affected the performance attained so far throughout the AMP.

Our AMP6 starting average DWSP risk score of 3.9 was calculated in July 2013 using data from the Drinking Water Safety Plan database at 30th June 2013. Following the setting of this position, DWI Information Letters 02/2014 and 01/2015 and their associated Annexes outlined updated regulatory reporting requirements for water company DWSP risk assessments. In response to these Information Letters we have carried out significant information technology alterations to the DWSP management system to ensure we meet the regulatory requirements. The main changes, which have impacted the average DWSP risk score are:

- Reporting by hazardous events rather than hazards. Each hazardous event may have more than one hazard associated with it resulting in an increase in the number of hazardous events.
- Splitting of consumer hazardous events from District Meter Zone (DMZ) level into Water Supply Zone (WSZ). This has resulted in an increase from 33 DMZ risk assessments to 224 WS2 risk assessments.

The changes above have resulted in an increase in the number of hazardous events, the average risk score and the number of hazardous events with a risk score of 10 and above. The score had been consistent at 4.3 from 2015 until 2018. The recent increase to 4.8 can be attributed to:

- An alignment of consequence scores for individual hazards to those used by DWI
- The inclusion of all hazards within the Water Supply (Water Quality) Regulations at each stage within the supply system as required by DWI information letter 02/2018
- The requirement to carry forward risk scores for individual hazards through the supply system as required by DWI information letter 02/2018

The above changes and requirements have resulted in an increase in the number of hazards assessed and an overall increase in risk score based around new consequence scores.

Underperformance or Outperformance payments

This is a reputational measure with no financial incentive.

Lessons Learnt and Action Plan

It is in customers' interests not to increase unacceptable risk to water quality and we will continue to deliver activities to improve the robustness of our existing control measures as part of our water transformation programme.

Anticipated Performance Year 5

Performance throughout the remainder of the AMP is expected to remain at the risk level of 4.8.

Future performance - risk, issue, concern, change or opportunity

1. Changes to the European Drinking Water Directive could increase the number of parameters that we have to monitor for, and therefore assess as part of the Drinking Water Safety Plan risk assessments, This could potentially result in a change to the risk score.
2. We are considering seeking accreditation of our DWSP process to ensure it is in line with British Standard (BSEN) for risk management. This may mean that changes to the current DWSP methodology may be required to ensure accreditation is attained.

A2: Water quality events DWI category 3 or above

Performance Summary

In 2018/19 performance continued to improve against this measure and we outperformed the target. We expect to see continued improvement in water quality however due to changes in the way events are classified by the DWI we are forecasting an increase in the number of events classified as category 3 and above. Underperformance in the first three years and the final year means that over the five years we expect to incur a total underperformance payment of around £3m.

Measure description

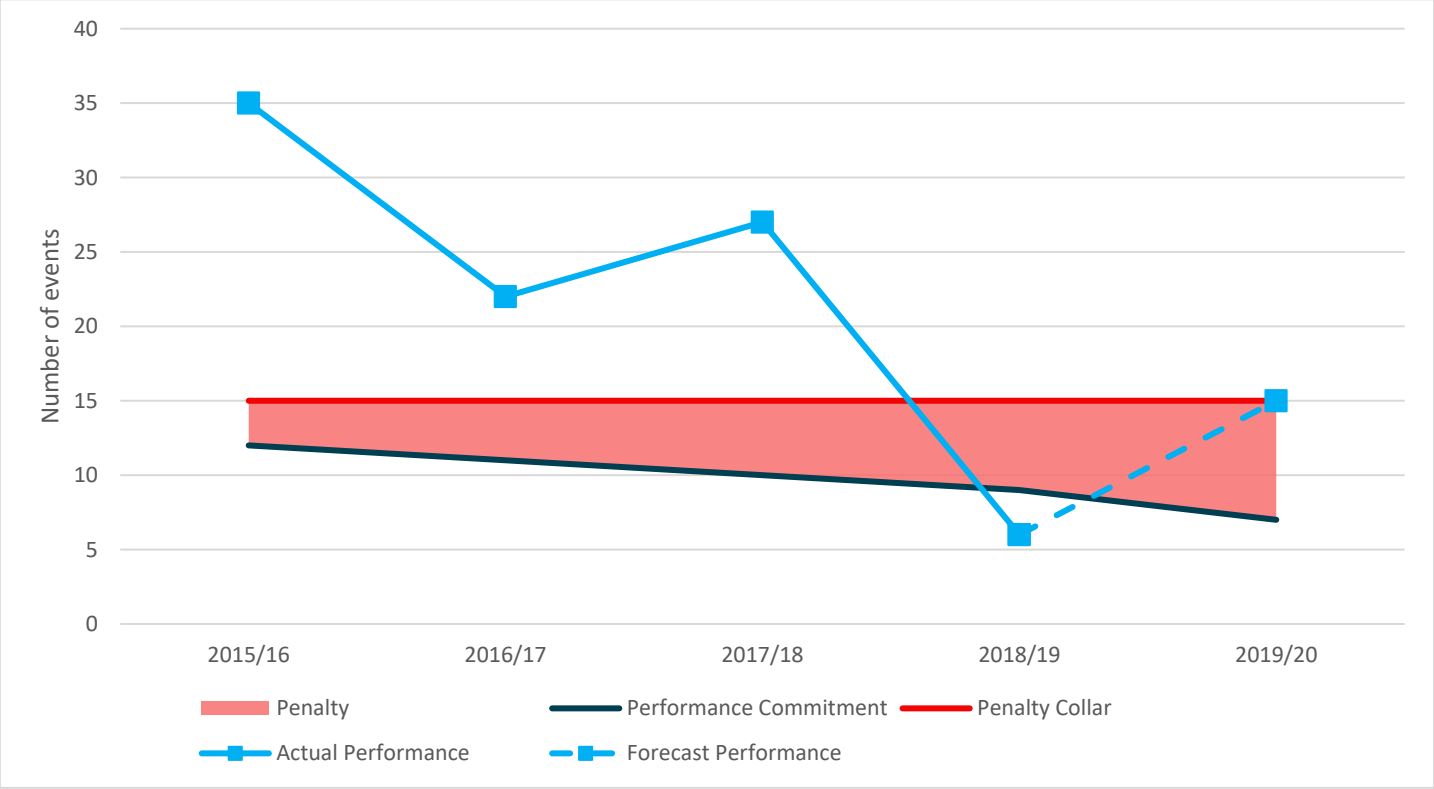
This performance commitment records the number of events with a categorisation of three or above (as defined by the Drinking Water Inspectorate (DWI)). The categories are as follows: category 3 (significant), category 4 (major) and category 5 (serious).

This measure is an underperformance payment only.

Actual and forecast performance for the 'Water Quality Events DWI category 3 or above' performance commitment

Number of events per year	2015/16	2016/17	2017/18	2018/19	2019/20
Target	12	11	10	**9**	7
Actual/ Forecast	35	22	27	**6**	15
Pass/ Fail	Fail	Fail	Fail	**Pass**	Fail
Outperformance payments/ Underperformance £m	£(0.447)m	£(0.596)m	£(0.745)m	**0**	£(1.19)m

Water quality event DWI category 3 or above - AMP6 actual and forecast performance against performance commitment and financial incentives



Overview of Performance

The performance commitment target for 2018/19 has been outperformed. There are two reasons for the improvement in performance.

Firstly, the DWI has made some changes to the way that it classifies events. The most significant changes are that some of the previous Category 3 type events (e.g. precautionary "boil water advice/"do not drink", which serve a small number of properties) have been assessed as Category 2. We have changed our approach to resolving single (or multiple) property "do not drink" events where the issue is found to be on the customer's own pipework, resulting in a lower classifications by the DWI.

Secondly, the implementation of a new process for starting up water treatment works (WTWs) has reduced the number of WTW related events, therefore resulting in a decrease in the number of Category 3 and above events.

Underperformance or Outperformance payments

The performance commitment has been met for 2018/19 as this is a underperformance only measure there is no outperformance payment.

Lessons Learnt and Action Plan

We are undertaking the following activities to reduce the number of water quality events and bring future performance in line with our performance commitments:

- Revision of the planned works risk assessment document in order to improve the Company's assessment of risk including improved contingency planning and requirements for modelling. Delivery of an eLearning package for risk assessments.
- Programme of work completed to assess critical control points on all WTWs and SRs and installation of additional instrumentation and assessment of control philosophies.
- The Company has recruited Remote Monitoring Co-ordinators and 21 Remote Monitoring Operators within the Integrated Control Centre. They complete virtual site tours 24/7 and escalate any identified issues to the RMC Team.
- There has been an increase in the scale of our mains cleaning programme targeting water quality zones with the highest number of customer contacts.
- We are implementing 'start-up to waste' projects at water treatment works to allow for a more controlled start up following a shut down and therefore avoiding a potential water quality event.
- Programme of work completed to assess critical control points on all WTWs and Service Reservoirs and installation of additional instrumentation and assessment of control philosophies.
- Implementation of 24/7 manning at key water treatment works has been put in place.
- We have recruited additional Process Operators to take readings at set intervals from all unmanned sites to provide additional security for water quality compliance and process performance.
- We have continued development of algae management plans at all high risk WTWs to reduce the potential for algae to develop with the associated production of Geosmin and 2-Methylisoborneol. This has included trials of algae monitors. These compounds produce an earthy/musty taste which can be detected by customers.
- Proactive catchment management and stakeholder interaction to manage the increase of algae in the catchment.
- Portable PAC (powdered activated carbon) dosing rigs are available for deployment around the region as necessary.
- Trialling UV LED for taste and odour treatment.

Anticipated Performance Year 5

Last year we forecast that an underperformance payment would be incurred for 2018/19 and for 2019/20. However we now expect to maintain performance above historic performance levels as a result of our water transformation programme.

We are however, forecasting that we will miss the 2019/20 target because the way the DWI classifies events has changed. In the future the DWI is more likely to classify complex Category 3 events as the higher classification Category 4. Those that would have been a Category 4 previously will now be a Category 5. The changes will lead to some events previously reported as Category 3 being classified as a lower Category 2.

We expect water quality will continue to improve as a result of our water transformation programme. However we anticipate as a result of the changes to the way the DWI classifies events there will be an increase in the number of Category 3 and above events in 2019/20 compared with this year.

In order to calculate any underperformance the ODI performance is compared against the target performance. If the performance falls within the underperformance zone then we multiply the resulting difference by the underperformance rate of £0.149 million per event. We incurred the maximum underperformance payment for the first three years and it is possible that we will do so again in 2019/20, meaning that over the 2015-2020 period we expect to incur a total underperformance payment of £2.98m.

The risks and opportunities identified in the section below could impact upon reported numbers for 2019/20.

Future performance - risk, issue, concern, change or opportunity

1. Water Transformation Programme
    - We continue to work with the DWI to deliver a comprehensive 'Transformation Programme' with continuous liaison, monthly updates and quarterly meetings. Completion of the transformation programme should result in a significant reduction in the number of water quality events.
2. Changes to regulation and/or guidance by DWI
    - Changes to regulations could impact on the number of events which become reportable and therefore change the volume of category 3 or above events
3. The number of Regulation 28 Notices and/or Enforcement orders could impact the volume of events
    - Additional reporting requirements within Regulation 28 notices or enforcement order could lead to an increase in the number of reportable events. Our processes ensure that lessons learnt from previous events are circulated to enable mitigating measures to be put in place and prevent potential reoccurrence.
4. Events caused by Third Parties
    - Although events caused by Third Parties are outside our control these events are still reportable to the DWI.

A3: Water Quality Service Index

Performance Summary

We failed to meet our performance commitment target in this measure in 2018/19, incurring the maximum underperformance payment. Although we anticipate an improvement in our performance for the remaining year of the AMP, we are unlikely to meet the target and expect to remain within the underperformance zone.

Measure description

The Water Quality Service Index (WQSI) measures performance against six sub-measures which each contribute to the overall index score, the sub-measures are:

- Water treatment works coliform non-compliance
- Service reservoir integrity index
- Water treatment works turbidity fails
- Mean zonal compliance
- Distribution maintenance index
- Contacts for water quality

Only the 'contacts for water quality' sub-measure contributes to either an outperformance or underperformance payment: the other five water quality sub-measures carry an underperformance only incentive.

Mean zonal compliance (MZC) is a particularly important sub-measure that measures water quality against 39 water quality standards. To reflect the significance of this measure, from 2017/18 onwards we have a specific underperformance incentive for this sub-measure, which generates a standalone underperformance payment and acts as a "gateway check" for the overall index.

This means that even if the Water Quality Service index score is above the outperformance deadband an outperformance payment would only be warranted if performance for the MZC sub-measure is also above the MZC underperformance deadband (100%).

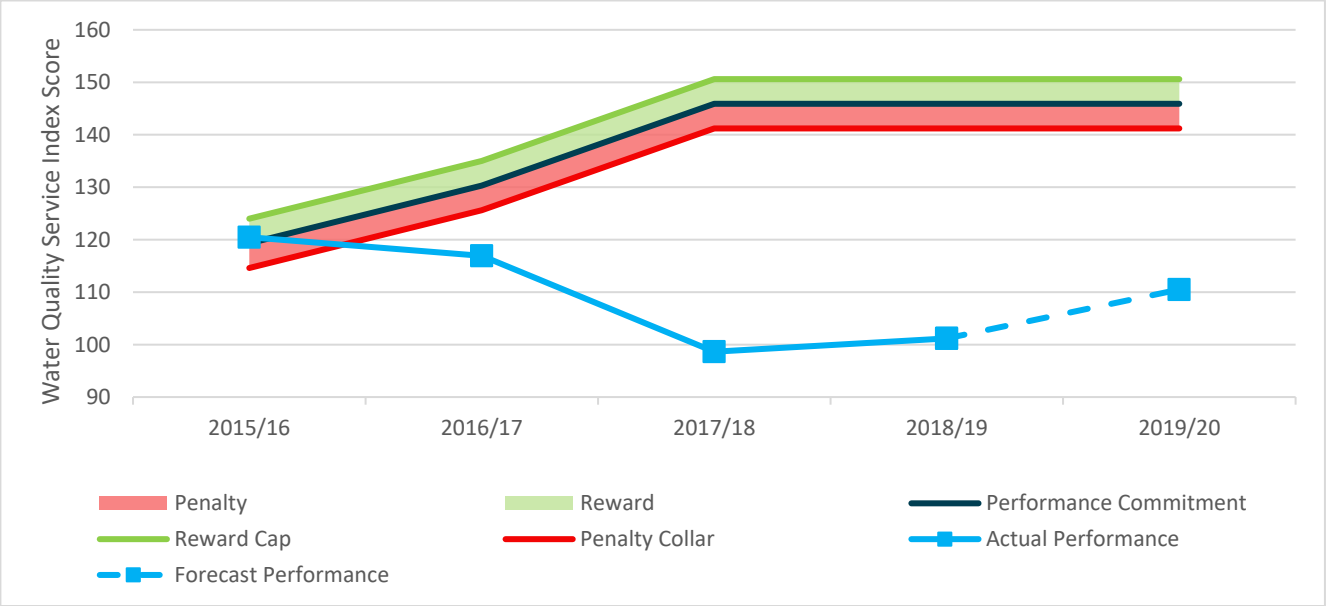
Actual and forecast performance for the 'Water Quality Service Index score' performance commitment

	2015/16	2016/17	2017/18	2018/19	2019/20
Target	119.300	130.300	145.900	**145.900**	145.900
Actual/Forecast	120.465	116.923	98.645	**101.182**	110.503
Pass/Fail	Pass	Fail	Fail	**Fail**	Fail
Outperformance payment/ Underperformance	£0.227m	£(3.619)m	£(3.619)m	**£(3.619)m**	£(3.619)m

Actual performance and targets for the Water Quality Service Index sub-measures

Sub measure	Performance 2015/16	Performance 2016/17	Performance 2017/18	Performance 2018/19	Indicative Target 2018/19	2018/19 Target Pass/Fail
WTW coliform non- compliance	0.06	0.01	0.01	0.01	0.04	Pass
SR integrity index	99.98	99.98	99.97	99.98	99.96	Pass
Index WTW turbidity fails	1	2	1	0	3	Pass
Index Mean zonal compliance	99.96	99.96	99.97	99.93	100.00	Fail
Distribution maintenance index	99.89	99.85	99.89	99.86	99.88	Fail
Contacts for water quality	9,171	9,605	11,652	10,923	6,904	Fail

Water quality service index score – AMP6 actual and forecast performance against performance commitment and financial incentives



Overview of performance to date

The company achieved the performance commitment target in 2015/16 earning an outperformance payment of £0.227m. However, the performance commitment was failed in the subsequent three years, including 2018/19, resulting in the maximum underperformance of £3.619m per annum. Cumulatively this gives an underperformance payment over the four years of £10.63m.

WQSI performance has improved this year as a result of an improvement in the Service Reservoir integrity index[1], a reduction in the number of turbidity failures and a reduction in the number of customer contacts associated with water quality. We are disappointed that despite the reduction in the number of water quality customer contacts received we missed the target along with the targets for two other sub-measures; mean zonal compliance and distribution index.

Although there has been a slight improvement in the number of water quality contacts received we have still received a high number of contacts associated with discolouration on the network. Discoloured water contacts that are attributed to DWI events are exempt from this measure - they are covered by DWI water quality events category 3 and above. It can be inferred that as we have improved how we manage large events and reduce the risk of large scale discolouration we have increased the number of near misses on the network, which are impacting all three of the submeasures we have failed.

Mains cleaning and large diameter mains cleaning projects were underway to reduce the risk of discolouration, turbidity, iron and manganese infringements. To further reduce the risk we committed to undertake mains cleaning in an additional 70 water supply zones. However this work was suspended over the extended period of dry weather to maximize available supply. We expect to see an improvement in performance as this programme of work is completed.

Mean zonal compliance measures performance against 39 water quality standards. Performance this year at 99.93% fell short of the performance commitment of 100% compliance which is challenging, not least due to the influence of customer internal plumbing on several water quality parameters. In 2018, we have seen a significant increase in the number of lead exceedances in comparison to 2017. This can, in part, be attributed to higher water temperatures this summer which increases lead solubility. To maintain supplies during the period of extended dry weather in the summer a number of operational actions were undertaken at our WTWs, SRs and on our water mains network which resulted in a potential increase in mobilisation of deposits within the network. This impacted mean zonal compliance and distribution index performance.

In addition to our calm network approach we have established a network response team in the Intergrated Control Centre to monitor pressure and flow information with a view to responding and remediating issues before there is a detrimental impact on the service provided to customers reducing the risk of potential infringements and discolouration in network.

[1] This is a DWI measure calculated by taking the average compliance for coliform bacteria and E.coli across the all the company's service reservoirs.

Underperformance or outperformance payments

In order to calculate any underperformance or outperformance payments the actual index score for the year is compared against the target index score. If the overall index score falls within the outperformance payments or underperformance-zone then the incentive is calculated by multiplying the difference by a underperformance rate of £0.770 million per index point or the outperformance rate of £0.417 million per index point. Details of the calculation of this index measure as set out in Appendix 2

Lessons Learnt and Action Plan

We recognise the challenges faced with this measure and have a number of activities in place in order to bring longer term performance back on track.

We continue to have challenges with iron and manganese in the network and whilst we are taking significant steps to resolve this (including mains cleaning, operating calm networks, and the development and implementation of a revised discolouration risk assessment that takes into account water chemistry, treatment processes, network hydraulics, water quality performance and customer contact data), occasional samples will fail. Other parameters (for example lead) can be transient in nature and can be directly impacted by customers plumbing which is outside of our direct control. We will however continue to make improvements to reduce the risk associated with lead.

The majority of the water we supply is soft water from surface water sources which has a higher risk of containing naturally occurring compounds (from algae). We have seen an increased prevalence of these compounds associated with changing weather patterns. The presence of these compounds during the water treatment process can result in a musty/peaty taste and odour. The largest proportion of taste and odour customer contacts that we receive are associated with this musty/peaty issue. We will use improved technology to optimise our treatment works and operation of our networks to minimise taste and odour contacts.

We are working in partnership to develop innovative solutions, trialing a LED UV treatment unit at one of our treatment works. We are also working with a number of instrument suppliers and universities to develop real-time detection systems to detect and treat algal taste and odour compounds however it will take to develop and implement any innovative solutions to algae. Some of the additional activities that we have put in place are summarised below:

- We continue to deliver and update the DWI on the Company's Transformation Programme.
- We have an extensive mains cleaning programme to deliver a reduction in customer contacts helping us move towards achieving the performance contacts commitment for the final year of AMP6. The Company has in place Regulation 28 notices for discolouration covering 53 WSZs (UUT3625 – UUT3677). The notices require cleaning to be undertaken to reduce the risk of discolouration, turbidity, iron and manganese infringements 8 WSZs have been completed; 11 WSZs have been completed and are still being monitored; 3 WSZs are undergoing minor mains improvement schemes and the further 29 WSZs have been renegotiated to be completed by 31 December 2019.
- Continued deployment of turbidity monitors during network operations will improve control of the network and reduce the risk of iron, manganese and turbidity infringements.
- Continued development of algae management plans at all high risk water treatment works to reduce the potential for algae to develop. Algae degradation produces compounds which produce an earthy/musty taste and odour which can be detected by customers. Algae management plans are now embedded as business as usual with regionally deployable powdered activated carbon dosing rigs available for the removal of algae compounds if this is detected as part of the enhanced monitoring programme. This is supported by proactive catchment management and stakeholder interaction to manage any increases of algae in the catchment. We are also leading on innovation in this area and have successfully completed a programme of work to trial the first prototype UV LED treatment unit for advanced oxidation of algae compounds.
- We are seeing benefits of our 3Rs approach – respond, restore, and repair. We have extended our Alternative Supply Vehicle (ASVs) Fleet to enable quicker response and ensure that following a burst we can respond quickly to restore supplies to customers, ensuring that the network remains charged wherever possible resulting in reduce risk of providing discoloured water and the associated potential for infringements of the turbidity, iron and manganese standards.
- Further use of GoPro proactive communication and engagement with customers.
- We have committed to invest an extra £44m to deliver further water performance improvements earlier to give us a flying start towards meeting future performance challenges for the 2020 to 2025 period. We plan to invest some of this expenditure on a water quality monitoring project to identify the root cause for localised discolouration issues.
- We are developing a chlorine decay network model to optimise network configuration and maintain stable chlorine levels in at risk areas.

Anticipated performance Year 5

Last year we forecast we would underperform against the 2019/20 performance commitment and incur the maximum underperformance payment.

The current forecast for the WQSI is that the actions outlined in the action plan section above will continue to improve our performance. However the target is challenging and the measures that we have put in place may take time to deliver its full benefits, we therefore still expect to miss the target for 2019/20 and to incur the maximum underperformance penalty for the measure. Indicative performance levels against each sub-measure are set out in the table below.

Forecast performance and indicative targets for the Water Quality Service Index sub-measures

Sub-measure	Indicative Target 2019/20	Forecast Performance 2019/20	Forecast Pass/Fail
WTW coliform non- compliance	0.04	0.01	Pass
SR integrity index	99.96	99.97	Pass
Index WTW turbidity fails	3	1	Pass
Index Mean zonal compliance	100.00	99.97	Fail
Distribution maintenance index	99.88	99.85	Fail
Contacts for water quality	6904	10377	Fail

Future performance - risk, issue, concern, change or opportunity

1. Factors outside our control (e.g. rainfall) can impact on raw water quality which can then impact on this measure. Climate change could impact on the amount of algal growth.

B1: Average minutes supply lost per property (per year)

Performance Summary

We have outperformed our performance commitment against this measure for 2018/19 resulting in an outperformance payment of £11.3m. Over recent years we have been focusing on the way we respond to interruptions to supply which is now beginning to show real benefits. The additional temporary measures we put in place to minimise the impact of the extended dry weather period also contributed to the good performance this year.

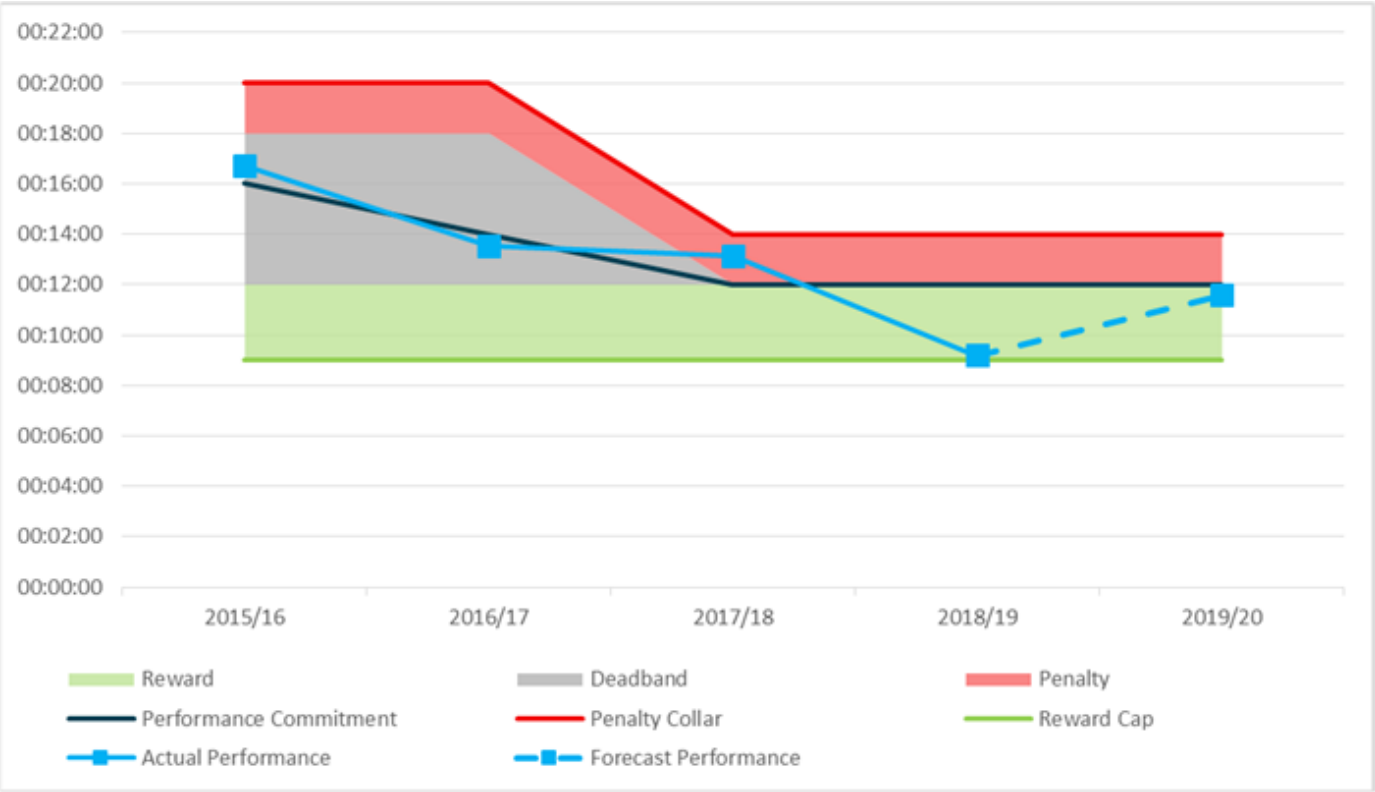
Measure description

This measure records (in minutes) the loss of supply to our customers which continues for greater than three hours averaged acrossed the number of properties in the region. All supply interruptions are included whether the event was as a result of planned, unplanned or third party actions. The regulatory targets for this performance commitment are highlighted below.

Actual and forecast performance for the 'Average Minutes Lost' performance commitment

	2015/16	2016/17	2017/18	2018/19	2019/20
Target (Minutes:Seconds)	16:00	14.00	12.00	**12.00**	12.00
Actual/Forecast (Minutes:Seconds)	16:42	13:33	13:09	**9:10**	11:35
Pass/fail	Fail	Pass	Fail	**Pass**	Pass
Outperformance payment / Underperformance	0	0	£(5.962)m	**£11.258m**	£1.658m

Actual and forecast performance for the 'Average Minutes Lost'- AMP6 actual and forecast performance against performance commitment



Overview of performance to date

Our approach to improve response times and focus on the restoration of supplies has contributed to the outperformance of this measure in 2018/19. The step change in performance can be attributed predominantly to the implementation of a ICC triage system using additional key team members to support and plan the response to an event, particularly planning the restoration of supplies using network modelling, re-zones and the use of the alternative supply team. The alternative supply team has matured in numbers and has been structured to better support network events during this financial year. Any planned activity that required a supply interruption over 3 hours is now challenged by a senior manager and where possible mitigation such as the installation of additional valves or ASV is included to minimise the impact on customers. It has also been a relatively mild winter in 2018/19 unlike the previous winter when we experienced the extreme freeze/thaw.

We have also seen an improvement in performance as a result of activities we undertook during the extended period of dry weather in summer 2018, to maintain supplies. Planned interruptions associated with mains cleaning were postponed to maximise water available to meet the high household demand we experienced as result of the warm, dry summer. We also increased resources in our Integrated Control Centre to help identify and respond to availability issues quickly. Additional pressure management and leakage detection and repair activity was undertaken to reduce the stress on water supplies across our region. This activity has significantly reduced the average minutes lost associated with water supply interruptions.

Underperformance or Outperformance payments

In order to calculate any underperformance or outperformance payment the ODI performance is compared against the target ODI performance. If the performance falls within the outperformance payments or underperformance-zone then we multiply the resulting difference by the incentive rate. For average minutes lost the underperformance rate is £5.184 million per average minutes lost per property and the outperformance payment is £3.978 million per average minutes lost per property.

Performance against this measure was showing an improving performance trend in the first two years of the AMP. However performance fell within the deadbands and therefore no outperformance payments or underperformance was earned. Last year performance deteriorated slightly resulting in an underperformance payment. In 2018/19 we outperformed the target earning an outperformance payment of £11.3m.

Lessons learnt and action plan

In the last 18 months we have been making changes to our people, processes and technology and are currently in the embedment phase of the rollout. Although we are starting to see the benefit of these changes we expect further performance improvements as we embed these changes.

- The new Respond, Restore, Repair approach we have adopted uses information to identify problems before they impact customers, ensuring we have the capability to respond and restore supplies rapidly before we focus on repairing the fault.
- We have created a new Network Technician role whose principle job is to monitor and operate the water network system, identifying asset health issues before they result in service failure. This role was introduced in March 2018 and provides 24 hour field coverage and support by the central team in the ICC. A new process of event triage and coordinated response ensures the most efficient deployment of staff and emergency supplies as the team have the greatest situational awareness of the developing event. The centralization of network technology into one system enables visualisation of real time data and identifies if the system is operating outside normal ranges allowing the rapid identification of faults.
- Recognising that response capability is key to maintaining service we have continued to increase our fleet of alternative supply vehicles including the number of overland support vehicles enabling us to reach less accessible areas. These vehicles restore supplies to customers whilst we work to fix the problem.
- Planned expenditure relating to regional pressure optimisation, strategic mains, strategic valves and crossings and replacement of ‘poor condition’ mains will facilitate long-term improvements in this measure.
- During AMP6, as a result of our “lessons learnt” approach to preventing service failure, we worked with a third party organisation specialising in assessing asset resilience vulnerabilities. Across the region we highlighted the top resilience risks which have been developed into our AMP7 investment programme.

Anticipated performance Year 5

Current forecasted performance is to outperform the target of 12:00 with performance at 11:35 for 2019/20 due to our Respond, Restore and Repair approach to supply interruptions. Performance in 2018/19 benefitted from a mild winter so when forecasting at this early stage in the year, we need to account for the potential of a more severe winter in 2019/20. It is difficult to forecast performance in this measure. There is significant variation in performance year on year across the industry as a whole. Single large events can significantly impact performance and are difficult to predict.

We anticipate that we will not outperform the target to the same extent as our 2018/19 performance. To safeguard continuity of supplies and protect our water resources, we spent an additional £66 million in 2018/19. The activities taken to safeguard continuity of supply during the summer contributed to us outperforming average minutes lost therefore we expect performance to deteriorate slightly in 2019/20 as we won't be undertaking this scale of activity.

We have committed to invest an extra £44m to deliver further water performance improvements earlier in the 2020 to 2025 period. We plan to invest some of this expenditure to support projects to address additional resilience, poor condition mains and innovation projects although it is not expected that we will see the full benefit of these until AMP7.

Future performance – risk, issue, concern, change or opportunity

1. The failure of a strategic main that cannot be supported by alternative supplies/ re-zone could lead to long loss of supply due to the difficulty in access/ repair.
2. Freeze-thaw event could lead to significant volumes of additional leaks/bursts that challenge resource levels/repair times.
3. Long-term changing climate and increase in severe weather events could also have an impact on this measure.

B2: Reliable water service index (RWSI)

Performance Summary

Our performance was slightly below target for 2018/19 although there was an improvement in performance compared with 2017/18. The improvement was hampered by exceptional weather at the end of 2017/18 and during the summer of 2018. We haven't incurred an underperformance payment this year because performance fell within the underperformance deadband. We anticipate we will continue to see performance improvements and expect to meet the target for 2019/20.

Measure description

This performance commitment is an index which comprises four sub-measures, these are:

- Total bursts
- Interruptions >12 hours
- Properties below reference level at end of year (DG2)
- Unwanted customer contacts for water availability

The size of any underperformance associated with the reliable water service index (RWSI) is determined by the underperformance of all four sub-measures. The size of any outperformance payments is based upon the outperformance of the customer service measures: customer contacts, poor pressure and interruptions greater than 12 hours. The asset health (total bursts) sub-measure does not contribute to the outperformance payments.

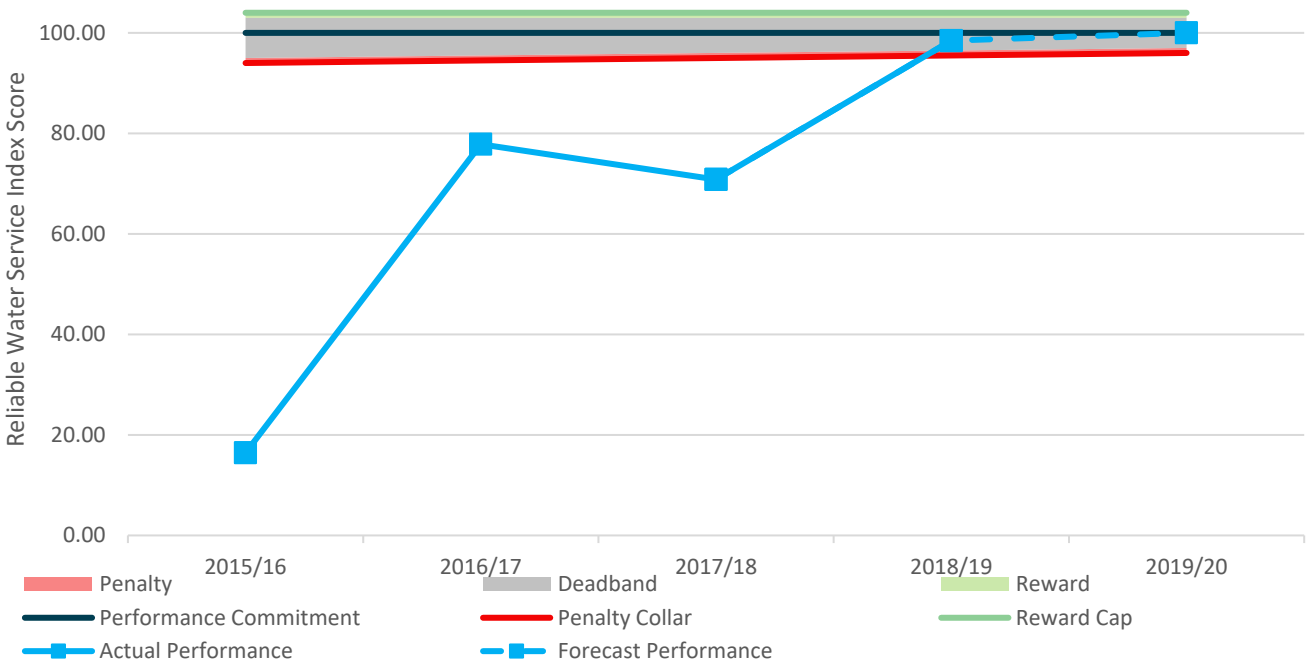
Actual and forecast performance for the 'Reliable water Service Index' performance commitment

	2015/16	2016/17	2017/18	2018/19	2019/20
Target	100.000	100.000	100.000	**100.000**	100.000
Actual/ Forecast	16.447	77.840	70.827	**98.457**	100.000
Pass/ Fail	Fail	Fail	Fail	**Fail**	Pass
Outperformance payment /Underperformance £m	£(7.974)m	£(7.974)m	£(7.974)m	£0m	£0m

2018/19 Actual performance targets for the Reliable Water Service Index sub-measures

Sub measure	Performance 2015/16	Performance 2016/17	Performance 2017/18	Performance 2018/19	Indicative Target 2018/19	2018/19 Target Pass/Fail
Total bursts	4785	4590	4484	5212	5080	Fail
Interruptions >12 hours	11431	3759	4631	849	730	Fail
Properties below reference level at end of year (DG2)	262	345	278	262	272	Pass
Unwanted customer contacts for water availability	47,011	43,740	46,487	49,278	48,000	Fail

Actual and forecast performance for the 'Reliable Water Service index'- AMP6 actual and forecast performance against performance commitment



Overview of performance to date

We have seen a significant improvement in performance during 2018/19 principally due to the reduction in the number of interruptions greater than 12 hours. Despite the improvement we missed our target for the overall RWSI due to missing sub-measure targets for mains bursts, interruptions to supply greater than 12 hours sub-measure and customer availability contacts. The three sub-measures targets we missed were all impacted by the extreme weather. At the beginning of 2018/19 there was an increase in the number of mains bursts caused by the deep freeze and rapid freeze thaw known as the "Beast from the East". The severe weather was followed by an exceptionally dry summer causing more ground movement and associated mains bursts. We increased our leakage detection and repair activity during the summer to help meet the increased demand experienced and secure customer supplies. This increased the number of mains burst detected and repaired.

The sub-measure, water availability customer contacts covers contacts about low water pressure and no water contacts. Between June and August 2018 the number of contacts we received from customers about intermittent low pressure due to unseasonable demand for water were 26% higher than the 3 year average. The number of customers contacting us because they had no water was 16% higher than the three year average. These are a direct response to the supply demand problems caused by the extra dry weather. Subsequent actions taken by the company to reduce demand and increase supplies enabled the system to recover and contacts to reduce.

We outperformed our target for the number of properties on the low pressure register.

Underperformance or Outperformance payments

In order to calculate any underperformance or outperformance payments the annual index performance is compared against the target index performance. If the performance falls within the outperformance payments or underperformance-zone then we multiply the resulting difference by the incentive rate. The reliable water service index (RWSI) incentive underperformance rate is £7.974 million and the outperformance payments is £5.970 million per index point. Details of the calculation of this index measure are set out in Appendix 2.

For 2015/16, 2016/17 and 2017/18 the RWSI target was not achieved due to poor performance in one sub-measure 'Interruptions greater than 12 hours'. As such, we did not meet our performance commitment for years 1, 2 or 3 and a maximum underperformance payment of £7.974m was incurred in each year.

For 2018/19 we narrowly missed the RWSI target but performance fell within the deadband therefore no underperformance payment is applied. The cumulative position at the end of 2018/19 is an underperformance payment of £23.93m.

Lessons learnt and action plan

There are a number of actions/initiatives in place that should deliver long-term improvements to this measure both in the remainder of this AMP and into the future, these include:

- The new Respond, Restore, Repair approach we have adopted uses information to identify problems before they impact customers, ensuring we have the capability to respond and restore supplies rapidly before we focus on repairing the fault.
- We have created a new Network Technician role whose principle job is to monitor and operate the water network system, identifying asset health issues before the result in service failure. The role introduced in March 2018 provides 24 hour field coverage and support by the central team in the ICC. A new process of event triage and coordinated response ensures the most efficient deployment of staff and emergency supplies as the team have the greatest situational awareness of the developing event. The centralization of network technology into one system enables visualisation of real time data and identifies if the system is operating outside normal ranges allowing the rapid identification of faults.
- Recognising that response capability is key to maintaining service we have continued to increase our fleet of alternative supply vehicles including the number of overland support vehicles enabling us to reach less accessible areas. These vehicles restore supplies to customers whilst we work to fix the problem.
- Planned expenditure relating to regional pressure optimisation, strategic mains, strategic valves and crossings and replacement of 'poor condition' mains will facilitate long-term improvements in this measure.

We expect the above actions will reduce the number of interruptions greater than 12 hours and the number of customer contacts associated with water availability.

- We will continue to evaluate all properties on the DG2 tracker that remain on the low pressure register, to identify any viable solutions and prioritise accordingly, to ensure we can remove as many properties as viable from the low pressure register.
- We will continue to proactive monitor and respond to low pressure to actively prevent properties being added to the register where possible.

Anticipated performance Year 5

Whilst performance has improved in 2018/19 we missed the target partly as a result of the extreme weather experienced during the year. We expect to meet the RWSI target in 2019/20 although it is difficult to forecast performance in this measure because a single large interruption greater than 12 hours can prevent us from achieving our target.

We expect the actions outlined above will reduce the risk of an interruption greater than 12 hours and will reduce the number of water availability customer contacts. We are already seeing improvements and expect we will be able to hit target for mains bursts, interruptions greater than 12 hours and the number of water availability customer contacts although we don't expect to experience the full impact of the actions until AMP7 when all the changes are fully embedded.

In terms of the number of properties on the poor pressure register it is becoming increasingly difficult to significantly improve performance. Out of the 268 on the poor pressure register, 59 are properties which receive low pressure but according to Section 65 of the Water Industry Act we are not required to provide a higher pressure supply and doing so would be cost prohibitive. We will continue to evaluate all properties on the poor pressure register, to identify any viable solutions and prioritise accordingly. However we do not expect to outperform this sub-measure target in 2019/20.

Forecast performance and indicative targets for the Reliable Water Service Index sub-measures

Submeasure	Indicative Target 2019/20	Forecast Performance 2019/20	Forecast Pass/Fail
Total bursts	5080	5080	Pass
Interruptions >12 hours	730	730	Pass
Properties below reference level at end of year (DG2)	272	272	Pass
Unwanted customer contacts for water availability	48000	48000	Pass

Future performance – risk, issue, concern, change or opportunity

1. Failure of a strategic main that cannot be supported by alternative supplies/ re-zone could lead to a long loss of supply.
2. Freeze-thaw events could lead to signficiant volumes of additional leaks/ bursts that challenge resource levels/repair times.
3. There is a risk of identifying additional properties that need to be added to the poor pressure register particularly where they are single properties and the only solution is to install a booster pump which can be cost prohibitive.

B3: Security of supply index (SoSI)

Performance Summary

We have met our performance commitment for 2018/19 and anticipate that we will continue to do so for the remainder of the AMP6 period.

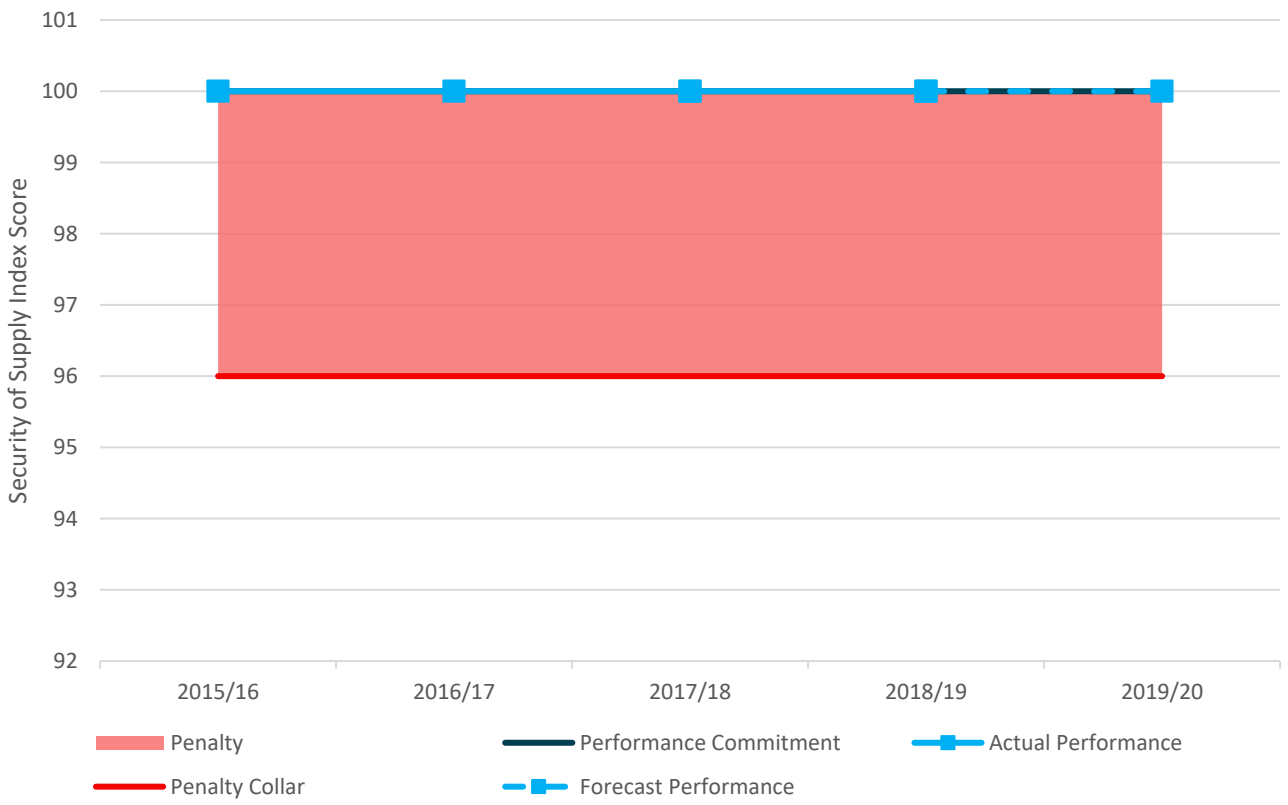
Measure description

The security of supply index (SOSI) measures our success in meeting the region's demand for water. The aim is to ensure a zero or positive supply-demand balance (no deficit) at all times throughout the planning horizon - from the current year through to 2040. The index is expressed out of 100 and the measure is underperformance only, meaning that if a SOSI score of less than 100 is achieved then an underperformance payment will be incurred.

Actual and forecast performance for the 'Security of supply' performance commitment

	2015/16	2016/17	2017/18	2018/19	2019/20
Target	100.00	100.00	100.00	**100.00**	100.00
Actual / Forecast	100.00	100.00	100.00	**100.00**	100.00
Pass / Fail	Pass	Pass	Pass	**Pass**	Pass
Outperformance payment/ Underperformance £m	0	0	0	**0**	0

Security of Supply Index



Overview of performance to date

We have continued to focus on our supply demand balance across all our resource zones. Our methodologies are consistent with those used for the Water Resource Management Plan and performance to date has been good for this measure. The performance commitment has been met again this year however there is still a need to monitor this measure closely and take action due to the reducing critical period surplus in Carlisle and West Cumbria resource zones.

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Underperformance or Outperformance payments

Security of supply index is a underperformance only measure. To calculate any underperformance the actual performance level is compared against the target performance level. If the performance falls within the underperformance-zone then we multiply the resulting difference by the underperformance incentive rate of £3.30 million per index point.

As our performance target has been met for 2018/19, we have not incurred an underperformance payment.

Lessons learnt and action plan

To minimise the risk to the SOSI score in future reporting years it is critical that we continue to manage demand in Carlisle and West Cumbria so that no deterioration from current levels is observed, and that work continues to bring demand in line with WRMP targets.

To mitigate any risk to SoSI in future years, we are taking the following actions to reduce the demand for water and have also improved supply side assets which will increase the water available for use:

- We continue to prioritise demand management and leakage control activities particularly in the company's Cumbrian resource zones.
- We are continuing to monitor the use of the South Egremont Boreholes and have the potential to alter operation should the balance of the water quality and water resources change.
- Timely delivery of capital investment projects that influence asset capability and hence zonal water available for use (WAFU).

Anticipated performance Year 5

Our target for the remainder of AMP6 is to maintain a SOSI score of 100.000. This is consistent with the aim to ensure a zero or positive supply-demand balance at all times from the current year through to 2040. Failing to meet the target level not only has incentive implications, but could also result in intervention by Defra if our water resources security of supply obligations are not met.

We do not anticipate any penalties during the AMP6 period, although there is a risk of failure due to the fine supply-demand balance in the Cumbrian zones until the Thirlmere pipeline scheme is delivered in 2021 unless demand is reduced in line with expectations. We are continuing to focus on demand management and are seeing improvements in leakage performance through AMP6 to date.

Future performance – risk, issue, concern, change or opportunity

1. Outages and asset capability are continually under review and there is the potential that this could have an impact on SOSI in future years.

B4: Total leakage at or below target

Performance Summary

We have outperformed our performance commitment in 2018/19 and expect we will continue to do so for the remainder or the AMP.

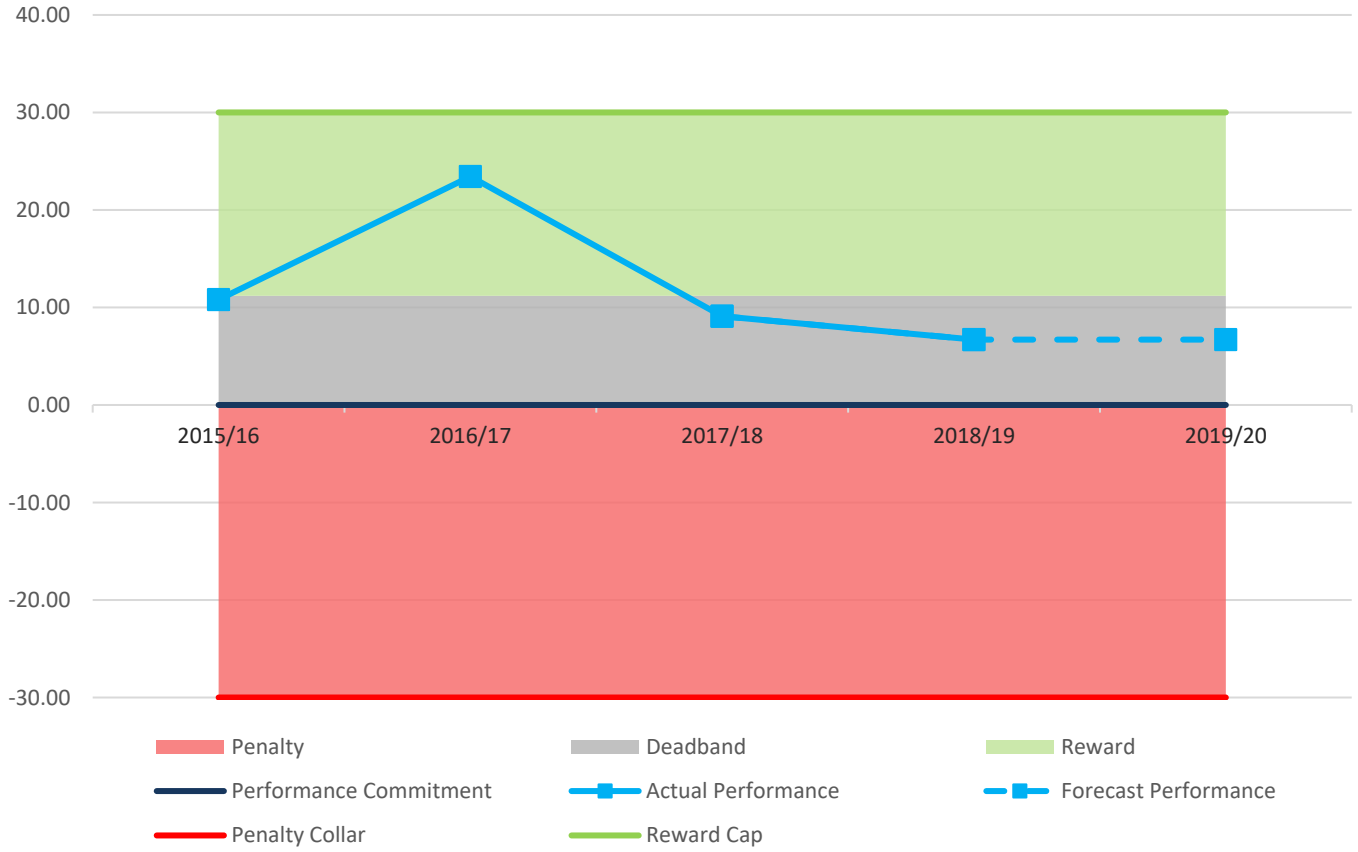
Measure description

This measure records the volume of water leaking from our network as a deviation from our overall target of 462.65Ml/d. The performance commitment has both outperformance and underperformance payments.

Actual and forecast performance for the 'Total leakage at or below target' performance commitment

	2015/16	2016/17	2017/18	2018/19	2019/20
Target	0.0	0.0	0.0	**0.0**	0.0
Actual / Forecast	10.8	23.4	9.1	**6.7**	6.7
Pass / Fail	Pass	Pass	Pass	**Pass**	Pass
Outperformance payment /Underperformance	0.0	£9.148	0.0	0.0	0.0

Actual and forecast performance for the 'Total leakage at or below target' – AMP6 actual and forecast performance against performance commitment



Overview of performance to date

We have met our leakage target for the last 13 consecutive years. Operationally 2018/19 was a challenging year, starting with the aftermath of the freeze/thaw known as the “Beast from the East” which significantly increased the number of mains bursts. We actively monitor leakage levels and highlighted the potential risks to performance early in the year. This allowed an early action plan to be developed and implemented, with performance against this plan being monitored and the plan adapted throughout the year. To support this plan, we built on existing baseline leakage control activities with:

- Additional internal and contract detection resources, working overtime (including weekend working);
- An increased number of repair gangs (at times, we were operating with double our 'normal' level);
- Targeted trunk main leakage surveys, including the use of leakage sniffer dogs and satellite imagery;
- The installation of an increased number of mobile acoustic loggers, as well as multiple fixed loggers, in our network to detect leaks that wouldn’t be found using traditional manual techniques.

This cold weather was quickly followed by an extended period of hot and dry weather. The effects of this weather resulted in significant reductions in reservoir levels, exceptional increases in water demand and ground movement resulting in a significant increase in mains bursts. To ensure we did not need to impose water restrictions, we invested an additional £70m during the year including additional leakage detection and repair activity.

Underperformance or Outperformance payments

In order to calculate any underperformance or outperformance payments the actual performance level is compared against the target performance level. If the performance falls within the outperformance payments or underperformance-zone then we multiply the resulting difference by the incentive rate. For leakage, the incentive underperformance rate is £1.458 million per Ml/day variance and the outperformance payments is £0.748 million per Ml/day variance.

In 2018/19 we outperformed our target however performance fell within the outperformance deadband so there is no outperformance payment. The cumulative outperformance payment for 2015/16 to 2018/19 is £9.1m.

Lessons learnt and action plan

Our current leakage levels are significantly below the economic level of leakage, which has been calculated at 682.9 Ml/d. This suggests that leakage reductions may not be economically beneficial. We are already performing below the sustainable economic level of leakage required to maintain the supply demand balance. However we recognise the importance that our customers and other stakeholders place on reducing leakage and are therefore continuing to strive for improvements. Reducing leakage, increases available water improving resilience and our ability to cope with unplanned asset failures, and increasing the potential for longer term trade opportunities with companies or regions facing water supply deficts.

We achieved our best ever leakage performance in 2016/17. The severe weather and freeze thaw experienced in February 2018 has caused an increase in leakage compared with last year but the plans we have in place meant we were still able to outperform our target albeit not enough to earn an outperformance payment. We need to continue to manage all activities that drive the leakage calculation in order to continue to beat targets in this area in future.

We have committed to invest an extra £44m to deliver further water performances improvements earlier and to help us meet future performance challenges. In addition to this we are delivering investment to ensure we are fully compliant with the new reporting methodology and in preparation for the step change in performance we plan to deliver in AMP7.

- Installation of more acoustic loggers. A large proportion of our leak detection still relies on technicians listening for leaks on our mains. Loggers provide constant monitoring and can identify smaller changes in the network and the identification of leaks that may not have be previously identified. They require a significant amount of investment so we will deploy them in areas requiring the most resources to maintain leakage ;
- We have been using dogs trained to detect chlorine in potable water which enables us to identify leaks on mains in rural areas where suitable fittings may not be readily available for conventional leak detection techniques.
- We are currently trailing satellite imagery for leak detection overlaid onto our GIS system to generate points of interest which can be investigated by our leakage teams.

Anticipated performance Year 5

Our prediction for leakage performance is that we will continue to beat our 2019/20 leakage target of 462.65 Ml/d and that we will end the period within the performance deadband.

Our leakage work is directly scheduled from our integrated control centre, with our contractors using our systems. Recognising the importance of evolving our leakage detection methods and technology we have insourced our detection activity in order to train and retain this skillset.

This control will be enhanced further when we fully roll out our new contractual arrangements and supporting IT systems. These new arrangements will provide greater visibility of work progress at all stages through common use of linked data capture tools by the new contractors.

We expect the action plan above combined with the new contractual arrangements and IT systems will drive further improvements which will be realised in AMP7.

Future performance – risk, issue, concern, change or opportunity

1. Non-domestic consumption - It is necessary to closely monitor the quality and accuracy of data provided by the Market Operator to ensure any inaccurate meter readings are promptly corrected by the retailers and robust data is available for use in the non-household consumption element of the leakage calculation. Any issues with obtaining data from the Market Operator could have an impact on our leakage calculation.
2. Freeze-thaw events could lead to signficiant volumes of additional leaks/ bursts that challenge resource levels/repair times.

B5: Resilience of impounding reservoirs

Performance Summary

We have outperformed our target on this measure in 2018/19. We anticipate that we will marginally outperform the target for 2019/20.

Measure description

The measure relates to our duty to maintain our statutory reservoirs and represents the resilience of these reservoirs using a total score from risk assessments. We are continually reviewing the potential risks at our reservoirs with the programme being flexible to ensure that we can reduce societal reservoir risks to even lower levels in line with best practice. The scores are calculated using current international best practice and in compliance with Health and Safety Executive guidelines.

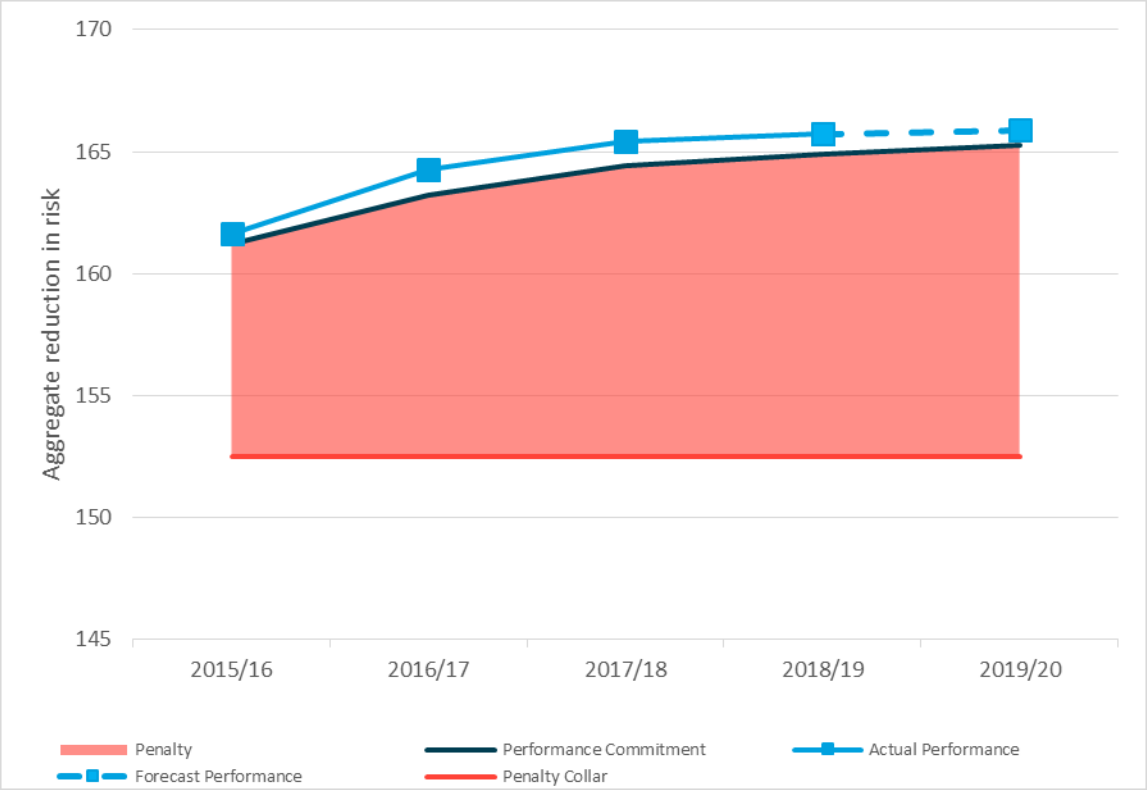
The measure is based upon a starting performance score of 151.86, with work undertaken to reduce risk levels increasing the performance score. The higher the performance score the greater the reduction in risk and therefore the better the performance. So the target is to be at or above the performance target in each year of the period.

This measure has a underperformance only financial incentive which is designed to ensure that customers are protected and revenue is returned to customers if the actual programme delivered does not generate the outcome that was originally assumed.

Actual and forecast performance for the 'Resilience of impounding reservoirs' performance commitment

	2015/16	2016/17	2017/18	2018/19	2019/20
Target	161.20	163.21	164.44	**164.87**	165.27
Actual / Forecast	161.61	164.25	165.42	**165.72**	165.87
Pass / Fail	Pass	Pass	Pass	**Pass**	Pass
Outperformance payment /Underperformance	£0	£0	£0	**£0**	£0

Actual and forecast performance for the 'Resilience of impounding reservoirs'- AMP6 actual and forecast performance against performance commitment



Overview of performance to date

This measure involves a rolling score across the AMP, and therefore outperformance in one year can benefit the subsequent year. As such, the outperformance in 2015/16 has enabled continued outperformance.

The slight outperformance of the target in 2015/16 was due to early completion of key projects, implementation of operational solution, and the reduction in cumulative risk following the completion of site surveys and analysis by the Risk Estimation Team (this includes members of our Reservoir Safety Team and independent, government appointed, Panel Engineers). It is in customers' interests to implement these no-build operational solutions immediately as they lower risk at no major cost. Our performance to date has been as a result of the delivery of the schemes set out in the table below.

The table sets out the planned project delivery date, the risk reduction resulting from delivery of the scheme and actual or forecast project delivery dates. The table demonstrates the level of change to the programme and that the overall outcome each year has delivered or is expected to deliver.

Full details of these schemes are available in the document "PR14 reconciliation", which is published on our website and available via the following https://www.unitedutilities.com/corporate/about-us/our-future-plans/looking-to-the-future/.

Projects delivered to support the resilience of impounding reservoirs performance commitment

Site name	Financial year	Project completion date	ODI points (this project)	Cumulative ODI points	Comments
Hollingworth Lake	Pre -AMP	10/09/2014	0.39	152.25	Delivered early
Hurst	N/A	31/09/2014	0.00	152.25	Additional scheme delivered
Hayeswater	N/A	31/09/2014	0.01	152.26	Additional scheme delivered
Ridgegate	N/A	07/11/2014	0.38	152.64	Additional scheme delivered
Readycon Dean	N/A	09/03/2015	0.14	152.78	Additional scheme delivered
Denton 1 & 2	FY16	07/04/2015	0.18	152.97	
Swinden	FY16	30/09/2015	0.13	153.10	Accelerated
Blackstone Edge	FY16	13/10/2015	0.46	153.57	Accelerated
Crummock	FY16	14/10/2015	1.09	154.66	
Simpson Ground	FY16	16/10/2015	0.13	154.79	Accelerated
Overwater	FY16	11/12/2015	5.25	160.04	
Whiteholme	FY16	14/12/2015	1.57	161.61	Accelerated
Millbrook	FY16	N/A	N/A	N/A	Scheme removed from programme
Sunnyhurst	FY17	30/08/2016	0.59	162.19	Delayed
Earnsdale	FY17	14/19/2016	0.38	162.58	Delayed
Borrans	FY17	17/01/2017	0.14	162.72	Additional scheme delivered
Bottoms Macc	FY17	17/01/2017	0.07	162.79	Accelerated
Cloughbottom	FY17	17/01/2017	0.07	162.85	Accelerated
High Bullough	FY17	17/01/2017	0.06	162.92	Accelerated
Rumworth	FY17	17/01/2017	0.1	163.01	Accelerated
Teggsnose	FY17	17/01/2017	0.07	163.08	Accelerated
Clowbridge	FY17	23/02/2017	0.44	163.52	Additional scheme delivered
Springs	FY17	23/02/2017	0.73	164.25	
Chelburn	FY18	31/01/2018	1.17	165.42	Delayed
Warland	FY18	N/A	N/A	N/A	Scheme removed from programme
Woodgate Hill no 2	FY18	N/A	N/A	N/A	Scheme removed from programme
Coldwell	FY18	N/A	N/A	N/A	Scheme removed from programme
Arnfield	FY18	N/A	N/A	N/A	Scheme removed from programme
Fisher Tarn	FY18	N/A	N/A	N/A	Scheme removed from programme
Yeoman Hay	FY19	N/A	N/A	N/A	Scheme removed from programme
Hanging Lees	FY19	08/03/2019	0.31	165.72	Accelerated
Laneshaw	FY20	31/03/2020	0.15	165.87	

Underperformance or Outperformance payments

In order to calculate any underperformance for this measure, the actual performance is compared against the target performance. If the performance falls within the underperformance-zone then we multiply the resulting difference by the incentive rate. For impounding reservoirs, the incentive underperformance rate is £0.250 million per risk unit.

We outperformed against our performance commitment in 2018/19 therefore no outperformance payment has been accrued.

Lessons learnt and action plan

The 'resilience of impounding reservoirs programme' is entirely focused on securing the safe, efficient long term future of our reservoir assets. These assets are likely to increase in their utility and value to the company, as opportunities develop for water trading.

Securing the long term future of reservoir assets will also help to ease the transition of our water storage assets to any future water resources company that may emerge as part of future market reform.

Outperformance is forecast for AMP6 for the following reasons:

- The resilience of impounding reservoirs programme is currently ahead of the minimum delivery schedule.
- The programme has delivered positive risk reduction benefit for customers in the early years of the AMP.
- The programme has achieved some early success, with slight outperformance against the target, this will help to offset any future slippage in projects if challenges arise.

The 'resilience of impounding reservoirs programme' delivers both civil engineering and operational solutions in order to reduce the risk of dam failure. In order to continue delivering against this measure we are exploring alternative, operational activities which may be available to reduce risk such as lowering of water levels, or increased inspection frequency.

Anticipated performance Year 5

A slight outperformance against the performance commitment target is forecast for future years. Outperformance early in the AMP benefits future years as this is a cumulative performance commitment and therefore outperformance assists with meeting the future years' targets.

There are no penalties anticipated for this measure. However the programme has a number of challenging projects to deliver before the end of the AMP, and therefore any delivery issues that arise could result in a failure to achieve our performance commitment target.

Future performance – risk, issue, concern, change or opportunity

1. The 2019/20 cumulative risk reduction performance commitment has been delivered a year early therefore there is no risk to future performance.

B6: Thirlmere transfer into West Cumbria

Performance Summary

We have made very good progress on the delivery of this scheme and are now significantly ahead of the originally planned schedule for the project.

Our plans also show that we should be able to complete the project approximately one year ahead of the originally planned date, although there are inevitably risks associated with any project of this scale and complexity.

Measure description

This measure reflects our progress in delivering the Thirlmere transfer project which will allow abstraction from Ennerdale Water to cease by providing a transfer main, new wastewater treatment works and associated assets to allow water from Thirlmere reservoir to be supplied to the West Cumbria area.

As the project will deliver its final outcome in the AMP7 period, the measure is based upon the earned value of delivering key milestones within the project with the performance commitment being based upon 82% of the earned value of the project being delivered by the end of the AMP6 period.

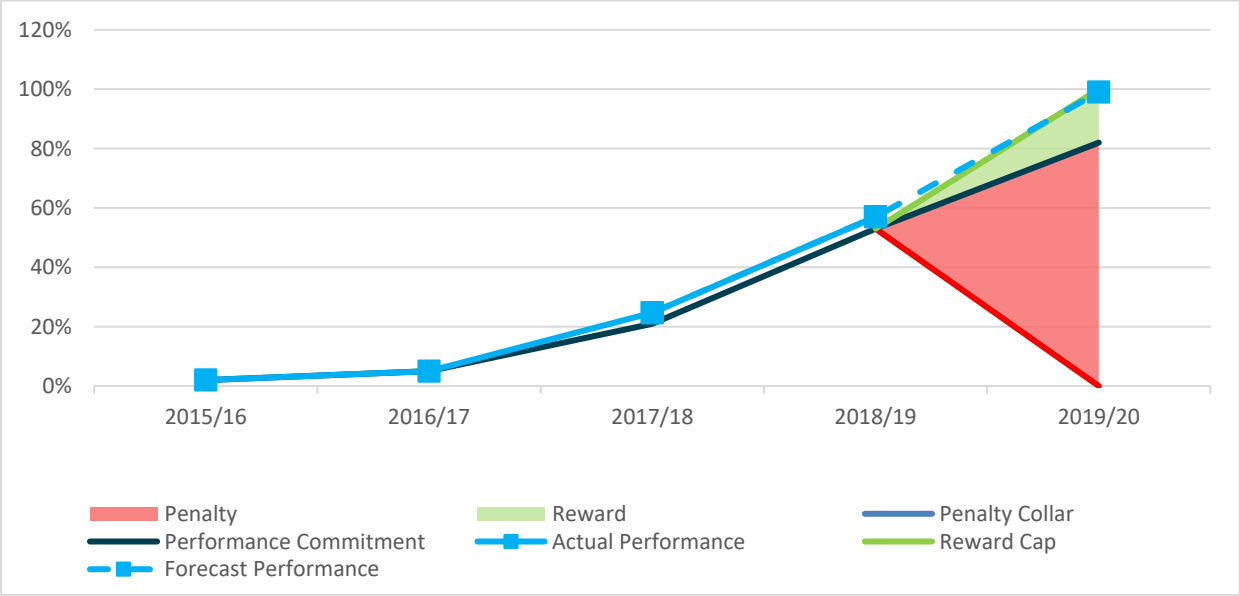
Underperformance and outperformance incentives for this measure are applied based upon the position at the end of FY20 to reflect any slippage out of or acceleration into the AMP6 period and therefore ensure that customers are protected from any delay or that UUW is appropriately recompensed for the additional costs in the period that would be associated with acceleration of the project.

Details of our plans for West Cumbria can be found on our website. The breakdown of the project stages that make up the performance commitment in both AMP6 and AMP7, and the percentage allocated to each year as shown below.

Actual and forecast performance for the 'Thirlmere transfer' performance commitment

	2015/16	2016/17	2017/18	2018/19	2019/20
Target	2	5	21	**53**	82
Actual/Forecast	2	5	25	**57**	99
Pass/ Fail	On track	On track	On track	**On track**	Out performed
Outperformance payment/ Underperformance	N/A	N/A	N/A	**N/A**	£21.600m

Actual and forecast performance for the 'Thirlmere transfer into West Cumbria' performance commitment



Overview of performance to date

Our commercial strategy of splitting the project into five contracts and the setting up of a dedicated commercial team has enabled the project team to make good progress on this project.

We have also set up a planning performance agreement with various authorities and carried out extensive stakeholder management to ensure successful achievement of the planning approved milestone.

Completed milestones	Planned delivery year	Actual delivery year	Earned Value (%)	Early/ Late
Tender documents (scope book) submitted to bidders	FY16	FY16	1.0	On time
Planning application submitted	FY16	FY16	1.0	On time
Contract awarded	FY17	FY17	1.50	On time
Planning application approved	FY17	FY17	1.50	On time
Construction started on site	FY18	FY18	7.66	On time
First 23.12% of main in the ground	FY18	FY18	8.34	On time
Thirlmere Bridge End connection works complete	FY20	FY18	3.68	Early
Substructure of WTW complete	FY19	FY19	0.85	On time
Substructure of SRs complete	FY19	FY19	0.85	On time
Next 29.64% of main in the ground	FY19	FY19	30.30	On time
Total earned value of the project delivered to date			**56.68**	

- In 2015/2016 we achieved the two planned milestones of 'tenders issued' and 'planning application submitted'. This amounted to 2% of project completion in line with the performance commitment target.
- In 2016/2017 we achieved the two planned milestones of 'contracts awarded' and 'planning application approved'.
- In 2017/2018 we delivered the two planned milestones of 'construction started on site' and 'first 23.12% of main in the ground'. We also delivered the milestone of 'Thirlmere Bridge End construction works complete'. This work delivered a total earned value for the three years to date of 24.68%, which is ahead of the of project completion in line with the performance commitment target of 21%.
- In 2018/2019 we delivered the three milestones scheduled in the year, with the substructure of the Water Treatment Works (WTW) and service reservoirs completed and the next 29.64% of mains being laid. We have completed the superstructure of the WTW earlier than originally planned. This took the total earned value up to 56.68%.

Underperformance or Outperformance payments

Underperformance and outperformance payments this measure are only applicable in 2019/20 and not before.

In order to calculate if any outperformance payments has been incurred the actual performance is compared against the target performance level. If the performance falls within the outperformance payments-zone then we multiply the resulting difference by the incentive rate. For the Thirlmere transfer into West Cumbria the incentive rate is £1.271 million per percent project completion.

We expect to earn an outperformance payment of £21.6m. The incentive mechanism aims to protect customers if we fail to deliver this major project or to compensate the company for acceleration costs of delivering early.

Lessons learnt and action plan

The project is on track to significantly outperform the targets as outlined in the performance commitment for the Thirlmere Transfer. Although there is a risk that adverse weather could impact remaining work we are significantly ahead of target therefore the risk of missing the target for 2019/20 has been reduced and it is unlikely that we will miss the target.

Anticipated performance Years 5

We are planning to deliver this project as soon as possible. The delivery date included in our 2015 Water Resources Management Plan and PR14 submission was 31st March 2022. We now expect to be able to lay the remainder of the transfer main during 2019/20, which was originally due for completion in 2021/22, with the milestone for next 27.27% of main in the ground completed in July 2019. This would only leave the work to complete the service reservoirs and water treatment works remaining to be completed in AMP7.

This would take the total earned value of the project by 2019/20 up to 99%, substantially greater than the 82% assumed within the performance commitment. Subject to potential construction delays we would hope to be able to complete the service reservoirs in the late summer of 2020 and complete the WTW and thus the project towards the end of 2020/21.

Milestones to be completed	Planned delivery year	Forecast delivery year	Earned Value (%)	Early/ Late
Next 27.27% of main in the ground	FY20	FY20	25.32	On time
Superstructure of WTW complete	FY21	FY20	2.18	Early
Next 12.54% of main in the ground	FY21	FY20	7.82	Early
SRs complete	FY22	FY21	0.65	On time
WTWs complete	FY22	FY21	0.65	On time
Final 7.43% of main in the ground	FY22	FY20	6.70	Early
Total earned value of the project yet to be delivered			**43.32**	

Future performance – risk, issue, concern, change or opportunity

1. **Weather**
   - Drought/excessive rain could slow delivery of the project.
2. **Geotechnical tunneling difficulties**
   - This could result in delays to the scheme.
3. **Environmental and archaeological discoveries**
   - Should these be discovered it could potentially slow delivery of the project.

C1: Contribution to rivers improved - water programme (NEP schemes and abstraction changes at four Abstraction Incentive Mechanism (AIM) sites)

Performance Summary

We have outperformed our target on this measure in 2018/19 through the early delivery of NEP schemes. Although we have outperformed the abstraction incentive mechanism for the last three years the extended period of dry weather meant we narrowly missed the target for the AIM element of this measure. We anticipate that we will outperform our target in 2019/20.

Measure description

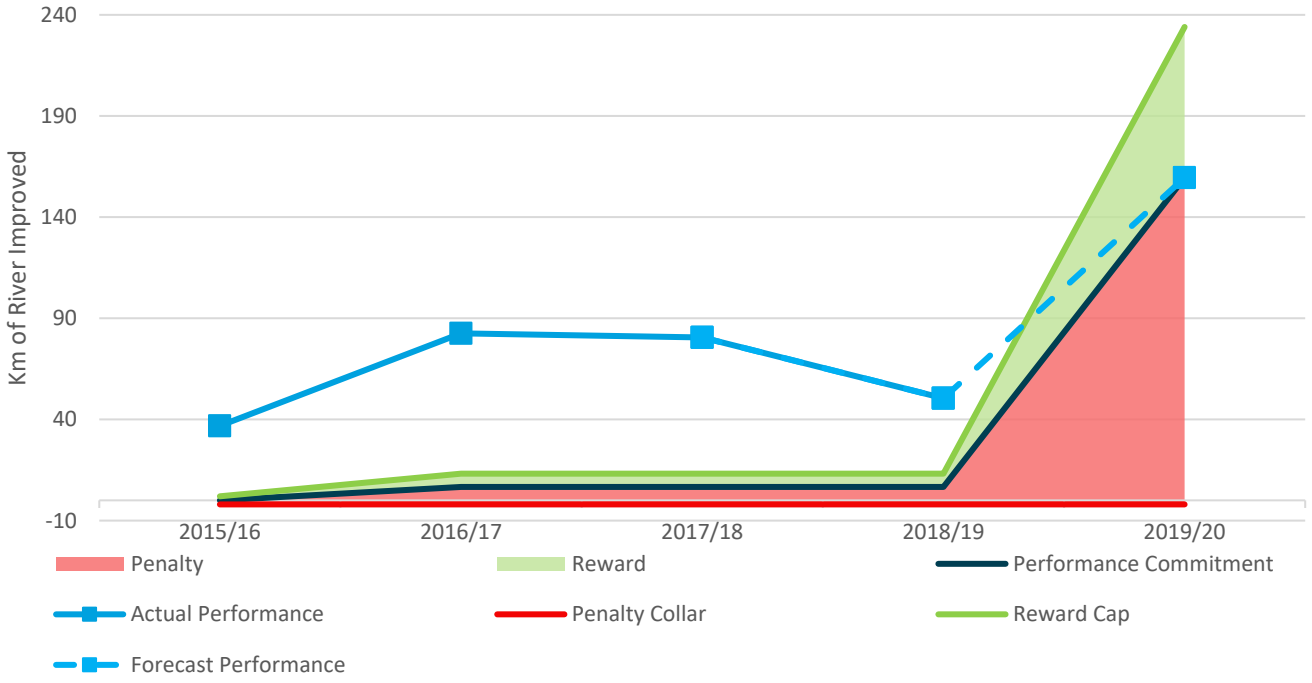
The contribution to rivers improved (water) measure of success is delivered through two main programmes:

- The delivery of an agreed number of kilometres of river improvement through completion of schemes agreed with the EA in the National Environment Programme (NEP).
- Additional kilometres improved through changing United Utilities abstraction at the four abstraction incentive mechanism (AIM) sites.

Actual and forecast performance for the 'contribution to rivers improved' performance commitment

	2015/16	2016/17	2017/18	2018/19	2019/20
Target	0	6.6	6.6	**6.6**	159.5
Actual/Forecast	36.85	82.55	80.56	**50.48**	159.5
Pass/Fail	Pass	Pass	Pass	**Pass**	Pass
Outperformance payment/ Underperformance	£0.0560m	£0.1848m	£0.1848m	**£0.1848m**	£0m

Actual and forecast performance for the 'contribution to rivers improved' performance commitment



Contribution to rivers improved sub-measures

Sub measure	Performance 2018/19	Target 2018/19
Cumulative length of river improved by NEP (km)	51.62	
Length of river improved by AIM (km)	-1.14	
Total cumulative length of river improved (km)	50.48	6.6

Overview of performance to date

We have outperformed the performance commitments through the early delivery of NEP schemes. The rivers improved (water) programme initially had two projects due for delivery in 2016/17, with the remainder of the programme due for delivery in 2019/20.

This outperformance has been achieved as set out below.

- **In 2015/16** we delivered the Heltondale fish migration investigation (6UUWR0045) one year earlier than proposed in the NEP, securing 0.01 km of river improved.
- We also secured 36.84 km from the AIM element of the measure as river flows at the four AIM sites did not drop below the AIM threshold flows.
- **In 2016/17** we delivered the remaining FY17 scheme (Swindale 6UUWR0031). We also accelerated delivery of seven sediment management schemes which were due for delivery in FY20 (representing 9 NEP entries: 6UUWR0009, 6UUWR0010, 6UUWR0013, 6UUWR0015, 6UUWR0016, 6UUWR0017, 6UUWR0020, 6UUWR0022 and 6UUWR0026) – we decided to undertake these ourselves which provided us with greater control over the speed of the project and allowed us to be efficient in our delivery. As a result we have been able to complete these studies earlier than we anticipated. We also completed an investigation of our Thirlmere tributary abstractions (6UUWR0042), again ahead of its FY20 NEP date. Together these secured a total of 45.70 km of river improved through delivery of NEP schemes in 2016/17.
- We also secured 36.84 km from the AIM element of the measure as river flows at the four AIM sites did not drop below the AIM threshold flows.
- **In 2017/18** we delivered a further investigation in to our Haweswater tributary abstractions (representing 3 NEP entries: 6UUWR0036, 6UUWR0038 and 6UUWR0040) which was originally due in FY20. This secured 0.02 km river improved.
- The AIM flow threshold was reached at Ennerdale during 2017/18 resulting in 34.83 km river improved secured from the AIM element of the measure.
- **In 2018/19** we delivered the River Calder scheme (6UUWR0034 and 6UUF022), an eel trap and truck investigation (representing 8 NEP entries: 6UUF002, 6UUF003, 6UUF004, 6UUF005, 6UUF006, 6UUF011, 6UUF013 and 6UUF015) and a River Lune eel investigation (6UUF010a), securing a total of 5.89 km of river improved through delivery of NEP schemes in 2018/19.
- Due to the dry summer of 2018 we hit the AIM flow triggers at three of the four AIM sites resulting in a slightly negative AIM performance of -1.14 km river improved in 2018/19.

Projects delivered to support contribution to rivers improved (water) performance commitment

Projects delivered	EA NEP reference	Date delivered	Km rivers improved	Cumulative benefit
Heltondale fish migration investigation	6UUWR0045	18/03/16	0.01	0.01
Swindale RoC2 works	6UUWR0031	31/03/17	6.55	6.56
Calder	6UUWR009	31/03/17	4.63	11.19
Crummock	6UUWR0010	31/03/17	4.55	15.74
Stocks	6UUWR0013	31/03/17	6.45	22.19
Jumbles	6UUWR0015 /6UUWR0016/ 6UUWR0017	31/03/17	9.01	31.2
Dovestone	6UUWR0020	31/03/17	5.46	36.66
Goyt	6UUWR0022	31/03/17	3.84	40.5
Alston (Langden & Hareden)	6UUWR0026	31/03/17	5.21	45.71
Thirlmere AMP6 Investigation impact of Mill Gill aqueduct interception of tributaries	6UUWR0042	31/03/17	0.00	45.71
Haweswater AMP6 investigation: impact of aqueduct interception of Naddle-Tailbert-Mossy Beck tributaries	6UUW0036	22/03/18	0.02	45.73
River Calder hands off flow (EA flow site)	6UUWR0034	25/09/18	5.50	51.23
6UUWR00035a - Stage 3 assessments & UKTAG flow guidance assessments (7 sites listed in the January published NEP5)	6UUWR0034	31/03/17	0.00	51.23
River Calder: Eel screen (9mm) & three eel passes	6UUF022	25/09/18	0.00	51.23
Eel monitoring and feasibility studies for "trap and truck" systems and need for 9-10mm aperture silver eel screening on reservoir intake at 5 reservoir sites: Harlock and Poaka Beck; Simpson Ground/High Newton; Damas Gill; Grizedale; Rivington	6UUF002/ 6UUF003/ 6UUF004/ 6UUF005/ 6UUF006/ 6UUF0011/ 6UUF013/ 6UUF015	07/11/18	0.16	51.39

As NEP km river improved is a cumulative measure the total 2018/19 performance was 51.62 km comprising 5.89km from 2018/1, 0.02 km from 2017/18 , 45.70 km from 2016/17 and 0.01 km from 2015/16.

In 2018/19 we slightly underperformed with -1.14km for AIM. The summer of 2018 was very dry, resulting in river flows at three AIM sites (River Calder, Aughertree Spring and Ennerdale) reaching it's respective AIM trigger. The negative performance was because we abstracted more than the historic average from the River Calder and Aughertree Spring although across all three sites we abstracted significantly less than historic average.

The length of river improved by the AIM sub-measure is combined with the cumulative length of river improved through delivery of the NEP programme to give an overall improvement in river length of 50.48km, outperforming the target of 6.6km.

This level of performance results in a small outperformance of our overall AMP6 ODI target

NOTE:

In 2016/17 AIM was added as a specific pro forma table within the Annual Performance Report (Table 3C see Section 2.5). We had already adopted AIM through the PR14 process as part of the contribution to the rivers improved measure. Our measure is calculated differently from the new Ofwat measure, which was developed in consultation with the AIM taskforce of which UUW is a member. The calculation of the river length used in this measure is based upon two factors: a) the total length of river affected and b) the actual level of abstraction below the 'Low' river flow threshold compared to the 2007-2013 average annual abstraction below the "Low" river flow threshold.

If abstraction in any year is at historic average levels for each site then no river length is added to, or removed from, the reported rivers improved value for that year. If no abstraction is made in that year, then the full river length for that site would be added. If abstraction is at half the average value 50% of the river length would be added. Similarly if abstraction is at 150% of the average 50% of the river length would be removed from the reported rivers improved value for that year. For each AIM site the adjustment cannot be greater than the river length associated with that site.

Underperformance or Outperformance payments

In order to calculate any underperformance or outperformance payments the actual performance level is compared against the target performance level. If the performance falls within the outperformance payments or underperformance zone then we multiply the resulting difference by the incentive rate. For contribution to rivers improved, the incentive underperformance rate is £0.111 million per km/year variance and the outperformance payment is £0.028 million per km/year variance. In 2018/19 we outperformed our target and received an outperformance payment of £0.1848m.

Lessons learnt and action plan

The project is on track to meet the target as outlined in the performance commitment for contribution to rivers improved ensuring we avoided financial penalties for underperformance.

If we experience periods of dry weather resulting in low river flows we may perform poorly against the AIM targets. This is partly mitigated by a underperformance cap of -2 km against this aspect. For three of the four AIM sites (Ennerdale, Aughertree Springs and Old Water) the alternative sources of supply are limited. The AIM site with most flexibility in terms of alternative sources is the River Calder at Barnacre. UU's Production Planning team closely monitors river flow conditions and plan to reduce abstraction at this site if river flows approach the low AIM threshold flow.

Anticipated performance Year 5

The ODI targets in our 2015-2020 business plan were based on NEP3 issued by the EA on 29 August 2013. Development of the NEP by the EA is a phased process and the final version (NEP5) was published in January 2016. Despite this, the regulatory agreement (and the ODI performance commitment) with Ofwat still stands as per NEP3. NEP5 did not include the three schemes listed below:

- Eel passage on the north bank of River Lune at Forge weir – this has been provided by a third party (Lune Hydro) (1.54 km)
- Implement a new prescribed flow and fish passage at our Old Water river intake on the River Gelt, Carlisle – following a challenge by UU, this was excluded from NEP5 on the grounds of disproportionate cost (0.74 km)
- Implement a higher prescribed flow on the River Ellen – following a challenge by UU, this was excluded from NEP5 on the grounds of disproportionate cost as we plan to cease abstraction from this source in 2022 as part of the Thirlmere link scheme to supply West Cumbria (1.43 km)

Over the AMP6 period our performance for AIM has exceeded the target in three years but marginally failed the target in one year, with performance in 2019/20 also being to some degree dependent upon the weather. For 2019/20 our forecast position reflects the estimated additional 2 km as a result of reducing our abstraction at Ennerdale as a result of the new South Egremont boreholes. We have also assumed a relatively small additional benefit, of 1.68km, which produces a total forecast benefit of 3.68 km river improved under AIM and takes the predicted value for the combined measure to the performance commitment target of 159.5 km. In practice the value under AIM could exceed this value as it has done in the first three years of the period, or be lower than this value as it was in 2018/19.

To ensure delivery of this forecast position on AIM we are proactively managing abstraction at our AIM sites during periods of low river flow – however there are limited alternative supplies of water to utilise.

Due to delivery of the River Calder NEP scheme in 2018/19 (6UUWR0034), this site will not form part of AIM for 2019/20 as the sustainability issue has been addressed by the NEP scheme.

Future performance – risk, issue, concern, change or opportunity

1. Weather- Drought/excessive rain could slow delivery of NEP schemes.
2. Dry weather - If we experience periods of dry weather resulting in low river flows we may perform poorly against the AIM targets Environmental and archaeological discoveries

D1: Delivering our commitments to developers, local authorities and highway authorities

Performance summary

We have underperformed our performance commitment for this measure in 2018/19. This was mainly due to organisational change within the department, with measures now in place to make improvements. We are seeing an improvement in performance and expect to get performance back on track to meet the 2019/20 target.

Measure description

This measure tracks the timeliness of responses to quotation requests by developers and self-lay organisations, and the completion of works for new connections, diversions and requisitions (that is, new pipe installations) within given timescales.

Across each of the KPIs, the percentage of responses delivered and work completed to the company's service levels are monitored. The percentage compliance for the two key areas of activity (timeliness and completions) are then consolidated into a single performance measure shown as a percentage.

Actual and forecast performance for the 'delivering our commitments to developers, local authorities and highway authorities' performance commitment

	2015/16	2016/17	2017/18	2018/19	2019/20
Target	91%	92%	93%	**94%**	95%
Actual/ Forecast	95%	98%	94%	**89%**	95%
Pass/ Fail	Pass	Pass	Pass	**Fail**	Pass
Outperformance payment/ Underperformance	Reputational	Reputational	Reputational	**Reputational**	Reputational

Overview of performance to date

We have underperformed our performance commitment in 2018/19 with an overall percentage service level of 89.03%. Implementation of IT systems and new working procedures saw an overall improvement in service in 2016/17. However, over the course of the AMP we have seen a 30% increase in volumes of quotations. We have also introduced process changes so that inspections are carried out before quotes are issued to ensure the customer receives an accurate and fixed price quote. This has meant that some responses have not met the required timescales. A continuous improvement plan is in place which has improved performance over the latter part of the year. .

Water UK publishes a Developer Services levels of service report for the industry on a quarterly basis. Although this measure is subtely different to our measure it does show that our performance has been improving and has continued to be above industry average.

Underperformance or Outperformance payments

This is a reputational measure with no financial incentive.

Lessons Learnt and Action Plan

We strive to achieve 100% compliance, but due to the nature of the work and other outside influences this is difficult to achieve. We continue to encourage close working between departments and with Local Authorities to ensure work is completed in a timely manner.

We host a 'Developer Day' each year, providing an opportunity for us to engage directly with Developers/SLOs to share details of our charging schemes and processes and obtain feedback. The developer days have been well received and feedback has helped to shape our charges scheme and process, for example;

- We changed our approach to income offset/asset payment from a percentage allowance to a per plot allowance for development consisting only household premises.
- We simplified our approach to water and wastewater infrastructure discounts
- We have developed our new charges to enable stakeholder to reasonably estimate charges due without having to wait for a quote.

Anticipated Performance Year 5

. We have an improvement plan in place and expect to meet the target in 2019/20.

Future performance – risk, issue, concern, change or opportunity

Potential programme delays caused by traffic management requirements.

E1: Number of free water meters installed

Performance summary

We have underperformed this measure for a forth year and expect to miss the target for the final year of the AMP.

Measure description

This measure relates to the number of water meters that we install for free. Domestic customers can apply to have a water meter fitted free of charge. This scheme applies to customers who are charged on a Rateable Value (RV) tariff and wish to benefit from a lower bill. The measure is delivered as a result of the underlying base level of demand and through two types of specific intervention:

- The targeted promotion of free water meters to customers to help manage debt issues.
- The installation of free water meters to support operational process and policy improvements.

Actual and forecast performance for the 'Number of free meters installed' performance commitment

	2015/16	2016/17	2017/18	2018/19	2019/20
Target	61,644	59,325	57,393	**47,421**	46,054
Actual/ Forecast	27,197	32,247	36,615	**32,069**	32,883
Pass/ Fail	Fail	Fail	Fail	**Fail**	Fail
Outperformance payment/ Underperformance	Reputational	Reputational	Reputational	**Reputational**	Reputational

Overview of performance to date

This year we have fitted 32,069 free meters into homes against an original target of 47,421, which was based on an econometric model which we now believe overestimated the likely take-up levels from among our customer base.

To seek to recover this position, we reinvigorated our metering proposition and made more effective use of customer segmentation to target, promote and message free meter take-up to the customers we know would benefit the most. We have introduced a range of interventions and have recently run a campaign featuring consumer champion Gloria Hunniford, whose video is on our website (view video) and dispels common myths on meters and shows how customers could save with a meter.

Despite this work uptake levels remain lower than our original target. The primary reason the number for 2018/19 is lower than the previous year is because we sent our annual unmeasured bills out earlier in the year. In 2018 the first bills were sent on earlier than in 2017 and this along with deployment of additional resource to manage peak demand, meant we fitted a significant number of meters in 2017/18 which were effectively brought forward from 2018/19. Last year we received a total of 47,868 applications in compared to 44,629 this year.

Underperformance or Outperformance payments

This is a reputational measure with no financial incentive.

Lessons Learnt and Action Plan

Metering levels in the current investment period are significantly increased on previous levels of metering.

As set out in previous years' reports, the initial econometric model predictions overestimated uptake levels. To address this we have engaged an alternative consultant to create a revised model, more accurately able to predict future uptake levels. Within those original targets, uptake levels have not been as high as anticipated. Similarly, we have responded to customer feedback about the internal fitting of meters, which has generated less opportunities to do additional work to facilitate internal meter installations than assumed.

Although we have not achieved the target for the year, we will continue to focus on increasing uptake levels by promoting meters to customers we believe would benefit from a meter, which has been enhanced by the implementation of more sophisticated customer segmentation built into our billing system in 2018-19. We are optimistic that the combination of the enhanced proposition and more effective targeting will generate further growth in free meter take up among customers in remaining years of this investment period.

To improve take up, we have reinvigorated our metering proposition and made more effective use of customer segmentation to target, promote and message free meter take up to the customers we know would benefit the most. We have introduced a range of interventions, including a new bill for non-metered customers which provides more relevant and specific information about how the switch to a meter could save them money, the launch of 31 pop-up shops in shopping centres across key locations across the North West promoting the benefits of switching to a meter and building the metering promotion and sign-up into our Town Action Plan, which sees us carry out door-to-door visits to customers in our most deprived towns, completing more than 40,000 visits in the year.

Anticipated Performance Year 5

We have undertaken a number of research projects to better understand attitudes towards water efficiency and metering, understand barriers and motivations to desired behaviours and willingness to act to achieve greater water efficiency. This has helped us to form a joined up communication strategy for water efficiency and metering. We expect to maintain higher levels of meter replacement than we have historically delivered, but do not expect to meet the targets for the remaining year of the AMP.

Future performance – risk, issue, concern, change or opportunity

1. There is a risk that our planned metering campaign and promotion activity does not deliver the estimated uptake of free meters for the remaining two years.

1.1 b) Wastewater Service performance commitments

2018/19 Annual performance summary

Performance against our wastewater service outcomes in 2018/19 and the cumulative performance in the AMP6 period to date is set out in the table below. Further information on each measure is provided within this section of our Annual Performance Report, with details of the calculation of the index scores and associated incentives provided in Appendix 2.

Wastewater Service Operational Performance Summary (2018/19)

Performance commitment	Actual performance levels				Performance commitments		Financial incentives	
	2015/16	2016/17	2017/18	2018/19	2018/19	Pass / Fail	2018/19 Annual (£m)	2018/19 Cumulative (£m)
S-A1: Private sewers service index	91.69	91.90	85.00	**89.27**	≤ 100.0	Pass	£7.38m	£29.49m
S-A2: Wastewater network performance index	90.95	89.47	86.17	**90.75**	≤ 95.60	Pass	-	-
S-B1: Future flood risk [1]	16,472	16,418	16,395	**16,379**	≤ 16, 247	Fail	-	-
S-B2: Sewer flooding index	100.80	94.40	69.99	**61.66**	≤ 70.30	Pass	£0.57m	-£0.91m
S-C1: Contribution to bathing waters improved	0.47	0.66	1.49	**4.21**	≥ 3.78	Pass	-	-
S-D1: Protecting rivers from deterioration	48.00	48.00	210.50	**322.90**	≤ 316.70	Pass	-	-
S-D2: Maintaining our wastewater treatment works	91.48	58.71	30.47	**39.17**	≤ 54.32	Pass	-	-
S-D3: Contribution to rivers improved	0.75	46.98	120.73	**178.93**	≥ 173.38	Pass	£0.23m	£1.02m
S-D4a: Wastewater category 1 and 2 pollution incidents	4	2	0	**1**	≤ 3	Pass	-	-
S-D4b: Wastewater category 3 pollution incidents	136	150	129	**143**	≤ 195	Pass	£3.28m	£13.12m
S-D5 Satisfactory sludge disposal	100	100	100	**100**	= 100	Pass	-	-
Wastewater Service (net outperformance) £m							**£11.46m**	**£42.72m**

1 This measure is reputational only

Forecast future performance

Actual performance against our wastewater service outcome delivery incentives in the four years of the AMP6 period, together with forecast performance for the remaining year of the period, is set out in the table below. Further information on each measure, including the rationale and potential risks and opportunities associated with the future performance projections is set out for each measure in the detailed commentary provided in the following pages.

Information on the way that the predicted performance and incentive payments would impact upon bills upon allowed revenues for the 2020 – 2025 period (AMP7) is set out in "United Utilities Water PR14 reconciliation update (July 2019)", which is available on our website.

It must be recognised that the performance projections set out for many of the outcome delivery incentives in the table below will be subject to a number of factors, which are at least in part outside of our direct control. Therefore the projections set out in the table below are indicative values only.

Actual and forecast performance of the Wastewater Services performance commitments and a projected view of financial performance at the end of AMP6

Performance commitment	Incentive type	Actual						Projected AMP6 performance
		2015/16	2016/17	2017/18	2018/19	To date	2019/20	
Private sewers service index	Outperformance & underperformance	7.4	7.4	7.4	**7.4**	**29.5**	7.4	36.9
Wastewater network performance index	Underperformance only	-	-	-	**-**	**-**	-	-
Future flood risk	Reputational	-	-	-	**-**	**-**	-	-
Sewer flooding index	Outperformance & underperformance	0.0	-1.5	0.0	**0.6**	**-0.9**	0.0	-0.9
Contribution to bathing waters improved	Underperformance only	-	-	-	**-**	**-**	-	-
Protecting rivers from deterioration	Underperformance only	-	-	-	**-**	**-**	-	-
Maintaining our wastewater treatment works	Underperformance only	0.0	0.0	0.0	**0.0**	**0.0**	-4.4	-4.4
Contribution to rivers improved (Ww) (NEP5)	Outperformance & underperformance	0.0	0.4	0.4	**0.2**	**1.0**	-0.1	0.9
Wastewater (category 1&2) pollution incidents	Underperformance only	-	-	-	**-**	**-**	-	-
Wastewater category 3 pollution incidents	Outperformance & underperformance	3.3	3.3	3.3	**3.3**	**13.1**	3.3	16.4
Satisfactory sludge disposal	Underperformance only	-	-	-	**-**	**-**	-	-
Wastewater services net :2015/16-2018/19 financial incentive						**£42.7m**	AMP	**£48.8m**

Notes

1 The numbers in the table above have been rounded to one decimal place therefore the annual underperformance and outperformance payments may not appear to add up to the amounts reported in the current financial position and projected AMP6 performance columns.

2 Reputational only performance commitments are not included in the table.

Relative intercompany performance

Our great performance in wastewater has continued this year. The tables below show that we have met or outperformed expectations for 10 of our 11 measures. Performance in our wastewater network measures continues to improve as we further embed our operating model. This approach is helping to investigate the root cause and resolve incidents, addressing more incidents first time and reducing repeats through a targeted and planned approach. This also has helped to continue to improving customer satisfaction. We have suffered fewer extreme weather events this year and as such have seen a significant reduction in flooding events. This has helped us to outperform our sewer flooding target for the first time this AMP. We continue to be industry leading for pollution incidents; not only in the number of incidents, but also in the number that we find and self-report to the Environment Agency. Although our performance has generally improved this year, we failed our performance commitment for future flood risk, which looks at the numbers of properties at risk in the North West.

We continue to meet our targets on our delivery measures; each of these tracks the delivery of projects at our treatment works and on our wastewater network. Such projects will help to improve our performance and reduce the impact that we have on the environment as well as improving the reliability and resilience of assets.

Our performance last year across a range of measures was published on the Discover Water website, which compared our performance against the performance of other water and wastewater companies.

Both internal and external flooding incidents are compared across the industry on the Discover Water dashboard; for internal flooding our performance was above industry average (although this comparison includes all flooding incidents and so includes flooding that occurs during extreme weather events) and for external flooding incidents, we were slightly above industry average.

Comparable data for 2018/19 is not available until later in the year; however, we anticipate our comparable performance will improve as we have suffered from fewer extreme weather events and have seen a reduction in flooding caused by “other causes”. The Discover Water website can be found here.

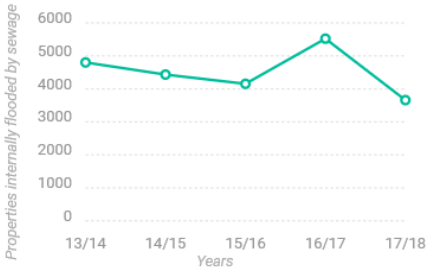
In 2018 we attained three star status for the EA’s Environmental Performance Assessment , as we were amber on two measures (discharge permit compliance and Environment Programme Delivery). This means we moved from the highest assessment of our performance as “Leading” (4 star), to the “Good” (3 star) performance category.

Number of properties where sewage overflowed or flooded into the house

Sewer flooding is unpleasant and distressing and water companies spend millions every year to prevent it from happening. There are also steps you can take to reduce the risk of a sewer flood in your house or garden.

3,659

Properties that were internally flooded by sewage.



Source: Discover water website

S-A1: Private sewers service index

Performance Summary

In 2018 / 19 we continued to outperform our performance commitment achieving an index score of 89.27 against a target of 100. This has earned a financial outperformance payment of £7.38 million. We expect to continue this level of outperformance throughout the remainder of the AMP.

Measure description

This performance commitment measures the performance of the former network of private sewers which transferred to us in 2010. It does this via an index of five sub-measures:

- Internal and external flooding due to hydraulic overloading
- Internal and external flooding due to other causes
- Pollution incidents
- Sewer collapses
- Sewer blockages

Pollution incidents is the most heavily weighted of the sub-measures against the overall index score.

The performance target has been set at a level of performance across AMP6 that is consistent with our typical performance in AMP5. The measure has financial penalties if performance deteriorates and financial outperformance payments to encourage the company to improve performance and minimise customer impacts.

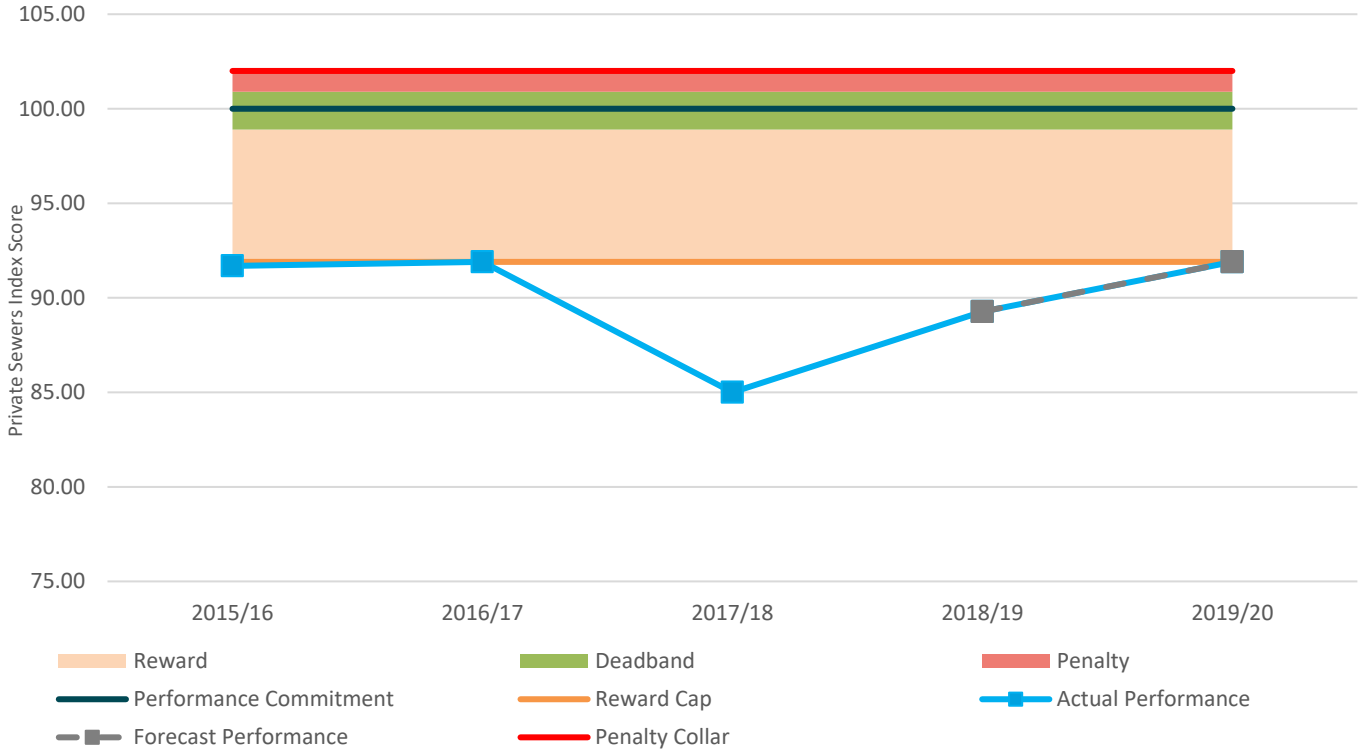
Actual and forecast performance for the private sewers index performance commitment

	2015/16	2016/17	2017/18	2018/19	2019/20
Target	100	100	100	**100**	100
Actual/Forecast	91.69	91.90	85.00	**89.27**	91.90
Pass/ Fail	Pass	Pass	Pass	**Pass**	Pass
Outperformance payment/ Underperformance	£7.376m	£7.350m	£7.376m	**£7.376m**	£7.376m

Actual and forecast performance for the private sewer index performance commitment sub-measures

Sub measure	Actual performance 2015/16	Actual performance 2016/17	Actual performance 2017/18	Actual performance 2018/19	Indicative target performance 2018/19
Internal Hydraulic Flooding Incidents	2	1	1	**0**	**<=8**
Internal Flooding other causes (FoC) incidents	416	414	275	**308**	**<=393**
External Hydraulic Flooding Incidents	10	5	5	**4**	**<=38**
External FoC Incidents	4,595	4,594	3,896	**3,945**	**<=4,782**
Collapses	361	391	302	**316**	**<=467**
Blockages	13,906	14,031	13,089	**14,589**	**<=15,518**
Pollution	5	1	4	**2**	**<=4**

Actual and forecast performance for the private sewers index - AMP6 actual and forecast performance against performance commitment



Overview of performance to date

In the four years from 2015/16 to 2018/19 we outperformed our performance commitment. The majority of the improvement in private sewers performance has been driven by the continued embedment of our wastewater network operating model, which has an emphasis on first time resolution. Adopting this model has helped to reduce the numbers of repeat incidents and has helped to improve customer satisfaction. Our network teams work in geographical areas which has helped to develop an in-depth understanding of the network from a property to the WwTW. Teams understand the problems that impact the network and the potential solutions available for resolution.

Underperformance or Outperformance payment

We have achieved an outperformance payment of £7.4m in 2018/19.

The measure is an index that comprises five sub-measures. The sub-measures are weighted and summed to produce the index score with the overall index score rather than performance against any individual sub-measure being used as the basis for the incentive calculation. If the overall index score falls within the under or outperformance zones then the incentive is calculated by multiplying the difference by a underperformance rate of £4.204 million per index point or an outperformance rate of £1.069 million per point. Details of the calculation of this index measure are set out in Appendix 2.

Lessons learnt and action plan

We will continue with our first time reactive resolution model, targeting a reduction in incidents over the rest of the AMP. This approach may have a positive effect on our sewer flooding index and pollution performance commitments.

Anticipated performance Year 5

Our current prediction is to continue investing and successfully maintain our operating model such that we earn an outperformance payment each year against this measure.

Forecast performance and indicative targets for the private sewers Index sub-measures

Sub measure	Indicative Target 2019/20	Forecast Performance 2019/20	Forecast Pass/Fail
Internal Hydraulic Flooding Incidents	8	1	Pass
Internal Flooding other causes (FoC) incidents	393	378	Pass
External Hydraulic Flooding Incidents	38	5	Pass
External FoC Incidents	4,782	4479	Pass
Collapses	467	361	Pass
Blockages	15518	14295	Pass
Pollution	4	3	Pass

Future performance – risk, issue, concern, change or opportunity

1. There is a risk of additional incidents due to having less knowledge of transferred assets.
   - This includes: historic problems which were previously not our responsibility, potentially poor asset condition and incidents from unknown assets which would be impossible to predict or prevent.
2. Inclusion of transferred sewers and 3rd party laterals serving properties built after 1st July 2011
   - There will be a very small number of non-qualifying incidents in our data. A review of these incidents in underway and where we have sufficient evidence they will be excluded.

S-A2: Wastewater Network Performance Index

Performance Summary

We have outperformed in this measure in 2018/19. We anticipate that we will continue to outperform our targets for the remainder of the AMP6 period.

Measure description

Our wastewater network performance index consists of four sub-measures:

- Rising main failures
- Sewer collapses
- Sewer blockages
- Equipment failures

Rising mains bursts is the most heavily weighted of the four sub-measures that contribute to the overall index score.

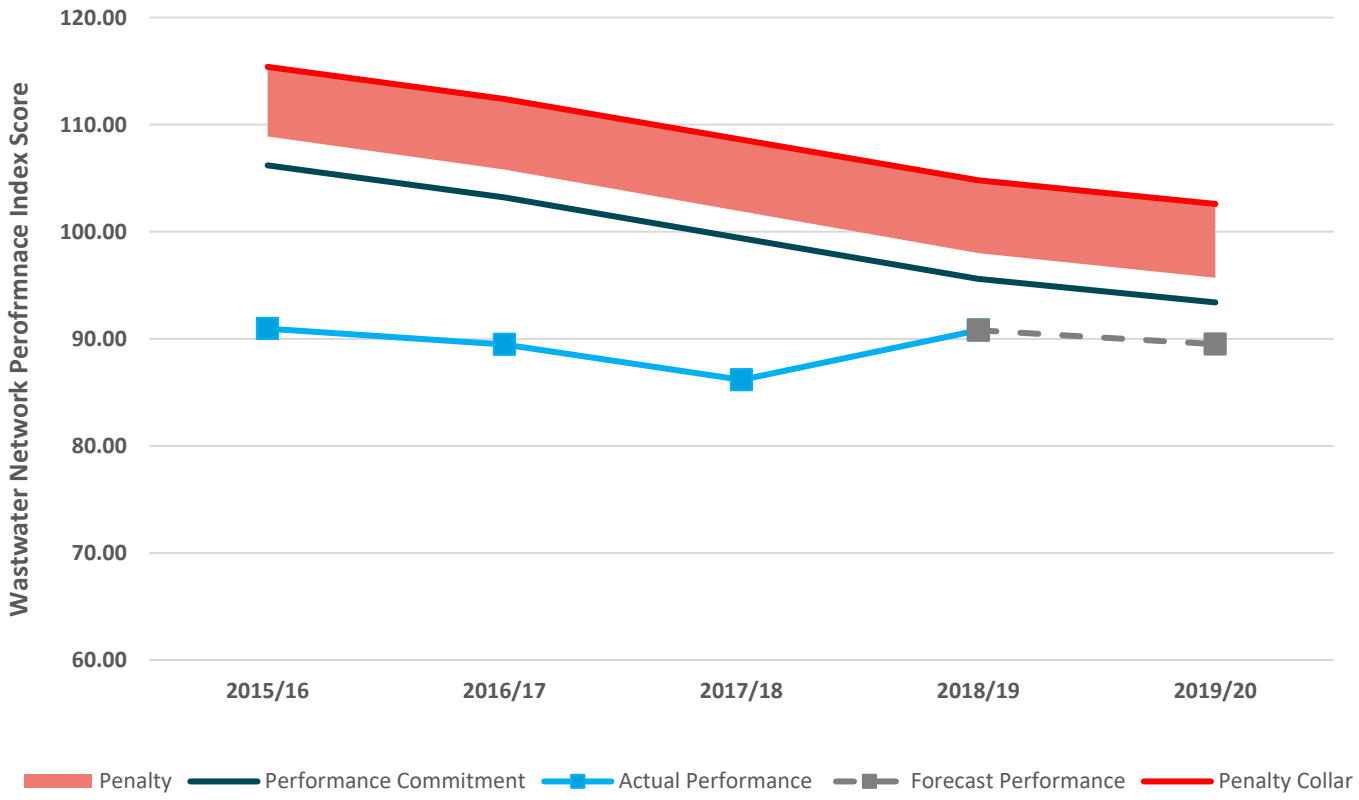
Actual and forecast performance for the wastewater network index performance index performance commitment

	2015/16	2016/17	2017/18	2018/19	2019/20
Target	106.20	103.20	99.40	**95.60**	93.40
Actual/Forecast	90.95	89.47	86.17	**90.75**	89.50
Pass/ Fail	Pass	Pass	Pass	**Pass**	Pass
Outperformance payment/ Underperformance	£0m	£0m	£0m	**£0m**	£0m

Actual and forecast performance for the wastewater network index performance index performance commitment sub-measures

Submeasure	Actual performance 2015/16	Actual performance 2016/17	Actual performance 2017/18	Actual performance 2018/19	Indicative target performance 2018/19
Rising Main Failures	51	46	47	**53**	**<=40**
Collapses	261	268	232	**239**	**<=444**
Blockages	7,473	7,469	7,047	**7,276**	**<=7,604**
Equipment Failures	2,704	2,322	3,088	**3,613**	**<=2,333**

Actual and forecast performance for the network performance index - AMP6 actual and forecast performance against performance commitment



Overview of performance to date

We have outperformed against this measure in each year of the AMP to date. The improved performance is primarily due to the continued embedment of our operating model, which seeks to resolve incidents quickly and effectively and address operational defects that may cause future or repeat incidents and affect our customers.

The use of our resolution units and the high specification equipment they are equipped with continues to positively impact on blockage volumes. In addition, our targeted 'what not to flush' campaign has also had a positive impact.

Our programme of work carrying out extensive field CCTV surveys has identified collapses and other structural defects. This provides a wealth of information about the condition of our network and enables us to undertake proactive repairs, before they impact on our customers. Whilst proactive collapse repairs do increase the reported number for this measure, they also deliver benefits in terms of flooding and pollution risk reduction. We are also implementing a proactive programme using our resolution units, which is seeking to reduce the numbers of repeat incidents. This is having a positive impact on all aspects of our sewer network performance.

Underperformance or Outperformance payment

Our wastewater network performance index consists of four sub-measures: rising main failures, collapses, blockages and equipment failures. Each of these sub-measures is weighted and then summed together to generate an index score. We then compare the overall index performance against the target performance. If the performance falls within the underperformance zone then we multiply the resulting difference by the incentive rate of £2.298 million per index point for underperformance. Details of the calculation of this index measure as set out in Appendix 2.

The measure is incentivised by underperformance only so no outperformance payment has been achieved through this significant and continued performance.

Lessons learnt and action plan

Additional actions that will support the maintaining of this performance are:

- Continuing our activity to proactively repair collapses and identify other repairable defects. Sewer cleaning and CCTV activities will also continue throughout the AMP.
- Continuing to target potential repeat incidents.
- Further education of customers on what not to flush/pour into the network.
- Better targeting of issues through the investigation of the root cause to problems.

Anticipated performance Year 5

We anticipate continuing to outperform against this measure and expect the general trend of reducing the number of blockages and collapses to continue. Unless there are some unforeseen circumstances we do not expect to incur an underperformance payment on this measure for the rest of the AMP.

Forecast performance and indicative targets for the wastewater network performance index sub-measures

Sub-measure	Indicative Target 2019/20	Forecast Performance 2019/20	Forecast Pass/Fail
Rising Main Failures	40	48	Fail
Collapses	444	255	Pass
Blockages	7358	7391	Fail
Equipment Failures	2318	2707	Fail

Future performance – risk, issue, concern, change or opportunity

1. Reporting systems are being enhanced
   - This will enable further investigation and root cause analysis. Whilst this may have a positive impact to data quality through reducing manual processes there is the potential for data issues during implementation.
2. There is a limit to the operational technology and innovation available for inspecting rising mains.
   - This leads to the potential for deterioration in rising mains and future failures.

S-B1: Future flood risk Performance Summary

Performance Summary

For the first two years of AMP6 we have achieved our target and reduced the number of properties as assessed as vulnerable to future flood risk. However, we have not met our targets for this measure for the past two years. We anticipate that we will also underperform on this measure in the final year of the AMP.

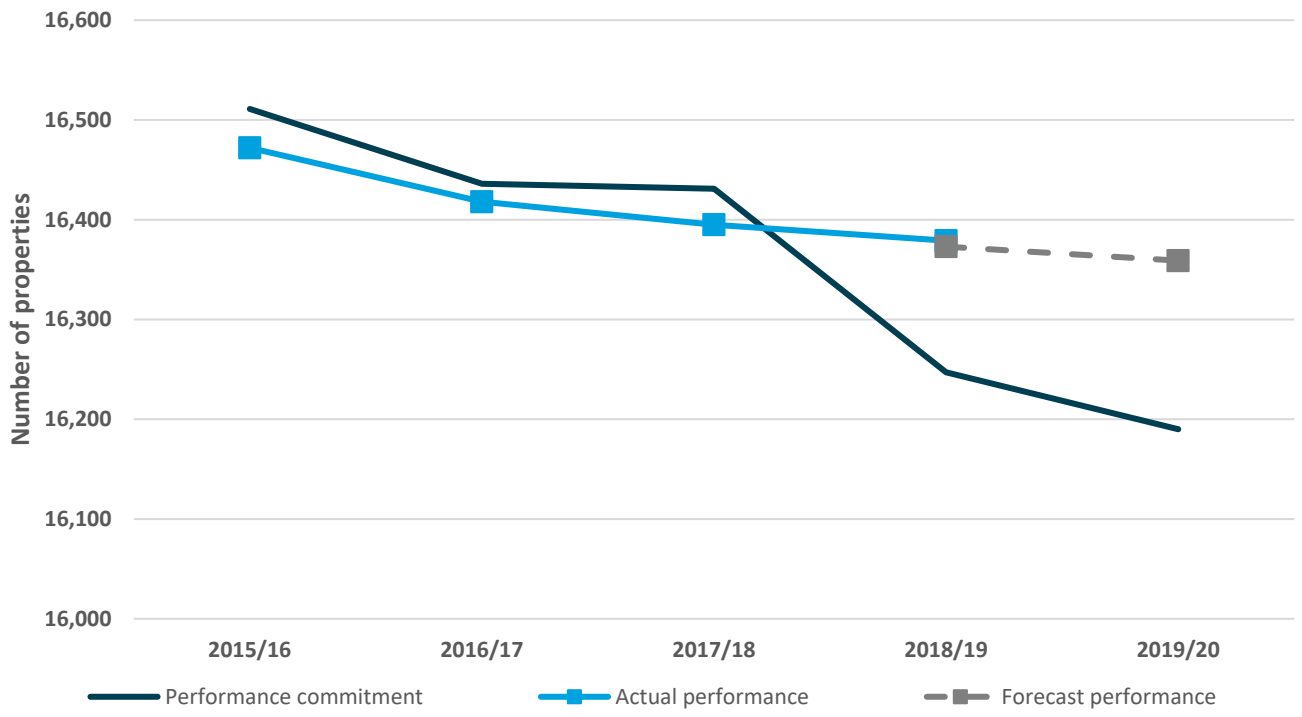
Measure description

The future flood risk performance commitment uses overland flow hydraulic models to assess the risk that each property in the North West faces from sewer flooding. The aim of this measure is progressively to reduce the numbers of properties at modelled risk over AMP6 and is reputational only.

Actual and forecast performance for the future flood risk performance commitment

	2015/16	2016/17	2017/18	2018/19	2019/20
Target	16,511	16,436	16,341	**16,247**	16,190
Actual/Forecast	16,472	16,418	16,395	**16,379**	16,359
Pass/Fail	Pass	Pass	Fail	**Fail**	Fail
Outperformance payment /Underperformance	£0m	£0m	£0m	**£0m**	£0m

Actual and forecast performance for future flood risk- AMP6 actual and forecast performance against performance commitment



Overview of performance to date

The performance commitments for FY16 and FY17 have been outperformed. For FY18 and 19 we have fallen short of our target.

Properties are removed from risk as a result of capital projects, appropriate mitigation or sustainable drainage schemes. The majority of risk removal in AMP6 has been as a result of providing mitigation to properties: this is the most cost effective method for customers. Mitigation minimises the chance of repeat sewer flooding and therefore there is also a related impact of this on the sewer flooding index measure.

Underperformance or Outperformance

This measure is reputational only and so no financial underperformance or outperformance will be applied.

Lessons learnt and action plan

Our sewer flooding targets for AMP6 are extremely challenging. In order to ensure the greatest benefit to customers we have focused our programmes on flooding other causes as this results in the greatest proportion of affected customers. This has resulted in us delivering a lower number of large-scale capital solutions and focusing on blockage clearance and collapse repair. We continue to install mitigation to prevent any reoccurrence of flooding where appropriate to do so.

Anticipated performance Year 5

Despite outperforming the target in years 1 and 2, we have failed our target in years 3 and 4, and our current forecast for this measure is that we will also underperform the performance commitment for the final year of the AMP. Our data suggests that we will identify a lower number of properties where it is cost beneficial to reduce the risk of flooding and therefore it may not be possible to achieve our target.

Future performance – risk, issue, concern, change or opportunity

1. We will continue to review the types of solutions that can remove properties from being at risk of flooding, changes to the methodology could develop over the AMP
   - Any changes to the methodology will be fully understood and reported.

S-B2: Sewer flooding index

Performance Summary

Our underlying sewer flooding performance has been steadily improving across the AMP. Whilst we received an underperformance payment in 2016/17 we have met our target on this measure in 2018/19 and achieved a small financial outperformance payment. In the final year of AMP6 we anticipate that our performance will continue and that we will meet our flooding performance commitment.

Measure description

Our sewer flooding index consists of five sub-measures:

- Incidents of repeat flooding
- Internal flooding due to hydraulic overload
- External flooding due to hydraulic overload
- Internal flooding due to other causes
- External flooding due to other causes

Internal flooding due to hydraulic overload, internal flooding due to other causes and incidents of repeat flooding are equally the most heavily weighted of the five sub-measures which comprise the overall index score.

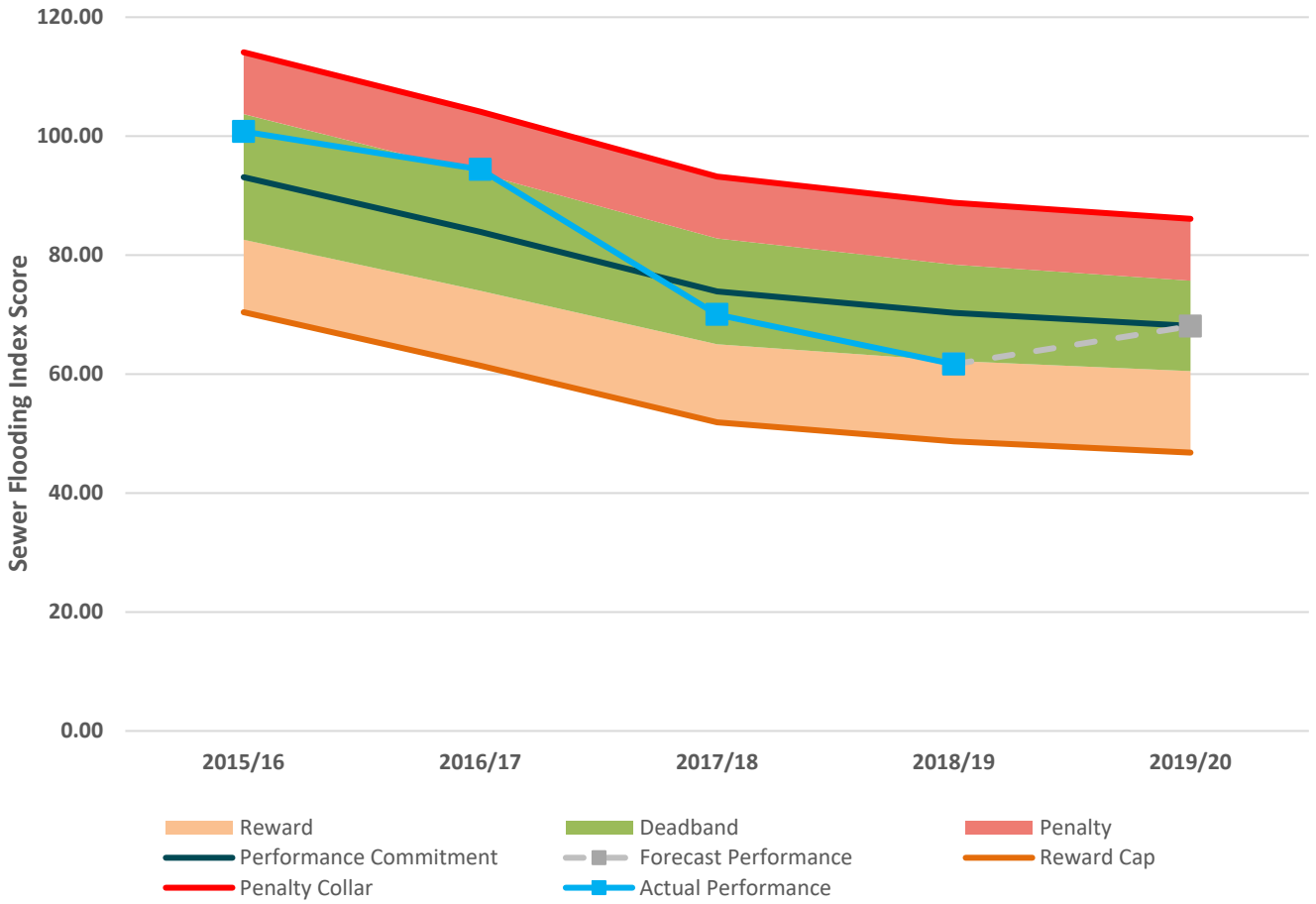
Actual and forecast performance for the sewer flooding index performance commitment

	2015/16	2016/17	2017/18	2018/19	2019/20
Target	93.10	83.90	73.90	**70.30**	68.10
Actual/Forecast	100.80	94.40	69.99	**61.66**	68.05
Pass/ Fail	Pass	Fail	Pass	**Pass**	Pass
Outperformance payment/ Underperformance	£0.000m	£1.484m	£0.000m	**£0.570m**	£0.000m

Actual and forecast performance for the sewer flooding index performance commitment sub-measures

Sub-measure	Actual performance 2015/16	Actual performance 2016/17	Actual performance 2017/18	Actual performance 2018/19	Indicative target performance 2018/19
Repeat Flooding	377	362	206	**124**	**<=267**
Internal hydraulic incidents	147	147	91	**15**	**<=55**
Internal FOC incidents	839	794	559	**551**	**<=375**
External hydraulic incidents	455	215	212	**145**	**<=499**
External FOC incidents	3,991	3,274	2,863	**2,849**	**<=3,309**

Actual and forecast performance for the sewer flooding index - AMP6 actual and forecast performance against performance commitment



Overview of performance to date

End of year performance for 2015/16 was within the dead band. In 2016/17 we underperformed against this performance commitment resulting in an underperformance penalty of £1.484m. In 2017/18 performance improved enabling us to achieve our target. This year we have met our target and achieved a small outperformance payment of £0.57m.

Having been set as part of Ofwat's upper quartile challenge, the targets for this measure are very stretching, especially with this measure being extremely sensitive to severe weather events. In each year of the AMP so far we have suffered from major storm events and whilst the more extreme events are excluded from our analysis, such storms do inevitably contribute to the overall number of flooded properties. We have suffered from fewer extreme weather events this year, which is reflected in the results that we are reporting.

We are working hard to respond well to flooding events, ensuring we understand the cause so that we can look to resolve the issue appropriately. Our network operating model, along with sewer misuse customer education initiatives and partnership projects, is supporting our continued improvement in this area. We have also embedded a programme of work which seeks to identify and resolve repeat incidents before they have a detrimental impact on our customers. By analysing recent and historic performance data we are better able to predict the risks of reoccurrence which is steadily reducing the number of repeat incidents on our network and helping to inform future targeted programmes of work.

Underperformance or Outperformance payment

This measure has both underperformance and outperformance financial incentives.

Each of the sub-measures is weighted and then added together to generate the index score. We compare the overall index performance against the target performance. If the performance falls within the underperformance or outperformance-zone then we multiply the resulting difference by the relevant incentive rate. For the sewer flooding index the incentive rates are £2.032 million per index point for underperformance and £1.050 million per point for outperformance. Details of the calculation of this index measure as set out in Appendix 2

For 2018/19 our index score fell ahead of target and for the first time this AMP achieved a small outperformance payment.

Lessons learnt and action plan

We have a number of activities that are being implemented to support an improvement in performance, these include:

- Further embedment of our operating model which along with the further enhancements to the reactive resolution vehicles and the equipment on them will support our response to incidents.
- Reviewing the way we assess, operate and manage our networks. This will result in changes to the way we identify risk, resolve incidents and understand connectivity across our networks. Additionally real time monitoring of key points on the network will allow us to identify issues and prevent flooding. All of this will contribute to reductions in blockages, collapses and flooding.
- A campaign of targeting areas for what not to flush, this aims at reducing other causes incidents through customer engagement. Our customer engagement trials and research in relation to sewer misuse have revealed the most efficient approaches to adopt in order to reduce blockages. We will be carrying out large-scale customer engagement campaigns, based on the findings from our Preston trial, which demonstrated a 60% reduction in unflushable items disposed. We have complimented this research with a partnership project, working with Keep Britain Tidy to understand customer attitudes and flushing behaviour in order to co-create solutions with customers and supermarkets.
- Proactive strategy of identifying structural defects and collapses through the use of extensive field CCTV surveys.
- Proactive strategy of identifying potential repeat incidents and analysing the risks of reoccurrence has allowed us to develop a work bank that is targeted towards taking action to prevent reoccurrence.

Anticipated performance Year 5

Our performance this AMP has been better than we initially anticipated despite the stretching targets and severe weather events. We expect to continue to see the benefits of the work we have undertaken to manage flooding other causes and repeat flooding events. However, as can be seen from the table above our performance againt the hydraulic incidents is very susceptible to the weather and as such there are a wide range of potential outcomes for this measure in 2019/20. However, in the round we believe we have met the challenge set by the original performance commitment and would expect to finish the five year period at or around the performance commitment.

Forecast performance and indicative targets for the wastewater sewer flooding index performance commitment sub-measures

Sub-measure	Indicative Target 2019/20	Forecast Performance 2019/20	Forecast Pass/Fail
Repeat Flooding	280	120	Pass
Internal hydraulic incidents	98	84	Pass
Internal FOC incidents	677	561	Pass
External hydraulic incidents	280	207	Pass
External FOC incidents	2921	3082	Fail

Future performance – risk, issue, concern, change or opportunity

1. This measure is particularly vulnerable to other variables such as rainfall.
    - The number of flooding incidents can be significantly affected by factors outside of our control and therefore this makes predicting the performance for the remainder of the AMP complex.
2. 3rd party damage or sewer abuse.
    - This has the potential to result in high numbers of flood impacted properties which can be outside our control.

S-C1: Contribution to bathing waters improved

Performance Summary

We have achieved our performance commitment in each year of the AMP to date. We anticipate that we will achieve our target in the last year of the AMP too.

Measure description

This performance commitment measures the delivery of the programme of work which we have agreed with the Environment Agency to improve the impact that our assets have on bathing water compliance. Each project in this programme has been an assigned an impact upon bathing water compliance called a bathing water equivalent (BWE), which is proportionate to the impact that completing the project will have on a designated bathing water. The measure is underperformance only.

Actual and forecast performance for the contribution to bathing waters performance commitment

	2015/16	2016/17	2017/18	2018/19	2019/20
Target	>=0.36	>=0.66	>=1.49	**>=3.78**	>=6.56
Actual/Forecast	0.47	0.66	1.49	**4.21**	6.56
Pass/ Fail	Pass	Pass	Pass	**Pass**	Pass
Outperformance payment/ Underperformance	£0	£0	£0	£0	£0

Overview of performance to date

The performance commitment allows us flexibility in the way that we deliver the programme, which has allowed us to accelerate projects when other projects face unforeseen problems which cause delays in delivery. This has enabled us to outperform the target in 2015/16 and again in 2018/19. In 2018/19 although we were unable to deliver the planned schemes at Dragley Beck and Ulverston, we were able to accelerate the delivery of the scheme at Anchorsholme and as a result outperformed the target for the year. The table below provides a breakdown of the projects delivered to date and the anticipated delivery dates for those projects to be delivered in the last year of AMP6.

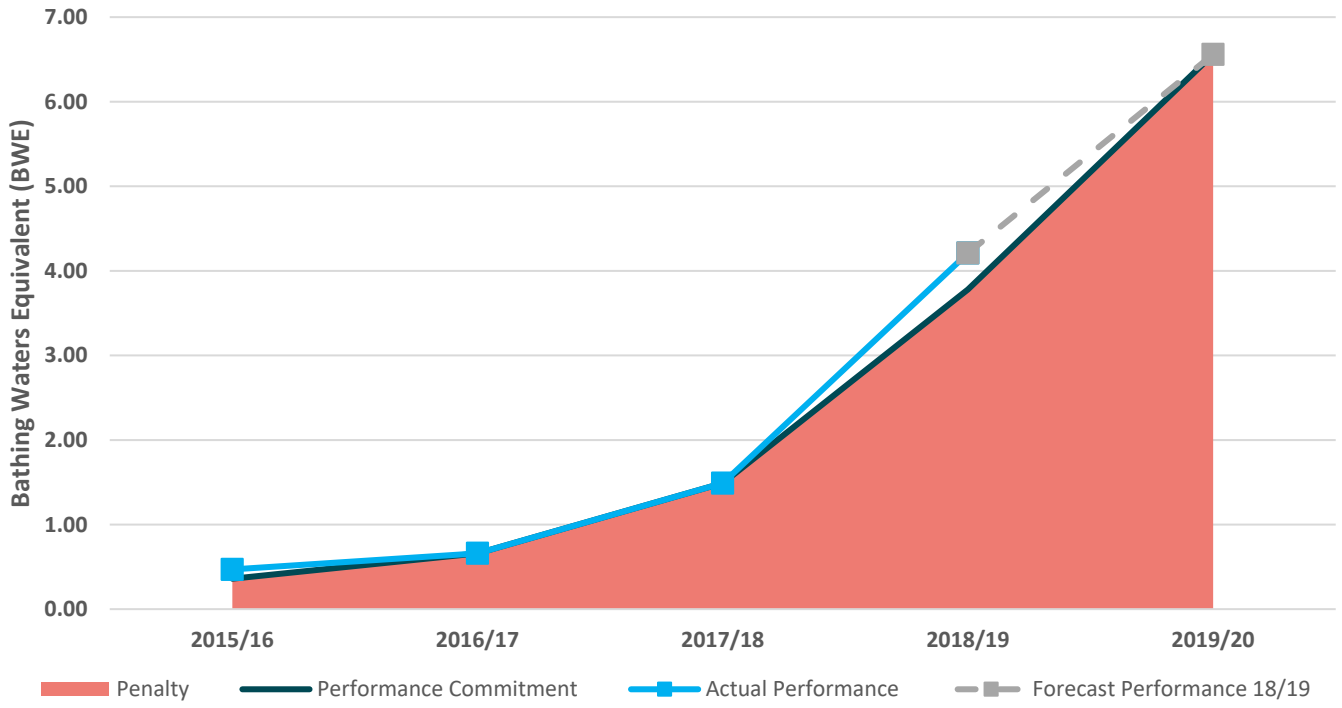
Projects that support the delivery of the contribution to bathing waters performance commitment

Projects delivered	EA NEP reference	Date delivered	BWE benefit	Cumulative benefit
Allonby Storm Tanks	6UU0018	31/03/2016	0.31	0.31
Event Duration Monitors – year 1	Various	31/03/2016	0.05	0.36
Misconnections	6UU0022	31/03/2016	0.11	0.47
Hesketh Bank Storm Tanks	6UU0520	31/03/2017	0.09	0.56
Mersey/North Wirral investigations	6UU0030	31/03/2017	0.03	0.59
Tidal Ribble investigation	6UU0021	31/03/2017	0.07	0.66
Chorley WwTW Storm Tanks	6UU0013	30/04/2017	0.26	0.92
Hagg Lane	6UU0019	30/04/2017	0.21	1.13
Ravenglass WwTW	6UU0504	31/12/2017	0.10	1.23
Ravenglass Storm Tanks	6UU0505	31/12/2017	0.10	1.33
Ravenglass Inlet CSO	6UU0506	31/12/2017	0.10	1.43
Kendal WwTW	6UU0509	31/12/2017	0.05	1.48
Event Duration Monitors – year 3	Various	31/03/2018	0.01	1.49
Manchester Square PS (BPL00390)	6UU0011	30/04/2018	0.68	2.17
Chatsworth Ave PS (BLP0038)	6UU0012	30/04/2018	0.68	2.85
Preston WwTW Storm Tanks	6UU0015	30/04/2018	0.68	3.53
Anchorsholme PS (BPL0040)	6UU0010	29/03/2019	0.68	4.21
Projects to be delivered	**EA NEP reference**	**Date delivered**	**BWE benefit**	**Cumulative benefit**
Raby cote outfall	6UU0020	30/04/2019	0.74	4.95
Dragley Beck CSO LAK0058	6UU0511	30/06/2019	0.00	4.95
Ulverston WwTW storm tanks	6UU0510	31/07/2019	0.25	5.20
Schola Green Pumping station	6UU0016	30/03/2020	0.79	5.99
Blackburn WwTW Storm Tanks	6UU0014	31/03/2020	0.57	6.56

Underperformance or Outperformance payment

Each project in this programme has been an assigned a specific impact on bathing water compliance called a bathing water equivalent (BWE), which is proportionate to the impact that completing the project will have on a designated bathing water. The measure is underperformance only, with a rate of £10.0 million per bathing water equivalent. This rate increases to £20 million in the final year of the AMP.

Actual and forecast performance for contribution to bathing waters - AMP6 actual and forecast performance against performance commitment



Lessons learnt and action plan

As this performance commitment is incentivised by a underperformance only it is in our best interest to achieve the target performance commitment. There is no outperformance payment for early delivery of schemes.

However, any early delivery of schemes to enhance bathing and shellfish waters will protect our coastal waters sooner and ensure we are contributing towards ensuring all bathing waters in the North West meet at least 'sufficient' standard.

Anticipated performance Year 5

Our forecast performance is in line with our performance commitment. We anticipate that we should be able to deliver this programme of work by the end of the AMP and as such will not incur an underperformance payment. The remaining schemes are as set out in the table above.

Future performance – risk, issue, concern, change or opportunity

1. Risk of late delivery
    - Although, we have been actively working with third parties and interested stakeholders to deliver projects. There is the risk that projects could be delivered late and incur an underperformance payment if unforeseen circumstances impact on the delivery schedule however, we are currently on track to deliver the planned performance commitment by the end of the AMP.

S-D1: Protecting rivers from deterioration due to population growth

Performance Summary

We have again outperformed our target for this performance commitment, and anticipate that we will outperform this again next year.

Measure description

This measure seeks to protect rivers from deterioration as a result of an increase in population and consequently flow and load at our works.

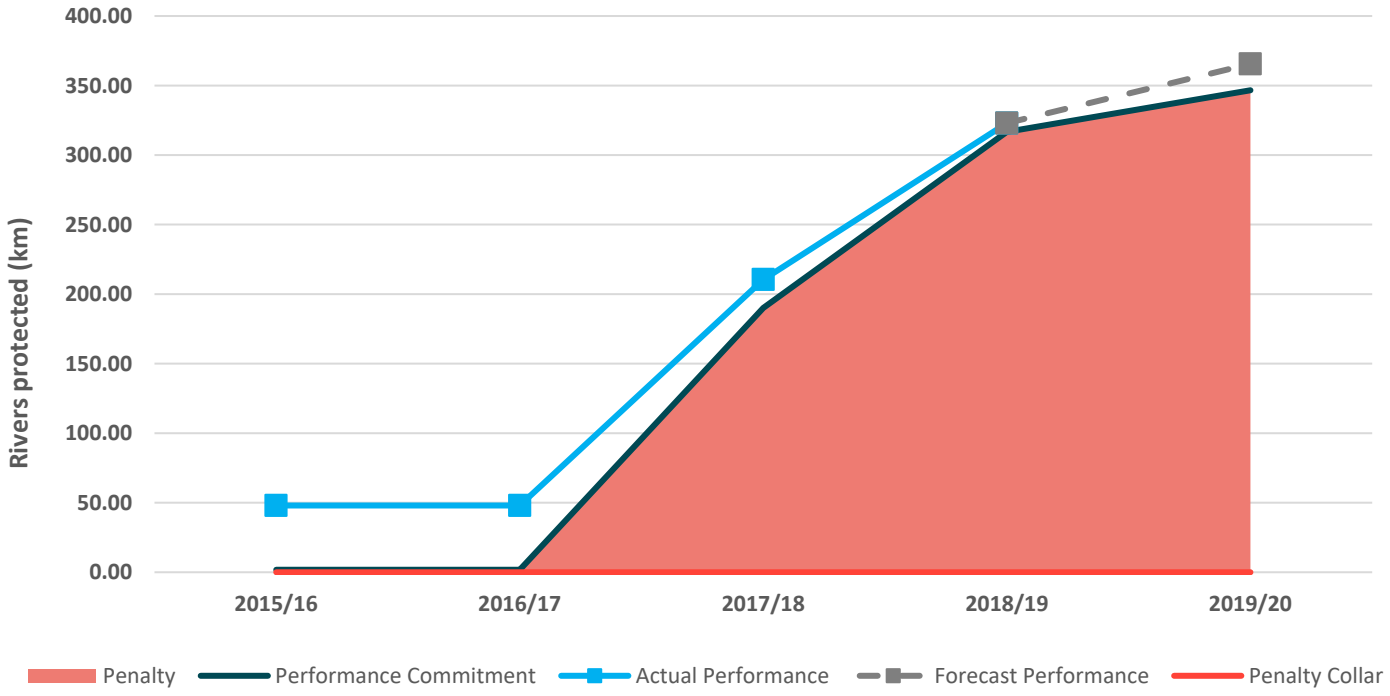
It is based upon the delivery of a programme of improvements at our wastewater treatment works, which will be delivered across AMP6.

The programme is flexible in both delivery timescales for individual projects and the number and location of wastewater treatment works identified for investment providing that overall the project(s) deliver at least the defined km for each year of the AMP (cumulative). This allows the programme to respond to changes in the location or timing of developments within the North West. A underperformance incentivises performance against this measure.

Actual and forecast performance for the protecting rivers from deterioration due to population growth performance commitment

	2015/16	2016/17	2017/18	2018/19	2019/20
Target	>=1.8	>=1.8	>=190.1	**>=316.7**	>=346.6
Actual/Forecast	48.02	48.02	210.49	**322.90**	365.54
Pass/ Fail	Pass	Pass	Pass	**Pass**	Pass
Outperformance payment/ Underperformance	£0	£0	£0	£0	£0

Actual and forecast performance for protecting river from deterioration due to population growth – AMP6 actual and forecast performance against performance commitment



Overview of performance to date

We are currently ahead of the target for this measure. Throughout this AMP we have reprioritised the programme when required to ensure that we were able to respond to development requirements around the region. The projects delivered to date are as shown in the table below, along with an anticipated programme for 2019/20.

Projects delivered that support the protecting rivers from deteriorations due to population growth performance commitment

Projects delivered	Date delivered	Km of river protected	Cumulative benefit
Moston West	31/03/2016	48.0	48.0
Chorley WwTW	28/04/2017	18.9	66.9
Wetheral and Great Corby	29/03/2018	1.0	67.9
Davyhulme WwTW	31/03/2018	125.5	193.4
Cockermouth WwTW	23/03/2018	15.2	208.6
Brigham WwTW	23/03/2018	1.3	209.9
Papcastle WwTW	23/03/2018	0.6	210.5
Dearham WwTW	31/03/2019	10.0	220.5
Silloth WwTW	31/03/2019	7.7	228.2
Winsford WwTW	31/03/2019	14.6	242.8
Endmoor WwTW	31/03/2019	11.0	253.8
Bootle WwTW	31/03/2019	29.8	283.6
Barton WwTW	31/03/2019	25.8	309.4
Sandbach WwTW	31/03/2019	8.6	318.0
Cuddington	31/03/2019	4.3	322.3
Oakmere	31/03/2019	0.6	322.9
Projects to be delivered	**Date expected to be delivered**	**Km of river protected**	**Cumulative benefit**
Crewe	31/03/2020	42.6	365.5

Reprioritisation of supply demand projects occurs as better information on the extent and location of forecast growth is derived. This can lead to changes to the original list of projects to be delivered, but as the target km for each year are not at specified locations, these changes can be managed at a programme level, reducing the risk of underperforming against our performance commitment.

Underperformance or Outperformance payment

An underperformance payment incentivises this measure. For this ODI we compare our actual performance against the target performance. If the performance falls within the underperformance zone then we multiply the resulting difference by the incentive underperformance rate at £0.058 million per km.

Lessons learnt and action plan

We have developed a dynamic programme so that over the AMP we can respond to the needs of developers to provide the additional capacity needed. We are able to target our investment appropriately to meet the performance commitment whilst using the most up to date information of demand across our region. The continuous review of risk to wastewater treatment works from new development enables us to deliver solutions in the highest priority locations.

We continually review the timescale and scope of new development at the sites identified within our programme and at others areas that may be at risk. This ensures appropriate reprioritisation of investment and ensures we can meet the growing needs of our region.

Anticipated performance Year 5

We have predominately delivered the reprioritised programme of work for AMP6 with only one project left to deliver at Crewe. This is a significant project which will enable us to outperform our target in the final year.

Future performance – risk, issue, concern, change or opportunity

1. Delivery timescale estimates
    - The delivery dates used in assessing the performance commitment are estimates and may change over time. If delayed or accelerated due to construction issues or opportunities this can have an impact on the overall programme.
2. Projects where the need to facilitate new development may be delayed or removed.
    - There are a wide range of schemes falling into this category – the detail can be provided if necessary. This may result in a risk to the performance commitment.
3. Projects that were not previously included on the AMP6 programme, but have since had a need identified due to forecast population increase could be added to the programme.
    - There are a wide range of schemes falling into this category – the detail can be provided if necessary. This may result in a risk to the performance commitment.

S-D2: Maintaining our wastewater treatment works

Performance Summary

Although we did not meet the target for this measure in the first year of the AMP, performance was within dead band so we did not incur an underperformance payment. From 2016/17 to date we have successfully outperformed this measure.

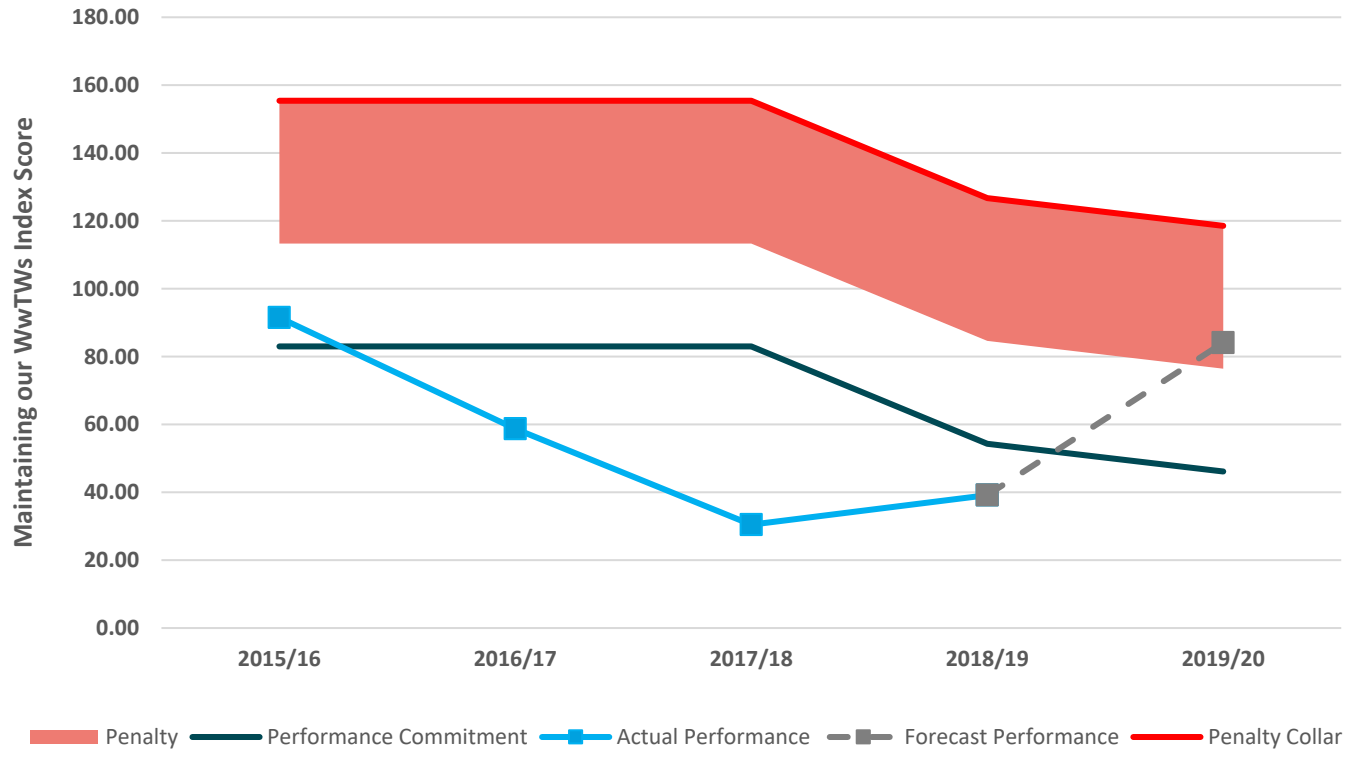
Measure description

This performance commitment is an index, monitoring the number of wastewater treatment works (WwTW) that fail consent, together with the number that operate at medium and high risk of failure. This is a underperformance only measure.

Actual and forecast performance for the maintaining our WwTW performance commitment

	2015/16	2016/17	2017/18	2018/19	2019/20
Target	83	83	83	**54.32**	46.13
Actual/Forecast	91.4847	58.7082	30.4680	**39.1665**	84.1000
Pass/ Fail	Fail	Pass	Pass	**Pass**	Fail
Outperformance/ Underperformance payment	£0	£0	£0	**£0**	£(4.4m)

Actual and forecast performance for maintaining our WwTW- AMP6 actual and forecast performance against performance commitment



Overview of performance to date

We outperformed against our performance commitment in 2016/17 to 2018/19 which is an improvement on 2015/16 performance where the performance commitment was not achieved, although the underperformance dead band was not breached.

The relatively high index score in year 1 was largely attributable to the failure of two size band 5 wastewater treatment works (Alsager and Longton), two band 6A wastewater treatment works (Congleton and Leigh) and a band 6B wastewater treatment works (Liverpool). This resulted in an index score of 91.485 against the performance commitment of 83.0.

The index score in year 2 was mainly attributable to the failure of two size band 1-4 works; Audley and Ambleside and three size band 6a works; Altrincham, Crewe and Oldham. This gave an overall score of 58.708.

In year 3 the index score was predominantly due to the failure of three size band 1-4 works; Ambleside, Bunbury and Great Clifton and one size band 6a works; Crewe. This gave an overall score of 30.50 which is the best performance to date.

In year 4 one size band 1-4 works failed, Partington and two size band 6a works failed, Urmston and Northwich. Although, fewer works failed than in the previous year due to the size of those works the risk score is slightly higher at 36.8701.

Underperformance or Outperformance payment

This is a underperformance only measure. The size of any payment is calculated by comparing our actual index performance against the target index performance. If the performance falls within the underperformance performance-zone then we multiply the resulting difference by the rate of £0.572 million per index point.

Lessons learnt and action plan

The continued embedment of our environmental compliance programme will continue to help reduce compliance risk. This programme focusses on all aspects of our operations; people, processes, systems and data. The programme aims to deliver a step change improvement in compliance with our regulatory permits through implementing clear processes and accountability, supported by systems and training to enable our field teams to deliver improved levels of performance. We have developed new tools which help our operational teams analyse the root cause for noncompliance, monitor trends in performance and share best operational practice. Development of new templates for post incident reviews, modification of existing escalations processes and introduction of intensive care plans for high risk sites have helped us to manage risk and prevent facilities becoming failing works.

Anticipated performance Year 5

Despite our good performance in years 2, 3 and 4 we recognise that meeting these levels of compliance is a challenge and the performance commitment becomes increasingly challenging for the final year of the AMP. We would hope to be able to continue to manage and mitigate the risks associated with this measure through targeted capital investment and by operating our works to the highest standard and continue to beat our target. However, the measure is very sensitive to the impact of a failure of one of our larger works and if we were to have a failure the measure could quickly move into significant penalty. As such this measure has a wide range of potential outcomes and for the purpose of populating the table we have assumed a relatively modest penalty.

Forecast performance and indicative targets for the maintaining our WwTW index performance commitment sub-measures

Sub-measure	Indicative Target 2019/20	Forecast Performance 2019/20	Forecast Pass/Fail
Number of WwTW failing to meet permit condirions (sizaband 1-4)	0	1	Fail
Number of WwTW failing to meet permit condirions (sizaband 5)	0	1	Fail
Number of WwTW failing to meet permit condirions (sizaband 6a)	2	1	Pass
Number of WwTW failing to meet permit condirions (sizaband 6b)	0	1	Fail
Number of wastewater treatment works at high risk of failing to meet permit conditions (Size band 1 - 4)	0.98	0.34	Pass
Number of wastewater treatment works at high risk of failing to meet permit conditions (Size band 5)	0.16	0.12	Pass
Number of wastewater treatment works at high risk of failing to meet permit conditions (Size band 6)	3.28	0.60	Pass
Number of wastewater treatment works at medium risk of failing to meet permit conditions (Size band 1 - 4)	1.8	0.31	Pass
Number of wastewater treatment works at medium risk of failing to meet permit conditions (Size band 5)	0.5	0.11	Pass
Number of wastewater treatment works at medium risk of failing to meet permit conditions (Size band 6)	6.56	0.68	Pass

Future performance – risk, issue, concern, change or opportunity

1. This measure is particularly sensitive to failure at our largest WwTW. Any failures at one of these works in the final year of this AMP would mean that we would fail this measure.

S-D3: Contribution to rivers improved – wastewater programme

Additional information with respect to this measure

The initial target for this measure was based upon assumed delivery of a number of AMP5 projects which were due to be delivered in the current AMP6 period plus the new AMP6 programme of work set out within the national environment programme (NEP) at the time of the business plan submission.

Following the PR14 final determination, the delivery dates for some of the AMP5 projects were revised and a new national environmental programme was agreed with the EA.

In response to these changes Ofwat published a corrigendum on its website which included two profiles: one including the AMP5 revisions only (the corrigendum profile below) and one with all changes including NEP5 revisions.

We are aiming to deliver the programme in line with the NEP5 dates agreed with the EA, although for transparency we report our progress against both programmes.

Detail of performance against the programme excluding the NEP5 targets is set out in our PR14 reconciliation submission, which is available on website.

Performance summary

We are slightly ahead of our performance commitment for this measure at the end of March 2019, which results in a small financial outperformance payment.

Measure description

This measure tracks the delivery of our National Environmental Programme (NEP) obligations and is achieved through the delivery of an extensive programme of capital projects and investigations throughout AMP6. This measure has financial underperformance and outperformance paymets.

Although the target is reported on a cumulative basis, the measure assesses the delivery of improvements on a project by project basis. Outperformance and underperformance payments are developed, which are dependent upon both the length or river improved by the scheme and the scale of any acceleration or delay in delivering this improvement.

The table below shows the target for this measure published within the corrigendum on Ofwats' website.

Corrigendum profile

Unit of measure	2015/16	2016/17	2017/18	2018/19	2019/20
KM of river improved	0.75	15.41	98.14	**145.39**	355.22

The target for the measure, taking account of the changes to the programme set out within NEP5 is shown in the table below.

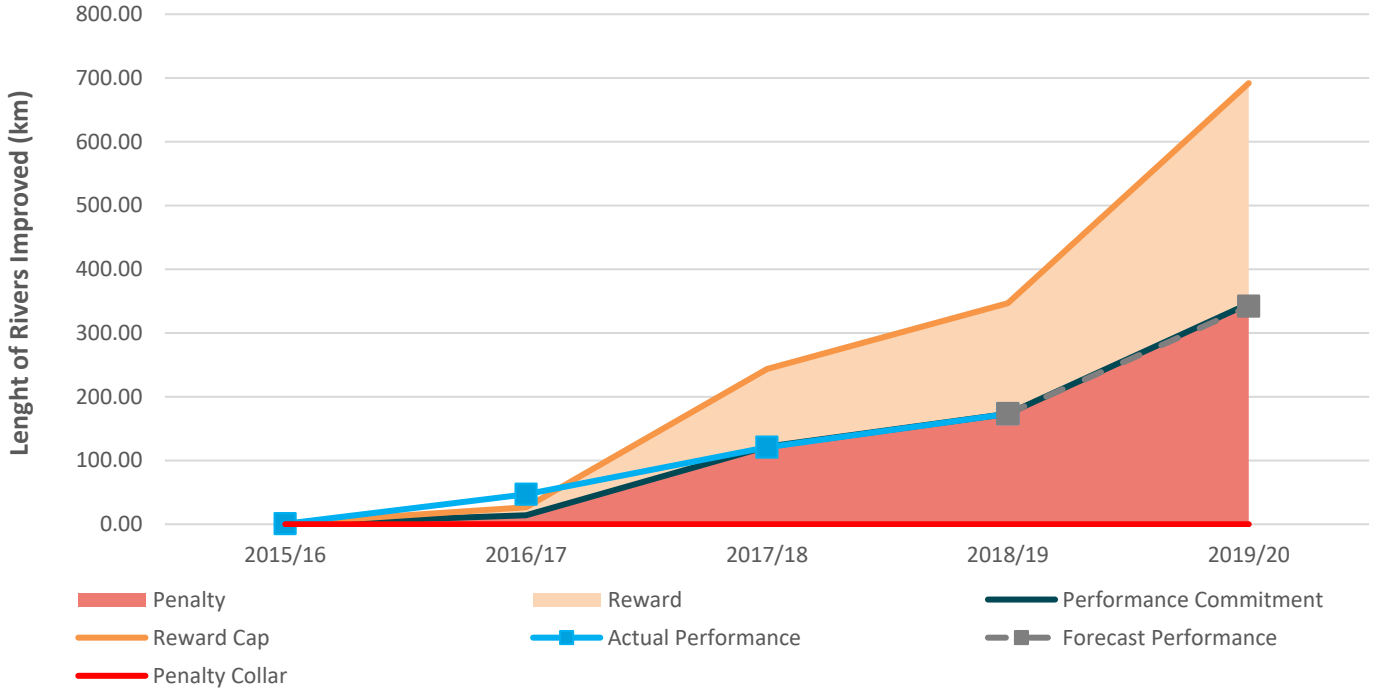
NEP5 profile

Unit of measure	2015/16	2016/17	2017/18	2018/19	2019/20
KM of river improved	0.75	14.12	121.83	**173.38**	345.97

Actual and forecast performance for the river improved (wastewater programme) performance commitment

	2015/16	2016/17	2017/18	2018/19	2019/20
Target	>=0.75	>=14.12	>=121.83	**>=173.38**	>=345.97
Actual/ Forecast	0.76	46.98	120.73	**178.93**	341.92
Pass/Fail	Pass	Pass	On track	**On track**	On track
Outperformance payment/ Underperformance	£0m	£0.39m	£0.39m	**£0.23m**	£(0.12)m

Actual and forecast performance contribution to rivers improved' (wastewater programme) NEP5 programme - AMP6 actual and forecast performance



Overview of performance to date

Over AMP6 we are planning to deliver the programme of work set out by and agreed with the EA through NEP5 and as such our reporting focusses on delivery against the NEP5 target dates and performance commitment targets.

In year 1 we delivered the schemes required as part of our NEP. In year 2 we delivered some schemes earlier than required by NEP5 and were therefore able to outperform and earn a small outperformance payment. As this is a cumulative measure, the benefit of this was also reflected in the incentive position at the end of year 3.

The outperformance in year 2 was as a result of early delivery of the "No Deterioration" schemes at Horwich WwTW and Dalston WwTW and the early delivery of the "UWWTD" scheme at Altrincham WwTW.

During year 3 we have delivered the projects set out within NEP5. There have been some delays to the AMP5 carry over project at Oldham WwTW but the works is nevertheless, complying with the environmental standards required by the project and the work involved to complete the project will have limited environmental impact. However, as the project has not been fully delivered we are including the underperformance payment associated with this delay in our reported value.

In year 4 we have again delivered the projects within NEP5. The low phosphorous trials, 7 additional EDMs and Ambleside and Oakmere were all delivered early. The project at Oldham has not yet been fully delivered due to issues in commissioning the final settlement tanks. Overall this delivery performance has resulted in a small outperformance payment of £0.23m.

A full list of all projects within the programme can be found below.

Projects delivered to support rivers improved (wastewater programme)

Projects delivered	EA NEP reference	Date delivered	Km of river improved	Cumulative benefit
FY16 – EDM projects	Various	31/03/2016	0.40	0.40
FY16 – Flow project	Various	31/03/2016	0.36	0.76
FY17 – Chemicals programme	Various	31/03/2017	9.21	9.97
FY17 – Flow project	Various	31/03/2017	0.42	10.39
Elterwater (I1)	6UU0034	31/03/2017	0.97	11.36
Knutsford Moor Pumping Station (I5)	6UU0038	31/03/2017	0.37	11.73
EDM2 Year 2 (224)	Various	31/03/2017	1.34	13.08
Dalston WwTW (ND)	6UU0043	31/03/2017	7.60	20.68
Horwich WwTW (ND)	6UU0042	31/03/2017	24.93	45.61
Altrincham WwTW (U2)	6UU0007	31/03/2017	1.37	46.98
WwTW Low P pilot plant trials for AMP6	Various	31/03/2017	0	46.98
Chorley WwTW Storm Tanks	6UU0521	30/04/2017	0.00	46.98
Chorley WwTW (ND)	6UU0040	17/08/2017	12.70	59.68
River Loud and Chipping Brook investigation	6UU0553	30/09/2017	0.37	60.05
Mere Platts Pumping Station (I1)	6UU0037	07/12/2017	1.19	61.24
Davyhulme WwTW (F1a)	5UU0545	26/01/2018	2.43	63.67
Whaley Bridge WwTW (ND)	6UU0044	31/03/2018	12.90	76.57
Cleator WwTW (ND)	6UU0041	31/03/2018	14.40	90.97
FY18 – Flow project	Various	31/03/2018	0.30	91.27
FY18 – Chemicals programme	Various	31/03/2018	6.97	98.24
EDM2 Year 3 (588)	Various	31/03/2018	3.59	101.83
Tarvin WwTW	6UU0541	31/03/2018	18.90	120.73
Nantwich WwTW (U2)	6UU0003	14/11/2018	1.82	122.55
Nantwich WwTW (WFD)	6UU0548	14/11/2018	1.82	124.37
Crewe WwTW (U2)	6UU0004	14/11/2018	1.82	126.19
Winsford WwTW (U2)	6UU0005	14/11/2018	3.64	129.83
Northwich WwTW (U2)	6UU0006	14/11/2018	1.06	130.89
Darwen WwTW (U2)	6UU0002	14/11/2018	1.50	132.39
Blackburn WwTW (U2)	6UU0001	14/11/2018	3.38	135.77
Garstang WwTW (U2)	6UU0008	14/11/2018	1.51	137.28
Irlam WwTW	6UU0430	31/12/2018	0.00	137.28
Kendal WwTW (ND)	6UU0508	20/03/2019	20.21	157.49
FY19 – Flow project	Various	31/03/2019	0.36	157.85
FY19 – Chemicals programme	Various	31/03/2019	6.22	164.07
Outgate WwTW (I1)	6UU0039	31/03/2019	0.37	164.44
EDM2 Year 4 (579)	Various	31/03/2019	3.52	167.96
Lower Weaver - Cuddington WwTW	6UU0551	31/03/2019	2.64	170.59
Ambleside WwTW (Biod1)	6UU0033	31/03/2019	5.70	176.29
Lower Weaver - Oakmere WwTW	6UU0550	31/03/2019	2.64	178.93
Projects to be delivered	**EA NEP reference**	**Date expected to be delivered**	**Km of river protected**	**Cumulative benefit**
Horwich WwTW (WFD)	6UU0523	14/08/2019	2.94	181.86
Oldham WwTW (F1a)	5UU0580A	16/10/2019	2.60	184.46
Marton North (Flow 3)	6UU0009	31/03/2020	0.37	184.83
Grasmere WwTW (Biod1)	6UU0035	31/03/2020	0.78	185.61
Grasmere WwTW Storm Tanks (Biod1)	6UU0036	31/03/2020	0.78	186.39
Glebe Road CSO (Biod1)	6UU0031	31/03/2020	5.70	192.09

Projects delivered	EA NEP reference	Date delivered	Km of river improved	Cumulative benefit
Windermere WwTW (Biod1)	6UU0032	31/03/2020	5.70	197.79
FY20 – Chemicals programme	Various	31/03/2020	6.59	204.38
Investigations of sewerage effluent into groundwater (DrW2)	6UUD010	31/03/2020	0.37	204.75
EDM2 Year 5 (468)	Various	31/03/2020	2.67	207.42
Wigton WwTW (WFD)	6UU0500	31/03/2020	16.79	224.21
Calthwaite WwTW (WFD)	6UU0501	31/03/2020	6.06	230.27
Kidsgrove WwTW (WFD)	6UU0542/ 6UU0543	31/03/2020	5.87	236.14
Lawton Gate WwTW (WFD)	6UU0544/ 6UU0545/ 6UU0546	31/03/2020	2.91	239.05
Northwich WwTW (WFD)	6UU0552	31/03/2020	1.06	240.11
OLD0100 (WFD)	6UU0536	31/03/2020	0.24	240.35
OLD0109 (WFD)	6UU0537	31/03/2020	1.26	241.61
OLD0120 (WFD)	6UU0538	31/03/2020	1.26	242.87
OLD0151 (WFD)	6UU0539	31/03/2020	1.82	244.69
Failsworth WwTW (WFD)	6UU0532/ 6UU0533/ 6UU0534	31/03/2020	5.81	250.50
Billinge WwTW (WFD)	6UU0531	31/03/2020	2.16	252.66
Halsall WwTW and Haskayne WwTW (WFD)	6UU0528/ 6UU0529	31/03/2020	12.99	265.65
Motherby	N/A	31/03/2020	1.5	267.15
Motherby first time flow measurement	N/A	31/03/2020	0.37	267.52
HYN0005 (WFD)	6UU0515	31/03/2020	0.60	268.12
HYN0008 (WFD)	6UU0517	31/03/2020	0.60	268.72
HYN0003 (WFD)	6UU0516	31/03/2020	2.33	271.05
Colne WwTW (WFD)	6UU0518	31/03/2020	4.45	275.50
RIB0017 (WFD)	6UU0512	31/03/2020	0.13	275.63
RIB0019 (WFD)	6UU0513	31/03/2020	0.13	275.76
Billington Storm Tanks (WFD)	6UU0514	31/03/2020	0.51	276.27
Barton WwTW (WFD)	6UU0507	31/03/2020	4.30	280.57
Aspatria WwTW (WFD)	6UU0502	31/03/2020	7.44	288.01
Hayton WwTW (WFD)	6UU0503	31/03/2020	7.48	295.48
Hayfield WwTW (WFD)	6UU0540	31/03/2020	16.70	312.18
MAN0131 (WFD)	6UU0535	31/03/2020	1.2	313.38
Darwen WwTW (WFD)	6UU0526	31/03/2020	1.48	314.86
Darwen WwTW storm tanks (WFD)	6UU0527	31/03/2020	1.48	316.34
Blackburn WwTW (WFD)	6UU0525	31/03/2020	4.40	320.74
FY20 - Flow programme	Various	31/03/2020	0.42	321.16
Barrow Nook	N/A	31/03/2020	4	325.16
West Newton	6UU0556	31/03/2020	7.48	332.64
Crewe WwTW (WFD)	6UU0547	31/03/2020	5.46	338.10
Winsford WwTW (WFD)	6UU0549	31/03/2020	3.64	341.74
Inland CSW programme	6UU0530	31/03/2020	0.18	341.92

Underperformance or outperformance payment

This measure has both underperformance and outperformance payments. The size of any incentive is calculated by comparing our actual index performance against the target index performance. This measure looks at the total impact of the programme delivered each year, and assesses how late or early this was. The underperformance or outperformance payment is then calculated by multiplying the rivers improved length by the how late or early the project was delivered by the underperformance rate (£0.111m per index point) or outperformance rate (£0.028m per index point).

Lessons learnt and action plan

We will continue to monitor and track projects against the programme of expected deliverable dates. At the end of the AMP we are delivering some of our more complex projects and delivery against schedule will be difficult.

Anticipated performance Years 5

There have been a number of additional variations in the programme since NEP5 was finalised. These mainly relate to small variations in multi-site programmes such as flow monitoring schemes, with these being reflected in the overall performance commitment value reported.

The following changes have been made to the programme for year 5;

- Whalley WwTW, where the EA have confirmed that the scheme is no longer required;
- CHR0012 (WFD) and CHR0021 (WFD), where improvements to unsatisfactory intermittent discharges have been delayed due to difficulties in construction solutions. We are discussing replacing these two schemes with equivalent schemes at Motherby and Barrow Nook with the EA.
- Manchester Ship Canal (F1a) which involves installing aeration in the canal, which has encountered access and technical feasibility issues. We are working closely with the Environment Agency to identify an alternative strategy for the Ship Canal in light of the technical issues.

The removals or revisions from the programme, reduce the length of river improved, which means that we are expecting to incur a small underperformance payment in year five but ends the five-year period with an outperformance payment.

We are on track to deliver all other schemes within the programme.

Future performance – risk, issue, concern, change or opportunity

1. Risk of late (or early) delivery:
    - There is the risk that deliverability or third party issues could result in projects being delivered late.
    - Equally there is the potential that schemes could progress faster than anticipated.
    - A monthly review is completed to consider any risks associated with delivery.

S-D4a: Wastewater serious (category 1 and 2) pollution incidents

Performance Summary

We have consistently outperformed this measure throughout the first four years of AMP6. We expect we will sustain our performance and continue to achieve the challenging target in year 5 of the AMP.

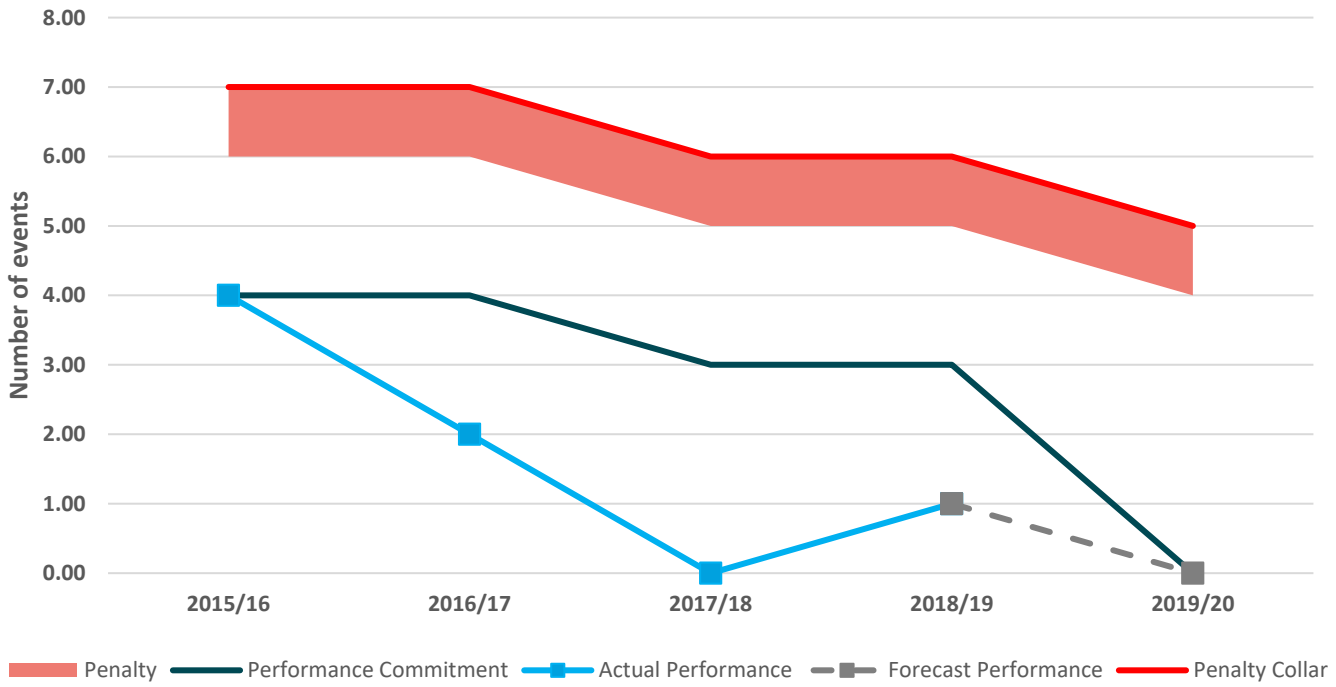
Measure description

This measure tracks the number of category 1 and 2 (serious) pollution incidents that occur as a result of the performance of our wastewater assets. This is an underperformance only measure.

Actual and forecast performance for the wastewater serious (category 1 and 2) pollution incidents performance commitment

	2015/16	2016/17	2017/18	2018/19	2019/20
Target	4	4	3	**3**	0
Actual/ Forecast	4	2	0	**1**	0
Pass/Fail	Pass	Pass	Pass	**Pass**	Pass
Outperformance/ Underperformance payment	£0m	£0m	£0m	**£0m**	£0m

Actual and forecast performance for serious pollution incidents - AMP6 actual and forecast performance against performance commitment



Overview of performance to date

Over the AMP6 period to date the number of incidents has steadily reduced.

Our performance has been good across the early part of the AMP. Our investment programme has supported the achievement of this performance, along with an increase in the length of sewers being CCTV'd during incident attendance which is helping to proactively highlight sewer defects for repair.

Our performance has been improving as a result of implementing a number of processes, data and training initiatives to minimise pollution incidents, including our environmental compliance green tick campaign and the revised wastewater operating model, which seeks to address operational problems and identify the root cause of problems. We have raised awareness of the 16/02 process (the Environment Agency's Guide to its operational staff) on categorisation and self-reported incidents. Thorough analysis of all repeat and self-reported incidents. The process of 72 hour reporting and 20 days reports for more serious incidents ensuring scrutiny of the data collected and enabling actions to be taken following a pollution incident. Analysis EDM performance is helping to develop a more in-depth understanding of asset performance and predict potential failures.

Underperformance or Outperformance payment

This is a underperformance only measure, with the scale of any underperformance being assessed by comparing our actual performance against the target performance. If the performance falls within the underperformance-zone then we multiply the resulting difference by the underperformance incentive rate of £0.420 million per incident.

Each year we have outperformed our performance commitment. However as this is underperformance only measure we did not earn any financial outperformance payment.

Lessons learnt and action plan

There are a number of actions being implemented to support us in maintaining and improving performance. These are as follows:

- The development of IDAS (Integrated Drainage Area Studies) and WwNM (Wastewater Network Management) which seek to provide a more indepth understanding of the wastewater network and how it interacts with other systems
- Continuing to raise awareness of the Environment Agency's 16/02 process throughout the business
- Improved monitoring equipment being installed on the network which will reduce the number of customer generated pollution incidents. The monitors will detect and then prompt our teams to attend sites to investigate, proactively preventing potential pollution incidents
- Joint training planned with the Environment Agency on permit conditions. This will improve understanding of our permits, increasing consistency with other water companies and reduce the risk of non-compliance.

Anticipated performance Year 5

The current plan is to achieve the performance commitment for year 5. Whilst we typically only have a low number of incidents meeting the year 5 target of 0 incidents will be very challenging.

Future performance – risk, issue, concern, change or opportunity

1. EDM exclusion
    - Where a pollution incident is found solely through data provided by Event Duration Monitors (EDM) installed as part of the NEP, the incident is excluded from this measure.
    - Our processes have been updated to ensure that this exclusion is operated however there is a risk that, as this new process is implemented, errors could occur. This could lead to reporting to many or too few incidents.
2. Discrepancies with Environment Agency data
    - This measure is included in the EA's reports however as there are some exclusions within our measure and the EA measure also includes transferred assets (but not transferred pumping stations), this may lead to a discrepancy on in reporting between reporting mechanisms.

S-D4b: Wastewater category 3 pollution incidents

Performance Summary

We have outperformed our target for this measure in the first four years of the AMP6 period and we anticipate that we will continue to outperform in the final year.

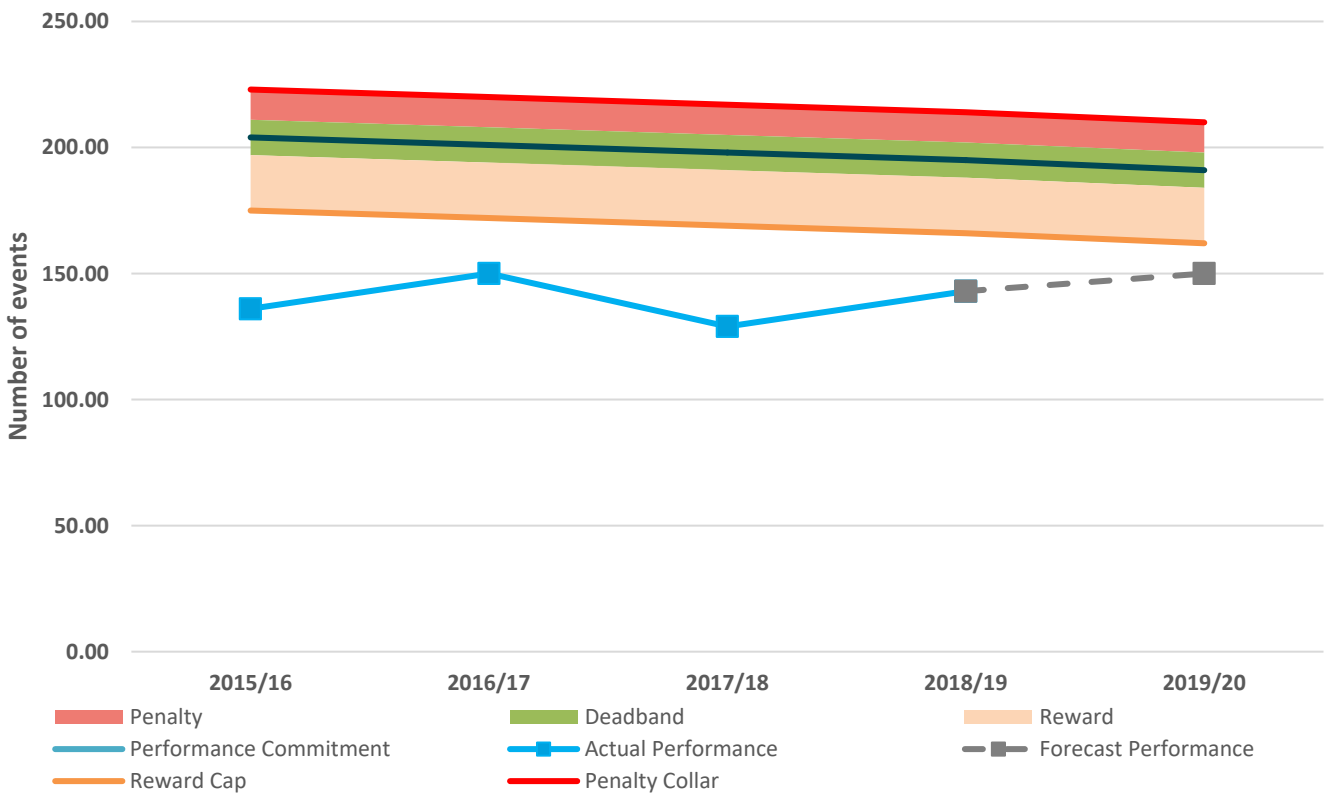
Measure description

This measure assesses the number of category 3 pollution incidents that occur from our wastewater assets each year of the AMP. Performance is incentivised through both out and underperformance payments.

Actual and forecast performance for the category 3 pollution incidents performance commitment

	2015/16	2016/17	2017/18	2018/19	2019/20
Target	204	201	198	**195**	191
Actual/ Forecast	136	150	129	**143**	150
Pass/Fail	Pass	Pass	Pass	**Pass**	Pass
Outperformance/ Underperformance payment	£3.278m	£3.278m	£3.278m	**£3.278m**	£3.278m

Actual and forecast performance for category three pollution incidents – AMP6 actual and forecast performance against performance commitment



Overview of performance to date

Our performance has been good across the early part of the AMP. Our investment programme has supported the achievement of this performance, along with an increase in the length of sewers being CCTV'd during incident attendance which is helping to proactively highlight sewer defects for repair.

Our performance has been improving as a result of implementing a number of process, data and training initiatives to minimize pollution incidents, including our environmental compliance green tick campaign. The revised wastewater operating model, which seeks to address operational problems and identify the root cause of problems. We have raised awareness of the 16/02 process (the Environment Agency's Guide to its operational staff) on categorisation and self-reported incidents. Through analysis of all repeat and self-reported incidents. The process of 72 hour reporting and 20 days reports for more serious incidents ensuring scrutiny of the data collected and enabling actions to be taken following a pollution incident. Analysis EDM performance is helping to develop a more in-depth understanding of asset performance and predict potential failures.

Underperformance or Outperformance payment

This measure has both underperformance and outperformance payments, with the scale of any incentive being assessed by comparing our actual performance against the target performance. If the performance falls within the outperformance or underperformance-zone then we multiply the resulting difference by the relevant incentive rate. For category 3 pollution incidents, the underperformance incentive rate is £0.282 million per incident and £0.149 million per incident for the outperformance rate.

We have significantly outperformed our performance commitment in each of the four years of AMP6, resulting in the maximum annual payment.

Lessons learnt and action plan

There are a number of actions being implemented to support us in maintaining/improving performance, these are as follows:

- The development of IDAS (Integrated Drainage Area Studies) and WwNM (Wastewater Network Management)
- Continuing to raise awareness of the Environment Agency's 16/02 process throughout the business
- Improved monitoring equipment being installed on the network, this will reduce the number of customer generated pollution incidents as the monitors will detect and then prompt our teams to attend sites to investigate, proactively preventing potential pollution incidents
- Joint training planned with the Environment Agency on permit conditions. This will improve understanding of our permits, increasing consistency with other water companies and reduce the risk of non-compliance.

Anticipated performance Year 5

We believe that the significant outperformance we have seen in the early part of the AMP can be sustained for the future and therefore we are projecting continuing to outperformance and earn an outperformance payment for the remainder of the AMP.

Future performance – risk, issue, concern, change or opportunity

1. EDM exclusion
   - Where a pollution incident is found solely through data provided by Event Duration Monitors (EDM) installed as part of the National Environment Programme (NEP), the incident is excluded from this measure.
   - Our processes have been updated to ensure that this exclusion is operated however there is a risk that, as this new process is implemented, errors could occur. This could lead to reporting to many or too few incidents.
2. Discrepancy with Environment Agency data
   - This measure is included in the Environment Agency's reports however as there are some exclusions within our measure and the Environment Agency measure also includes transferred assets (but not transferred pumping stations), this may lead to a discrepancy on in reporting between reporting mechanisms.

S-D5: Satisfactory sludge disposal

Performance Summary

We have meet our target for satisfactory sludge disposal in each year of the AMP to date and expect to do so in year 5 too.

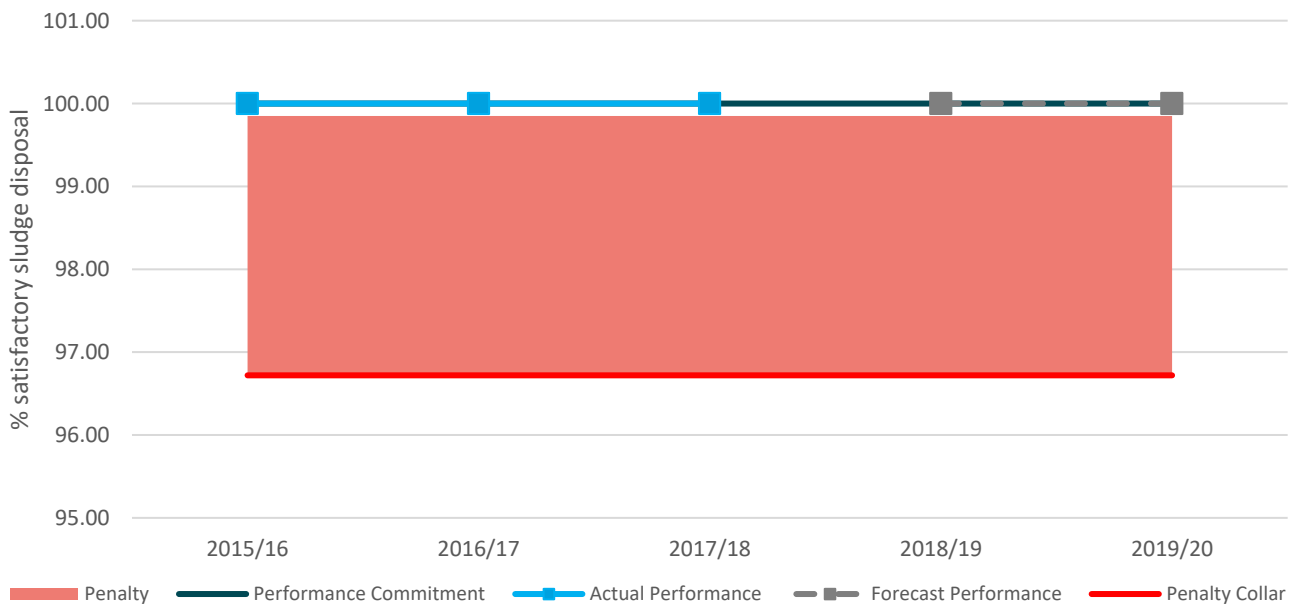
Measure description

This performance commitment measures how well we operate our sludge treatment and disposal activities with respect to public health, environmental protection and statutory compliance. This is an underperformance only measure.

Actual and forecast performance for the satisfactory sludge disposal performance commitment

	2015/16	2016/17	2017/18	2018/19	2019/20
Target	100	100	100	**100**	100
Actual/ Forecast	100	100	100	**100**	100
Pass/Fail	Pass	Pass	Pass	**Pass**	Pass
Outperformance payment/ Underperformance	£0m	£0m	£0m	**£0m**	£0m

Actual and forecast performance satisfactory sludge disposal – AMP6 actual and forecast performance against performance commitment



Overview of performance to date

Performance for 2015/16 to 2018/19 is 100.00% satisfactory sludge disposal, meaning that the target has been achieved.

Our Regional Sludge Operational Model (RSOM) now provides a measured value for input into the performance commitment calculation. This has increased the volume of raw sludge produced when compared to 2015/16. This higher value is in line with our approach to measure sludge production to improve accuracy and will lower the impact of any unsatisfactory sludge disposed in the calculation.

Underperformance or Outperformance payment

This is an underperformance only measure, with the size of any underperformance calculated by comparing our actual percentage compliance against the target of 100% compliance. If the performance falls within the underperformance-zone then we multiply the resulting difference by the underperformance incentive rate of £5.108 million per percentage point.

Lessons learnt and action plan

Achieving the target level expressed in the measure will help to maintain the confidence of both our regulators and stakeholders in the agricultural sector and wider food chain that use our treated sludge as an alternative to fertiliser.

Use of the Biosolids Assurance Scheme (BAS) certification from 2017 will also improve the quality management system for sludge. Any audit findings will support continuous improvement and help us to sustain 100% performance.

Anticipated performance Year 5

To date this AMP, we have achieved 100% satisfactory sludge and are on track to deliver this level of performance throughout the remainder of the AMP.

Future performance – risk, issue, concern, change or opportunity

1. Our strategic approach for sludge proposes a move away from traditional Mesophilic Anaerobic Digestion (MAD) to future investment in Advanced Anaerobic Digestion (AAD) technology.
   - The AAD process attains a greater level of pathogen reduction (typically 6 log) than MAD (3 log), which naturally reduces the likelihood/risk of producing non-compliant sludge at these sites.
2. In the future, we may engage in Commercial and Co-digestion activities and sludge trading with other Water companies (both in and out).
   - We will need to update our reporting to account for these potential inputs and outputs.

1.1 c) Retail and customer service performance commitments

2018/19 Annual performance summary

Performance against our four household retail performance commitments in 2018/19 and the cumulative performance in the AMP6 period to date is set out in the table below.

Household retail operational performance summary (2018/19)

Performance Commitment	Actual performance levels				Performance Commitment		Financial incentives	
	2015/16	2016/17	2017/18	2018/19	2018/19	Pass/ Fail	2018/19 Annual (£m)	2018/19 Cumulative (£m)
A-1: Service incentive mechanism (SIM) [1]	82	85	87	88	UQ WASC	**TBC**	TBD	TBD
R-A2: Customer Experience Programme [2]	0.001	0.363	2.576	5.685	≥ 10.860	**Implemented on time at lower cost**	N/A	N/A
B1: Customers saying that we offer value for money	50	52	52	58	≥ 52	**Pass**	N/A	N/A
B2: Per household consumption	303	305	311	314	≤ 286	**Fail**	N/AA	N/A

1 The financial incentive applied to SIM will be determined by Ofwat through the PR19 process based upon performance up to 2018/19
2 The customer experience ODI measure compares actual depreciation incurred on the programme against assumed depreciation for the programme. The costs of the programme and resultant depreciation has been lower than assumed with some of this efficiency saving being shared with customers through the ODI. The measure only generates a final position at the end of 2019/20, annual performance assesses if delivery is on track to achieve this target.

Forecast future performance

Two of our retail performance commitments have financial incentives attached to them, SIM and the Customer Experience Programme.

SIM is only measured up to 2018/19 and so future performance against the measure will not impact upon the financial incentive. We expect to have ended the first four years in an upper quartile position amongst the eleven Water and Sewerage companies. As we set out in detail in our PR14 reconciliation publication, based upon the incentive regime Ofwat used in the PR14 determination, this level of performance would earn a reward of approximately £16m.

Customer Experience, we have now fully implemented the Customer Experience programme for a lower cost than anticipated at the last price review. As a consequence of which we are proposing to return £5m to customers through the PR19 process.

Information on the way that the predicted performance and incentive payments would impact upon allowed revenues for the 2020 – 2025 period (AMP7) is set out in "United Utilities Water PR14 reconciliation update (July 2019)", which is available on our website.

The remaining two measures do not have financial incentives. As we have been making steady progress against the **customers saying that we offer value for money** measure, we anticipate that we will meet our target in 2019/20. However, as we have been unable to to reduce **per household consumption** in line with our target, there is a risk that we will also fail to meet the target in 2019/20.

Further details on the performance to date and the anticipated future performance against these measures are set out on the following pages.

R-A1 Service incentive mechanism (SIM)

Performance summary

Our combined SIM score for 2018/19 was 88 representing an improvement increase on 2017/18 performance. Our target for the AMP6 period is to achieve an upper quartile performance level. However, until other water companies report annual 2018/19 SIM combined performance, we are unable to finalise our relative position for 2018/19 or to confirm whether we have achieved upper quartile performance.

Measure description

SIM is assessed based upon two main aspects of our customer service:

- The number of contacts and complaints that we receive (Quantitative performance) and
- The way we respond to these contacts (Qualitative performance).

Actual and forecast performance for the SIM performance commitment

SIM	2015/16	2016/17	2017/18	**2018/19**	2019/20
Target	UQWASC[1]	UQWASC[1]	UQWASC[1]	**UQWASC[2]**	N/A
Actual/Forecast	82	85	87	**88**	N/A
Pass/Fail	**Fail**	**Fail**	**Pass**	**tbc**	N/A

1 Our target is to be upper quartile for water and sewerage companies.

SIM sub-measures

Sub-measure	2015/16 performance	2016/17 performance	2017/18 performance	2018/19 performance
SIM quantitative	95	77	71	70
SIM qualitative	4.27	4.42	4.49	4.53
SIM combined	82	85	87	88

Overview of Performance to date

Performance - Our performance has improved throughout the period. We marginally failed to hit upper quartile for the water and sewerage companies in 2016/17 were upper quartile in 2017/18 and when the other companies SIM scores are published, we expect to remain upper quartile in 2018/19.

Quantitative Performance

Complaints: In 2018/19 we received a total of 7,007 complaints which is a marginal increase on complaints received in 2017/18. The increase is mainly due to the extended dry weather period in 2018.

- Wastewater has seen a 19% improvement in complaint volumes. This is mainly due to our strong focus on ownership, telephone escalations and visiting customers to discuss their issues, coupled with a dry year leading to the reductions.
- Complaints about billing and metering have seen an in year reduction of 3% and 19% over two years due to a variety of initiatives delivered.
- The year on year increase in water service complaints can largely be attributed to company action to address dry weather in the summer of 2018. After adjusting for the impact of this event underlying customer complaints across UU have decreased year on year.

Unwanted calls: SIM also measures the number of unwanted calls. A call from a customer is classed as unwanted if the caller has experienced some form of aggravation (however mild) and this has prompted them to make contact.

- In 2018/19 there was a decrease of around 2,000 calls compared to 2017/18.

Stage 2 complaints: The third aspect of the Quantitative SIM measure is stage 2 complaints. A stage 2 complaint is either a repeat complaint or a complaint that was not dealt with appropriately first time.

- In 2018/19 we received 184 Stage 2 complaints, a small improvement on the 186 received in 2017/18 and a 20% improvement from 2016/17 levels. Stage 2 complaints are running at 2.6% of company complaint volumes, compared to 2.8% in 2017/18.

CCW investigations: SIM also takes account of the number of CCWater investigations.

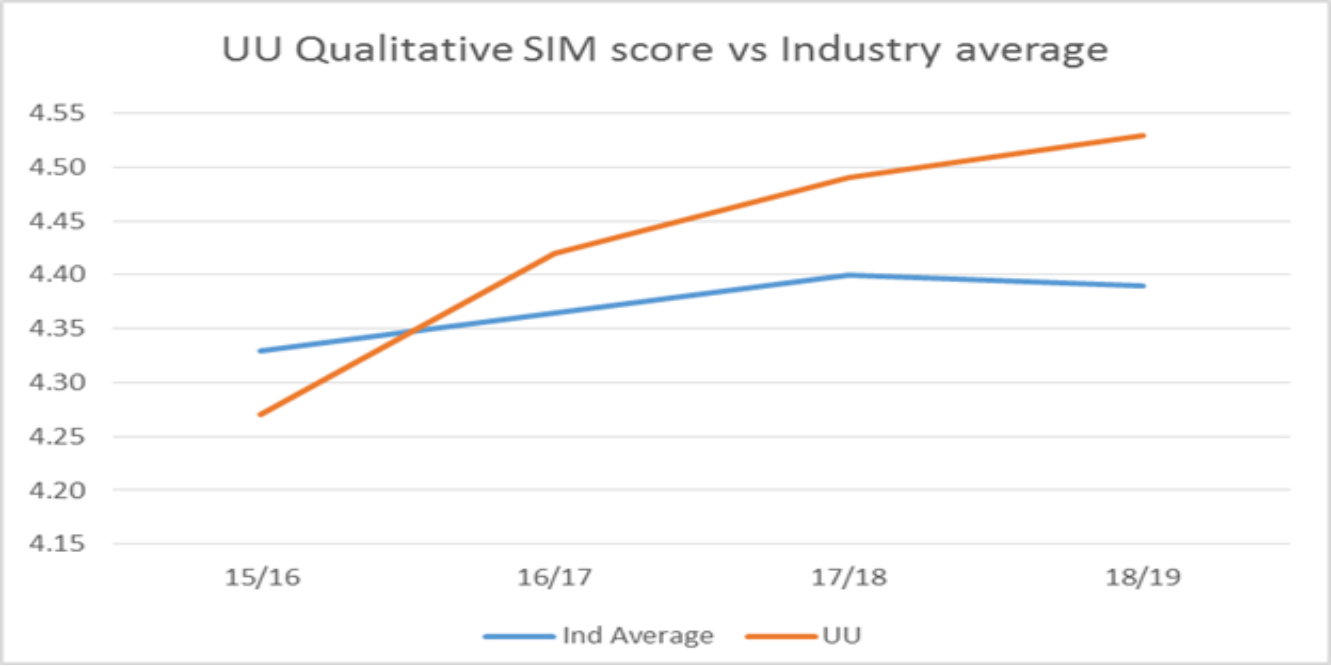
- For the third consecutive year we had no investigations during 2018/19.

Qualitative Performance

2018/19 has seen our best ever SIM qualitative performance, with a score of 4.53 our highest ever (4.49 in 17/18, 4.42 in 16/17 and 4.27 in 2015/16).

We finished the year in fourth of the 11 WASCs and fifth when all 18 companies are considered. This was above industry average with all our business areas achieving their internal targets. As can be seen in the chart below our scores for the last survey of the year were well above industry average.

UU Qualitative SIM score relative to water industry average



Underperformance or outperformance payment

Any penalties or outperformance payments incurred through SIM will be determined by Ofwat based upon relative intercompany performance for the first four years of the AMP6 period.

This means that performance in 2019/20 will not be included in the assessment, but that Ofwat will be able to finalise the incentive payments in advance of the PR19 final determination.

Our expectation is that Ofwat will consistently apply the approach that they used at PR14 to calculate SIM reward/ penalty payments. Using this approach, and based upon current industry performance and trends, we would expect to earn an outperformance payment under this mechanism. Further details of the basis of this outperformance payment are set out in our PR14 reconciliation document, which is published on our website.

R-A2: Customer Experience Programme

Performance summary

During 2018/19 we implemented the final element of the Customer Experience programme, a new debt management system, at a lower cost than had been assumed at the last price review. Earlier in the five-year period we made a number of organisational and business process changes that meant that the initially planned customer relationship management system was no longer cost beneficial. As a result of the reduced cost and the change in the programme we will be returning some of the originally allowed costs for the programme to customers.

Measure description

The Customer experience programme (CEP) is a transformational programme delivering new capabilities for the household retail service. The programme was initially assumed to include the following functionality:

a) Web contact management system

b) Multi- channel routing

c) Workforce optimization

d) Analytic capability;

e) Billing system upgrades;

f) Debt management system

g) Customer Relationship Management system.

The measure has two components, both with financial incentives applied to them.

- The first compares actual depreciation incurred on the project against the assumed level of depreciation that would be incurred on the project, with the incentive payment being based upon the total cumulative depreciation at the end of the AMP6 period.
- The second assesses whether the programme has been fully delivered by the originally assumed delivery date.

Actual and forecast performance for the Customer Experience performance commitment

Depreciation	2015/16	2016/17	2017/18	**2018/19**	2019/20
Target (£m)	£1.053m	£3.370m	£6.396m	**£10.80m**	£17.769m
Actual/ Forecast (£m)	£0.001m	£0.363m	£2.576m	**£5.685m**	£10.051m

Overview of performance to date

The Customer Experience Programme is designed to improve customer services and to reduce operating costs.

The cumulative depreciation has been lower than expected in PR14 targets up to 2018/19 due to a change in the nature and expected commissioning of the programme compared to that set out in our PR14 business plan and reflected in the FD.

The early work on this programme resulted in a change in implementation approach to ensure that the new technology is delivered in a seamless way with no customer impacts.

This revision removed the customer relationship management system (CRM) from the programme, as this element was judged to be no longer cost beneficial. We have, however, made organisational and business process changes, which have enabled the original benefits that had been assumed for this system to be delivered.

In 2016/17 the programme achieved a number of key milestones, which helped to improve the customer facing aspects of our operations. These included:

- Delivering a refresh of all our telephony lines, with the new voice of 'Rebecca' conveying a more friendly and helpful tone.
- Replacing our on-hold music and queue messaging to provide useful and relevant information particularly during operational incidents.
- Producing a new suite of customer letters with a refreshed tone of voice; the new letters make it easier for our customers to understand the information following the removal of technical and complex jargon.
- Launching our new customer website which has undergone some transformation and has a very different look and feel to the previous website. Following feedback from customers we made the website easier to navigate as well as reducing the amount of content on the website. Customers can also now access our website on their mobile or tablet.
- Launching our enhanced webchat capability (technology and service), which has simplified webchat functionality and increased webchat service operating hours.

In 2017/18 the programme delivered further improvements to both non customer facing and customer facing aspects of our operations. These included:

- Introducing the UU mobile App with functionality to make payments, view payment history and submit meter readings. The mobile app now has nearly 80,000 registered customers.
- Introducing a new version of the My Account customer self-serve portal. This has a comparable look and feel to the website and is formatted for desktop and mobile, tailoring content for each customer. There are now over 625,000 active users of this channel.
- Implementing a new workforce management tool used for forecasting and scheduling agents to work on inbound and outbound calls and back office work. The product has improved both the efficiency of the workforce planning team through better system functionality and reporting and the overall workforce.
- Introducing a new analytics tool which provides customer and performance data that is accessible to operational users and managers to enable business decisions to be taken based on analytic reasoning. The tool provides an insight into customer behavior and drive decisions and next best actions. Amongst a range of new capabilities the tool for example allows us to provide segmented views of customers such as the Priority Services dashboard below.
- Introducing a number of billing system upgrades to ensure a stable and fully supported platform which negates the need to invest in a new billing system until beyond 2025.

In 2018/19 the final elements of the programme, namely implementation of a new Debt manager system has been delivered. This included:

- Completing the upgrade of our Debt Management system which was successfully delivered in March 2019. We now have approximately 120 agents actively using the system daily to collect outstanding customer debt. The new system is integrated to give analytics capability, has the ability to tailor approaches to collections, has clearly presented 'dashboard'-style screens which are more use friendly and intuitive, and is stable, fully supported and future-proof.
- Further enhancements have been made to our mobile App including the facility for customers to report leaks by location, using the GPS functionality in their phone and send us photos to assist with prioritisation
- We've continued to enhance our self-serve My Account portal with both functional improvements and those based on customer feedback, such as allowing bank account details to be amended online.

Underperformance or Outperformance payment

The measure is designed to return part of the assumed depreciation to customers based upon two components:

We will incur less depreciation than assumed and as a result we will be returning some depreciation to customers via lower bills in AMP7.

Although we will have fully implemented the programme ahead of schedule and have seen the anticipated benefits in terms of customer experience improvements and reductions in cost to serve, we recognise that we have not delivered all of the originally assumed scope of work. We are proposing as part of our PR14 reconciliation submission that the proportion of the assumed depreciation that was associated with the customer relationship management system (CRM) should also be returned to customers.

Full details of the delivery of the customer experience programme and our proposals for how this is reflected in the PR19 process are set out within our PR14 reconciliation document which is available on our website.

Anticipated performance Years 5

We have fully delivered the programme with all elements delivered now fully operational. Partially as a result of the reduction in scope and partially as a result of efficiencies in the programme, the expenditure incurred on the programme and the resultant depreciation will be lower than originally assumed. At the end of the period we expect cumulative depreciation to be £10.51m, compared to the originally assumed depreciation of £17.769m.

R-B1: Customers saying that we offer value for money

Performance summary

Our performance against this measure has improved through the period, with 58% of customers saying we provided them with value for money in 2018/19, which is ahead of our target of 52%.

Measure description

This is a reputational measure based upon customers' perception of whether we provide them with value for money and has no associated financial outperformance payments.

Actual and forecast performance for the Customers saying that we offer value for money performance commitment

	2015/16	2016/17	2017/18	2018/19	2019/20
Target	49%	50%	51%	52%	53%
Actual/Forecast	50%	52%	52%	58%	58%
Pass/Fail	Pass	Pass	Pass	Pass	Pass
Outperformance/Underperformance	Reputational	Reputational	Reputational	Reputational	Reputational

Overview of performance to date

Our performance against this measure has improved through the period, with 58% of customers saying we provided them with value for money in 2018/19, which is ahead of our target of 52%.

Underperformance or Outperformance payment

This is a reputational measure based upon customers' perception of whether we provide them with value for money and has no associated financial outperformance payments.

Lessons learnt and action plan

We have undertaken a number of activities and initiatives during the year to increase visibility and awareness of the services that we provide, such as the increased promotion of our Priority Services schemes, payment assistance schemes and our water efficiency and "What Not to Flush" campaigns. Customer perception scores have improved from last year and we are ahead of our target.

Anticipated performance Year 5

We expect to maintain performance against this measure, although it is highly sensitive to wider press coverage and recent articles on ownership, company legitimacy and industry performance could affect sentiment and therefore future performance against this measure.

R-B2: Per household consumption

Performance Summary

We have not met the performance commitment for 2018/19 and we have seen an increase in per household consumption this year largely driven by the period of extended warm and dry weather in summer 2018.

Measure description

This measure is the average volume of water used by household properties across our region. The forecast per household consumption was taken from our Water Resources Management Plan17 and was based on assumptions around customer behavior, weather conditions as well as company water efficiency and metering activity. The forecast was based on our understanding of current and actual customer behavior by analysing historic trends. This is a reputational measure with no associated underperformance.

Actual and forecast performance for the Per household consumption performance commitment

	2015/16	2016/17	2017/18	2018/19	2019/20
Target	303	304	289	286	284
Actual / forecast	303	305	311	**314**	308
Pass/Fail	Pass	**Fail**	**Fail**	**Fail**	**Fail**
Outperformance/ Underperformance	Reputational	Reputational	Reputational	**Reputational**	Reputational

Overview of performance to date

Per household consumption for the year is 314 litres per property per day. Consumption is very dependent on the weather and modelling undertaken by the Met Office gives a target range of 282 to 313 l/prop/d. According to the output from the Met Office modelling domestic consumption for FY19 year-end reporting period is 6% higher than that for a normal year (WRMP15 Base Year).

Lessons learnt and action plan

We recognise that reducing consumption is one of the UK Government's strategic priorities and we are constantly looking for ways to enhance our offering to customers through research and partnership working.

Whilst we can not directly control customer behaviour we can influence it through promoting behavioural changes and providing more information to customer on water efficiency and metering. We have carried out a large behavioural change research project, to gain an understanding of 1,200 customer views on water usage and how we can influence them to use less, with a view to achieving real water savings now and in the future. This research found that 39% of respondent's key motivation for saving water is to save money and the key barrier for becoming water efficient for the majority of customers is that they do not consciously monitor water usage.

We are using the detailed findings to develop an evidence based strategy to reduce consumption, through changes in customer behaviour. The findings of the research have helped us to form a joined up communication strategy for water efficiency and metering.

We are also working on a number of initiatives, including:

- Extensive water efficiency projects, where we offer free home visits to install water saving devices.
- Engaging with developers in relation to promoting water efficiency in new build properties.
- Developing a year long trial to provide water use data to approximately 100,000 customers. The aim of this is to give customers greater control of their water use and bills. We will be trailing a number of interventions with customers to help them reduce their water use through behavioural change.
- Continuation of traditional methods of promoting water efficiency, where we believe these are appropriate and effective, for example, provding water saving devices.
- Exploring the role of pressure in managing demand and not just leakage.

Anticipated performance year 5

Further water efficiency initiatives are ongoing and planned, particularly our project using water data to influence customer behaviour to save water and money. Although a number of additional initiatives and trials are being considered there is a risk we won't meet our targets for the final year of the AMP6 period.

1.2 Wholesale totex

Background: totex allowances and incentive mechanism

The PR14 process and FD set total expenditure (totex) assumptions for the 2015-20 period for UUW's wholesale water and wholesale wastewater services.

The total assumed expenditure for the wholesale water service was £2.397bn (in 12/13 prices)

- (£2.356bn excluding pension deficit recovery costs)

The assumed expenditure for the wholesale wastewater service was £2.979bn (in 12/13 prices)

- (£2.940 bn excluding pension deficit recovery costs)

The 2019 price review (PR19) is currently in progress and final determinations are due on 11 December 2019. This will review how our actual expenditure compared against the PR14 assumptions, with variances against the initial assumptions being accounted for through a totex incentive mechanism. The detail of this mechanism is quite complex, although it is based upon three main principles.

- For incentivisation purposes, all expenditure incurred in the five year period is treated the same whether that expenditure is capital expenditure ("capex") or operating expenditure ("opex").
- Variances to the expenditure levels assumed within the PR14 FD are accounted for by revising the opening regulatory capital value (RCV) for the AMP7 period to reflect actual expenditure levels. An increase in expenditure results in an increase in the RCV.
- Variances to the expenditure levels assumed within the PR14 FD are also accounted for through a pain/gain mechanism, which provides a revenue outperformance payment for reductions in expenditure or a revenue penalty for increases in expenditure as part of the PR19 process.

These two processes work together in a way that if we can deliver the programme for a lower level of totex than assumed in the FD then this saving would be shared on a broadly equal basis between customers and the company. Equally, if we found that we needed to spend more money than was allowed at PR14, then both the company and customers would contribute towards this additional expenditure, again on a broadly equal basis.

Some costs, including compensation payments and pension deficit recovery costs, are excluded from this incentive mechanism, which means that any increase in company expenditure would not be shared with customers. The remaining costs are subject to the cost sharing incentive mechanism, and are described in the PR14 FD and the APR pro forma tables as "menu costs". Details of how the totex incentive mechanism operates is set out within our PR14 reconciliation submission available via https://www.unitedutilities.com/corporate/about-us/our-future-plans/looking-to-the-future/

2018/19 and AMP6 cumulative expenditure to date

Our expenditure profile reflects the plan we set out early in AMP6 to accelerate our expenditure programme to help to secure the performance improvements required to meet the challenges of our 2015-20 outcomes and to secure longer term operational efficiencies.

Totex expenditure in 2015/16, 2016/17 and to a lesser extent in 2017/18 was significantly higher than assumed in both the PR14 FD and our PR14 business plan. 2018/19 expenditure in water was in excess of the FD, impacted by the prolonged period of dry weather, whereas 2018/19 wastewater expenditure was lower than the FD assumption for the second consecutive year. Overall spend for 2018/19 was broadly in line with the FD allowance, although, as expected, the four-year cumulative water and wastewater positions remain higher than the FD.

Between our initial PR14 business plan and our final PR14 proposals we set ourselves a challenge to drive out a further £400m from our costs, with the FD setting a further challenge to meet the assumed costs.

In our previous Annual Performance Reports we set out that we had developed an outline plan to meet the efficiency challenge set by the FD. During 2017/18 and 2018/19 we continued to work on improving the efficiency of our operations and embedded this into our PR19 business plan, which was submitted on 3 September 2018. Ofwat issued its initial assessment of plans (IAP) on 31 January 2019 and we were pleased to be one of only three companies in the industry to achieve 'fast track' status, a key component being our efficiency position. This was underpinned by our approach to challenging scope, driving innovation and better use of markets, all contributing to reduced prices for customers.

Our approach to efficiency can be considered in three main areas:

- **Challenging scope:** We have introduced a risk and value assessment for all our major projects. This assessment process uses a series of challenge sessions, before and during the project lifecycle, to help ensure that issues are analysed thoroughly and that the right decision is taken and best value is achieved. We are also working actively with regulators to assess and manage requirements and working with external partners to deliver better outcomes through innovative or catchment wide solutions.
- **Driving innovation and better use of markets:** Innovation is a core value at United Utilities, with this being recognised in our world class status in the Dow Jones Sustainability Index. We utilise a structured innovation assessment process to help to ensure that innovation is part of the culture in the way that we develop our solutions and operate our business.
- **Reducing price:** We have revised our model for capital delivery, procuring new design and build partners to help improve our capital efficiency through a combination of earlier engagement, solution innovation and reduced contract prices. This has seen us achieve cost savings in excess of 10% when compared to our AMP5 costs. We will continue to build on this approach and have developed and implemented a best in class procurement mechanism that allows us to identify and select the appropriate way to test our costs, which will ultimately lead to more cost efficient arrangements going forward.

As a result of this work, we have also reduced further the delivery risks associated with this programme.

As set out in the Executive Summary of this report and detailed within Section 2 (Regulatory Accounts), we are performing well in respect of financing our operations. We committed to invest some of this outperformance in a £250m programme of resilience work, designed to provide additional customer and environmental benefits both over the rest of the AMP and in the longer term. And we have recently announced that we intend to invest a further £100m of this outperformance in 2019/20 to help make a flying start to AMP7. This substantial sharing of outperformance underlines our strong corporate responsibility credentials, as we continue to deliver value for all stakeholders.

A comparison of our actual wholesale expenditure in 2018/19 against the expenditure levels assumed in the PR14 FD, together with an explanation of the variances, is set out below.

Comparison of actual totex to FD assumed totex

APR Pro forma Tables 4D and 4E (see Section 2.5) are the key tables which set out the build-up of our 2018/19 totex expenditure within the wholesale water and wholesale wastewater services. The expenditure within these tables is then summarised within **Pro forma Table 2B** (see Section 2.3).

Infrastructure capital maintenance expenditure (IRE) is included as operating expenditure on line 5 in Table 2B. In our original PR14 business plan and in the FD, IRE was included as a separate capital expenditure line. However, as totex assumptions are set as a combined aggregate value - rather than as separate capex and opex allowances - this change in allocation does not impact upon the overall totex variance, or upon any PR19 incentive calculations.

Table 2B splits the water service expenditure between water resources and network plus and splits the wastewater services expenditure between bioresources (sludge) and network plus. This breakdown reflects the price control split which will be adopted for PR19. The split of expenditure between the two water and the two wastewater categories will not impact upon AMP6 incentives.

APR Pro forma Table 4B (see Section 2.5) consolidates the expenditure from Table 2B to produce water and wastewater totals, removing the items excluded from the menu to produce an adjusted actual totex level. It then deflates this to calculate adjusted actual totex expenditure at base year prices, which can be compared to the allowed totex in the FD.

Variance between allowed totex and actual totex from Tables 4B (12/13 prices)

	2018/19		Cumulative	
	Water £m	Wastewater £m	Water £m	Wastewater £m
Allowed totex	499.7	636.7	1,888.1	2,391.7
Actual totex	556.0	585.2	2,084.0	2,509.4
Increase / decrease in expenditure	+56.3	-51.5	+195.9	+117.7

Aside from spend related to the prolonged period of dry weather in 2018/19, these levels of expenditure are in line with our expectations as explained in the variance analysis overleaf.

Comparison between the actual totex and the assumed totex needs to be considered in the context of the fact that the actual expenditure is accounted for on a principal use basis whereas the expenditure assumed in the FD was derived on a proportional allocation basis. Principal use accounting means that actual expenditure on assets that are used by more than one service (for example IT systems) is now included within the service that is the principal user of that asset, with subsequent recharges to other services that use that asset. In the FD, this expenditure was proportionately allocated between all the services that would use the asset. However, Ofwat subsequently provided revised guidance (RAG 2.07) that capital expenditures and associated depreciation of assets should be reported on a principal use basis and UUW has complied with this guidance.

Totex variance analysis

The variance between the actual level of totex incurred and the level of totex assumed in the FD is due to a number of factors.

The outcome based regulatory framework is designed to incentivise companies to innovate and revise their plans and outputs, where this is beneficial. As such, there have been substantial changes to the detailed scope and timing of work that we will have already delivered and are planning to deliver in the period. Most of these changes are designed to deliver the same outcomes, but in a more effective way.

It is useful to assess the changes to the programme in three broad areas – changes in scope, changes in timing and levels of efficiency. The exact split between these three areas is dependent upon a number of factors, including assumptions about future years' risks and efficiencies, and the following assessment provides a relatively high level view of the scale of the movements in each of these three areas.

Changes in scope

For the purposes of this assessment we have considered changes in scope to be our forecast resilience spend of £250m and the atypical expenditure of c£71m incurred in 2018/19, relating to the prolonged period of dry weather as well as a pension GMP charge. The additional £100m of investment we recently announced to help make a flying start to AMP7 will impact 2019/20. All other expenditure is assumed to comply with the commitments we made during PR14.

Of the £250m of resilience expenditure which we now intend to spend during this AMP, c£160m has been spent to date, of which c£130m is in water. With regard to the prolonged period of dry weather, we expect to spend additional totex of just under £80m, of which £66m was incurred in 2018/19. In respect of the £100m of further reinvestment of outperformance, announced at the group's full year results on 23 May 2019, we expect to spend this during the 2019/20 financial year.

Changes in timing

We have chosen to accelerate many of our investment programmes and have invested substantially in information and operational technologies to help secure the early performance improvements and risk reduction initiatives that are required to meet our outcome delivery and efficiency targets. We believe this approach has delivered benefits for our stakeholders, as demonstrated through our good operational (ODIs) and customer service performance in 2018/19.

On an equivalent basis and excluding the additional scope of the resilience and dry weather related spend, discussed above, we have accelerated approximately £190m of expenditure into the first four years of the AMP6 period.

Efficiency

For the purposes of this assessment we have included all cost reduction activities within this category. These range from individual project level cost efficiencies, to strategic revisions to our approach to delivering our outcomes. We have also included additional costs arising from changes in scope required to allow us to fully comply with our obligations as factors that have reduced the overall efficiency with which we have delivered the programme.

Our original PR14 business plan contained substantial efficiency challenges designed to reduce our costs to upper quartile efficiency levels, with further efficiency challenges being set by the FD. In total, this required us to make efficiency savings of over £400m to deliver our programmes of work for the costs allowed in the FD.

Our analysis has shown that we should be able to meet the original £400m plus efficiency challenge and deliver additional efficiency over and above this level. This should allow the revised scope of work which we are now implementing (excluding our proposed £350m of outperformance reinvestment and £80m dry weather related spend) to be delivered for £100m less than the total level of expenditure assumed in the FD, with around three quarters of the outperformance expected to come from wastewater. We are confident of meeting our £100m efficiency target, having already delivered the majority of the savings and with the implementation of the remainder of our plans well underway. This £100m saving is over and above the efficiency targets set by the FD.

Excluded Costs

The costs excluded from the totex incentive assessment as reported in Pro forma Table 4B comprise three main components:

- Pension deficit recovery payments. Ofwat included some costs within price limits to contribute toward pension deficit recovery costs that most companies are facing. UUW has contributed more to close the deficit than was assumed in price limits and furthermore, in April 2019, the group prepaid, at a discount, the agreed deficit recovery contributions and has eliminated any deficit on a scheme specific funding basis.
- Third party costs, which are broadly in line with expectations.
- Other costs, which are made up from two main elements:
    - "Transition expenditure" (expenditure incurred in AMP5 on AMP6 outputs), which is deducted from excluded costs in APR Table 4B and is slightly lower than assumed in the FD due to exclusion of costs in 2013/14; and
    - Compensation and other guaranteed standards scheme payments, which mainly as a consequence of the 2015/16 water quality incident have more than offset the water service transition expenditure to result in a net positive exclusion.

Impact of expenditure on the RCV

APR Pro forma Table 4C sets out the 2018/19 RCV determined at the PR14 FD and shows the implied revisions to this position as a result of the impact of totex over or underspend and net outperformance payments incurred through the outcome delivery incentives.

The RCV will be fully reassessed as part of the PR19 process with the value presented in Table 4C being referred to as a "shadow RCV". As can be seen in Table 4C the projected shadow RCV is, in total, £220m higher than the RCV determined at the FD.

The increase in totex expenditure in the first four years of the period has resulted in an increase to the water service shadow RCV of £87m and an increase in the wastewater service shadow RCV of £83m. The net outperformance payments received for the wastewater ODIs has resulted in the additional increase of £50m to the wastewater shadow RCV. There has been a net penalty for the water service ODIs which has no impact upon the RCV and instead flows through as a revenue reduction, benefiting customers' bills.

Unit cost analysis of our expenditure

APR Tables 4D and 4E analyse the wholesale water and wastewater totex by the type of investment that has been incurred (e.g. power, capital maintenance etc.) and by the upstream service that this expenditure has been incurred on (e.g. raw water transport, water treatment etc.).

The operating expenditure within this table is then divided by a "cost driver" for each upstream service to determine a unit cost measure for each operating unit.

Whilst in theory these unit costs should be comparable between companies, it is worth noting that there was significant variation between the values reported by some companies in last year's Annual Performance Report.

Differences between companies may reflect a number of factors including different asset configurations and performance requirements, different allocation of expenditure (such as IRE) and differing assumptions on cost allocations between upstream services, as well as relative efficiency. These factors - together with differing capitalisation policies and year on year cost variances - make meaningful comparisons between companies difficult.

1.3 Wholesale revenue and current cost financial performance

APR pro forma Table 2I, (see section 2.3) sets out the build-up of the wholesale revenue for 2018/19 and the variance compared with the level of revenue assumed in the FD.

The total revenue set by the wholesale price controls for recovery in 2018/19 was £1,706.9m. This was made up of £1,673.2m wholesale revenue, plus £33.7m in grants and contributions. The level of revenue recovered in the year was in line with the £1,706.8m assumed in the PR14 FD, but was higher (£8.6m) than the £1,698.4m of revenue assumed after taking into account the 2016/17 WRFIM adjustment of minus £8.5m.

In line with the RAGs for 2018/19 we have reported sewer adoptions and sewer connections fee income of £2.6m as price control revenue, but this income was not included in the revenue control set at PR14 and therefore we will be excluding it from the WRFIM for the purposes of setting charges. This approach means that we will be both compliant with the change in regulatory reporting introduced in 2017/18 and also able continue to recover revenue under the revenue control in line with the approach that underpinned the PR14 final determination.

APR pro forma Table 4A, (see Section 2.5) provides additional information on household numbers and volumes. Distribution input increased slightly from 1,769.0 Ml/d in 2017/18 to 1,804.6 Ml/d in 2018/19. Volumes of bulk supplies exported and imported also increased slightly in 2018/19, compared with 2017/18, with 15.4 Ml/d exported (up from 13.1 Ml/d) and 0.8 Ml/d imported (up from 0.7 Ml/d).

APR pro forma Table 4G (see Section 2.5) summarises the wholesale current cost financial performance for 2018/19. The table has three sections:

Section one (lines one to five) adds the wholesale non-price control revenue of £4.2m (Table 2A) to the wholesale revenue (£1,673.2m) to produce a total revenue of £1,677.4m. It then subtracts operating expenditure, capital maintenance charges and other operating income to generate a wholesale current cost operating profit of £510.8m.

Section two (lines six to ten) adds other income (including grants and contributions) and interest income and subtracts interest expense from the current cost operating profit to produce a current cost profit before tax and fair value movements of £273.5m.

Section three (lines eleven and twelve) adjusts the current cost profit before tax and fair value movements to take account of fair value losses on financial instruments, to produce a current cost profit before tax value of £266.2m.

Wholesale current cost operating profit was £1.5m higher than in 2017/18. This was mainly due to the increased wholesale revenues in 2018/19, largely offset by higher operating expenditure, mainly reflecting the impact of the dry weather incident and the reinvestment programme, and higher capital maintenance charges on an increased asset base.

Current cost profit before tax and fair value movements was £22.3m higher in 2018/19, mainly due to a reduction in interest expense (primarily as a result of the impact of lower RPI inflation on index-linked debt). Current cost profit before tax was down £12.2m at £266.2m, reflecting £7.3m of fair value losses on financial instruments in the year, whereas in 2017/18 fair value gains on financial instruments of £27.2m were recognised.

1.4 Retail expenditure and revenues

Household retail

Background

The household retail price control is designed to allow companies to recover sufficient revenue from household customers to fund the average costs of operating a retail business. This is known as “the cost to serve”.

For companies whose historic and forecast costs were above industry average, allowed costs were set using a glide path over a three-year period to reduce from forecast cost to serve levels to average cost to serve levels.

A specific cost uplift was allowed for UUW to reflect the higher costs of operating in the North West of England as a consequence of the relatively high levels of deprivation in the region. Additional costs were also allowed to reflect the company’s proposals to implement a new IT led Customer Experience Programme. These new IT depreciation costs are subject to a specific outcome delivery incentive mechanism, which was designed to ensure that if this expenditure is not incurred, or the outcome of the programme is not delivered, then these costs will be returned to customers through the PR19 process.

Separate annual cost to serve allowances were defined at PR14 for metered and unmetered customers and dual (both water and wastewater) and single (water or wastewater only) service customers. Total revenue allowances were determined by multiplying these cost to serve allowances by the assumed customer numbers within each category and applying a margin defined as part of the price review.

The cost to serve incentive mechanism has three main principles:

- Initial cost to serve allowances are fixed and do not increase year on year to reflect inflation;
- The allowances fund all retail operating costs, including depreciation on new capital expenditure. Expenditure for demand side water efficiency and customer side leak repairs is also included where the activity is not for wholesale purposes; and
- Any over or underspend against the cost to serve allowed is paid for or retained wholly by the company and will not affect future customer bills.

2018/19 performance

We recognise and have continued to act upon the challenge set by the PR14 determination. As described in Section 1.1 Outcome Delivery, we have made a step change in our customer service over recent years and have made significant improvements in our cost to serve with further plans in place to reduce this during the final year of the AMP6 period.

We are reducing our expenditure per customer year on year, focussing on three main areas; driving operational efficiency, improving debt management and making greater use of affordability solutions. In 2017/18 we significantly reduced our cost to serve. We reduced our costs further during 2018/19 as we continue our glide path to reduce Cost to Serve to that allowed at PR14 by FY20.

Our 2018/19 household retail operating costs and revenues are set out in APR pro forma Tables 2C and 2F (Section 2.3), with pro forma Table 4F (Section 2.5) analysing these costs by the type of retail service provided (dual/single and metered/un-metered).

Improving operating costs and efficiency

We have implemented a number of initiatives to reduce our operating costs, these include:

- Reducing overheads;
- Improving operational performance;
- Proactively informing customers of known network issues and their resolution, to reduce inbound customer contacts;
- Increased digital penetration; and
- Benefits achieved through re-designing of bills and customer literature.

APR Tables 2C and 4F show that total household retail operating costs in 2018/19 were £110.9m. This figure is £2.7m below the costs we incurred in 2017/18. It is higher than the operating costs of £103.4m assumed in the PR14 FD. This is due to:

- Changes to the Regulatory Accounting Guidelines (as defined in paragraph 2.3 of RAG 2) regarding the accounting for the depreciation of legacy assets. This has resulted in additional depreciation and amortisation charges of legacy assets to household retail of £2.2 million for which there was no allowance within the retail price control;
- An increase in customers numbers above those assumed in the FD; and
- Other operational costs remaining above those assumed in the FD as we continue our glidepath to reduce costs to those allowed in the FD by 2020.

Improving debt management

UUW has a higher bad debt cost than the majority of the industry. Deprivation levels are the principal driver of our higher than average bad debt with the North West having a substantially higher proportion of customers impacted by welfare reform and claiming universal credits.

Recognising this challenge, debt and cash collection remains a priority for us. In 2014/15 Household bad debt costs were running at 6.3% of regulated revenue. Since this time we have maintained a clear focus on improving our bad debt and cash collection performance. This has included the establishment of a number of new initiatives, such as our "better billing" initiative and has involved working with Equifax to identify which customers are likely to be in a financially challenging situation and which customers are able to pay their water bill but need further encouragement and engagement in order to prompt them to do so.

In 2018/19 we have seen the continuation of the significant uptake in the number of customers taking advantage of our financial assistance schemes with a consequent benefit on bad debt. This has been supported by the continued success of our Town Action Planning initiatives which engages with customers in our most deprived areas. To date 46% of contacts under the initiative have had positive outcomes and 70% of customers moved onto a payment plan remain on it.

In January 2019 at the Affordability Summit in Manchester we officially launched the new Hardship Hub. The Hub was developed working in conjunction with representatives from the debt advice Community who told us at the 2018 Affordability Summit that it took a long time to source financial support for their clients from multiple organisations.

The Hub's design enables easier access to multiple support schemes – a "one stop shop" hosting information from organisations across the region. In May the initiative received Highly Commended in the category "Technology for Good Award" at the Prolific North Tech Awards.

The trip advisor style solution is an online search engine containing circa 500 schemes from 300 organisations. The hub also provides the facility for users to subscribe to schemes and leave feedback encouraging other users review schemes to see if other clients could also benefit.

We already have 180 advisors registered and benefiting from the new solution and are continuing to promote the hub to housing associations, credit unions and debt advisors across the region.

This initiative recently resulted in us receiving Highly Commended in the category for "Excellence in Treating Customer Vulnerability" at the Credit Awards, having won this award in the previous year. This is a cross sectoral awards scheme which benchmarked our approach against initiatives in other industries, beyond the water sector. Our current performance means there are now over 100,000 customers on affordability schemes almost double the commitment we made at the start of AMP6 more than double the number of customers on payment assistance schemes by the end of the AMP period than was assumed in the FD.

Our bad debt performance has also benefitted from the sustained improvement in our cash collection performance since 2015/16 which has resulted in a cleaner debt book. We continue to focus on more dynamic targeting of debt collection activities, and have invested in testing and improving our innovative data led collections strategies.

Through increased use of financial assistance schemes to support those customers that can't pay and a more robust approach to those customers that won't pay, household bad debt performance for 2018/19 demonstrates sustained improvement and has improved to 3.5% of regulated revenue, with our bad debt charge having reduced to £44 million.

Our continued improved performance this year has been encouraging but bad debt will remain a challenge in our region of high deprivation and so will be an area of continued focus as we drive for further improvement.

Greater use of affordability Solutions

We have continued to increase the reach of our financial assistance schemes and have now reached more than double the number of customers we had originally forecast in our PR14 business plan. We originally anticipated that we would be able to help 51,000 customers through these schemes, whereas at the end of 2018/19 we already have 116,000 customers on financial assistance schemes. This is a 16% increase compared to March 2018 and we plan to increase this to around 120,000 by the end of the five year period.

Our Payment Matching Plus scheme helped an additional 12,000 customers become water debt free, matching their payments pound for pound the scheme guarantees customers who maintain their payments will be water debt free within 2 years of joining the scheme.

In addition we increased our focus on debt prevention utilising predictive modelling to identify customers whose payment behaviours are changing indicating potential future payment difficulties. Issuing proactive communications with tailored messaging to different customer segments, we've highlighted the support we have available to prevent them fall behind with their payments.

In June, we launched a new affordability scheme called the Payment Break Scheme. This scheme is an early intervention scheme designed to provide assistance to those customers who are "Just About Managing" to get by, preventing them falling into debt when faced with an unplanned life event or expense. The "Payment Break scheme" offers low income customers a payment holiday creating some breathing space in their payment plan to support them through difficult times.

We have driven up the number of customers eligible for financial assistance schemes through a range of initiatives and partnership working with organisations across the NW region. We are making active use of customer segmentation data to increase the penetration of our assistance schemes in more deprived areas.

The penetration and conversion of customers onto affordability solutions does impact in year revenues, but it is a key factor in reducing the amount of bad debt that we are carrying and in supporting our drive to continue to reduce our cost to serve.

Revenue

APR pro forma Table 2F (see Section 2.3) shows that total household retail revenue in 2018/19 was £105.5m. This figure is £5.9m lower than in 2017/18 and £10.9m less than the revenue, including margin, assumed in the PR14 FD, which was £116.4m. The reduced revenue compared to the PR14 FD is due to the impact of our social and support tariffs.

This was mainly due to property classification changes that were made in readiness for non-household retail competition. Changes in domestic void levels are largely due to one off residency validation activities undertaken over the past two years. This data cleansing activity, supported by Credit Reference Agency datasets, has helped validate household billing records, and resolve instances where incorrect or outdated occupier identity information was held.

Operating profit

APR pro forma Table 2A (see Section 2.3) shows the operating profit for UUW's four price controls. For the household retail price control operating profit before recharges in 2018/19 (retail revenues minus operating costs) was a £5.5 million loss. This is lower than the profit assumed in the FD, mainly due to increased support for customers on social and support tariff

Pro forma Table 2A also reports operating profit/loss after recharges. This value, a £9.8m loss, is greater than the operating loss of £5.5m because recharges to household retail were £4.3m higher than recharges from household retail.

2. Regulatory Accounts for the 12 months ended 31 March 2019

2.1 Introduction

The Regulatory Accounts have been prepared in accordance with the requirements of Regulatory Accounting Guidelines (RAGs) 1.08, 2.07, 3.11, 4.08 and 5.07 issued by the Water Services Regulation Authority (WSRA or Ofwat). These are separate from the statutory financial statements which have been prepared under the basis of International Financial Reporting Standards as adopted for use in the European Union.

Statement of directors' responsibilities for regulatory information

Further to the requirements of company law, the directors are required to prepare accounting statements which comply with the requirements of Condition F 'Regulatory Accounting Statements' of the Instrument of Appointment of the company as a water and sewerage undertaker under the Water Industry Act 1991 and Regulatory Accounting Guidelines issued by Ofwat:

- Condition F also requires the directors to keep appropriate accounting records, which are consistent with guidelines published by Ofwat.

The directors of the company hereby confirm that the company has kept appropriate accounting records, which comply with the guidelines published by Ofwat.

Condition I 'Ring Fencing' of United Utilities Water Limited's (UUW's) Licence also requires directors to:

a) Confirm that, in their opinion, the company has sufficient financial resources and facilities, management resources and methods of planning and internal control for the next 12 months.

The directors have issued a certificate under Condition I17 of the Licence – see page 189.

b) Confirm that, in their opinion, in respect of the wholesale business, the company has contracts with any associate company with the necessary provisions and requirements concerning the standard of service to be supplied to ensure compliance with the company's obligations as a water and sewerage undertaker.

The directors have issued a certificate under Condition I17 of the Licence – see page 189.

c) Report to Ofwat changes in the company's activities, which may be material in relation to the company's ability to finance its regulated activities.

The directors hereby confirm that there were no changes in the company's activities, which may be material in relation to the company's ability to finance its regulated activities, during the year ended 31 March 2019.

d) Undertake transactions entered into by the appointed business, with or for the benefit of associated companies or other businesses or activities of the appointed business, at arm's length.

This has been confirmed within 'Information in respect of transactions with any other business or activity of the appointee or any associated company' on pages 182 to 184.

The above responsibilities are additional to those already set out in the United Utilities Water Limited statutory financial statements.

The contract of appointment with the auditor satisfies the requirements of RAG 3.11 (section 2.3.3), namely 'that the auditor will provide such further explanation or clarification of its reports, and such further information in respect of the matters which are the subject of its reports, as Ofwat may reasonably require'.

In addition, paragraph 3.1 of Condition K of the Instrument of Appointment requires directors to confirm that, in their opinion, the company has sufficient rights and assets, which would enable a special administrator to manage the affairs, business and property of the company.

In the opinion of the directors, the company was in compliance with paragraph 3.1 of Condition K at the end of the financial year and this has been confirmed in the certificate on page 190 of the regulatory accounts.

Disclosure of information to the auditor

Each of the persons who is a director at the date of approval of this report confirms that:

1. so far as he or she is aware, there is no relevant information of which the company's auditor is unaware; and
2. he or she has taken all the steps that he/she ought to have taken as a director in order to make himself/herself aware of any relevant audit information and to establish that the company's auditor is aware of that information.

This confirmation is given, and should be interpreted, in accordance with the provisions of section 418 of the Companies Act 2006.

Approved by the board and signed on its behalf by:

Russ Houlden

Chief Financial Officer

13 June 2019

2.2 Independent Auditor's report to the Water Services Regulation Authority (the WSRA) and the Directors of United Utilities Water Limited

Opinion

We have audited the sections of/tables within United Utilities Water Limited's Regulatory Accounts for the year ended 31 March 2019 ("the Regulatory Accounts") which comprise:

- the regulatory financial reporting tables comprising the income statement (table 1A), the statement of comprehensive income (table 1B), the statement of financial position (table 1C), the statement of cash flows (table 1D), the net debt analysis (table 1E), the financial flows (table 1F) and the related notes; and
- the regulatory price review and other segmental reporting tables comprising the segmental income statement (table 2A), the totex analysis for wholesale water and wastewater (table 2B), the operating cost analysis for retail (table 2C), the historical cost analysis of tangible fixed assets for wholesale and retail (table 2D), the analysis of grants and contributions and land sales for wholesale (table 2E), the household water revenues by customer type (table 2F), the non-household water revenues by tariff type (table 2G - not completed in line with RAG 4.08), the non-household wastewater revenues by tariff type (table 2H - not completed in line with RAG 4.08), the revenue analysis & wholesale control reconciliation (table 2I), the infrastructure network reinforcement costs (table 2J), the infrastructure charges reconciliation (table 2K) and the related notes.

We have not audited the Outcome performance table (tables 3A to 3S) and the additional regulatory information in tables 4A to 4W.

In our opinion, United Utilities Water Limited's Regulatory Accounts have been prepared, in all material aspects, in accordance with Condition F, the Regulatory Accounting Guidelines issued by the WSRA (RAG 1.08, RAG 2.07, RAG 3.11, RAG 4.08 and RAG 5.07) and the accounting policies (including the company's published accounting methodology statement, as defined in RAG 3.11, appendix 2).

Basis for opinion

We conducted our audit in accordance with International Standards on Auditing (UK) ("ISAs (UK)"), including ISA (UK) 800, and applicable law, except as stated in the section on Auditors' responsibilities for the audit of the Regulatory Accounts below, and having regard to the guidance contained in ICAEW Technical Release Tech 02/16 AAF 'Reporting to Regulators on Regulatory Accounts' issued by the Institute of Chartered Accountants in England & Wales.

Our responsibilities under ISAs (UK) are further described in the Auditors' responsibilities for the audit of the Regulatory Accounts section of our report. We are independent of the company in accordance with the ethical requirements that are relevant to our audit, including the Financial Reporting Council's (FRC's) Ethical Standards as applied to public interest entities, and we have fulfilled our ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Emphasis of matter – special purpose basis of preparation

We draw attention to the fact that the Regulatory Accounts have been prepared in accordance with Condition F, the Regulatory Accounting Guidelines, the accounting policies (including the company's published accounting methodology statement, as defined in RAG 3.11, appendix 2) set out in the statement of accounting policies and under the historical cost convention. The nature, form and content of the Regulatory Accounts are determined by the WSRA. It is not appropriate for us to assess whether the nature of the information being reported upon is suitable or appropriate for the WSRA's purposes. Accordingly we make no such assessment.

The Regulatory Accounts are separate from the statutory financial statements of the Company and has not been prepared under the basis of International Financial Reporting Standards as adopted by the European Union ("IFRSs"). Financial information other than that prepared on the basis of IFRSs does not necessarily represent a true and fair view of the financial performance or financial position of a company as shown in statutory financial statements prepared in accordance with the Companies Act 2006.

The Regulatory Accounts on pages 147 to 162 have been drawn up in accordance with Regulatory Accounting Guidelines with a number of departures from IFRSs. A summary of the effect of these departures from Generally Accepted Accounting Practice in the Company's statutory financial statements is included within the section 1 tables.

The Regulatory Accounts are prepared in accordance with a special purpose framework for the specific purpose as described in the Responsibilities for the Regulatory Accounts and the audit section below. As a result, the Regulatory Accounts may not be suitable for another purpose.

Our opinion is not modified in respect of this matter.

Conclusions relating to going concern

We have nothing to report in respect of the following matters in relation to which ISAs (UK) require us to report to you where:

- the directors' use of the going concern basis of accounting in the preparation of the Regulatory Accounts is not appropriate; or
- the directors have not disclosed in the Regulatory Accounts any identified material uncertainties that may cast significant doubt about the company's ability to continue to adopt the going concern basis of accounting for a period of at least twelve months from the date when the Regulatory Accounts are authorised for issue.

Reporting on other information

The other information comprises all of the information in the Regulatory Accounts other than the Regulatory Accounting Statements within the Regulatory Accounts and our auditors' report thereon. The directors are responsible for the other information. Our opinion on the Regulatory Accounting Statements does not cover the other information and, except to the extent otherwise explicitly stated in our report, we do not express any form of assurance conclusion thereon.

In connection with our audit of the Regulatory Accounting Statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the Regulatory Accounting Statements or our knowledge obtained in the audit, or otherwise appears to be materially misstated. If we identify an apparent material inconsistency or material misstatement, we are required to perform procedures to conclude whether there is a material misstatement of the Regulatory Accounting Statements within the Regulatory Accounts or a material misstatement of the other information. If, based on the work we have performed, we conclude that there is a material misstatement or inconsistency of this other information, we are required to report that fact.

We have nothing to report based on these responsibilities.

Responsibilities of the Directors for the Regulatory Accounts

As explained more fully in the Statement of Directors' Responsibilities set out on pages 142 to 143, the directors are responsible for the preparation of the Regulatory Accounts in accordance with Condition F, the Regulatory Accounting Guidelines issued by the WSRA and the Company's accounting policies (including the Company's published accounting methodology statement, as defined in RAG 3.11, appendix 2).

The directors are also responsible for such internal control as they determine is necessary to enable the preparation of the Regulatory Accounts that are free from material misstatement, whether due to fraud or error.

In preparing the Regulatory Accounts, the directors are responsible for assessing the company's ability to continue as a going concern, disclosing as applicable, matters related to going concern and using the going concern basis of accounting unless the directors either intend to liquidate the company or to cease operations, or have no realistic alternative but to do so.

Auditors' responsibilities for the Audit of the Regulatory accounting statements within the Regulatory Accounts

Our objectives are to obtain reasonable assurance about whether the Regulatory accounting statements within the Regulatory Accounts are free from material misstatement, whether due to fraud or error, and to issue an auditors' report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs (UK) will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these Regulatory Accounts.

As part of an audit in accordance with ISAs (UK), we exercise professional judgment and maintain professional scepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the company's Regulatory Accounts, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the company's internal control.

- Conclude on the appropriateness of the directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our report. However, future events or conditions may cause the company to cease to continue as a going concern.
- Communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during the audit.
- Assess the reasonableness of significant accounting estimates and related disclosures made by the directors.

The Company has presented the allocation of operating costs and assets in accordance with the accounting policy for price control segments set out in the notes on pages 163 to 166 and its accounting methodology statement. We are not required to assess whether the methods of cost allocation set out in the Methodology Statement are appropriate to the circumstances of the Company or whether they meet the requirements of the WSRA, which would have been required if we were to express an audit opinion under International Standards on Auditing (UK).

Opinion on other matters prescribed by Condition F

Under the terms of our contract we have assumed responsibility to provide those additional opinions required by Condition F in relation to the accounting records. In our opinion:

- proper accounting records have been kept by the appointee as required by paragraph 3 of Condition F; and
- the Regulatory Accounting Statements are in agreement with the accounting records and returns retained for the purpose of preparing the Regulatory Accounts.

Use of this report

This report is made, on terms that have been agreed, solely to the Company and the WSRA in order to meet the requirements of Condition F of the Instrument of Appointment granted by the Secretary of State for the Environment to the Company as a water and sewage undertaker under the Water Industry Act 1991 ("Condition F"). Our audit work has been undertaken so that we might state to the Company and the WSRA those matters that we have agreed to state to them in our report, in order (a) to assist the Company to meet its obligation under Condition F to procure such a report and (b) to facilitate the carrying out by the WSRA of its regulatory functions, and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the Company and the WSRA, for our audit work, for this report or for the opinions we have formed.

Our opinion on the Regulatory Accounting Statements within the Regulatory Accounts is separate from our opinion on the statutory financial statements of the Company for the year ended 31 March 2019 on which we reported on 22 May 2019, which are prepared for a different purpose. Our audit report in relation to the statutory financial statements of the Company (our "Statutory audit") was made solely to the Company's members, as a body, in accordance with Chapter 3 of Part 16 of the Companies Act 2006. Our Statutory audit work was undertaken so that we might state to the Company's members those matters we are required to state to them in a statutory audit report and for no other purpose. In these circumstances, to the fullest extent permitted by law, we do not accept or assume responsibility for any other purpose or to any other person to whom our Statutory audit report is shown or into whose hands it may come save where expressly agreed by our prior consent in writing.

William Meredith
For and on behalf of KPMG LLP
Chartered Accountants
1 St Peter's Square
Manchester
M2 3AE
14 June 2019

2.3 Pro forma tables subject to audit opinion

Pro forma tables Section 1 Regulatory financial reporting

Additional commentary on the Section 1 pro forma tables is provided on pages 169 to 170.

Pro forma 1A Income statement

Financial performance for the 12 months ended 31 March 2019

	Line description	Units	DPs	Statutory	Adjustments			Total appointed activities
					Differences between statutory and RAG definitions	Non-appointed	Total adjustments	
1A.1	Revenue	£m	3	1798.030	-5.450	9.436	-14.886	1783.144
1A.2	Operating costs	£m	3	-1173.192	-3.092	-7.324	4.232	-1168.960
1A.3	Other operating income	£m	3	0.000	-3.618	-0.010	-3.608	-3.608
1A.4	**Operating profit**	**£m**	**3**	**624.838**	**-12.160**	**2.102**	**-14.262**	**610.576**
1A.5	Other income	£m	3	0.000	18.160	2.209	15.951	15.951
1A.6	Interest income	£m	3	11.981	-7.300	0.000	-7.300	4.681
1A.7	Interest expense	£m	3	-227.777	-37.431	0.000	-37.431	-265.208
1A.8	Other interest expense	£m	3	0.000	7.300	0.000	7.300	7.300
1A.9	**Profit before tax and fair value movements**	**£m**	**3**	**409.043**	**-31.432**	**4.311**	**-35.743**	**373.300**
1A.10	Fair value gains/(losses) on financial instruments	£m	3	-7.312	0.000	0.000	0.000	-7.312
1A.11	**Profit before tax**	**£m**	**3**	**401.730**	**-31.432**	**4.311**	**-35.743**	**365.988**
1A.12	UK Corporation tax	£m	3	-38.400	0.000	-0.819	0.819	-37.581
1A.13	Deferred tax	£m	3	-30.500	5.343	0.000	5.343	-25.157
1A.14	**Profit for the year**	**£m**	**3**	**332.830**	**-26.088**	**3.492**	**-29.580**	**303.250**
1A.15	Dividends	£m	3	-375.600	0.000	-3.492	3.492	-372.108
A	**Tax analysis**							
1A.16	Current year	£m	3	41.300	0.000	0.819	-0.819	40.481
1A.17	Adjustments in respect of prior years	£m	3	-2.900	0.000	0.000	0.000	-2.900
1A.18	**UK Corporation tax**	**£m**	**3**	**38.400**	**0.000**	**0.819**	**-0.819**	**37.581**

				Non-appointed
B	**Analysis of non-appointed revenue**			
1A.19	Imported sludge	£m	3	0.000
1A.20	Tankered waste	£m	3	4.640
1A.21	Other non-appointed revenue	£m	3	4.796
1A.22	**Revenue**	**£m**	**3**	**9.436**

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Please refer to RAG 4.08 - Guideline for the table definitions in the annual performance report for the reporting year 2018-19

Pro forma 1B Statement of comprehensive income

Financial performance for the 12 months ended 31 March 2019

	Line description	Units	DPs	Statutory	Adjustments			Total appointed activities
					Differences between statutory and RAG definitions	Non-appointed	Total adjustments	
1B.1	Profit for the year	£m	3	332.830	-26.088	3.492	-29.580	303.250
1B.2	Actuarial gains/(losses) on post employment plans	£m	3	68.287	0.000	0.000	0.000	68.287
1B.3	Other comprehensive income	£m	3	-7.676	0.000	0.000	0.000	-7.676
1B.4	**Total Comprehensive income for the year**	**£m**	**3**	**393.441**	**-26.088**	**3.492**	**-29.580**	**363.861**

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Please refer to RAG 4.08 - Guideline for the table definitions in the annual performance report for the reporting year 2018-19

Pro forma 1C Statement of financial position

Financial performance for the 12 months ended 31 March 2019

Line description		Units	DPs	Statutory	Adjustments			Total appointed activities
					Differences between statutory and RAG definitions	Non-appointed	Total adjustments	
A	**Non-current assets**							
1C.1	Fixed assets	£m	3	11097.217	-170.464	1.372	-171.836	10925.382
1C.2	Intangible assets	£m	3	202.702	-6.521	3.257	-9.778	192.925
1C.3	Investments - loans to group companies	£m	3	0.000	0.000	0.000	0.000	0.000
1C.4	Investments - other	£m	3	0.092	0.000	0.000	0.000	0.092
1C.5	Financial instruments	£m	3	387.832	0.000	0.000	0.000	387.832
1C.6	Retirement benefit assets	£m	3	373.800	0.000	0.000	0.000	373.800
1C.7	**Total non-current assets**	**£m**	**3**	**12061.644**	**-176.985**	**4.628**	**-181.613**	**11880.031**
B	**Current assets**							
1C.8	Inventories	£m	3	10.392	0.000	0.000	0.000	10.392
1C.9	Trade & other receivables	£m	3	401.291	-18.995	1.824	-20.818	380.473
1C.10	Financial instruments	£m	3	100.736	0.000	0.000	0.000	100.736
1C.11	Cash & cash equivalents	£m	3	325.776	40.000	0.000	40.000	365.776
1C.12	**Total current assets**	**£m**	**3**	**838.195**	**21.005**	**1.824**	**19.182**	**857.376**
C	**Current liabilities**							
1C.13	Trade & other payables	£m	3	-314.713	-0.074	-0.616	0.543	-314.170
1C.14	Capex creditor	£m	3	0.000	0.000	0.000	0.000	0.000
1C.15	Borrowings	£m	3	-791.295	143.390	0.000	143.390	-647.906
1C.16	Financial instruments	£m	3	-13.684	0.000	0.000	0.000	-13.684
1C.17	Current tax liabilities	£m	3	-8.936	0.000	-0.819	0.819	-8.117
1C.18	Provisions	£m	3	-16.800	-13.316	0.000	-13.316	-30.117
1C.19	**Total current liabilities**	**£m**	**3**	**-1145.428**	**130.000**	**-1.435**	**131.435**	**-1013.993**
1C.20	**Net current assets / (liabilities)**	**£m**	**3**	**-307.234**	**151.005**	**0.388**	**150.617**	**-156.616**
D	**Non-Current liabilities**							
1C.21	Trade & other payables	£m	3	-696.829	671.172	0.000	671.172	-25.657
1C.22	Borrowings	£m	3	-7449.183	0.000	0.000	0.000	-7449.183
1C.23	Financial instruments	£m	3	-66.097	0.000	0.000	0.000	-66.097
1C.24	Retirement benefit obligations	£m	3	0.000	0.000	0.000	0.000	0.000
1C.25	Provisions	£m	3	0.000	0.000	0.000	0.000	0.000
1C.26	Deferred income - G&C's	£m	3	0.000	-277.191	0.000	-277.191	-277.191
1C.27	Deferred income - adopted assets	£m	3	0.000	-393.982	0.000	-393.982	-393.982
1C.28	Preference share capital	£m	3	0.000	-130.000	0.000	-130.000	-130.000
1C.29	Deferred tax	£m	3	-1120.955	29.528	0.000	29.528	-1091.426
1C.30	**Total non-current liabilities**	**£m**	**3**	**-9333.063**	**-100.472**	**0.000**	**-100.472**	**-9433.535**
1C.31	**Net assets**	**£m**	**3**	**2421.347**	**-126.451**	**5.016**	**-131.468**	**2289.879**
E	**Equity**							
1C.32	Called up share capital	£m	3	-100.000	0.000	0.000	0.000	-100.000
1C.33	Retained earnings & other reserves	£m	3	-2321.347	126.451	-5.016	131.468	-2189.879
1C.34	**Total Equity**	**£m**	**3**	**-2421.347**	**126.451**	**-5.016**	**131.468**	**-2289.879**

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Please refer to RAG 4.08 - Guideline for the table definitions in the annual performance report for the reporting year 2018-19

Pro forma 1D Statement of cash flows

Financial performance for the 12 months ended 31 March 2019

Line description		Units	DPs	Statutory	Adjustments			Total appointed activities
					Differences between statutory and RAG definitions	Non-appointed	Total adjustments	
A	**Statement of cashflows**							
1D.1	Operating profit	£m	3	624.838	-12.160	2.102	-14.262	610.576
1D.2	Other income	£m	3	0.000	5.198	2.209	2.989	2.989
1D.3	Depreciation	£m	3	391.364	-5.346	0.609	-5.955	385.409
1D.4	Amortisation - G&C's	£m	3	-12.962	12.962	0.000	12.962	0.000
1D.5	Changes in working capital	£m	3	17.412	-0.653	-1.080	0.427	17.840
1D.6	Pension contributions	£m	3	-34.013	0.000	0.000	0.000	-34.013
1D.7	Movement in provisions	£m	3	-3.563	0.000	0.000	0.000	-3.563
1D.8	Profit on sale of fixed assets	£m	3	3.618	0.000	0.010	-0.010	3.608
1D.9	**Cash generated from operations**	**£m**	**3**	**986.695**	**0.000**	**3.849**	**-3.849**	**982.845**
1D.10	Net interest paid	£m	3	-142.526	0.000	0.000	0.000	-142.526
1D.11	Tax paid	£m	3	-27.504	0.000	-0.358	0.358	-27.146
1D.12	**Net cash generated from operating activities**	**£m**	**3**	**816.665**	**0.000**	**3.492**	**-3.492**	**813.174**
C	**Investing activities**							
1D.13	Capital expenditure	£m	3	-654.164	0.000	0.000	0.000	-654.164
1D.14	Grants & Contributions	£m	3	35.210	0.000	0.000	0.000	35.210
1D.15	Disposal of fixed assets	£m	3	2.380	0.000	0.000	0.000	2.380
1D.16	Other	£m	3	0.000	0.000	0.000	0.000	0.000
1D.17	**Net cash used in investing activities**	**£m**	**3**	**-616.574**	**0.000**	**0.000**	**0.000**	**-616.574**
1D.18	**Net cash generated before financing activities**	**£m**	**3**	**200.091**	**0.000**	**3.492**	**-3.492**	**196.599**
D	**Cashflows from financing activities**							
1D.19	Equity dividends paid	£m	3	-375.600	0.000	-3.492	3.492	-372.108
1D.20	Net loans received	£m	3	-0.075	0.000	0.000	0.000	-0.075
1D.21	Cash inflow from equity financing	£m	3	0.000	0.000	0.000	0.000	0.000
1D.22	**Net cash generated from financing activities**	**£m**	**3**	**-375.675**	**0.000**	**-3.492**	**3.492**	**-372.183**
1D.23	**Increase (decrease) in net cash**	**£m**	**3**	**-175.584**	**0.000**	**0.000**	**0.000**	**-175.584**

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Please refer to RAG 4.08 - Guideline for the table definitions in the annual performance report for the reporting year 2018-19

Pro forma 1E Net debt analysis

Net debt analysis at 31 March 2019

	Line description	Units	DPs	Interest rate risk profile			
				Fixed rate	Floating rate	Index linked	Total
1E.1	Borrowings (excluding preference shares)	£m	3	3453.242	409.775	3767.208	7630.226
1E.2	Preference share capital	£m	3				130.000
1E.3	Total borrowings	£m	3				7760.226
1E.4	Cash	£m	3				-3.163
1E.5	Short term deposits	£m	3				-362.613
1E.6	Net Debt	£m	3				7394.450
1E.7	Gearing	%	2				64.84%
1E.8	Adjusted gearing	%	2				61.47%
1E.9	Full year equivalent nominal interest cost	£m	3	102.878	6.853	140.918	250.649
1E.10	Full year equivalent cash interest payment	£m	3	102.878	6.853	48.610	158.341
A	Indicative interest rates						
1E.11	Indicative weighted average nominal interest rate	%	2	3.25%	n/a	3.74%	3.24%
1E.12	Indicative weighted average cash interest rate	%	2	3.25%	n/a	1.29%	2.04%
1E.13	Weighted average years to maturity	nr	2	5.15	n/a	18.14	12.13

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Please refer to RAG 4.08 - Guideline for the table definitions in the annual performance report for the reporting year 2018-19

Pro forma 1F Financial flows for the 12 months ended 31 March 2019 (2012-13 financial year average RPI)

Financial flows analysis for the 12 months ended 31 March 2019

Line description		Units	DPs	12 Months ended 31 March 2019					
				%			£m		
				Notional returns and notional regulatory equity	Actual returns and notional regulatory equity	Actual returns and actual regulatory equity	Notional returns and notional regulatory equity	Actual returns and notional regulatory equity	Actual returns and actual regulatory equity
A									
1F.1	Return on regulatory equity	£m	3	5.52%	5.18%	5.52%	201.393	189.204	189.204
1F.2	Actual performance adjustment 2010-15	£m	3	0.61%	0.57%	0.61%	22.146	20.805	20.805
1F.3	Adjusted Return on regulatory equity	£m	3	**6.12%**	**5.75%**	**6.12%**	**223.539**	**210.009**	**210.009**
1F.4	Regulatory equity	£m	3	3650.384	3650.384	3429.445			
B	Financing								
1F.5	Gearing	£m	3	0.00%	0.21%	0.23%	0.000	7.793	7.793
1F.6	Variance in corporation tax	£m	3	0.00%	0.08%	0.08%	0.000	2.768	2.768
1F.7	Group relief	£m	3	0.00%	0.00%	0.00%	0.000	0.000	0.000
1F.8	Cost of debt	£m	3	0.00%	2.46%	2.62%	0.000	89.850	89.850
1F.9	Hedging instruments	£m	3	0.00%	0.69%	0.73%	0.000	25.177	25.177
1F.10	**Financing total**	**£m**	**3**	**6.12%**	**9.19%**	**9.79%**	**223.539**	**335.598**	**335.598**
C	Operational performance								
1F.11	Totex out / (under) performance	£m	3	0.00%	-1.42%	-1.51%	0.000	-51.851	-51.851
1F.12	ODI out / (under) performance	£m	3	0.00%	0.53%	0.56%	0.000	19.243	19.243
1F.13	Retail out / (under) performance	£m	3	0.00%	-0.19%	-0.20%	0.000	-6.813	-6.813
1F.14	Other exceptional items	£m	3	0.00%	0.00%	0.00%	0.000	0.000	0.000
1F.15	**Operational performance total**	**£m**	**3**	**0.00%**	**-1.08%**	**-1.15%**	**0.000**	**-39.421**	**-39.421**
1F.16	**Total earnings**	**£m**	**3**	**6.12%**	**8.11%**	**8.64%**	**223.539**	**296.178**	**296.178**
1F.17	RCV growth from RPI inflation	£m	3	3.06%	3.06%	3.06%	111.540	111.540	104.789
1F.18	**Total shareholder return**	**£m**	**3**	**9.18%**	**11.17%**	**11.69%**	**335.079**	**407.718**	**400.967**
1F.19	Net dividend	£m	3	4.00%	8.79%	9.36%	146.015	320.969	320.969
1F.20	**Retained value**	**£m**	**3**	**5.18%**	**2.38%**	**2.33%**	**189.063**	**86.748**	**79.997**
E	Dividends reconciliation								
1F.21	Gross dividend	£m	3	4.00%	8.80%	9.37%	146.015	321.366	321.366
1F.22	Interest received on intercompany loans	£m	3	0.00%	0.01%	0.01%	0.000	0.397	0.397
1F.23	**Net dividend**	**£m**	**3**	**4.00%**	**8.79%**	**9.36%**	**146.015**	**320.969**	**320.969**

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Please refer to RAG 4.08 - Guideline for the table definitions in the annual performance report for the reporting year 2018-19

Pro forma 1F Financial flows for the AMP to date (2012-13 financial year average RPI)

Financial flows analysis for the 4 year average 2015/16-2018/19

Line description		Units	DPs	Average 2015-19					
				%			£m		
				Notional returns and notional regulatory equity	Actual returns and notional regulatory equity	Actual returns and actual regulatory equity	Notional returns and notional regulatory equity	Actual returns and notional regulatory equity	Actual returns and actual regulatory equity
A									
1F.1	Return on regulatory equity	£m	3	5.55%	5.43%	5.55%	200.517	195.986	195.986
1F.2	Actual performance adjustment 2010-15	£m	3	0.72%	0.71%	0.72%	26.109	25.519	25.519
1F.3	Adjusted Return on regulatory equity	£m	3	**6.27%**	**6.13%**	**6.27%**	**226.627**	**221.505**	**221.505**
1F.4	Regulatory equity	£m	3	3611.845	3611.845	3530.226			
B	**Financing**								
1F.5	Gearing	£m	3	0.00%	0.06%	0.06%	0.000	2.282	2.282
1F.6	Variance in corporation tax	£m	3	0.00%	0.28%	0.29%	0.000	10.160	10.160
1F.7	Group relief	£m	3	0.00%	0.00%	0.00%	0.000	0.000	0.000
1F.8	Cost of debt	£m	3	0.00%	1.48%	1.51%	0.000	53.463	53.463
1F.9	Hedging instruments	£m	3	0.00%	0.47%	0.48%	0.000	16.942	16.942
1F.10	**Financing total**	**£m**	**3**	**6.27%**	**8.43%**	**8.62%**	**226.627**	**304.352**	**304.352**
C	**Operational performance**								
1F.11	Totex out / (under) performance	£m	3	0.00%	-0.51%	-0.52%	0.000	-18.453	-18.453
1F.12	ODI out / (under) performance	£m	3	0.00%	0.15%	0.15%	0.000	5.351	5.351
1F.13	Retail out / (under) performance	£m	3	0.00%	-0.07%	-0.07%	0.000	-2.521	-2.521
1F.14	Other exceptional items	£m	3	0.00%	0.00%	0.00%	0.000	0.000	0.000
1F.15	**Operational performance total**	**£m**	**3**	**0.00%**	**-0.43%**	**-0.44%**	**0.000**	**-15.623**	**-15.623**
1F.16	**Total earnings**	**£m**	**3**	**6.27%**	**7.99%**	**8.18%**	**226.627**	**288.729**	**288.729**
1F.17	RCV growth from RPI inflation	£m	3	2.50%	2.50%	2.50%	90.315	90.315	88.274
1F.18	**Total shareholder return**	**£m**	**3**	**8.78%**	**10.49%**	**10.68%**	**316.941**	**379.044**	**377.003**
1F.19	Net dividend	£m	3	4.00%	6.86%	7.02%	144.474	247.774	247.774
1F.20	**Retained value**	**£m**	**3**	**4.78%**	**3.63%**	**3.66%**	**172.468**	**131.269**	**129.229**
E	**Dividends reconciliation**								
1F.21	Gross dividend	£m	3	4.00%	6.87%	7.03%	144.474	248.123	248.123
1F.22	Interest received on intercompany loans	£m	3	0.00%	0.01%	0.01%	0.000	0.349	0.349
1F.23	**Net dividend**	**£m**	**3**	**4.00%**	**6.86%**	**7.02%**	**144.474**	**247.774**	**247.774**

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Please refer to RAG 4.08 - Guideline for the table definitions in the annual performance report for the reporting year 2018-19

Pro forma tables Section 2 Price review and other segmental reporting

Additional commentary on the Section 2 pro forma tables is provided on page 170.

Pro forma 2A Segmental income statement

For the 12 months ended 31 March 2019

	Line description	Units	DPs	Retail		Wholesale						Total
				Household	Non-Household	Water resources	Water Network+	Water Total	Waste water Network+	Sludge	Wastewater total	
2A.1	Revenue - price control	£m	3	105.450	0.251		766.062	766.062	907.197		907.197	1778.959
2A.2	Revenue - non price control	£m	3	0.000	0.000		3.726	3.726	0.458		0.458	4.184
2A.3	Operating expenditure	£m	3	-104.453	-0.582	-68.356	-303.538	-371.894	-262.258	-44.363	-306.621	-783.551
2A.4	Depreciation - tangible fixed assets	£m	3	-1.697	0.000	-7.859	-111.398	-119.257	-183.601	-46.496	-230.097	-351.051
2A.5	Amortisation - intangible fixed assets	£m	3	-4.787	0.000	-0.017	-4.896	-4.913	-23.129	-1.529	-24.658	-34.358
2A.6	Other operating income	£m	3	0.000	0.000	0.042	-1.409	-1.367	-1.419	-0.822	-2.241	-3.608
2A.7	**Operating profit before recharges**	**£m**	**3**	**-5.487**	**-0.331**			**272.356**			**344.038**	**610.576**
A	**Recharges in respect of 'principal use' assets**											
2A.8	Recharges from other segments	£m	3	-4.738	0.000	-1.948	-20.162	-22.110	-4.043	-3.912	-7.955	-34.803
2A.9	Recharges to other segments	£m	3	0.396	0.000	1.064	5.753	6.817	26.722	0.868	27.590	34.803
2A.10	**Operating profit**	**£m**	**3**	**-9.829**	**-0.331**			**257.063**			**363.673**	**610.576**
2A.11	Surface water drainage rebates	£m	3									0.290

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Please refer to RAG 4.08 - Guideline for the table definitions in the annual performance report for the reporting year 2018-19

Pro forma 2B Totex analysis – wholesale water and wastewater

For the 12 months ended 31 March 2019

Line description		Units	DPs	Water Resources	Water Network+	Wastewater Network+	Sludge	Total
A	**Operating expenditure**							
2B.1	Power	£m	3	6.177	30.395	47.007	-4.897	78.682
2B.2	Income treated as negative expenditure	£m	3	-0.006	-0.617	-0.176	-9.017	-9.816
2B.3	Abstraction charges/ discharge consents	£m	3	17.102	0.254	9.137	0.267	26.760
2B.4	Bulk supply/ Bulk discharge	£m	3	0.000	0.218	0.000	0.000	0.218
2B.5	Other operating expenditure - renewals expensed in year (Infrastructure)	£m	3	3.223	93.364	78.495	0.022	175.103
2B.6	Other operating expenditure - renewals expensed in year (Non-Infrastructure)	£m	3	0.000	0.000	0.000	0.000	0.000
2B.7	Other operating expenditure - excluding renewals	£m	3	23.708	130.619	106.350	51.353	312.030
2B.8	Local authority and Cumulo rates	£m	3	18.142	48.024	21.254	6.635	94.055
2B.9	**Total operating expenditure excluding third party services**	**£m**	**3**	**68.345**	**302.258**	**262.067**	**44.363**	**677.033**
2B.10	Third party services	£m	3	0.011	1.281	0.192	0.000	1.483
2B.11	**Total operating expenditure**	**£m**	**3**	**68.356**	**303.538**	**262.258**	**44.363**	**678.516**
B	**Capital Expenditure**							
2B.12	Maintaining the long term capability of the assets - infra	£m	3	0.000	0.000	0.000	0.000	0.000
2B.13	Maintaining the long term capability of the assets - non- infra	£m	3	3.931	112.448	129.643	34.660	280.681
2B.14	Other capital expenditure - infra	£m	3	0.107	126.214	82.568	0.000	208.889
2B.15	Other capital expenditure - non-infra	£m	3	4.464	41.925	130.253	0.645	177.287
2B.16	Infrastructure network reinforcement	£m	3	0.000	6.253	8.094	0.000	14.347
2B.17	**Total gross capital expenditure excluding third party services**	**£m**	**3**	**8.502**	**286.840**	**350.558**	**35.306**	**681.205**
2B.18	Third party services	£m	3	0.000	0.000	0.000	0.000	0.000
2B.19	**Total gross capital expenditure**	**£m**	**3**	**8.502**	**286.840**	**350.558**	**35.306**	**681.205**
C	**Grants and contributions**							
2B.20	Grants and contributions	£m	3	0.051	23.442	13.681	0.000	37.175
2B.21	**Totex**	**£m**	**3**	**76.807**	**566.936**	**599.135**	**79.669**	**1322.546**
D	**Cash Expenditure**							
2B.22	Pension deficit recovery payments	£m	3	1.787	18.390	14.016	4.856	39.050
2B.23	Other cash items	£m	3	0.000	0.000	0.000	0.000	0.000
E	**Total**							
2B.24	**Totex including cash items**	**£m**	**3**	**78.594**	**585.326**	**613.151**	**84.525**	**1361.595**

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Please refer to RAG 4.08 - Guideline for the table definitions in the annual performance report for the reporting year 2018-19

Pro forma 2C Operating cost analysis - retail

For the 12 months ended 31 March 2019

Line description		Units	DPs	Household	Non-household	Total
Operating expenditure						
2C.1	Customer services	£m	3	24.238	0.222	24.460
2C.2	Debt management	£m	3	13.112	0.000	13.112
2C.3	Doubtful debts	£m	3	44.330	0.000	44.330
2C.4	Meter reading	£m	3	4.215	0.000	4.215
2C.5	Services to developers	£m	3		0.251	0.251
2C.6	Other operating expenditure	£m	3	18.558	0.109	18.667
2C.7	**Total operating expenditure excluding third party services**	**£m**	**3**	**104.453**	**0.582**	**105.035**
2C.8	Third party services operating expenditure	£m	3	0.000	0.000	0.000
2C.9	**Total operating expenditure**	**£m**	**3**	**104.453**	**0.582**	**105.035**
2C.10	Depreciation - tangible fixed assets	£m	3	1.697	0.000	1.697
2C.11	Amortisation - intangible fixed assets	£m	3	4.787	0.000	4.787
2C.12	**Total operating costs**	**£m**	**3**	**110.937**	**0.582**	**111.520**
2C.13	Debt written off	£m	3	66.580	0.000	66.580

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Please refer to RAG 4.08 - Guideline for the table definitions in the annual performance report for the reporting year 2018-19

Pro forma 2D Historic cost analysis of tangible fixed assets – wholesale and retail

For the 12 months ended 31 March 2019

Line description		Units	DPs	Wholesale				Retail		Total
				Water Resources	Water Network+	Wastewater Network+	Sludge	Household	Non-Household	
A	**Cost**									
2D.1	At 1 April 2018	£m	3	278.632	5178.294	7975.440	1075.718	46.438	0.000	14554.522
2D.2	Disposals	£m	3	-1.667	-12.478	-26.954	-8.523	0.000	0.000	-49.622
2D.3	Additions	£m	3	8.285	279.153	320.512	35.204	1.048	0.000	644.202
2D.4	Adjustments	£m	3	4.369	3.135	-14.351	6.847	0.000	0.000	0.000
2D.5	Assets adopted at nil cost	£m	3	0.000	8.179	31.213	0.000	0.000	0.000	39.392
2D.6	**At 31 March 2019**	**£m**	**3**	**289.619**	**5456.283**	**8285.860**	**1109.246**	**47.486**	**0.000**	**15188.494**
B	**Depreciation**									
2D.7	At 1 April 2018	£m	3	-107.206	-1417.048	-1995.803	-394.189	-41.447	0.000	-3955.693
2D.8	Disposals	£m	3	1.327	10.800	23.838	7.670	0.000	0.000	43.635
2D.9	Adjustments	£m	3	-1.017	4.800	-5.577	1.791	0.000	0.000	-0.003
2D.10	Charge for the year	£m	3	-7.859	-111.398	-183.601	-46.496	-1.697	0.000	-351.051
2D.11	**At 31 March 2019**	**£m**	**3**	**-114.755**	**-1512.846**	**-2161.143**	**-431.224**	**-43.144**	**0.000**	**-4263.112**
2D.12	**Net book amount at 31 March 2019**	**£m**	**3**	**174.864**	**3943.437**	**6124.717**	**678.022**	**4.342**	**0.000**	**10925.382**
2D.13	**Net book amount at 1 April 2018**	**£m**	**3**	**171.426**	**3761.246**	**5979.637**	**681.529**	**4.991**	**0.000**	**10598.829**
D	**Depreciation charge for year**									
2D.14	Principal services	£m	3	-7.700	-111.033	-183.601	-46.496	-1.697	0.000	-350.527
2D.15	Third party services	£m	3	-0.159	-0.365	0.000	0.000	0.000	0.000	-0.524
2D.16	**Total**	**£m**	**3**	**-7.859**	**-111.398**	**-183.601**	**-46.496**	**-1.697**	**0.000**	**-351.051**

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Please refer to RAG 4.08 - Guideline for the table definitions in the annual performance report for the reporting year 2018-19

Pro forma 2E Analysis of grants and contributions and land sales - wholesale

For the 12 months ended 31 March 2019

Line description		Units	DPs	Current year			
				Fully recognised in income statement	Capitalised and amortised (in income statement)	Fully netted off capex	Total
A	**Grants and contributions - water**						
2E.1	Connection charges	£m	3	0.000	5.423	0.000	5.423
2E.2	Infrastructure charge receipts	£m	3	0.000	11.311	0.000	11.311
2E.3	Requisitioned mains	£m	3	0.000	2.756	0.000	2.756
2E.4	Other contributions (price control)	£m	3	0.000	0.000	0.000	0.000
2E.5	Diversions	£m	3	2.804	0.000	0.000	2.804
2E.6	Other contributions (non-price control)	£m	3	0.000	1.199	0.000	1.199
2E.7	**Total**	**£m**	**3**	**2.804**	**20.689**	**0.000**	**23.493**
2E.8	Value of adopted assets	£m	3	0.000	8.179		8.179
B	**Grants and contributions - wastewater**						
2E.9	Infrastructure charge receipts	£m	3	0.000	11.420	0.000	11.420
2E.10	Requisitioned sewers	£m	3	0.011	0.199	0.000	0.211
2E.11	Other contributions (price control)	£m	3	0.000	2.567	0.000	2.567
2E.12	Diversions	£m	3	-0.932	0.000	0.000	-0.932
2E.13	Other contributions (non-price control)	£m	3	0.000	0.415	0.000	0.415
2E.14	**Total**	**£m**	**3**	**-0.920**	**14.602**	**0.000**	**13.681**
2E.15	Value of adopted assets	£m	3	0.000	31.213		31.213

				Current year		
				Water	Wastewater	Total
C	**Movements in capitalised grants and contributions**					
2E.16	Brought forward	£m	3	148.813	105.036	253.849
2E.17	Capitalised in year	£m	3	20.689	14.602	35.291
2E.18	Amortisation (in income statement)	£m	3	-3.655	-2.422	-6.077
2E.19	**Carried forward**	**£m**	**3**	**165.847**	**117.216**	**283.062**
D	**Land sales**					
2E.20	Proceeds from disposals of protected land	£000	3	2601.635	353.277	2954.912

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Please refer to RAG 4.08 - Guideline for the table definitions in the annual performance report for the reporting year 2018-19

Pro forma 2F Household – revenues by customer type

For the 12 months ended 31 March 2019

	Line description	Wholesale charges revenue £m	Retail revenue £m	Total revenue £m	Number of customers (000s)	Average household retail revenue per customer £
2F.1	Unmeasured water only customer	10.848	1.027	11.875	43.432	24
2F.2	Unmeasured wastewater only customer	4.922	0.456	5.378	23.868	19
2F.3	Unmeasured water and wastewater customer	689.404	55.256	744.660	1612.802	34
2F.4	Measured water only customer	4.887	0.592	5.479	28.205	21
2F.5	Measured wastewater only customer	6.167	0.665	6.832	50.744	13
2F.6	Measured water and wastewater customer	451.581	47.454	499.035	1238.611	38
2F.7	**Total**	**1167.809**	**105.450**	**1273.259**	**2997.662**	**35**

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Please refer to RAG 4.08 - Guideline for the table definitions in the annual performance report for the reporting year 2018-19

Pro forma 2G & 2H Non-household water & wastewater – revenues by tariff type

As per RAG 4.08, where the appointee has exited the non-household market then Tables 2G & 2H should not be completed. Please refer to Table 2I (page 160) for the corresponding wholesale revenue. Residual revenues required to be reported as non-household under the RAGs are also shown in Table 2I.

Pro forma 2I Revenue analysis

For the 12 months ended 31 March 2019

Line description		Units	DPs	Household	Non-household	Total
A	**Wholesale charge - water**					
2I.1	Unmeasured	£m	3	337.954	0.607	338.561
2I.2	Measured	£m	3	222.841	200.956	423.797
2I.3	Third party revenue	£m	3	0.000	3.704	3.704
2I.4	**Total**	**£m**	**3**	**560.795**	**205.267**	**766.062**
B	**Wholesale charge - wastewater**					
2I.5	Unmeasured	£m	3	367.219	3.140	370.359
2I.6	Measured	£m	3	239.795	297.043	536.838
2I.7	Third party revenue	£m	3	0.000	0.000	0.000
2I.8	**Total**	**£m**	**3**	**607.014**	**300.183**	**907.197**
2I.9	**Wholesale Total**	**£m**	**3**	**1167.809**	**505.449**	**1673.258**
C	**Retail revenue**					
2I.10	Unmeasured	£m	3	56.739	0.251	56.990
2I.11	Measured	£m	3	48.711	0.000	48.711
2I.12	Other third party revenue	£m	3	0.000	0.000	0.000
2I.13	**Retail total**	**£m**	**3**	**105.450**	**0.251**	**105.701**
D	**Third party revenue - non-price control**					
2I.14	Bulk Supplies - water	£m	3			1.029
2I.15	Bulk Supplies - wastewater	£m	3			0.156
2I.16	Other third party revenue	£m	3			2.643
E	**Principal services - non-price control**					
2I.17	Other appointed revenue	£m	3			0.356
2I.18	**Total appointed revenue**	**£m**	**3**			**1783.144**

				Water	Wastewater	Total
2I.19	**Wholesale revenue governed by price control**	**£m**	**3**	**766.062**	**907.197**	**1673.258**
2I.20	Grants & contributions	£m	3	19.489	14.198	33.687
2I.21	**Total revenue governed by wholesale price control**	**£m**	**3**	**785.551**	**921.394**	**1706.945**
2I.22	Amount assumed in wholesale determination	£m	3	779.495	927.336	1706.831
2I.23	Adjustment for in-period ODI revenue	£m	3	0.000	0.000	0.000
2I.24	Adjustment for WRFIM	£m	3	-5.406	-3.056	-8.462
2I.25	**Total assumed revenue**	**£m**	**3**	**774.089**	**924.280**	**1698.369**
2I.26	**Difference**	**£m**	**3**	**11.462**	**-2.886**	**8.576**

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Please refer to RAG 4.08 - Guideline for the table definitions in the annual performance report for the reporting year 2018-19

Pro forma 2J Infrastructure network reinforcement costs

For the 12 months ended 31 March 2019

Line description		Units	DPs	Network reinforcement capex	On site / site specific capex (memo only)
A	**Wholesale water network+ (treated water distribution)**				
2J.1	Distribution and trunk mains	£m	3	5.730	0.702
2J.2	Pumping and storage facilities	£m	3	0.523	0.000
2J.3	Other	£m	3	0.000	0.000
2J.4	**Total**	**£m**	**3**	**6.253**	**0.702**
B	**Wholesale wastewater network+ (sewage collection)**				
2J.5	Foul and combined systems	£m	3	8.094	0.000
2J.6	Surface water only systems	£m	3	0.000	0.000
2J.7	Pumping and storage facilities	£m	3	0.000	0.000
2J.8	Other	£m	3	0.000	0.000
2J.9	**Total**	**£m**	**3**	**8.094**	**0.000**

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Please refer to RAG 4.08 - Guideline for the table definitions in the annual performance report for the reporting year 2018-19

Pro forma 2K Infrastructure charges reconciliation

For the 12 months ended 31 March 2019

Line description		Units	DPs	Water	Wastewater	Total
A	**Impact of infrastructure charge discounts**					
2K.1	Infrastructure charges	£m	3	11.311	11.420	22.731
2K.2	Discounts applied to infrastructure charges	£m	3	0.861	0.972	1.833
2K.3	**Gross infrastructure charges**	**£m**	**3**	**12.171**	**12.392**	**24.563**
B	**Comparison of revenue and costs**					
2K.4	Variance brought forward	£m	3			0.000
2K.5	Revenue	£m	3	12.171	12.392	24.563
2K.6	Costs	£m	3	-6.253	-8.094	-14.347
2K.7	**Variance carried forward**	**£m**	**3**	**5.918**	**4.299**	**10.216**

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Please refer to RAG 4.08 - Guideline for the table definitions in the annual performance report for the reporting year 2018-19

2.4) Accounting policies

For the 12 months ended 31 March 2019

The Regulatory Accounts have been prepared in accordance with IFRS, except for the areas of revenue recognition, capitalisation of interest, grants and contributions and adopted assets as required by Ofwat. Details of all significant accounting policies applied under IFRS are detailed in the United Utilities Water Limited statutory accounts. In addition, the RAGs require certain presentational differences within the income statement and statement of financial position between the statutory and the regulatory accounts.

Individual lines within the regulatory tables are rounded to 2 or 3 decimal places, as specified by Ofwat, therefore there may be instances where the total line within a table is not equal to the sum of the values presented.

Capitalisation policy

The company recognises property, plant and equipment (PPE) expenditure on its water and wastewater infrastructure assets where such expenditure enhances or increases the capacity of the network, whereas any expenditure classed as maintenance is expensed in the period it is incurred. Determining enhancement from maintenance expenditure is a subjective area, particularly when projects have both elements within them.

For non-infrastructure assets, expenditure that is directly attributable to the acquisition of the items of PPE and intangible assets is capitalised. Subsequent costs are included in the asset's carrying amount, or recognised as a separate asset, as appropriate, only when it is probable that future economic benefits associated with the item will flow to the company and the cost of the item can be measured reliably. All other repairs and maintenance costs are charged to the income statement during the financial period in which they are incurred. The only exception to IFRS, as required by RAG 1.08 'Principles and guidelines for regulatory reporting under the 'new UK GAAP' regime', is that the company does not capitalise interest in the Regulatory Accounts. The company applies a minimum capital limit per project of £500, any expenditure below this limit is expensed.

Price control segments policy

The accounts have been drawn up in accordance with RAG 2.07 'Guideline for the classification of costs across the price controls'. The main change from the prior year is the inclusion of two new APR Tables; Table 1F Financial flows, detailing financial flows to investors under actual and notional capital structures; and Table 2K Infrastructure charges reconciliation, reconciling infrastructure charges and costs on a 5-year rolling basis. Following our formal exit of the non-household market in 2016, we continue to exclude Tables 2G and 2H from the regulatory accounts which previously provided breakdowns of our non-household revenues by tariff type.

As noted in our Accounting Policies note to the UUW statutory accounts, management capitalises time and resources incurred by the company's support functions on capital programmes. In accordance with RAG 1.08 our historic cost accounting statements are in line with IFRS, except for deviations as specifically required by Ofwat (see 'Differences between statutory and RAG definitions' on pages 167 to 168). As such, any attribution or allocation of support costs between price controls is performed on the net cost balance after capitalisation. This approach is consistent with prior years and with our price review submission.

All notable methodology changes from the prior year, as well as details of cost allocations used per cost line, can be found in our 2018/19 accounting methodology statement, published on our website alongside the APR.

Allocation of costs to principal services

Direct costs are charged to the sub-service areas to which they are attributable, as defined in RAG 4.08. Business activities and indirect costs are allocated on an activity basis using quantitative measures such as full time equivalent employee numbers and other methods reflecting consumption of service.

Appointed and non-appointed activities

The company has used the guidance in RAG 4.08 Appendix 1 in determining which of its activities are appointed or non-appointed. In summary, the appointed business is defined as the regulated activities of the Appointee, i.e. those necessary to fulfil the functions and duties of a water and sewerage undertaker. The non-appointed business encompasses those activities for which the company is not a monopoly supplier or those activities which involve the optional use of an asset owned by the appointed business.

Revenue Recognition policy

Revenue represents the income receivable in the ordinary course of business from the regulated activities of the business in the year exclusive of value added tax. Charges billed to customers for water and sewerage services are recognised in the period in which they are earned. An accrual is estimated for measured consumption that has not yet been billed.

Where an invoice has been raised or payment made but the service has not been provided in the year this will not be recognised within the current year's revenue but will instead be recognised within creditors.

Charges on income arising from court, solicitors and debt recovery agency fees are credited to operating costs and added to the relevant customer account. They are not recognised within revenue.

Charging policy

Water and sewerage charges fall into the following three categories:

- Charges which are payable in full;
- Charges which are payable in part; and
- Not chargeable (void properties).

The circumstances in which each of the above applies are set out below.

Charges payable in full

Water (and sewerage) charges are payable in full in the following circumstances:

Unmeasured household supply – when premises benefit from a supply of water, until notice is given by the customer that the supply should be disconnected

Measured household supply – premises with a measured water supply are charged until either:

- The customer leaves the premises having given an up to date meter reading; or
- The customer requests that the supply is disconnected.

Non-household supply – charges are applied to each and every connected supply point where a service is received, except where the water supply to the premises is permanently disconnected or the premises is vacant.

This includes premises where renovation, redecoration or building work is being undertaken.

Exceptions to this, where water (and sewerage) charges are not payable, include:

- Where the occupier is a sole occupier in a care home for three months or more;
- Where the occupier is a sole occupier in long-term hospitalisation for three months or more;
- Where the occupier is a sole occupier in prison for three months or more; or
- In the event of the death of a sole occupier.

Charges payable in part

The following charges only are payable in certain circumstances:

Metered standing charges
Payable on metered properties without evidence of consumption which remain connected.

Surface water drainage and highway drainage charges
Payable where there is evidence of consumption for metered premises or an unmeasured water supply has been temporarily disconnected.

Not chargeable

Properties which are identified as vacant are not chargeable for water (and sewerage) and therefore no billing is raised and no revenue recognised in respect of these properties.

Definition and treatment of properties

Occupied properties
The occupier is any person in actual occupation of premises, or any person who:

- Owns the premises; or
- Has sufficient control over premises to put him under a duty of care towards lawful visitors; or
- Maintains premises for occupation (including multiple occupation) with shared facilities or as holiday or household accommodation for short term occupation (whether let wholly or in part), usually less than 12 months

No bills are raised in the name of "the occupier".

The property management process is followed to identify whether the property is occupied or not and, if occupied, to identify the chargeable person and raise a bill.

The property management process may comprise some or all of the following:

- Physical inspection;
- Mailings;
- Customer contacts;
- Searches using third party electronic data;
- Meter readings for metered properties;
- Land registry checks.

When a new customer is identified, they may be required to provide documentary evidence to establish the date that they became responsible for water (and sewerage) charges at the property. This is normally the date at which they moved into the property. The new customer will be charged from the date at which they became responsible for water (and sewerage) charges of the premises.

For non-household customers, the Wholesale Settlement team use Central Market Operating System (CMOS) meter read data to identify vacant Supply Point Identifications (SPIDs) with consumption. Where consumption exists, we will engage with the relevant retailer, and follow the market process to ensure the SPID is recorded correctly as either vacant, or occupied in the market.

Unoccupied properties
A property is deemed to be unoccupied when the company has completed the property management process and not identified the property as occupied. To be classified as unoccupied a property must meet at least one of the following criteria:

- A new property has been connected but is empty and there is no consumption on the meter;
- The company has been informed that the customer has left the property; and not expected to be reoccupied immediately;
- It has been disconnected following a customer request;
- The property management process has not identified an occupier; or
- The company has been informed that for three months or more, the customer is in a care home, in long-term hospitalisation, or in prison.

If the property management process confirms that the property is unoccupied, the property will be declared void and the supply may be turned off.

New properties
All new properties are metered. Until the new occupier has been identified, the property is treated as unoccupied and is not billed.

Measured income accrual

The household measured income accrual is an estimation of the amount of mains water and sewerage charges unbilled at the year end. The accrual is estimated using a defined methodology based on weighted average water consumption by tariff which is calculated based on historical information. The measured income accrual is recognised within turnover.

An estimation of the non-household mains water and sewerage charges unbilled at the year-end is calculated and a measured income accrual recognised within turnover. The accrual is estimated using a defined methodology based on historical water consumption of individual customers or based on meter size where individual consumption is not available for use.

There has been no change to the methodology in calculating the measured income accrual since the prior year.

Bad debt policy

Household

Bad debt is written off when all economically viable efforts to recover outstanding amounts have been fully exhausted or, alternatively, when the write-off of such amounts forms part of customer rehabilitation processes (subject to acceptance criteria and customer "matching" payments). The company's bad debt write-off policy has remained unchanged and has been consistently applied in the current year compared with the previous year. The level of write- off has decreased marginally from £68.0m in 2017/18 to £66.6m in 2018/19.

The household bad debt provision is charged to operating costs to reflect the company's assessment of the risk of non-recoverability of debtors. Household has continued to consistently apply its provisioning model last updated in 2014/15 to calculate the bad debt provision. The provision model applies expected recovery rates to debts outstanding at the end of the accounting period. The overall expected recovery rate takes into account the age of the debt, payment history and type of debt.

Higher provisioning percentages are applied to categories of debt of greater age. Bad debt provisioning rates are reviewed annually to ensure they continue to reflect the latest collection performance data from the company's billing system. All debt greater than 3 years old is fully provided for.

The actual level of debt collected may differ from the estimated levels of recovery, which could impact operating results positively or negatively.

The household bad debt provision policy has remained unchanged and has been consistently applied in the current and prior years. The bad debt provision has reduced by £20.7m from 31 March 2018 to 31 March 2019 and the household trade debtor balance has reduced by £20.9m. The reduction in both the bad debt provision and the household debtor balance is a result of our strong focus on improving bad debt and cash collection performance. Our improvement in cash collection performance seen in the prior year led to a cleaner debt book brought forward into the current year and this improved cash performance has been sustained into the current year both resulting in reductions in the bad debt charge and household debtor balance. In addition to this, further reductions have arisen from the continuing positive impact of our billing and collections initiatives, particularly our award winning Town Action Plan which has significantly increased the number of customers benefiting from our Financial Assistance Schemes.

Dividend policy

UUW's current dividend policy for the 2015-20 regulatory period is to distribute:

- A base return of 5% on the equity portion of the Shadow Regulatory Capital Value (RCV);
- The profit after tax in relation to the non-appointed activities of UUW; and
- An amount no greater than demonstrable outperformance versus the final determination.

In addition, there will be a true-up of the previous year's dividend, arising from differences between the forecast and actual equity portion of the Shadow RCV.

The board believe this represents an appropriate policy taking into consideration:

- The challenges of the 2015-20 final determination;
- Ofwat's assumed equity return of 5.65%;
- The aim to invest an extra £350m of outperformance, accelerating the delivery of further performance improvements for the benefit of customers and facilitating a flying start to the next regulatory period;
- The importance of income to shareholders; and
- The need to retain a robust and sustainable capital structure.

The board reviews the ongoing appropriateness of its dividend policy annually.

2.5) Additional unaudited regulatory information

Differences between statutory and RAG defintions

Revenue recognition

The following differences exist between the revenue recognition policies in the statutory accounts and in the regulatory accounts:

- IFRS15 has been applied to the statutory accounts and requires revenue to be recognised only when it is probable that economic benefits associated with the transactions will flow to the company. The regulatory accounts, however, require revenue to be recognised in full unless properties have been confirmed as being void; and
- Income from energy generation, exported energy, renewable obligation certificates (ROC) and ROC bonuses are treated as revenue in the statutory accounts but as negative operating expenditure in the regulatory accounts.

Capitalisation of borrowing costs

For statutory reporting, interest costs under IAS23 are capitalised and subsequently depreciated, whereas interest is charged immediately as an expense in the regulatory accounts.

Grants and contributions

All grants & contributions (G&Cs) recognised in the income statement under IFRS have been reclassified as other income in the regulatory accounts. More specifically this comprises the following two main reclassifications:

- Diversion income from revenue to other income
- The amortisation of capitalised grants and contributions from revenue and operating costs to other income

Adopted Assets

Under IFRS15, we recognise adopted assets from customers or developers on the balance sheet and amortise the income over the life of the asset through revenue. The amortisation of this income has been reclassified from revenue to other income in the regulatory accounts.

Preference share capital

Under IFRS, we recognise preference share capital within current liabilities. However, in order to ensure a better presentation of net debt is reported in Table 1E - which only includes non-current preference share capital - we have reclassified preference share capital from current to non-current liabilities in Table 1C of the regulatory accounts for 2018/19. This is consistent with our approach in the prior year.

The differences in Revenue, Operating profit, Other income and Profit before tax within Table 1A can be summarised as follows:

Revenue:	£m
Revenue recognition	18.771
Adopted assets	(7.348)
G&Cs – Diversions income	(1.873)
Amortisation of G&Cs	(5.614)
Reclassification of ROC income to opex	(5.848)
Income from energy generation and export	(3.528)
Other	(0.010)
Total difference	**(5.450)**

Operating profit:	£m
Revenue recognition	0.653
Capitalisation of borrowing costs	5.346
Adopted assets	(7.348)
G&Cs - Diversion income	(1.873)
Amortisation of G&Cs	(6.077)
Reclassification from opex to other income*	(3.583)
Income from energy generation and export	0.440
Other	0.282
Total difference	**(12.160)**

Other income:	£m
Adopted assets	7.348
G&Cs - Diversion income	1.873
Amortisation of G&Cs	6.077
Reclassification from opex to other income*	3.583
Income from energy generation and export	(0.440)
Other	(0.281)
Total Differences	**18.160**

Profit before tax:	£m
Revenue recognition	0.653
Capitalisation of borrowing costs	(32.085)
Total Differences	**(31.432)**

*Other income in the statutory accounts is included within operating costs, this is disclosed separately in the regulatory accounts.

The differences in Total non-current assets, Total current assets, Total current liabilities and Total non-current liabilities within Table 1C can be summarised as follows:

Total non-current assets:	£m
Capitalisation of borrowing costs	(176.281)
Other	(0.704)
Total Differences	**(176.985)**

Total current assets:	£m
Revenue recognition	20.889
Other	0.116
Total Differences	**21.005**

Total current liabilities:	£m
Preference share capital	130.000
Total Differences	**130.000**

Total non-current liabilities:	£m
Preference share capital	(130.000)
Deferred tax adjustment	29.528
Total Differences	**(100.472)**

Additional table narrative

Table 1C - Statement of financial position

Consistent with 2017/18 reporting, we have continued to report capex creditors (line 14) within current liabilities in Table 1C as zero and have included a capital accruals liability, representing work-in-progress not yet invoiced, of £71.385m within trade & other payables (line 13) for 2018/19. We believe this classification is better aligned to the line defintiions in RAG 4.08.

Table 1E - Net debt analysis

All figures in Table 1E have been calculated in reference to 'RAG 4.08 - Guideline for the table definitions in the annual performance report'.

Borrowings has been calculated on a notional basis so not to include any fair value adjustments based upon our interpretation of Ofwat's guidance. This means, consistent with the prior year, there will be a difference between borrowings reported in Table 1C and Table 1E and a reconciliation of the difference has been provided on page 170. Categorisation as fixed or floating assumes that both the impact of layer 1 swaps and regulatory swaps should be included thereby meaning that the payable leg of the regulatory swaps (fixed leg) determines the borrowings classification.

Net debt excludes fair value accounting adjustments which do not impact on the principal sum outstanding on the debt. The interest rate risk profile does not take account of the impact on interest of derivative instruments.
Preference share capital (line 2) links directly from Table 1C (line 28).

Adjusted gearing represents the consolidated net debt of United Utilities Group PLC as a proportion of the company's RCV (per the Final determination, in outturn prices), calculated based on the methodology published by Moody's Investor Services. This is the gearing measure most commonly used by management and is a key ratio used by Moody's Investor Services in determining the credit rating of the company.

Indicative weighted average interest rates are based on the effective interest rates as at the balance sheet date, which includes the impact of derivative instruments but excludes those with a forward start date, weighted by the notional principal amount.

Due to the nature of the company's interest rate hedging policy, it has some forward starting interest rate swaps which are not included in the indicative weighted average interest rates as they are not effective at the balance sheet date. As a result the indicative weighted average interest rates are only representative of our economic cost of borrowing as at the balance sheet date and are not representative of our economic cost of borrowing over the duration of the fixed interest rate hedge.

The floating rate full year equivalent interest costs (lines 9 and 10) include floating rate elements on all instruments whether they be classified as fixed or floating in line 1. As we hedge most of our floating interest rate exposure through 'floating to fixed' interest rate swaps we would expect a resulting very low net floating interest rate exposure.

However, primarily as a result of timing differences on the floating legs of the debt and derivative instruments, we have a relatively small residual floating interest cost which relates to borrowings classified as fixed rate in this table. As a result it is not meaningful to use this information in conjunction with the borrowings figure included within this table. As the indicative weighted average nominal/cash interest rates (lines 11 and 12) are calculated on the same basis they are unrepresentative of the cost of the floating rate borrowings and therefore have not been disclosed in the table. The calculated rate was 0.84% as at 31 March 2019 based on a £6.9m net interest payable on £815.8m of net floating rate debt (after the impact of swaps).

The calculation of the weighted average years to maturity on floating rate borrowings provides an unrepresentative figure and, as such, has not been be disclosed in the tables. Typically we raise debt in fixed rate form, swap it to floating rate for the duration of the debt instrument and then swap it back to fixed rate on a 10 year reducing balance basis. This hedged position makes it difficult to calculate the weighted average duration in a meaningful way.

An annual RPI increase of 2.4 per cent at March 2019 has been applied and an annual CPI increase of 1.9 per cent at March 2019 has been applied.

Borrowings reconciliation

The below table shows the reconciliation from borrowings within Table 1C to borrowings in Table 1E.

	£m	
Borrowings – current	(647.906)	Table 1C Line 15
Borrowings – non current	(7,449.183)	Table 1C Line 22
Borrowings (Table 1C)	**(8,097.089)**	IFRS measurement basis
Remove fair value movements	466.959	
Remove bond discount	(2.798)	
Remove interest accrued on FVO debt	2.702	
Borrowings (Table 1E)	**(7,630.226)**	Table 1E Line 1 Notional value basis

Table 2D - Historic cost analysis of tangible fixed assets

Lines 4 and 9 of Table 2D 'Adjustments' includes reclassifications of assets between price controls. These reclassifications have mainly occurred due to data cleanse activities performed in the year to ensure assets are correctly allocated as per RAG 4.08.

Table 2E - Analysis of 'grants and contributions' and land sales

An opening balance adjustment of £18.6m has been made to Line 16 'Brought forward capitalised grants and contributions' to reconcile to the deferred income position in Table 1C. This uplift is to reflect the change in accounting treatment of grants and contributions following the adoption of IFRS15 which came into effect on 1 April 2018.

Financial flows (Table 1F)

Introduction

Table 1F presents financial flows for 2018/19 and for the 4-year cumulative position 2015/16-2018/19, calculated as the simple average of the 4 years. The figures are presented both as a % of notional regulatory equity and as a % of actual regulatory equity. The table also shows the £ million equivalents and these values are all presented in 2012/13 prices.

The following narrative focuses on the actual return %'s on the actual regulatory equity, being most aligned to actual shareholder returns. There will be differences between the actual and notional returns where actual equity is different from Ofwat's assumed regulatory equity of 37.5% (or assumed gearing of 62.5%). However, since UUW's actual gearing across the 4-years (averaging 63.2%), and for 2018/19 (64.8%) is only slightly higher than Ofwat's assumed notional gearing (62.5%), the actual return % on each sub-measure will only be slightly higher than the notional return.

Line 1 – Return on regulatory equity – 2018/19 Actuals: 5.52%; Cumulative: 5.55%

The notional base case return on regulatory equity (RORE) assumed in the PR14 (Price Review) final determination (FD) was 5.63%. As per the line definition, the business retail margin assumed in the base case RORE of 0.11% has been removed, following the transfer of the non- household retail business to the Water Plus joint venture on 1 June 2016. This results in a net return on regulatory equity of 5.52% for 2018/19 and 5.55% for the 4-year period 2015/16-2018/19.

Line 2 – Actual performance adjustment 2010-15 – 2018/19 Actuals: +0.61%; Cumulative: +0.72%

This line represents out/(under) performance adjustments in relation to the 2010-15 regulatory period, adjusted through companies revenues within the PR14 FD. The 2010-15 performance adjustment received through revenues in 2018/19 was +£22.1m, with an average over the 4-year cumulative period of +£26.1m. The two main contributors to the overall net positive adjustments were opex incentive allowances (due to outperformance of the operating cost allowance across 2010-15) and the 2010-15 Revenue Correction Mechanism (where actual revenues received were less than forecast due to volume falls across 2010-15).

Line 5 – Gearing – 2018/19 Actuals: +0.23%; Cumulative: +0.06%

This line represents the impact on the adjusted allowed return (i.e. line 1 plus line 2 above) due to a company's actual gearing structure. As mentioned in the introduction above, UUW's gearing has been marginally higher than Ofwat's assumed notional gearing of 62.5% for 2018/19 actuals (64.8%) and on a cumulative basis (63.2%). Since Ofwat's allowed cost of debt (2.59% real) is less than the allowed cost of equity (as per lines 1&2 above), this results in an increase in actual return compared to notional. This effect is larger for 2018/19 than the cumulative position due to its higher gearing position.

Line 6 – Variance in corporation tax – 2018/19 Actuals: +0.08%; Cumulative: +0.29%

This line compares the amount allowed for corporation tax in the PR14 FD to a tax charge calculated as per the table below, in accordance with the line definition:

	2018/19 Actuals £m	2015/16-2018/19 Average £m
Corporation Tax as per PR14 FD (12/13 prices)	**43.7**	**42.7**
Appointed profit before tax and fair value movements (out-turn)	373.3	364.7
Tax payable at standard rate of corporation tax (out-turn) (20% to 2016/17, 19% from 2017/18)	70.9	71.1
Plus or minus accelerated or deferred capital allowances (out-turn)	-26.4	-31.1
Plus or minus prior year adjustments (out-turn)	2.9	-4.0
Adjusted tax payable (out-turn)	**47.4**	**36.0**
Adjusted tax payable (12/13 prices)	**40.9**	**32.5**
Variance (12/13 prices)	**2.8**	**10.2**
% of actual regulatory equity	**0.08%**	**0.29%**

Overall, this shows a small tax outperformance of 0.08% for 2018/19 and 0.29% cumulative. The main contributors to tax outperformance have been higher capital allowances received than assumed at the PR14 FD (with UUW's accelerated capital programme), zero profits from the non-household business following its disposal in 2016 and a small reduction in the rate of corporation tax (from 20% assumed to 19% from 2017/18). This has been largely offset by tax underperformance resulting from the actual interest charge being lower than the notional amount assumed in the price limit calculations.

Line 7 – Group relief – 2018/19 Actuals: nil; Cumulative: nil

Whilst UUW has utilised losses surrendered from other group companies during the 4-year cumulative period (albeit no relief in 2018/19), it has always been charged for these at the value of the group relief. As such, there is no financial benefit to this and thus, in line with the RAG definition, this is reported as nil.

Line 8 – Cost of debt – 2018/19 Actuals: +2.62%; Cumulative: +1.51%

The actual real interest paid used to calculate overall financing outperformance (i.e. sum of lines 8 and 9) has been calculated using UUW's net interest expense plus interest paid/received on swaps. As the table below shows, this is then divided by actual net debt to derive a net interest rate. This rate is then compared to Ofwat's allowed cost of debt (2.59%) plus average RPI in the year to derive a debt outperformance number (shown as 'c)' in the table below. This is then multiplied by UUW's actual gearing positon and adjusted for corporation tax to derive a cost of debt outperformance number, also presented as a % of actual regulatory equity. This has been calculated as 3.35% for 2018/19 actuals and 1.99% for the cumulative 4 year position.

	2018/19 Actuals £m	2015/16-18/19 Average £m
a) Net interest paid including derivatives (£m)	246.3	247.3
b) Average Net Debt (£m)	7,258.4	6,719.4
Net interest rate (%)	3.39%	3.68%
Average RPI (%)	3.06%	2.50%
Allowed cost of debt in the PR14 final determination (%)	2.59%	2.59%
c) Debt outperformance (%)	**2.25%**	**1.41%**
d) x Average RCV (£m 12/13 prices)	9,733.3	9,631.4
e) x Average actual gearing rate (%)	64.77%	63.17%
f) Adjusted for Corporation Tax (20% to 2016/17, 19% from 2017/18)	19.00%	19.50%
Cost of debt outperformance (£m 12/13 prices)	**115.0**	**70.4**
Cost of debt outperformance (% of regulatory equity)	**3.35%**	**1.99%**
Split by:		
Net interest excluding swaps (Line 8)	**2.62%**	**1.51%**
Interest of swaps (Line 9)	**0.73%**	**0.48%**

Financing outperformance is mainly attributable to the embedded cost of debt UUW has locked in at lower rates than Ofwat's PR14 FD assumed cost of debt. Ofwat's assumed cost of debt was based on a water industry average and under the regulatory model companies with below average debt can expect to outperform on financing.

UUW's debt predominantly comprises a mix of index-linked debt and fixed rate debt. UUW's index-linked debt is locked-in at an average real rate of 1.3%, locking in outperformance vs. the PR14 FD cost of debt allowance of 2.59%. Inclusive of all hedging derivatives, UUW's fixed rate debt is locked-in at a rate of 3.2% nominal. The level of outperformance fluctuates depending on out-turn RPI, with outperformance higher in years of higher RPI. However, with average RPI running at c2.5% over the 4-year cumulative period, this debt has also generated financing outperformance. New debt raised efficiently, coupled with the continuing relatively low market interest rates has also enabled UUW to generate additional financing outperformance from new debt raised over the last 4 years. The continuing low relative market interest rates will be factored into the PR19 FD and so we would expect financing outperformance to be considerably lower for the next regulatory period from 2020/21.

The overall cumulative position (1.99%) is slightly lower than the 2018/19 actual position (3.35%), mainly reflecting a lower average RPI (2.50%) compared to 2018/19 alone (3.06%), with a resultant reduction in outperformance on UUW's nominal debt, as well as additional outperformance generated on new debt raised across the period.

The total outperformance relating to hedging instruments (see line 9 below) is deducted from total cost of debt outperformance to derive a cost of debt outperformance excluding swaps of 2.62% for 2018/19 and 1.51% cumulative, as reported on line 8.

Note that the line 8 cumulative cost of debt 'Actual returns and notional regulatory equity' column value of £53.463m has been set to equal the 'Actual returns and actual regulatory equity' column in order to be consistent with the way the 2018/19 actual position template is setup.

Line 9 – Hedging instruments – 2018/19 Actuals: +0.73%; Cumulative: +0.48%

This line shows the impact on financing outperformance of our interest rate and cross-currency swap derivatives. Since market interest rates have, on average, reduced from the time of issuance to market rates at the reporting date, our overall swaps are in a net asset position (as can be seen in Table 1C) and have generated net cash inflows for all 4 years from 2015/16 to 2018/19.

Line 11 – Totex out / (under) performance – 2018/19 Actuals: -1.51%; Cumulative: -0.52%

This line shows totex out/(under) performance versus the amount allowed in the PR14 FD, adjusted for timing differences and presented net of the customer sharing ratio. Whilst we have incurred significantly more wholesale totex in the first four years of the AMP6 period than was assumed in the FD, this has been impacted by the acceleration of spend in the period which has been adjusted for in this metric.

Considering the whole AMP6 view, on a like-for-like basis, we are expecting to outperform the allowed totex by c£100m. However, this ignores the additional c£250m of resilience spend forecast over the AMP, c£100m of planned 'flying start' investment for 2019/20 as well as atypical costs incurred in 2018/19 of £70.9m (split by £65.7m Dry weather event and £5.2m Pension GMP charge).

We have profiled the c£100m underlying outperformance as well the c£250m resilience spend as being spread equally over the final three years of the AMP from 2017/18 to 2019/20 and thus c£50m net overspend has been built into the 2017/18 and 2018/19 reported numbers. As the c£100m flying start spend solely relates to 2019/20, it does not impact on the reported numbers. 2018/19 also includes additional atypical spend of £70.9m. Net of the customer share (c50% water, c49% wastewater), this results in a reported RORE overspend of 1.51% in 2018/19 and 0.52% on a cumulative 4-year position. Note that this totex spend profiling is consistent with totex presented in RORE, albeit the RORE totex numbers are lower since they are presented net of tax.

Line 12 – ODI out / (under) performance – 2018/19 Actuals: +0.56%; Cumulative: +0.15%

This line shows the actual out/(under) performance of Outcome Delivery Incentives (ODIs) accrued in the year. In 2018/19 we delivered our best annual performance against ODIs resulting in a net reward of £19.2m (equating to +0.56% of regulatory equity), reflecting great operational performance across the board. The total AMP6 ODI reward of £21.4m averages out to derive a +0.15% return on regulatory equity. Note that the ODI numbers are consistent with those reported within RORE.

Line 13 – Retail out / (under) performance – 2018/19 Actuals: -0.20%; Cumulative: -0.07%

Line 13 represents the difference between PR14 FD allowed retail costs for both household and non-household costs and actual costs incurred. The non-household allowance has been excluded following the disposal of UUW's non-household activities in 2016. Overall, costs incurred in household retail have been slightly higher than the FD allowance and in particular for 2018/19, impacted by the increasingly challenging FD allowance. 2018/19 also includes £0.3m of atypical costs relating to the Pension GMP charge. Note that retail spend is consistent with that presented in RORE, albeit the RORE retail numbers are lower since they are presented net of tax.

Line 14 – Other exceptional items – 2018/19 Actuals: nil; Cumulative: nil

This line is defined as exceptional items that are outside normal operating activities i.e. the profit or loss on disposal of the Retail non-household part of the business. Our non-household business disposal in 2016 resulted in no profit/loss on disposal being realised in UUW and hence this line is reported as nil.

Line 16 – Total earnings – 2018/19 Actuals: 8.64%; Cumulative: 8.18%

Total earnings represents the sum of the above lines and represents the actual real return.

Line 17 – RCV growth from RPI inflation – 2018/19 Actuals: 3.06%; Cumulative: 2.50%

This line shows the average RPI for the period as published by the ONS.

Line 18 – Total shareholder return – 2018/19 Actuals: 11.69%; Cumulative: 10.68%

This line adds average inflation in the year (line 17) to the real earnings (line 16) to represent the actual nominal return.

Line 19 – Net dividends Actuals: 9.36%; Cumulative: 7.02%

This line reports gross dividends (line 21) less interest received on intercompany loans (line 22). Gross appointed dividends for 2018/19, as reported in Table 1A, was £372.1m. This dividend amount consists of a base return of 5% of the equity portion of UUW's shadow RCV plus distributed outperformance as split-out in the 'Dividends paid to associated undertakings' note on page 183. Gross dividends for 2018/19 was higher than average for the AMP, since it included outperformance (mainly financing) covering multiple years, now distributed since we have more certainty as we approach the end of the 5-year regulatory period. Over the 4-year period to 2018/19, average dividends paid have been just under 7% of regulatory equity, representing a 5% base return plus just under 2% distributed outperformance.

UUW has one inter-group intercompany loan of £40m to United Utilities PLC. This has resulted in interest income in UUW of c£0.3-£0.4m each year (equivalent to 0.01% of regulatory equity) which is netted from gross dividends to derive net dividends in line 19.

Line 20 – Retained value – 2018/19 Actuals: 2.33%; Cumulative: 3.66%

This line shows the nominal return (line 18) less the net dividends paid (line 19) to represent the value retained in the business post-dividend. Despite the sharing of outperformance through dividends, the retained value is still well above zero both for 2018/19 and on a cumulative basis.

Return on regulatory equity (Table 4H)

The notional base case RORE that was assumed in the PR14 final determination was 5.63%. The reported RORE position across 2015/16, 2016/17, 2017/18 and 2018/19 (taken as the simple average of the four years) was 7.36% with the breakdown of this position shown in the table below.

When reading the following table, it should be noted that comparisons between the base case and reported RORE can be misleading; the reported numbers reflects the UUW actual company-specific position (in line with Ofwat's reported RORE definition) whereas the base case return in the FD is based on a theoretical, efficient company with a notional capital structure and a notional cost of debt.

	2015/16	2016/17	2017/18	2018/19	2015/16-18/19 Average	Narrative
Base case RORE as per FD	5.63%	5.63%	5.63%	5.63%	5.63%	
Remove business retail margin	0.00%	(0.09%)	(0.11%)	(0.11%)	(0.08%)	1
Adjusted base case RORE	**5.63%**	**5.54%**	**5.52%**	**5.52%**	**5.55%**	
Totex out / (under) performance	-	-	(0.49%)	(1.15%)	(0.41%)	2
Retail out/ (under) performance	(0.02%)	(0.08%)	0.02%	(0.15%)	(0.06%)	3
Outcome delivery incentives	0.07%	0.19%	(0.19%)	0.53%	0.15%	4
SIM	-	-	-	0.40%	0.10%	5
Financing outperformance	0.62%	1.61%	2.81%	3.05%	2.03%	6
Reported RORE	**6.30%**	**7.26%**	**7.67%**	**8.20%**	**7.36%**	

Narrative:

1. The business retail margin assumed in the base case RORE has been removed following the transfer of the non-household retail business to the Water Plus joint venture on 1 June 2016. This is aligned to the allowed return on regulatory equity reported in Table 1F line 1.
2. Whilst we have incurred significantly more wholesale totex in the first four years of the AMP6 period than was assumed in the FD, this has been impacted by the acceleration of spend in the period which is adjusted for in this metric. Considering the whole AMP6 view, on a like-for-like basis, we are expecting to outperform the allowed totex by c£100m. However, this ignores the additional c£250m of resilience spend forecast over the AMP, c£100m of planned 'flying start' investment for 2019/20 as well as atypical costs incurred in 2018/19 of £70.9m (split by £65.7m Dry weather event and £5.2m Pension GMP charge). We have profiled the c£100m underlying outperformance as well the c£250m resilience spend as being spread equally over the final three years of the AMP from 2017/18 to 2019/20 and thus c£50m net overspend has been built into the 2017/18 and 2018/19 reported numbers. As the c£100m flying start spend solely relates to 2019/20, it does not impact on the reported numbers in the above table. 2018/19 also includes additional atypical spend of £70.9m.
3. Costs incurred in household retail have been slightly higher than the FD allowance and in particular for 2018/19, impacted by the increasingly challenging FD allowance. 2018/19 also includes £0.3m of atypical costs relating to the Pension GMP charge.
4. Net ODI reward of £2.5m in 2015/16, £6.7m reward in 2016/17, £7.0m penalty in 2017/18 and £19.2m reward in 2018/19.
5. The SIM out/(under) performance payment is based on a 4 year average from 2015/16-2018/19. In 2018/19, as we reach the end of the assessment period and given our continuing improvement in performance, we have forecast a SIM reward of £14.7m (12/13 prices). This estimate is based on our forecast of other companies' SIM results for 2018/19 (not yet published) and assumes that Ofwat apply the same methodology to its true-up calculation as in the previous AMP.
6. The actual real interest rate has been calculated based on UUW's regulatory average net debt for 2017/18 and 2018/19 and using average RPIs for these years. The 2015/16 and 2016/17 rates were calculated based on UUW's statutory net debt (which includes all derivatives) which, prior to the change in reporting of preference shares from 2017/18 (see page 167), provided a better presentation of net debt. Higher financing outperformance in 2017/18 and 2018/19 vs. prior years is mainly due to higher out-turn RPI resulting in increased outperformance on nominal debt. Financing outperformance has also increased throughout the 4-year period as new debt has been raised at lower relative rates. Ofwat's base case RORE was based on a theoretical, efficient company with a notional capital structure and a notional cost of debt. This means that the values are not directly comparable.

New connections (Table 2K)

We understand that the purpose of Table 2K is to show how the money companies receive from developers to fund wider network reinforcement works, as a result of their new connections putting additional demand on existing water mains and sewers, compares to the actual costs incurred.

Table 2K compares revenues gross of developer discounts (line 5) to costs (line 6) to present a variance and in line with the RAGs we have completed the table on this basis. However, it is the revenue net of discounts which is relevant when considering how infrastructure revenues compare to costs.

We offer discounts to developers for efficient water usage or where properties are built with no surface water connection to the public sewer. Where developers adopt these sustainable developments it places less demand on our network which reduces our spend on infrastructure network reinforcement. Likewise, where developers do not adopt the sustainable solutions it places greater demand on our network, which means we have to spend more on infrastructure network reinforcement. The overall aim being that our net developer charges recover our expected net infrastructure network reinforcement costs and hence there is a net nil totex impact. This ensures that existing customers are not funding infrastructure network reinforcement due to new developments.

As outlined above, since costs are presented net of the impact of sustainable developments in the table, and in line with how our actual charges are set, they should be compared to revenues also on a net basis. This is shown in the table below for 2018/19.

Comparison of revenue and costs	Water £m	Wastewater £m	Total £m
Revenue (net of discounts applied)	11.311	11.420	22.731
Costs	(6.253)	(8.094)	(14.347)
Variance carried forward	**5.058**	**3.326**	**8.384**

Overall, we have recovered £5.058m more costs than revenues in water and £3.326m more in wastewater in the year due to:

- £7.5m higher revenue due to more than expected volumes of properties connected (£4.5m higher in water and £3.0m higher in wastewater), c9,000 more properties were connected in the year than forecast, driven by some significant apartment developments in and around major cities; and
- £0.9m lower infrastructure network reinforcement spend compared with forecast due to the timing of schemes being delivered (£0.6m lower in water and £0.3m lower in wastewater).

Tax strategy

Consistent with our wider business objectives, we are committed to acting in a responsible manner in relation to our tax affairs.

Our tax policies and objectives, which are approved by the board on an annual basis, ensure that we:

- only engage in reasonable tax planning aligned with our commercial activities and we always comply with what we believe to be both the letter and the spirit of the law;
- do not engage in marketed, aggressive or abusive tax avoidance;
- do not use tax havens for tax avoidance purposes;
- are committed to an open, transparent and professional relationship with HMRC based on mutual trust and collaborative working; and
- maintain a robust governance and risk management framework to ensure that these policies and objectives are fully complied with and applied at all levels.

We expect to fully adhere to the HMRC framework for co-operative compliance.

Our Chief Financial Officer ("CFO") has responsibility for tax governance with oversight from the board. The CFO is supported by a specialist team of tax professionals with many years of tax experience within the water sector and led by the Head of Tax. The Head of Tax has day-to-day responsibility for managing the company's tax affairs and engages regularly with key stakeholders from around the company in ensuring that tax risk is proactively managed. Where appropriate, he will also engage with both external advisers and HMRC to provide additional required certainty with the aim of ensuring that any residual risk is typically low. All significant tax issues are reported to the board regularly.

Consistent with the company's general risk management framework, all tax risks are assessed for the likelihood of occurrence and the negative financial or reputational impact on the company and its objectives, should the event occur. In any given period, the key tax risk is likely to be the introduction of unexpected legislative or tax practice changes which lead to increased cash outflow which has not been reflected in the current regulatory settlement. The company is committed to actively engaging with relevant authorities in order to actively manage any such risk.

In any given year, the company's effective cash tax rate on underlying profits may fluctuate from the standard UK rate due to the available tax deductions on capital investment and pension contributions. These deductions are achieved as a result of utilising tax incentives, which have been explicitly put in place by successive governments precisely to encourage such investment. This reflects responsible corporate behaviour in relation to taxation.

Under the regulatory framework the company operates within, the majority of any benefit from reduced tax payments will typically not be retained by the company but will pass to customers; reducing their bills. For 2018/19, the impact of tax deductions on capital investment alone reduced average household bills by around £25.

United Utilities Water Limited operates solely in the UK, and its customers are based here and all of the company's profits are taxable in the UK.

Every year, the company pays significant contributions to public finances on its own behalf as well as collecting and paying over further amounts for its 5,000 strong workforce. Details of the total payments for 2019 of around £240m are set out below;

- Business rates – £95m
- Corporation tax - £28m
- Employment taxes: company - £23m
- Employment taxes: employees - £50m
- Environmental taxes and other duties - £17m
- Regulatory services fees (e.g. water extraction charges) - £28m

We expect the above details, which apply for the year ended 31 March 2019, to fully comply with the new legislative requirements for "Publication of Group Tax Strategies" for UK groups.

Current tax reconciliation

	£m
Profit on ordinary activities before tax and fair value movements as per Table 1A line 9	**373.3**
Multiplied at the standard rate of corporation tax of 19%	70.9
Capital allowances in excess of depreciation	(25.2)
Adjustment in respect of prior years	(2.9)
Net non-deductible expenses	1.2
Pension deductions	(7.9)
Fair value movements	(0.3)
Other timing differences	1.8
Appointed current tax charge per Table 1A line 12	**37.6**

Following the October 2018 Chancellor's Budget the current tax charge will increase from 2019/20 onwards principally due to the reduction in the rate of capital allowances from 8% to 6%, affecting the company's historic and future infrastructure spend.

Reconciliation of significant variations between the appointed current tax charge or credit reported in line 1A.12 to the total current tax charge allowed in price limits:

	£m	Commentary
Current tax charge allowed in price limits	**57.7**	
Adjustment in respect of prior years	(2.9)	The adjustment arises following the submission of the tax computations and mainly relates to a net increase in capital allowance claims
Pension deductions	(4.6)	The tax impact of the increase in pension deductions compared to the figures in the Financial Determination
Net decrease in profit before tax and depreciation	(3.7)	The tax impact of the decrease in profit before tax and depreciation compared to the figures per the Final Determination
Fair value movements	1.0	Non-taxable interest, currency and electricity swaps
Financing adjustments	7.4	The actual interest charge is lower than the notional amount assumed for price limit calculations
Increase in capital allowances/other	(11.3)	The increase in capital allowances is mainly due to the cumulative increase in capital expenditure
Reduction in tax rate from 20% to 19%	(2.8)	Impact of the corporation tax rate change
Non-household Retail tax allowance	(3.2)	Impact of the disposal of the Non-household business
Appointed current tax charge per Table 1A line 12	**37.6**	

Long term viability statement

The directors have assessed the viability of UUW, taking account of UUW's current position, the potential impact of the principal risks facing the business in severe but reasonable scenarios, and the effectiveness of any mitigating actions. This assessment has been performed in the context of UUW's prospects as considered over the longer term. Based on this viability assessment, the directors have a reasonable expectation that the company will be able to continue in operation and meet its liabilities as they fall due over the seven year period to March 2026.

Basis of assessment

The long-term planning detailed on page 44 of the UUW statutory accounts assesses the company's prospects and establishes its strategy over a 25-year time horizon consistent with its rolling 25-year licence and its published long-term strategy. This provides a framework for the company's strategic planning process, and is key to achieving the company's aim of providing the best service to customers at the lowest sustainable cost and in a responsible manner over the longer term, underpinning our business model set out on pages 19 to 33 of the UUW statutory accounts.

In order to achieve this aim and promote the sustainability and resilience of the business, due consideration is given to the management of risks over the long-term that could impact on the business model, future performance, credit ratings, solvency and liquidity of the company. An overview of our risk management approach that supports the company's long-term planning and prospects, together with the principal risks and uncertainties facing the business, can be found on pages 62 to 73 of the UUW statutory accounts. This approach considers the full range of categories of risk that could impact the company, such as financial, operational and regulatory risks. In addition, consideration is given to the adequacy of workforce policies and practices, all liabilities including pension liabilities, any exposure to revenue variations, and expectations of future performance taking account of past performance in delivering for customers.

The viability assessment is performed on a standalone basis in relation to UUW. UUW is part of the United Utilities group. The regulated activities of the company represent 98% of the value of the United Utilities group as a whole, which taken together with the financial resources and interests of the regulated business being robustly ring-fenced, means there is minimal risk from the non-regulated activities.

Fundamental assumption

This viability statement is based on the fundamental assumption that the current regulatory and statutory framework does not substantively change, for example a change that facilitated the compulsory purchase of the shares or assets of either UUW or it's ultimate parent, United Utilities Group PLC (UUG) for the Renationalisation of the water sector.

Viability assessment: resilience of the company

The viability assessment is based upon the company's medium-term business planning process, which sits within the overarching strategic planning process and considers:

- **the company's current liquidity position** – with £890m of available liquidity at March 2019 covering funding requirements through to late 2020, this provides a significant buffer to absorb short-term cash flow impacts.
- **the company's robust capital solvency and credit rating positions** - with a debt to regulatory capital value (RCV) ratio[(1)] of around 64 per cent, a robust pension position and current credit ratings of A3/A-/A- with Moody's, S&P and Fitch[(2)] respectively, this provides considerable headroom supporting access to medium-term liquidity where required.
- **the company's expected performance, underpinned by its historical track-record** - Ofwat's Initial Assessment of Plans, published in January 2019, scored the company's business plan the highest across the industry and has given good early visibility of expected cash flows for the 2020-25 period.
- **the current regulatory framework within which the company operates** - which provides a high degree of cash flow certainty over the regulatory period and the broader regulatory protections outlined below.

UUW has a proven track-record of being able to raise new forms of finance in most market conditions, and expects to continue to do so into the future. This is despite the likely inability to secure future EIB funding should the UK exit from the EU.

(1) Debt to RCV gearing is calculated based on UUW's shadow RCV

(2) Fitch rate UUW's senior, unsecured debt as A-. Note that they rate the corporate entity of UUW one notch lower at BBB+, as reported in Table 4H line 9

From a regulatory perspective, the company benefits from a rolling 25-year licence and a regulatory regime in which regulators – including the economic regulator, Ofwat – are required to have regard to the principles of best regulatory practice. These include that regulation should be carried out in a way that is transparent, accountable, proportionate, consistent and targeted. Ofwat's primary duties provide that it should protect consumers' interests, by promoting effective competition wherever appropriate; secure that the company properly carries out its statutory functions; secure that the company can finance the proper carrying out of these functions – in particular through securing reasonable returns on capital; and secure that water and wastewater supply systems have long-term resilience and that the company takes steps to meet long-term demands for water supplies and wastewater services.

In addition, from an economic perspective, given the market structure of water and wastewater services, threats to the company's viability from risks such as reduced market share, substitution of services and reduced demand are low compared to those faced by many other industries.

Viability assessment: resilience to principal risks facing the business

The directors have assessed UUW's viability based on the resilience of the company and its ability to absorb a number of 'severe but reasonable' scenarios, derived from the principal risks facing the company, as set out on pages 62 to 73 of the UUW statutory accounts. Such risks include: environmental risks such as the occurrence of extreme weather events; political and regulatory risks; the risk of critical asset failure; significant cyber security breaches; and the potential for a restriction to the availability of financing resulting from a capital markets crisis. Specifically in relation to a "no deal" Brexit scenario, whilst this may have adverse operational and financial impacts on the company, this risk does not represent a significant risk to the ongoing viability of the company.

Based on these risks, the following largest impacting scenarios were identified:

- The individual scenarios modelled assumed a totex underperformance of 10%, inflation of 2% RPI/1% CPIH, an increase in bad debt of £10m per annum and an ODI penalty of 0.8% RORE - for each year of the viability period - and a one-off £500m totex impact in relation to one year of the viability period.
- The combined scenario modelled assumed a totex underperformance of 5%, inflation of 2% RPI/1% CPIH, an increase in bad debt of £10m per annum and an ODI penalty of 0.8% for each year of the viability period.

These scenarios are similar to the 'common scenarios' prescribed by Ofwat for PR19, but reflect 'severe but reasonable' company specific scenarios that take account of risk mitigation strategies.

The assessment has considered the impact of these scenarios on the company's business model, future performance, credit ratings, solvency and liquidity over the course of the viability assessment period. This assessment has demonstrated the company's ability to absorb the impact of all severe but reasonable scenarios modelled, without the need to rely on the key mitigating actions detailed below.

As part of the assessment, reverse stress testing of extreme theoretical scenarios has been performed to understand the headroom in the company's ability to absorb all severe but reasonable scenarios.

Viability assessment: key mitigating actions

In the event of more extreme but low likelihood scenarios occurring, there are a number of key mitigations available to the company, the effectiveness of which are underpinned by the strength of the company's capital solvency position.

As well as the protections that exist from the regulatory environment within which the company operates, a number of actions are available to mitigate more severe scenarios, which include: the raising of new finance; capital programme deferral; the close out of derivative asset positions; the restriction of dividend payments; and access to additional equity.

Extending the viability period to seven years

Recognising the company's expected performance underpinned by its historical track-record, Ofwat's positive assessment of its 2020-25 business plan which was awarded fast-track status and the protections provided by the regulatory framework, the board considers it appropriate to extend the viability statement to cover a seven year period.

In determining this period, the board had regard for the increasing level of uncertainty as the duration of the assessment period is extended and the desire to maintain a robust viability assessment.

Governance

The analysis underpinning this assessment has been through a robust internal review process, which has included scrutiny and challenge from the audit committee and board, and has been reviewed by the company's external auditors, KPMG, as part of their normal audit procedures.

Going concern

The directors also considered it appropriate to prepare the financial statements on the going concern basis, as explained in the basis of preparation paragraph in the accounting policies of the UUW statutory accounts.

Information in respect of transactions with any other business or activity of the appointee or any associated company

To the best of their knowledge, the directors of the company declare that all appropriate transactions with associated companies have been disclosed and material transactions with associated companies are at arm's length and no cross-subsidy has occurred. The materiality level of transactions used for reporting is 0.5 per cent of turnover.

Borrowings and loans

The following loans from associated companies existed at 31 March 2019:

	£m	Interest rate	Repayment date
United Utilities PLC: overdraft facility	12.416	0.5%+LIBOR	On demand
United Utilities PLC: £294.0 million loan	283.613	0.175%+LIBOR	18 months notice
United Utilities PLC: £300.0 million loan	100.000	0.175%+LIBOR	Amortising until August 2020
United Utilities Water Finance PLC: GBP Notes 2.0% 2025	456.666	2.000%	February 2025
United Utilities Water Finance PLC: GBP 0.013% RPI Bond 2025	27.592	0.013%+RPI	April 2025
United Utilities Water Finance PLC: HKD Notes 2.867% 2026	32.253	2.867%	January 2026
United Utilities Water Finance PLC: HKD Notes 2.92% 2026	74.891	2.920%	February 2026
United Utilities Water Finance PLC: EUR Notes 1.129% 2027	46.007	1.129%	April 2027
United Utilities Water Finance PLC: HKD Notes 2.37% 2027	82.036	2.370%	October 2027
United Utilities PLC: USD $400.0 million bond	373.941	6.875%	August 2028
United Utilities Water Finance PLC: GBP 0.01% RPI Bond 2028	23.245	0.01%+RPI	September 2028
United Utilities Water Finance PLC: GBP 0.178% RPI Bond 2030	38.611	0.178%+RPI	April 2030
United Utilities Water Finance PLC: EUR Notes 2.058% 2030	27.873	2.058%	October 2030
United Utilities Water Finance PLC: GBP Notes 2.625% 2031	252.983	2.625%	February 2031
United Utilities Water Finance PLC: HKD Notes 2.9% 2031	56.251	2.9%	June 2031
United Utilities Water Finance PLC: EUR Notes 1.641% 2031	26.367	1.641%	June 2031
United Utilities Water Finance PLC: GBP 0.245% CPI Bond 2031	20.978	0.245%+CPI	December 2031
United Utilities Water Finance PLC: GBP 0.01% RPI Bond 2031	43.336	0.01%+RPI	December 2031
United Utilities Water Finance PLC: EUR Notes 1.707% 2032	26.052	1.707%	October 2032
United Utilities Water Finance PLC: EUR Notes 1.653% 2032	23.714	1.653%	December 2032
United Utilities Water Finance PLC: EUR Notes 1.70% 2033	27.902	1.700%	January 2033
United Utilities Water Finance PLC: GBP 0.01% RPI Bond 2036	32.266	0.01%+RPI	September 2036
United Utilities Water Finance PLC: GBP 0.379% CPI Bond 2036	20.960	0.379%+CPI	December 2036
United Utilities Water Finance PLC: GBP 0.01% RPI Bond 2036	33.181	0.01%+RPI	December 2036
United Utilities Water Finance PLC: GBP 0.093% CPI Bond 2037	62.499	0.093%+CPI	February 2037
United Utilities Water Finance PLC: GBP 0.359% CPI Bond 2048	32.944	0.359%+CPI	October 2048
United Utilities Water Finance PLC: GBP 0.387% CPI Bond 2057	33.622	0.387%+CPI	October 2057
United Utilities North West Limited: preference shares	130.000	7.0%	October 2099

The following loans to associated companies existed at 31 March 2019:

	£m	Interest rate	Repayment date
United Utilities PLC: £40.0m loan	40.000	0.5%+LIBOR	1 months notice
Water Plus Ltd: £100.0m revolving credit facility*	100.000	1.475% +LIBOR	September 2020

*This revolving credit facility is guaranteed by United Utilities PLC

Dividends paid to associated undertakings

During 2018/19, interim dividends were paid to the parent company, United Utilities North West Limited, totalling £375.6 million (2018: £316.7 million).

In line with the dividend policy, dividends paid of £375.6m comprised:

- £219.1m base return of 5% of the equity portion of the Shadow Regulatory Capital Value:
- £3.5m estimated non-appointed profits for 2018/19
- £153.0m distributed outperformance

Guarantees by the appointee

A financing subsidiary of United Utilities Water Limited (UUW), United Utilities Water Finance PLC (UUWF), was set up in 2014/15 to issue new listed debt on behalf of UUW, following UUW's re-registration as a private limited company. Debt instruments issued by UUWF (as listed in borrowing and loans above) have been guaranteed by UUW.

Transfer of assets by or to the appointee

There were no transfers of assets or liabilities by or to the company in 2018/19.

Services supplied to the company by associated companies

Nature of transaction	Company	Turnover of associate £m	Terms of supply	2019 Total value of goods, work or services £m
Employment costs	UU PLC	-	Recharge of costs	17.599
Share-based payments recharge	UU Group PLC	-	Recharge of costs	3.767
Accommodation	UU Property Services	15.816	Contract price	0.118
Purchase of energy	UU Renewable Energy	5.753	Contract price	3.159
				24.643

Services supplied by the company to associated companies

Nature of transaction	Company	Turnover of associate £m	Terms of supply	2019 Total value of goods, work or services £m
Employment costs and travel costs	UU Property Services	15.816	Recharge of costs	0.453
Employment costs and travel costs	UU PLC	-	Recharge of costs	0.562
Employment costs and travel costs	UU International Ltd	0.957	Recharge of costs	0.537
Employment costs and travel costs	UU Total Solutions	1.079	Recharge of costs	0.095
Employment costs and travel costs	UU Renewable Energy	5.753	Recharge of costs	1.038
Employment costs and travel costs	UU Utility Solutions (Industrial) Ltd	-	Recharge of costs	0.030
Wholesale water/wastewater charges	Water Plus Ltd	517.147	Contract price	454.402
Wholesale water/wastewater charges	Water Plus Select Ltd	401.110	Contract price	0.378
Programme and TSA charges	Water Plus Ltd	517.147	Recharge of costs	0.170
Business development costs	UU PLC	-	Recharge of costs	0.001
Central services including IT	UU Property Services	15.816	Contract price	0.116
Wastewater treatment services	UUW Ltd (non-appointed)	9.436	Recharge of costs	2.503
Property searches	UUW Ltd (non-appointed)	9.436	Contract price	1.815
				462.100

Corporation tax group relief received/surrendered by the regulated business

The regulated business did not receive or surrender any corporation tax group relief in 2018/19.

Services supplied by the non-appointed business

Service	Basis of recharge made by the appointed business	Value of recharge made by the appointed business £m
Treatment of imported sludge	Nil	-
Treatment of tankered waste	The appointed business recharges the non-appointed business for treating tankered waste at wastewater treatment works. The recharge is calculated using the Mogden formula based on tankered waste volumes and as per RAG 2.07 (section 2.8) the income is recorded as negative expenditure, reducing appointed operating expenditure.	2.393
Other	The appointed business recharges the non-appointed business for the use of operating systems consumed directly in the performance of non-appointed activities. This is calculated based on the frequency and proportion of system use.	1.631

Statement of directors' remuneration and standards of performance

All directors of United Utilities Water Limited (UUW) are also directors of UUG. Further remuneration details including the policy can be found in the annual report and accounts of UUG.

For the purposes of this disclosure, the company's directors can be split into two categories:

- executive directors of UUW; and
- non-executive directors of UUW.

During the year ended 31 March 2019, the directors have received remuneration linked to levels of performance against service standards in connection with activities subject to price regulation.

Element: purpose and link to strategy	Operation	Opportunity 2018/19	Performance measures
Base Salary			
To attract and retain executives of the experience and quality required to deliver the company's strategy.	Reviewed annually. Executive directors will normally receive a salary increase broadly in line with the increase awarded to the general workforce, with higher increases awarded only where there has been a material increase in: • the size of the individual's role; • the size of the company (through mergers and acquisitions); or • the pay market for directly comparable companies (for example, companies of a similar size and complexity).	Steve Mogford: 1 April 2018 – 31August 2018: £745,000. Increased to £760,000 from 1 September 2018. Russ Houlden: 1 April 2018- 31 August 2018: £470,500. Increased to £480,000 from 1 September 2018. Steve Fraser: 1 April 2018- 31 August 2018: £435,000. Increased to £443,700 from 1 September 2018.	None.
Benefits			
To provide market competitive benefits to help recruit and retain high calibre executives.	Provision of benefits such as health benefits, car allowance, life assurance, group income protection, opportunity to join the ShareBuy scheme, travel and communication costs.	See table on executive directors' remuneration 2018/19 on page 187.	None.
Pension			
To provide a level of benefits that allow for personal retirement planning.	Executive directors are offered the choice of: • a company contribution into a defined contribution pension scheme; or • a cash allowance in lieu of pension; or • a combination of a company contribution into a defined contribution pension scheme and a cash allowance.	All executive directors received a cash allowance of 22% of base salary.	None.

Element: purpose and link to strategy Annual Bonus	Operation	Opportunity 2018/19	Performance measures
To incentivize performance against personal objectives and selected financial and operational KPIs which are directly linked to business strategy. Deferral of part bonus into shares aligns the interests of executive directors and shareholders.	All: • 50% paid as cash. • 50% deferred into company shares under the deferred bonus plan (DBP) for three years. • DBP shares accrue dividend equivalents. • Not pensionable. • Recovery and withholding provisions apply.	Maximum 130% of salary	Payments predominantly based on financial and operational performance, with a minority based on achievement of personal objectives. Targets set by reference to the company's financial and operating plans. Detail is set out in table 2018/19 annual bonus on page 187.
Long Term Plan			
To incentivise long-term value creation and alignment with the long-term interests of shareholders, customers and other stakeholders.	Awards under the Long Term Plan (LTP) are rights to receive company shares, subject to certain performance conditions. Each award is measured over a three year performance period starting at the beginning of the financial year in which awards are granted. An additional two year holding period applies after the end of the three year performance period. Vested shares accrue dividend equivalents. Recovery and withholding provisions apply.	Awards worth 130% of salary	One-third based on total shareholder return (TSR); one-third based on customer service excellence and one-third based on a sustainable dividends performance condition. Any vesting is also subject to the UUG remuneration committee being satisfied that the company's performance on these measures is consistent with underlying business performance.

Non-executive directors

As outlined in the annual report and accounts of UUG, the non-executive Chairman and non-executive directors do not participate in the company's incentive arrangements (i.e. annual bonus or share schemes) and were paid no remuneration linked to water service standards.

How the standards of performance are assessed

Through the annual bonus and long-term incentive schemes, the executive directors receive remuneration linked to the achievement of performance measures which relate to water service standards in order to provide an incentive for them to deliver improvements in those standards.

In determining the outcome of the incentive schemes, standards of performance are assessed by the UUG remuneration committee (the committee) to ascertain whether targets have been achieved. In addition, the committee also considers relevant reports from Ofwat in assessing the achievement of standards of performance.

Executive directors' remuneration 2018/19

	Base salary £'000	Benefits £'000	Cash allowance in lieu of pension £'000	Bonus (1) £'000	Long-term incentives (2) £'000	Total £'000
Steve Mogford	754	28	166	774	547	2,269
Russ Houlden	476	25	105	486	345	1,437
Steve Fraser	440	21	97	452	129	1,139

Note:

(1) 50 per cent of each executive director's bonus was deferred into shares for three years under the Deferred Bonus Plan (DBP)

(2) See page 188 for further detail on the long-term incentives

A recharge of £389,000 during the year ended 31 March 2019 (2018: £354,000) was charged to other companies in the United Utilities group in relation to the provision of executive director services (£338,000 (2018: £305,000)) and non-executive director services (£51,000 (2018: £49,000)).

2018/19 annual bonus

Measure	Steve Mogford		Russ Houlden		Steve Fraser	
	Max. %	Actual %	Max. %	Actual %	Max. %	Actual %
Underlying operating profit	30.0	19.5	30.0	19.5	30.0	19.5
Customer service in year:						
Service Incentive Mechanism – Qualitative	12.0	6.0	12.0	6.0	12.0	6.0
Service Incentive Mechanism – Quantitative	4.0	4.0	4.0	4.0	4.0	4.0
Maintaining and enhancing services for customers:						
Wholesale outcome delivery incentive (ODI) composite	24.0	24.0	24.0	24.0	24.0	24.0
Time, cost and quality of capital programme (TCQi)	20.0	16.0	20.0	16.0	20.0	16.0
Personal objectives	10.0	9.5	10.0	9.0	10.0	9.5
Total as % bonus maximum	**100.0**	79.0	**100.0**	78.5	**100.0**	79.0
Total as % base salary	**130.0**	102.7	**130.0**	102.1	**130.0**	102.7
Total £'000		**774**		**486**		**452**

For each of these bonus measures there was a threshold level of performance which triggered a partial payment of bonus with a sliding scale providing for achievement of up to 100 per cent of the relevant element of bonus.

Long-term incentives

For 2018/19 the performance measures, and achievement against those measures for UUG shares previously granted to UUW executive directors which vested in 2018/19, or whose performance period ended in 2018/19 are summarised below:

Performance measure	Weighting	Estimated achievement
Total Shareholder Return (TSR) over the performance period, relative to the median TSR of FTSE 100 companies (excluding financial services, oil and gas and mining companies)	33.3%	0% out of 33.3% (Actual)
Sustainable dividends. Average underlying dividend cover over the performance period, with a dividend growth underpin	33.3%	33.3% out of 33.3% (Subject to UUG shareholder approval of final dividend at UUG 2019 AGM)
Customer service excellence. Ranking for the year ended 31 March 2018 versus 17 other water companies using Ofwat's SIM combined score	33.3%	26.7% out of 33.3% (Estimated [1])
Total vesting		**60.0%**

Note:

(1) The final outcome for the customer service excellence measure will not be known until Ofwat publishes the combined service incentive mechanism (SIM) score for the company and its comparator water companies (expected to be published in late summer 2019)

Details of the number of shares vesting and value of these shares which vested in 2018/19, or whose performance period ended in 2018/19, are as follows:

Director	Number of shares vesting 2016 LTP [1]	Value of shares vesting £'000 2016 LTP[2]
Steve Mogford	66,297	547
Russ Houlden	41,842	345
Steve Fraser	15,705	129

Note:

(1) The 2016 Long Term Plan (LTP) awards were granted in June 2016. The performance period started on 1 April 2016 and ended on 31 March 2019. The The number and value of the vested 2016 LTP awards in the table above is estimated pending the final outcome of the customer service excellence measure, expected to be published in late summer 2019. Awards granted will normally vest in April 2021, following an additional two-year holding period. The awards accrue dividend equivalents.

(2) The value of the 2016 LTP awards has been calculated by multiplying the number of shares vesting by the average share price over the three month period 1 January 2019 to 31 March 2019 (824.5 pence per share)

Directors' remuneration 2019/20

Directors' remuneration is expected to operate in a broadly similar way for 2019/20 as for 2018/19.

Incentive arrangements will continue to reflect the importance of achieving service standards and performance will again be assessed against a number of key measures including ODIs and customer service.

For the 2019/20 annual bonus the two SIM measures will be replaced by measures based on performance related to Ofwat's new C-MeX approach.

The UUG remuneration committee will be consulting with shareholders regarding the performance conditions for the long-term incentives to be granted in 2019.

CERTIFICATE UNDER PARAGRAPH I17 OF CONDITION I OF THE APPOINTMENTS TO WATER SERVICES REGULATORY AUTHORITY

(1) In the opinion of the directors, United Utilities Water Limited will have available to it sufficient financial resources and facilities to enable it to carry out, for at least the next twelve months, the Regulated Activities (including the investment programme necessary to fulfil the company's obligations under the Appointments);
(2) In the opinion of the directors, United Utilities Water Limited will, for at least the next twelve months, have available to it the management resources and methods of planning and internal control which are sufficient to enable it to carry out those functions; and
(3) In the opinion of the directors, in respect of the wholesale business, all contracts entered into with any associated company include all necessary provisions and requirements concerning the standard of service to be supplied to United Utilities Water Limited, to ensure that it is able to meet all its obligations as a water and sewerage undertaker.

STATEMENT UNDER PARAGRAPH I19 OF CONDITION I OF THE APPOINTMENTS

The directors of United Utilities Water Limited hereby state that, in giving the certificate under paragraph I17 of Condition I of the Appointments, the main factors which they have taken into account are:

- the financial position of the business at 31 March 2019 as represented by the statutory and regulatory accounts;
- projected cash flows as represented by the business plan and budget, treasury funding plan and estimated investment and operational requirements for the Regulated Activities;
- the anticipated managerial resources available; and
- the contract provisions with associated companies.

Approved by the board and signed on its behalf by:

Russ Houlden
Chief Financial Officer
13 June 2019

CERTIFICATE UNDER PARAGRAPH 3.1 OF CONDITION K OF THE APPOINTMENTS

As required in paragraph 3.1 of Condition K of the Licence, the directors state that as at 31 March 2019, had a special administration order been made under Section 23 of the Water Industry Act 1991 in respect of the company, the company would have had available, in their opinion, sufficient rights and assets (not including financial resources) to have enabled the special administrator to manage the affairs, business and properties of the company.

Approved by the board and signed on its behalf by:

Russ Houlden
Chief Financial Officer
13 June 2019

Pro forma tables not subject to KPMG audit opinion

This section of the UUW Annual Performance Report provides a copy of the two sections of the pro-forma tables that Ofwat require all companies to publish, that have not been subject to financial audit opinion.

The information within these tables has been subject to detailed governance and assurance, with the nature and findings of this assurance being set out in Appendix 1 Assurance summary and findings.

The list of data tables is shown below.

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Pro forma tables Section 3 Performance summary

Pro forma 3A Outcome performance table

For the 12 months ended 31 March 2019

Row	Unique ID	Performance commitment	Unit	Unit description	Decimal places	2017-18 performance level - actual (for information)	2018-19 performance level - actual	2018-19 PCL met?	2018-19 outperformance payment or underperformance payment - In-period ODIs (indicator)	2018-19 outperformance payment or underperformance payment - In-period ODIs (£m, to 4 dp)	2018-19 outperformance payment or underperformance payment - ODIs payable at the end of AMP6 (indicator)	2018-19 outperformance payment or underperformance payment - ODIs payable at the end of AMP6 (£m, to 4	31 March 2020 forecast - total AMP6 outperformance payment or underperformance payment (indicator)	31 March 2020 forecast - total AMP6 outperformance payment or underperformance payment (£m, to 4 dp)
1	PR14UUWSW_A1	A1: Drinking Water Safety Plan risk score	score	Drinking Water Safety Plan (DWSP) risk score	1	4.3	4.8	Yes	-	0.0000	-	0.0000	-	0.0000
2	PR14UUWSW_A2	A2: Water quality events DWI category 3 or above	nr	No. water quality events DWI cat 3 or above	0	27	6	Yes	-	0.0000	-	0.0000	Underperformance payment	-2.9800
3	PR14UUWSW_A3	A3: Water Quality Service Index	score	Water Quality Service Index (UU bespoke)	3	98.64549438	101.182	No	-	0.0000	Underperformance payment	-3.6190	Underperformance payment	-14.2491
4	PR14UUWSW_B1	B1: Average minutes supply lost per property (a year)	time	Mins:secs supply lost per property per year	mins:secs	13:09	09:10	Yes	-	0.0000	Outperformance payment	11.2577	Outperformance payment	6.9537
5	PR14UUWSW_B2	B2: Reliable water service index	score	Reliable water service index (UU bespoke)	3	70.827	10:58	No	-	0.0000	Underperformance payment deadband	0.0000	Underperformance payment	-23.9220
6	PR14UUWSW_B3	B3: Security of supply index (SoSI)	score	Security of Supply Index (SOSI)	3	100	100	Yes	-	0.0000	-	0.0000	-	0.0000
7	PR14UUWSW_B4	B4: Total leakage at or below target	nr	Megalitres per day (Ml/d) variance from target	2	9.1	6.7	Yes	-	0.0000	Outperformance payment deadband	0.0000	Outperformance payment	9.1479
8	PR14UUWSW_B5	B5: Resilience of impounding reservoirs	nr	Aggregate (cumulative) reduction in risk	2	165.42	165.721	Yes	-	0.0000	-	0.0000	-	0.0000
9	PR14UUWSW_B6	B6: Thirlmere transfer into West Cumbria	%	% project complete based on earned value tied to milestones	0	24.7	56.68	Yes	-	0.0000	-	0.0000	Outperformance payment	21.6070
10	PR14UUWSW_C1	C1: Contribution to rivers improved - water programme (NEP schemes and abstraction changes at 4 AIM sites)	nr	Kilometres (km) of river improved (cumulative)	1	80.6	50.5	Yes	-	0.0000	Outperformance payment	0.1848	Outperformance payment	0.6110
11	PR14UUWSW_D1	D1: Delivering our commitments to developers, local authorities and highway authorities	%	% of jobs completed within response times	0	94	8903.00%	No	-	0.0000	-	0.0000	-	0.0000
12	PR14UUWSW_E1	E1: Number of free water meters installed	nr	No. of free water meters installed per year	0	36615	32,069	No	-	0.0000	-	0.0000	-	0.0000
13	PR14UUWSWW_S-A1	S-A1: Private sewers service index	score	Private sewers service index (UU bespoke)	2	85	89.27	Yes	-	0.0000	Outperformance payment	7.3760	Outperformance payment	36.8540
14	PR14UUWSWW_S-A2	S-A2: Wastewater network performance index	score	Wastewater network performance index (UU bespoke)	2	86.17	90.75	Yes	-	0.0000	-	0.0000	-	0.0000
15	PR14UUWSWW_S-B1	S-B1: Future flood risk	nr	No. of properties at risk	0	16395	16379	No	-	0.0000	-	0.0000	-	0.0000
16	PR14UUWSWW_S-B2	S-B2: Sewer flooding index	score	Sewer flooding index (UU bespoke)	1	70	61.66	Yes	-	0.0000	Outperformance payment	0.5700	Underperformance payment	-0.9140
17	PR14UUWSWW_S-C1	S-C1: Contribution to bathing waters improved (includes NEP phase 3&4 bathing water intermittent discharge projects)	nr	Bathing water equivalent (BWE)	2	1.49	4.21	Yes	-	0.0000	-	0.0000	-	0.0000
18	PR14UUWSWW_S-D1	S-D1: Protecting rivers from deterioration due to population growth (includes Davyhulme non-delivery penalty)	nr	Kilometers (km) rivers protected from deterioration	1	210.5	322.89	Yes	-	0.0000	-	0.0000	-	0.0000
19	PR14UUWSWW_S-D2	S-D2: Maintaining our wastewater treatment works (includes Oldham and Royton WwTWs special cost factor claims)	score	Maintaining WwTWs index (UU bespoke)	4	30.468	39.1665	Yes	-	0.0000	-	0.0000	Underperformance payment	-4.4000
20	PR14UUWSWW_S-D3	S-D3: Contribution to rivers improved - wastewater programme (includes Oldham, Royton and Windermere)	nr	Kilometres (km) of river improved (cumulative)	2	120.75	178.93	Yes	-	0.0000	Outperformance payment	0.1985	Outperformance payment	0.9031
21	PR14UUWSWW_S-D4a	S-D4a: Wastewater serious (category 1 and 2) pollution incidents	nr	No. of pollution incidents (cats 1 and 2)	0	0	1	Yes	-	0.0000	-	0.0000	-	0.0000
22	PR14UUWSWW_S-D4b	S-D4b: Wastewater category 3 pollution incidents	nr	No. of pollution incidents (cat 3)	0	129	143	Yes	-	0.0000	Outperformance payment	3.2780	Outperformance payment	16.3900
23	PR14UUWSWW_S-D5	S-D5: Satisfactory sludge disposal	%	% satisfactory sludge disposal compliance	2	100	100.00	Yes	-	0.0000	-	0.0000	-	0.0000
24	PR14UUHHR_A-1	A-1: Service incentive mechanism (SIM)	text	Service incentive mechanism (SIM) score ranking	na	86.87388187	87.64	Yes	-	0.0000		0.0000		0.0000
25	PR14UUHHR_R-A2	R-A2: Customer experience programme	£m	£ million cumulative depreciation	3	2.576	5.685	No	-	0.0000	-	0.0000	Underperformance payment	-5.6970
26	PR14UUHHR_B1	B1: Customers saying that we offer value for money	%	% customer satisfaction	0	52	58	Yes	-	0.0000	-	0.0000	-	0.0000
27	PR14UUHHR_B2	B2: Per household consumption	nr	Litres per household per day (l/hh/d)	0	311	314	No	-	0.0000	-	0.0000	-	0.0000

Key to cells:

Input cell

Calculation cell

Please refer to RAG 4.08 - Guideline for the table definitions in the annual performance report for the reporting year 2018-19

Pro forma 3B Sub measure performance table

For the 12 months ended 31 March 2019

Row	Unique ID	PC/sub-measure ID	PC / sub-measure	Unit	Decimal places	2017-18 performance level - actual	2018-19 performance level - actual	2018-19 PCL met?
1	PR14UUWSW_A3	00	A3: Water Quality Service Index	score	3	98.64549438	101.182	No
2	PR14UUWSW_A3	01	WTW coliform non-compliance (%)	%	2	0.01	0.01	Yes
3	PR14UUWSW_A3	02	SR integrity index	%	2	99.97	99.98	Yes
4	PR14UUWSW_A3	03	No. of WTW turbidity fails	nr	0	1.0	0.0	No
5	PR14UUWSW_A3	04	Mean Zonal Compliance (MZC)	%	2	99.97	100	No
6	PR14UUWSW_A3	05	Distribution Maintenance Index (%)	%	2	99.89	99.86	No
7	PR14UUWSW_A3	06	Unwanted customer contacts for water quality (nr per year)	nr	0	11652	10923	No
8	PR14UUWSW_B2	00	B2: Reliable water service index	score	3	70.827	98	No
9	PR14UUWSW_B2	01	Total bursts (nr/annum)	nr	0	4484	5212	No
10	PR14UUWSW_B2	02	Interruptions >12hours (nr of properties/total nr of properties)	nr	0	4631	849	No
11	PR14UUWSW_B2	03	Pressure (nr of properties on DG2 register/ total number of properties)	nr	0	278	262	Yes
12	PR14UUWSW_B2	04	Customer contacts for water availability (contacts/annum)	nr	0	46487	49278	No
13	PR14UUWSWW_S-A1	00	S-A1: Private sewers service index	score	2	85	89.27	Yes
14	PR14UUWSWW_S-A1	01	Blockages	nr	0	13809	14589	Yes
15	PR14UUWSWW_S-A1	02	Collapses	nr	0	302	316	Yes
16	PR14UUWSWW_S-A1	03	Pollution incidents	nr	0	4.0000	2.0000	Yes
17	PR14UUWSWW_S-A1	04	Properties flooded internally	nr	0	276	308	Yes
18	PR14UUWSWW_S-A1	05	Areas flooded externally	nr	0	3901	3945	Yes
19	PR14UUWSWW_S-A2	00	S-A2: Wastewater network performance index	score	2	86.17	90.75	Yes
20	PR14UUWSWW_S-A2	01	Blockages	nr	0	7047	7276	Yes
21	PR14UUWSWW_S-A2	02	Collapses	nr	0	232	239	Yes
22	PR14UUWSWW_S-A2	03	Rising main bursts	nr	0	47	53	No
23	PR14UUWSWW_S-A2	04	Equipment failures	nr	0	3038	3613	No
24	PR14UUWSWW_S-B2	00	S-B2: Sewer flooding index	score	1	70	61.66	Yes
25	PR14UUWSWW_S-B2	01	Properties flooded due to other causes	nr	0	559	551	No
26	PR14UUWSWW_S-B2	02	Properties flooded due to hydraulic overload	nr	0	91	15	Yes
27	PR14UUWSWW_S-B2	03	Areas flooded due to other causes	nr	0	2863	2849	Yes
28	PR14UUWSWW_S-B2	04	Areas flooded due to hydraulic overload	nr	0	212	145	Yes
29	PR14UUWSWW_S-B2	05	Incidents of repeat flooding	nr	0	206	124	Yes
30	PR14UUWSWW_S-D2	00	S-D2: Maintaining our wastewater treatment works	score	4	30.468	39.1665	Yes
31	PR14UUWSWW_S-D2	01	WwTWs failing EA permit - small (size band 1-4)	score	4	12.2901	4.0967	No
32	PR14UUWSWW_S-D2	02	WwTWs failing EA permit - medium (size band 5)	score	4	0	0	Yes
33	PR14UUWSWW_S-D2	03	WwTWs failing EA permit - large (size band 6a)	score	4	16.3867	32.7734	Yes
34	PR14UUWSWW_S-D2	04	WwTWs failing EA permit - large (size band 6b)	score	4	0	0	Yes
35	PR14UUWSWW_S-D2	05	WwTWs at high risk of failing EA permit - small (size band 1-4)	score	4	0.1603	0.2932	Yes
36	PR14UUWSWW_S-D2	06	WwTWs at high risk of failing EA permit - medium (size band 5)	score	4	0.0956	0.0137	Yes
37	PR14UUWSWW_S-D2	07	WwTWs at high risk of failing EA permit - large (size band 6)	score	4	0.4096	0.7168	Yes
38	PR14UUWSWW_S-D2	08	WwTWs at medium risk of failing EA permit - small (size band 1-4)	score	4	0.3204	0.3102	Yes
39	PR14UUWSWW_S-D2	09	WwTWs at medium risk of failing EA permit - medium (size band 5)	score	4	0.0546	0.0751	Yes
40	PR14UUWSWW_S-D2	10	WwTWs at medium risk of failing EA permit - large (size band 6)	score	4	0.7507	0.8874	Yes

Key to cells:

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Calculation cell

Please refer to RAG 4.08 - Guideline for the table definitions in the annual performance report for the reporting year 2018-19

Pro forma 3C AIM table

For the 12 months ended 31 March 2019

Row	Abstraction site	Decimal places	2018-19 AIM performance [Ml]	2018-19 normalised AIM performance [nr]	Cumulative AIM performance 2016-17 onwards [Ml]	Cumulative normalised AIM performance 2016-17 onwards [nr]	Contextual information relating to AIM performance
1	Aughertree Springs (Quarry Hill system, West Cumbria Resource Zone)	2	-13.26	-0.31	-13.26	-0.31	The dry summer of 2018 resulted in river flows at this AIM site reaching the trigger; however our average abstraction on AIM days was lower than the historic period resulting in a positive (i.e. a negative AIM performance) outcome.
2	River Calder (Barnacre system, Integrated Resource Zone)	2	-45.96	-0.11	-45.96	-0.11	The dry summer of 2018 resulted in river flows at this AIM site reaching the trigger; however our average abstraction on AIM days was lower than the historic period resulting in a positive (i.e. a negative AIM performance) outcome. Following completion of a NEP scheme in 2018/19 to provide a new prescribed flow downstream of the River Calder intake, the sustainability issue which led to this site being included in AIM has been resolved.Therefore this site will not be included in AIM for 2019/20.
3	Ennerdale (West Cumbria Resource Zone)	2	-264.08	-0.27	-287.41	-0.37	The dry summer of 2018 resulted in river flows at this AIM site reaching the trigger; however our average abstraction on AIM days was lower than the historic period resulting in a positive (i.e. a negative AIM performance) outcome. The cumulative performance is sum of performance in 2017/18 and 2018/19 as the AIM flow trigger was reached in both years.
4	Old Water, River Gelt (Castle Carrock system, Carlisle Resource Zone)	2	0.00	0.00	0.00	0.00	The AIM flow trigger has not been reached at this site so far in AMP6.
Total			-323.3	-0.69	-346.6	-0.79	

Key to cells:

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Calculation cell

Please refer to RAG 4.08 - Guideline for the table definitions in the annual performance report for the reporting year 2018-19

Pro forma 3D SIM table

For the 12 months ended 31 March 2019

Line description		Units	DPs	Score
A	**Qualitative performance**			
3D.1	1st survey score	nr	2	4.49
3D.2	2nd survey score	nr	2	4.50
3D.3	3rd survey score	nr	2	4.52
3D.4	4th survey score	nr	2	4.59
3D.5	Qualitative SIM score (out of 75)	nr	2	66.13
3D.6	Total contact score	nr	2	69.82
3D.7	Quantitative SIM score (out of 25)	nr	2	21.51
3D.8	Total annual SIM score (out of 100)	nr	2	87.64

Key to cells:

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Calculation cell

Please refer to RAG 4.08 - Guideline for the table definitions in the annual performance report for the reporting year 2018-19

Pro forma tables Section 4 Additional regulatory information

Pro forma 4A Non-financial information

For the 12 months ended 31 March 2019

Line description		Units	DPs	Current year	
				Unmeasured	Measured
Retail					
A	**Household**				
4A.1	Number of void households	000s	3	141.506	78.021
4A.2	Per capita consumption (excluding supply pipe leakage) l/h/d	l/h/d	2	155.75	125.90

				Water	Wastewater
Wholesale					
B	**Volume (Ml/d)**				
4A.3	Bulk supply export	Ml/d	3	14.574	0.851
4A.4	Bulk supply import	Ml/d	3	0.825	0.000
4A.5	Distribution input	Ml/d	3	1,804.605	

Key to cells:

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Calculation cell

Please refer to RAG 4.08 - Guideline for the table definitions in the annual performance report for the reporting year 2018-19

Pro forma 4B Totex analysis

For the 12 months ended 31 March 2019

	Line description	Units	DPs	Current year		Cumulative 2015-20	
				Water	Wastewater	Water	Wastewater
A	**Actual totex**						
4B.1	Actual totex	£m	3	663.919	697.676	2397.282	2819.013
B	**Items excluded from the menu**						
4B.2	Third party costs	£m	3	1.291	0.192	7.708	0.454
4B.3	Pension deficit recovery payments	£m	3	20.177	18.872	64.404	60.240
4B.4	Other 'Rule book' adjustments	£m	3	-1.317	0.979	27.189	3.942
4B.5	**Total items excluded from the menu**	**£m**	**3**	**20.152**	**20.043**	**99.301**	**64.636**
C	**Transition expenditure**						
4B.6	Transition expenditure	£m	3	0.000	0.000	10.794	16.972
D	**Adjusted Actual totex**						
4B.7	**Adjusted Actual totex**	**£m**	**3**	**643.767**	**677.633**	**2308.775**	**2771.349**
4B.8	Adjusted Actual totex base year prices	£m	3	555.980	585.227	2,083.972	2,509.401
E	**Allowed totex**						
4B.9	Allowed totex based on final menu choice – base year prices	£m	3	499.700	636.700	1888.100	2391.700

Key to cells:

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Calculation cell

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Please refer to RAG 4.08 - Guideline for the table definitions in the annual performance report for the reporting year 2018-19

Pro forma 4C Impact of AMP performance to date on RCV

At the 31 March 2019

	Line description	Units	DPs	Water	Wastewater
4C.1	Cumulative totex over/underspend so far in the price control period	£m	3	228.394	137.375
4C.2	Customer share of cumulative totex over/underspend	£m	3	-115.708	-92.339
4C.3	RCV element of cumulative totex over/underspend	£m	3	87.151	83.640
4C.4	Adjustment for ODI outperformance payment or underperformance payment	£m	3	0.000	49.749
4C.5	RCV determined at FD at 31 March	£m	3	4052.836	7350.996
4C.6	**Projected 'shadow' RCV**	**£m**	**3**	**4139.987**	**7484.385**

Key to cells:

Input cell

Calculation cell

Please refer to RAG 4.08 - Guideline for the table definitions in the annual performance report for the reporting year 2018-19

Pro forma 4D Totex analysis – wholesale water

For the 12 months ended 31 March 2019

Line description		Units	DPs	Water resources		Network+				Total
				Abstraction licences	Raw water abstraction	Raw water transport	Raw water storage	Water treatment	Treated water distribution	
A	**Operating expenditure**									
4D.1	Power	£m	3	0.000	6.177	5.792	0.082	14.733	9.788	36.572
4D.2	Income treated as negative expenditure	£m	3	0.000	-0.006	-0.255	0.000	-0.337	-0.025	-0.623
4D.3	Abstraction charges/ discharge consents	£m	3	14.427	2.675	0.000	0.000	0.254	0.000	17.356
4D.4	Bulk supply	£m	3	0.000	0.000	0.000	0.000	0.000	0.218	0.218
4D.5	Other operating expenditure - renewals expensed in year (Infrastructure)	£m	3	0.000	3.223	0.064	0.000	0.000	93.300	96.586
4D.6	Other operating expenditure - renewals expensed in year (Non-Infrastructure)	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4D.7	Other operating expenditure - excluding renewals	£m	3	-0.114	23.821	7.343	0.485	64.307	58.485	154.326
4D.8	Local authority and Cumulo rates	£m	3	0.000	18.142	2.457	0.288	8.130	37.149	66.166
4D.9	**Total operating expenditure excluding third party services**	**£m**	**3**	**14.313**	**54.032**	**15.401**	**0.855**	**87.086**	**198.915**	**370.603**
4D.10	Third party services	£m	3	0.000	0.011	0.711	0.000	0.220	0.350	1.291
4D.11	**Total operating expenditure**	**£m**	**3**	**14.313**	**54.043**	**16.112**	**0.855**	**87.306**	**199.265**	**371.894**
B	**Capital Expenditure**									
4D.12	Maintaining the long term capability of the assets - infra	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4D.13	Maintaining the long term capability of the assets - non-infra	£m	3	0.000	3.931	0.503	0.000	76.107	35.838	116.378
4D.14	Other capital expenditure - infra	£m	3	0.000	0.107	43.732	0.000	0.000	82.482	126.321
4D.15	Other capital expenditure - non-infra	£m	3	0.000	4.464	0.000	0.000	25.510	16.414	46.389
4D.16	Infrastructure network reinforcement	£m	3	0.000	0.000	0.000	0.000	0.000	6.253	6.253
4D.17	**Total gross capital expenditure (excluding third party)**	**£m**	**3**	**0.000**	**8.502**	**44.235**	**0.000**	**101.617**	**140.987**	**295.341**
4D.18	Third party services	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4D.19	**Total gross capital expenditure**	**£m**	**3**	**0.000**	**8.502**	**44.235**	**0.000**	**101.617**	**140.987**	**295.341**
C	**Grants and contributions**									
4D.20	Grants and contributions	£m	3	0.000	0.051	0.000	0.000	0.104	23.338	23.493
4D.21	**Totex**	**£m**	**3**	**14.313**	**62.494**	**60.348**	**0.855**	**188.819**	**316.914**	**643.742**
D	**Cash Expenditure**									
4D.22	Pension deficit recovery payments	£m	3	0.000	1.787	1.567	0.124	9.913	6.786	20.177
4D.23	Other cash items	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4D.24	**Totex including cash items**	**£m**	**3**	**14.313**	**64.281**	**61.914**	**0.979**	**198.733**	**323.700**	**663.919**
E	**Unit cost information (operating expenditure)**									
4D.25	Licenced volume available	Ml	3	2519885.791						
4D.25	Volume abstracted	Ml	3		739573.393					
4D.25	Volume transported	Ml	3			701685.020				
4D.25	Average volume stored	Ml	3				479.428			
4D.25	Distribution input volume	Ml	3					658680.892		
4D.25	Distribution input volume	Ml	3						658680.892	
4D.26	**Unit cost**	**£/Ml**	**3**	**5.680**	**73.073**	**22.962**	**1783.474**	**132.547**	**302.521**	
4D.27	Population	000s	3	7227.121	7227.121	7227.121	7227.121	7227.121	7227.121	
4D.28	**Unit cost**	**£/pop**	**3**	**1.980**	**7.478**	**2.229**	**0.118**	**12.080**	**27.572**	

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Please refer to RAG 4.08 - Guideline for the table definitions in the annual performance report for the reporting year 2018-19

Pro forma 4E Totex analysis – wholesale wastewater

For the 12 months ended 31 March 2019

Line description		Units	DPs	Network+ Sewage collection			Network + Sewage treatment		Sludge			Total
				Foul	Surface water drainage	Highway drainage	Sewage treatment and disposal	Imported sludge liquor treatment	Sludge transport	Sludge treatment	Sludge disposal	
A	**Operating expenditure**											
4E.1	Power	£m	3	2.777	3.407	1.358	37.628	1.837	0.009	-4.924	0.018	42.110
4E.2	Income treated as negative expenditure	£m	3	-0.023	-0.029	-0.012	-0.111	-0.001	0.000	-9.017	0.000	-9.193
4E.3	Discharge consents	£m	3	1.405	1.720	0.687	5.325	0.000	0.000	0.267	0.000	9.404
4E.4	Bulk discharge	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4E.5	Other operating expenditure - renewals expensed in year (Infrastructure)	£m	3	30.837	34.074	13.585	0.000	0.000	0.000	0.022	0.000	78.517
4E.6	Other operating expenditure - renewals expensed in year (Non-Infrastructure)	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4E.7	Other operating expenditure - excluding renewals	£m	3	20.955	16.665	6.654	61.545	0.531	9.135	33.471	8.747	157.703
4E.8	Local authority rates and Cumulo rates	£m	3	0.027	0.024	0.009	20.982	0.211	0.110	5.821	0.704	27.889
4E.9	**Total operating expenditure excluding third party services**	**£m**	**3**	**55.978**	**55.860**	**22.283**	**125.369**	**2.577**	**9.255**	**25.640**	**9.469**	**306.430**
4E.10	Third party services	£m	3	0.086	0.075	0.030	0.000	0.000	0.000	0.000	0.000	0.192
4E.11	**Total operating expenditure**	**£m**	**3**	**56.064**	**55.935**	**22.312**	**125.369**	**2.577**	**9.255**	**25.640**	**9.469**	**306.621**
B	**Capital Expenditure**											
4E.12	Maintaining the long term capability of the assets - infra	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4E.13	Maintaining the long term capability of the assets - non-infra	£m	3	6.903	8.586	3.423	110.731	0.000	0.000	33.898	0.762	164.303
4E.14	Other capital expenditure - infra	£m	3	30.137	37.486	14.945	0.000	0.000	0.000	0.000	0.000	82.568
4E.15	Other capital expenditure - non-infra	£m	3	4.240	5.274	2.103	118.637	0.000	0.000	0.645	0.000	130.899
4E.16	Infrastructure network reinforcement	£m	3	2.954	3.675	1.465	0.000	0.000	0.000	0.000	0.000	8.094
4E.17	**Total gross capital expenditure (excluding third party services)**	**£m**	**3**	**44.234**	**55.020**	**21.935**	**229.368**	**0.000**	**0.000**	**34.544**	**0.762**	**385.863**
4E.18	Third party services	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4E.19	**Total gross capital expenditure**	**£m**	**3**	**44.234**	**55.020**	**21.935**	**229.368**	**0.000**	**0.000**	**34.544**	**0.762**	**385.863**
C	**Grants and contributions**											
4E.20	Grants and contributions	£m	3	5.036	6.181	2.465	0.000	0.000	0.000	0.000	0.000	13.681
4E.21	**Totex**	**£m**	**3**	**95.263**	**104.774**	**41.783**	**354.737**	**2.577**	**9.255**	**60.183**	**10.230**	**678.803**
C	**Cash Expenditure**											
4E.22	Pension deficit recovery payments	£m	3	2.270	1.971	0.786	8.990	0.000	0.905	3.629	0.321	18.872
4E.23	Other cash items	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4E.24	**Totex including cash items**	**£m**	**3**	**97.532**	**106.746**	**42.569**	**363.727**	**2.577**	**10.160**	**63.813**	**10.552**	**697.676**
D	**Unit cost information (operating expenditure)**											
4E.25	Volume collected	Ml	3	436424.330								
4E.25	Volume collected	Ml	3		462076.405							
4E.25	Volume collected	Ml	3			184257.931						
4E.25	Biochemical Oxygen Demand (BOD)	Tonnes	3				203181.085					
4E.25	Biochemical Oxygen Demand (BOD)	Tonnes	3					11499.775				
4E.25	Volume transported	m3	3						1837467.110			
4E.25	Dried solid mass treated	ttds	3							196.296		
4E.25	Dried solid mass disposed	ttds	3								99.580	
4E.26	**Unit cost**	**£/unit**	**3**	**128.463**	**121.052**	**121.094**	**617.031**	**224.131**	**5.037**	**130616.816**	**95087.297**	
4E.27	Population	000s	3	7602.595	7602.595	7602.595	7602.595	7602.595	7602.595	7602.595	7602.595	
4E.28	**Unit cost**	**£/pop**	**3**	**7.374**	**7.357**	**2.935**	**16.490**	**0.339**	**1.217**	**3.372**	**1.245**	

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Please refer to RAG 4.08 - Guideline for the table definitions in the annual performance report for the reporting year 2018-19

Pro forma 4F Cost analysis – household retail

For the 12 months ended 31 March 2019

Line description		Units	DPs	Household unmeasured				Household measured				Total
				Water only	Wastewater only	Water and wastewater	Total	Water only	Wastewater only	Water and wastewater	Total	
A	**Operating expenditure**											
4F.1	Customer services	£m	3	0.175	0.099	12.600	12.874	0.182	0.003	11.179	11.364	24.238
4F.2	Debt management	£m	3	0.030	0.015	9.204	9.250	0.031	0.000	3.832	3.863	13.112
4F.3	Doubtful debts	£m	3	0.073	0.031	31.777	31.881	0.076	0.001	12.372	12.449	44.330
4F.4	Meter reading	£m	3					0.090	0.162	3.962	4.215	4.215
4F.5	Other operating expenditure	£m	3	0.255	0.136	10.010	10.400	0.174	0.289	7.695	8.157	18.558
4F.6	**Total operating expenditure excluding third party services**	**£m**	**3**	**0.534**	**0.281**	**63.590**	**64.405**	**0.553**	**0.454**	**39.040**	**40.048**	**104.453**
4F.7	Third party services operating expenditure	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4F.8	**Total operating expenditure**	**£m**	**3**	**0.534**	**0.281**	**63.590**	**64.405**	**0.553**	**0.454**	**39.040**	**40.048**	**104.453**
4F.9	Depreciation - tangible fixed assets (on assets existing at 31 March 2015)	£m	3	0.013	0.007	0.465	0.485	0.008	0.015	0.357	0.380	0.865
4F.10	Depreciation - tangible fixed assets (on assets acquired since 1 April 2015)	£m	3	0.012	0.006	0.440	0.458	0.008	0.013	0.353	0.374	0.832
4F.11	Amortisation - intangible fixed assets (on assets existing at 31 March 2015)	£m	3	0.016	0.009	0.771	0.796	0.011	0.017	0.546	0.574	1.369
4F.12	Amortisation - intangible fixed assets (on assets acquired since 1 April 2015)	£m	3	0.039	0.020	1.568	1.627	0.037	0.015	1.739	1.791	3.418
4F.13	**Total operating costs**	**£m**	**3**	**0.613**	**0.322**	**66.835**	**67.770**	**0.618**	**0.514**	**42.035**	**43.167**	**110.937**
4F.14	Capital expenditure	£m	3	0.023	0.012	3.224	3.260	0.019	0.015	1.564	1.599	4.858

B	**Demand-side efficiency and customer-side leaks analysis - Household**			
4F.15	Demand-side water efficiency - gross expenditure	£m	3	0.688
4F.16	Demand-side water efficiency - expenditure funded by wholesale	£m	3	0.000
4F.17	**Demand-side water efficiency - net retail expenditure**	**£m**	**3**	**0.688**
4F.18	Customer-side leak repairs - gross expenditure	£m	3	2.849
4F.19	Customer-side leak repairs - expenditure funded by wholesale	£m	3	1.346
4F.20	**Customer-side leak repairs - net retail expenditure**	**£m**	**3**	**1.504**

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Please refer to RAG 4.08 - Guideline for the table definitions in the annual performance report for the reporting year 2018-19

Pro forma 4G Wholesale current cost financial performance

For the 12 months ended 31 March 2019

	Line description	Units	DPs	Water	Wastewater	Total
4G.1	Revenue	£m	3	769.787	907.655	1677.442
4G.2	Operating expenditure	£m	3	-371.894	-306.621	-678.516
4G.3	Capital maintenance charges	£m	3	-155.962	-328.578	-484.540
4G.4	Other operating income	£m	3	-1.367	-2.241	-3.608
4G.5	**Current cost operating profit**	**£m**	**3**	**240.564**	**270.215**	**510.778**
4G.6	Other income	£m	3	7.516	8.418	15.934
4G.7	Interest income	£m	3	1.664	3.017	4.681
4G.8	Interest expense	£m	3	-94.253	-170.955	-265.208
4G.9	Other interest expense	£m	3	2.594	4.706	7.300
4G.10	**Current cost profit before tax and fair value movements**	**£m**	**3**	**158.085**	**115.401**	**273.485**
4G.11	Fair value gains/(losses) on financial instruments	£m	3	-2.599	-4.713	-7.312
4G.12	**Current cost profit before tax**	**£m**	**3**	**155.486**	**110.688**	**266.173**

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Please refer to RAG 4.08 - Guideline for the table definitions in the annual performance report for the reporting year 2018-19

Pro forma 4H Financial metrics

For the 12 months ended 31 March 2019

Line description		Units	DPs	Current year	AMP to date
A	**Financial indicators**				
4H.1	Net debt	£m	3	7394.450	
4H.2	Regulated equity	£m	3	4009.381	
4H.3	Regulated gearing	%	2	64.84%	
4H.4	Post tax return on regulated equity	%	2	8.50%	
4H.5	RORE (return on regulated equity)	%	2	8.20%	7.36%
4H.6	Dividend yield	%	2	9.28%	
4H.7	Retail profit margin - Household	%	2	-0.43%	
4H.8	Retail profit margin - Non household	%	2	-0.07%	
4H.9	Credit rating	Text	n/a	BBB+ Stable	
4H.10	Return on RCV	%	2	5.23%	
4H.11	Dividend cover	dec	2	0.81	
4H.12	Funds from operations (FFO)	£m	3	795.334	
4H.13	Interest cover (cash)	dec	2	5.76	
4H.14	Adjusted interest cover (cash)	dec	2	2.80	
4H.15	FFO/Debt	dec	2	0.11	
4H.16	Effective tax rate	%	2	10.84%	
4H.17	RCF	£m	3	423.226	
4H.18	RCF/capex	dec	2	0.65	
B	**Revenue and earnings**				
4H.19	Revenue (actual)	£m	3	1778.959	
4H.20	EBITDA (actual)	£m	3	995.409	
C	**Movement in RORE**				
4H.21	Base return	%	2	5.52%	5.55%
4H.22	Totex out / (under) performance	%	2	-1.15%	-0.41%
4H.23	Retail cost out / (under) performance	%	2	-0.15%	-0.06%
4H.24	ODI out / (under) performance	%	2	0.93%	0.25%
4H.25	Financing out / (under) performance	%	2	3.05%	2.03%
4H.26	Other factors	%	2	0.00%	0.00%
4H.27	**Regulatory return for the year**	**%**	**2**	**8.20%**	**7.36%**
D	**Borrowings**				
4H.28	Proportion of borrowings which are fixed rate	%	2	46.17%	
4H.29	Proportion of borrowings which are floating rate	%	2	5.28%	
4H.30	Proportion of borrowings which are index linked	%	2	48.55%	
4H.31	Proportion of borrowings due within 1 year or less	%	2	4.63%	
4H.32	Proportion of borrowings due in more than 1 year but no more than 2 years	%	2	17.73%	
4H.33	Proportion of borrowings due in more than 2 years but but no more than 5 years	%	2	14.62%	
4H.34	Proportion of borrowings due in more than 5 years but no more than 20 years	%	2	41.86%	
4H.35	Proportion of borrowings due in more than 20 years	%	2	21.16%	

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Please refer to RAG 4.08 - Guideline for the table definitions in the annual performance report for the reporting year 2018-19

Line 15 – FFO/Debt of 11.0% is calculated in accordance with the Ofwat line definition as per RAG 4.08. UUW's FFO/Debt applying Standard & Poor's (S&P) calculation method would equal 9.8%. The main difference is that the S&P FFO definition includes all interest, whereas the Ofwat FFO definition includes just cash interest, so would exclude all interest on index-linked debt.

Section D – Borrowings represents the notional value in the company's statutory accounts and does not take account of the impact on interest of derivative instruments. Further narrative regarding borrowings is disclosed on pages 169 to 170.

Lines 28-30 – The proportion of borrowings between fixed, floating and index-linked takes into account hedging arrangements in place, mirroring how borrowings are allocated to each category in Table 1E.

Pro forma 4I Financial derivatives

At 31 March 2019

Line description		Units	DPs	Nominal value by maturity (net)			Total value at 31 March 2019		Total accretion at 31 March 2019	Units	DPs	Interest rate (weighted average for 12 months to 31 March 2019)	
				1 to 2 years	2 to 5 years	Over 5 years	Nominal value (net)	Mark to Market				Payable	Receivable
Derivative type													
A	**Interest rate swap (sterling)**												
4I.1	Floating to fixed rate	£m	3	1477.104	1179.234	350.000	3006.338	-45.801	0.000	%	2	1.96%	1.00%
4I.2	Floating from fixed rate	£m	3	0.000	-375.000	-1200.000	-1575.000	221.522	0.000	%	2	1.59%	0.27%
4I.3	Floating to index linked	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	%	2	0.00%	0.00%
4I.4	Floating from index linked	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	%	2	0.00%	0.00%
4I.5	Fixed to index-linked	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	%	2	0.00%	0.00%
4I.6	Fixed from index-linked	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	%	2	0.00%	0.00%
4I.7	**Total**	**£m**	**3**	**1477.104**	**804.234**	**-850.000**	**1431.338**	**175.721**	**0.000**				
B	**Foreign Exchange**												
4I.8	Cross currency swap USD	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	%	2	0.00%	0.00%
4I.9	Cross currency swap EUR	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	%	2	0.00%	0.00%
4I.10	Cross currency swap YEN	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	%	2	0.00%	0.00%
4I.11	Cross currency swap Other	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	%	2	0.00%	0.00%
4I.12	**Total**	**£m**	**3**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**				
C	**Currency interest rate**												
4I.13	Currency interest rate swaps USD	£m	3	0.000	0.000	226.083	226.083	158.056	0.000	%	2	1.62%	0.08%
4I.14	Currency interest rate swaps EUR	£m	3	423.657	0.000	156.790	580.447	40.414	0.000	%	2	1.33%	0.24%
4I.15	Currency interest rate swaps YEN	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	%	2	0.87%	0.12%
4I.16	Currency interest rate swaps Other	£m	3	0.000	0.000	286.027	286.027	58.615	0.000	%	2	1.74%	2.80%
4I.17	**Total**	**£m**	**3**	**423.657**	**0.000**	**668.900**	**1092.557**	**257.085**	**0.000**				
D	**Forward currency contracts**												
4I.18	Forward currency contracts USD	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	%	2	0.00%	0.00%
4I.19	Forward currency contracts EUR	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	%	2	0.00%	0.00%
4I.20	Forward currency contracts YEN	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	%	2	0.00%	0.00%
4I.21	Forward currency contracts CAD	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	%	2	0.00%	0.00%
4I.22	Forward currency contracts AUD	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	%	2	0.00%	0.00%
4I.23	Forward currency contracts HKD	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	%	2	0.00%	0.00%
4I.24	Forward currency contracts Other	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	%	2	0.00%	0.00%
4I.25	**Total**	**£m**	**3**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**				
E	**Other financial derivatives**												
4I.26	Other financial derivatives	£m	3	0.000	0.000	0.000	0.000	-24.018	0.000	%	2	0.00%	0.00%
F	**Total**												
4I.27	**Total financial derivatives**	**£m**	**3**	**1900.761**	**804.234**	**-181.100**	**2523.896**	**408.787**	**0.000**				

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Please refer to RAG 4.08 - Guideline for the table definitions in the annual performance report for the reporting year 2018-19

The inclusion of all 'other' interest rate swaps in to one line in Table 4I (line 16) makes the calculation of a meaningful weighted average interest rate problematic. We would recommend that the weighted average interest rate is better represented by splitting the five swaps that make up the balance:

- Reverse dual currency rate: pay 1.40% GBP, receive 5.02% USD (Notional of £54.2m)
- 'HKD' rate: pay 2.26%, receive 2.90% (Notional of £53.0m)
- 'HKD' rate: pay 1.65%, receive 2.37% (Notional of £78.9m)
- 'HKD' rate: pay 1.62%, receive 2.92% (Notional of £68.1m)
- 'HKD' rate: pay 1.93%, receive 2.87% (Notional of £31.8m)

For certain interest rate swaps we have swapped the fixed coupon on the debt (including credit spread) to a floating interest rate plus margin, whereas for other interest rate swaps we have swapped a fixed rate representing underlying interest (i.e. debt coupon less the credit spread) to a floating interest rate without any margin. Therefore certain rates payable/receivable included in the table are market interest rates excluding any element of credit spread, whereas other rates are 'all in' effective interest rates including credit spread. Care should be taken when interpreting the rates in the table.

For certain cross currency swaps that have historically reached mandatory breaks, these have been re-hedged midlife at on-market rates (at that point). In these scenarios the fair value of the swap would have been paid to / received from the counterparty (affecting the volume of debt), with the rate on the re-hedged swap being amended either up or down accordingly (sometimes significantly so). Therefore the rates payable on these swaps may not reflect the underlying cost of debt (for instance we have some swaps where we receive the debt coupon but pay LIBOR minus a margin and others where we pay LIBOR plus a margin significantly higher than the underlying credit spread), again care should be taken when interpreting the rates in the table.

The interest rates incorporate fixed interest rates which are reflective of the position at the balance sheet date, and floating interest rates based on the last rate reset. As such, these are not representative of our future cost of debt.

The nominal value of the currency swaps reflect the sterling receivable amount.

Other financial derivatives (line 26) includes forward swaps and electricity swaps which ensures the table agrees to Table 1C:

- Electricity swaps - £0.5m liability
- Forward starting floating to fixed rate swaps - £23.5m liability.

Pro forma 4J Atypical and non-atypical expenditure by business unit – wholesale water

For the 12 months ended 31 March 2019

Line description		Units	DPs	Water resources		Network+				Total
				Abstraction licences	Raw water abstraction	Raw water transport	Raw water storage	Water treatment	Treated water distribution	
A	**Operating expenditure (excl. atypicals)**									
4J.1	Power	£m	3	0.000	5.719	5.417	0.076	13.643	8.895	33.751
4J.2	Income treated as negative expenditure	£m	3	0.000	-0.006	-0.255	0.000	-0.337	-0.025	-0.623
4J.3	Abstraction charges/ discharge consents	£m	3	14.427	2.675	0.000	0.000	0.254	0.000	17.356
4J.4	Bulk supply	£m	3	0.000	0.000	0.000	0.000	0.000	0.218	0.218
	Other operating expenditure									
4J.5	- Renewals expensed in year (Infrastructure)	£m	3	0.000	3.199	0.064	0.000	0.000	82.822	86.085
4J.6	- Renewals expensed in year (Non-Infrastructure)	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4J.7	- Other operating expenditure excluding renewals	£m	3	-0.114	11.622	6.999	0.474	60.205	49.887	129.073
4J.8	Local authority and Cumulo rates	£m	3	0.000	18.142	2.457	0.288	8.130	37.149	66.166
4J.9	**Total operating expenditure (excluding third party services)**	**£m**	**3**	**14.313**	**41.351**	**14.683**	**0.838**	**81.895**	**178.946**	**332.026**
4J.10	Third party services	£m	3	0.000	0.011	0.711	0.000	0.220	0.350	1.291
4J.11	**Total operating expenditure**	**£m**	**3**	**14.313**	**41.362**	**15.395**	**0.838**	**82.114**	**179.296**	**333.318**
B	**Capital expenditure (excl. atypicals)**									
4J.12	Maintaining the long term capability of the assets - infra	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4J.13	Maintaining the long term capability of the assets - non-infra	£m	3	0.000	3.156	0.503	0.000	54.174	29.417	87.250
4J.14	Other capital expenditure - infra	£m	3	0.000	0.107	43.732	0.000	0.000	82.338	126.178
4J.15	Other capital expenditure - non-infra	£m	3	0.000	4.464	0.000	0.000	25.159	16.414	46.037
4J.16	Infrastructure network reinforcement	£m	3	0.000	0.000	0.000	0.000	0.000	6.253	6.253
4J.17	Total gross capital expenditure excluding third party services	£m	3	0.000	7.727	44.235	0.000	79.332	134.423	265.718
4J.18	Third party services	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4J.19	Total gross capital expenditure	£m	3	0.000	7.727	44.235	0.000	79.332	134.423	265.718
4J.20	Grants and contributions	£m	3	0.000	0.051	0.000	0.000	0.104	23.338	23.493
4J.21	**Totex**	**£m**	**3**	**14.313**	**49.038**	**59.630**	**0.838**	**161.343**	**290.380**	**575.542**
C	**Cash expenditure (excl. atypicals)**									
4J.22	Pension deficit recovery payments	£m	3	0.000	1.787	1.567	0.124	9.913	6.786	20.177
4J.23	Other cash items	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4J.24	**Totex including cash items**	**£m**	**3**	**14.313**	**50.825**	**61.196**	**0.962**	**171.256**	**297.166**	**595.719**
D	**Atypical expenditure**									
4J.25	Dry weather event (opex)	£m	3	0.000	12.429	0.517	0.017	3.920	8.620	25.502
4J.26	Dry weather event (IRE)	£m	3	0.000	0.023	0.000	0.000	0.000	10.478	10.502
4J.27	Dry weather event (capex)	£m	3	0.000	0.774	0.000	0.000	22.285	6.564	29.623
4J.28	GMP pension charge (opex)	£m	3	0.000	0.229	0.201	0.000	1.272	0.871	2.573
4J.29	Item 5	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4J.30	Item 6	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4J.31	Item 7	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4J.32	Item 8	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4J.33	Item 9	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4J.34	Item 10	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4J.35	**Total atypical expenditure**	**£m**	**3**	**0.000**	**13.455**	**0.718**	**0.017**	**27.476**	**26.534**	**68.200**
E	**Total expenditure**									
4J.36	**Total expenditure**	**£m**	**3**	**14.313**	**64.281**	**61.914**	**0.979**	**198.733**	**323.700**	**663.919**

Key to cells:

Input cell

Calculation cell

Please refer to RAG 4.08 - Guideline for the table definitions in the annual performance report for the reporting year 2018-19

Pro forma 4K Atypical and non-atypical expenditure by business unit – wholesale wastewater

For the 12 months ended 31 March 2019

Line description		Units	DPs	Network+ Sewage Collection			Network+ Sewage		Sludge			Total
				Foul	Surface water drainage	Highway drainage	Sewage treatment and disposal	Sludge liquor treatment	Sludge transport	Sludge treatment	Sludge disposal	
A	**Operating expenditure (excl. atypicals)**											
4K.1	Power	£m	3	2.777	3.407	1.358	37.628	1.837	0.009	-4.924	0.018	42.110
4K.2	Income treated as negative expenditure	£m	3	-0.023	-0.029	-0.012	-0.111	-0.001	0.000	-9.017	0.000	-9.193
4K.3	Discharge Consents	£m	3	1.405	1.720	0.687	5.325	0.000	0.000	0.267	0.000	9.404
4K.4	Bulk discharge	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Other operating expenditure											
4K.5	- Renewals expensed in year (Infrastructure)	£m	3	30.837	34.074	13.585	0.000	0.000	0.000	0.022	0.000	78.517
4K.6	- Renewals expensed in year (Non-Infrastructure)	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4K.7	- Other operating expenditure excluding renewals	£m	3	20.639	16.391	6.545	60.294	0.531	9.009	32.966	8.702	155.077
4K.8	Local authority and Cumulo rates	£m	3	0.027	0.024	0.009	20.982	0.211	0.110	5.821	0.704	27.889
4K.9	**Total operating expenditure (excluding third party services)**	**£m**	**3**	**55.662**	**55.586**	**22.173**	**124.118**	**2.577**	**9.129**	**25.134**	**9.424**	**303.803**
4K.10	Third party services	£m	3	0.086	0.075	0.030	0.000	0.000	0.000	0.000	0.000	0.192
4K.11	**Total operating expenditure**	**£m**	**3**	**55.748**	**55.661**	**22.203**	**124.118**	**2.577**	**9.129**	**25.134**	**9.424**	**303.994**
B	**Capital expenditure (excl. atypicals)**											
4K.12	Maintaining the long term capability of the assets - infra	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4K.13	Maintaining the long term capability of the assets - non-infra	£m	3	6.903	8.586	3.423	110.731	0.000	0.000	33.898	0.762	164.303
4K.14	Other capital expenditure - infra	£m	3	30.137	37.486	14.945	0.000	0.000	0.000	0.000	0.000	82.568
4K.15	Other capital expenditure - non-infra	£m	3	4.240	5.274	2.103	118.637	0.000	0.000	0.645	0.000	130.899
4K.16	Infrastructure network reinforcement	£m	3	2.954	3.675	1.465	0.000	0.000	0.000	0.000	0.000	8.094
4K.17	**Total gross capital expenditure excluding third party services**	**£m**	**3**	**44.234**	**55.020**	**21.935**	**229.368**	**0.000**	**0.000**	**34.544**	**0.762**	**385.863**
4K.18	Third party services	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4K.19	**Total gross capital expenditure**	**£m**	**3**	**44.234**	**55.020**	**21.935**	**229.368**	**0.000**	**0.000**	**34.544**	**0.762**	**385.863**
4K.20	Grants and contributions	£m	3	5.036	6.181	2.465	0.000	0.000	0.000	0.000	0.000	13.681
4K.21	**Totex**	**£m**	**3**	**94.947**	**104.500**	**41.674**	**353.486**	**2.577**	**9.129**	**59.678**	**10.186**	**676.177**
C	**Cash expenditure (excl. atypicals)**											
4K.22	Pension deficit recovery payments	£m	3	2.270	1.971	0.786	8.990	0.000	0.905	3.629	0.321	18.872
4K.23	Other cash items	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4K.24	**Totex including cash items**	**£m**	**3**	**97.216**	**106.471**	**42.460**	**362.476**	**2.577**	**10.034**	**63.308**	**10.507**	**695.049**
D	**Atypical expenditure**											
4K.25	Pension GMP charge	£m	3	0.316	0.274	0.109	1.251	0.000	0.126	0.505	0.045	2.627
4K.26	Item 2	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4K.27	Item 3	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4K.28	Item 4	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4K.29	Item 5	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4K.30	Item 6	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4K.31	Item 7	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4K.32	Item 8	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4K.33	Item 9	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4K.34	Item 10	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4K.35	**Total atypical expenditure**	**£m**	**3**	**0.316**	**0.274**	**0.109**	**1.251**	**0.000**	**0.126**	**0.505**	**0.045**	**2.627**
E	**Total expenditure**											
4K.36	**Total expenditure**	**£m**	**3**	**97.532**	**106.746**	**42.569**	**363.727**	**2.577**	**10.160**	**63.813**	**10.552**	**697.676**

Key to cells:

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Calculated value

Please refer to RAG 4.08 - Guideline for the table definitions in the annual performance report for the reporting year 2018-19

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Appendices

Annual Performance Report 2019

Appendix 1 - Assurance summary and findings

This appendix to our Annual Performance Report summarises the assurance plan, which was developed in accordance with the requirements of Ofwat's company monitoring framework.

It also sets out the key findings from this assurance process and our specific targeted risk areas.

Annual Performance Report 2019
Appendix 1 - Assurance summary and findings

A) Overview and assurance framework

Company monitoring framework

In June 2015, Ofwat published its company monitoring framework for the 2015-20 (AMP6) period. This described how Ofwat oversee the information provided to customers by the 17 largest water and sewerage and water only companies in England and Wales. The framework supports Ofwat's vision for the water sector in England and Wales where customers and wider society have trust and confidence in vital public water and wastewater services.

The purpose of the framework is to ensure that stakeholders can rely on the information provided by water companies and to make sure that the assurance of this information is provided in a way that can help to build trust and confidence. There are two distinct elements to the framework;
a) the data assurance activities that companies put in place to provide accurate data and
b) the wider assurance that companies provide to demonstrate that they are listening to customers and delivering services they want and can afford.

As part of Ofwat's approach to monitoring and assuring delivery it expects companies to have processes in place to

- ensure that this information can be trusted and uses a series of tests of the quality of each company's information
- to provoke and challenge the 17 largest companies to publish information that can be trusted.

As part of this annual review Ofwat rates each company depending on the quality of their information. The nature and level of the assurance required by Ofwat, is dependent upon the rating companies get. The higher the rating, the more freedom that companies get over the assurance that they provide. The lower the rating, the less freedom they get.

In Ofwat's 2017/18 assessment published in January 2019, alongside its Initial assessment of plans (IAP), UUW maintained for the third successive year the highest rating of "self-assurance". UUW achieved this alongside only one other company. UUW exceeded expectations in three areas ("Outcomes", "Charges engagement" and "Assurance plan") and met expectations in seven areas. UUW had no serious concerns and minor concerns in only one of the areas giving us the highest rating overall.

This categorisation allows UUW more discretion in the assurance that we put in place and means that we are not required to consult with stakeholders to target issues to address and publish plans for our assurance.

We do, however, continue to believe that it is important to be transparent in our assurance. Accordingly, during 2018/19 we once again published and consulted on a "Risks, strengths and weaknesses and draft assurance plan" and then following feedback published our "Final Assurance Plan" for our 2018/19 reporting. These publications are available on our website.

Annual Performance Report 2019

Appendix 1 - Assurance summary and findings

Assurance framework:

The document AMP6 regulatory reporting assurance framework is published on our website.

It sets out the assurance activities that we have put in place to provide reliable, accurate and complete data. It also sets out the wider assurance activities that we undertake to ensure that we can effectively listen to our customers and other stakeholders' views and continue to deliver the services that they want and can afford. The framework is set out in six sections, which are summarised below:

- **Measurement and data capture –** The data required to report on the delivery of our outcomes and other commitments has been developed to be a subset of our routine (and often long standing) operational and management information that is directly used to support and direct key business activities. We have also established a centralised reporting function, which has accountability for both assuring the quality of the data and for providing a single source of management information which can be used throughout the business.
- **Risk based assurance -** We have adopted a structured risk assessment process to underpin the governance and assurance processes supporting our regulatory reporting. The overall combined risk rating is used to help to determine the level of governance and assurance that is applied to the reported information.
    - As the level of risk increases the governance and assurance applied to the reporting of this data also increases and makes sure that key risks are escalated up to Board level where necessary to ensure that the management, control and reporting of any risks and resulting actions identified through the process are proportionate to the level of risk.
- **Targeted audit and assurance -** We have adopted a well-established "three lines of assurance" framework. The three lines of assurance are;
    - First line - management has accountability for developing and maintaining sound processes, systems and controls in the normal course of their operations
    - Second line - The Economic regulation and strategy or Finance teams, where applicable, have accountability for providing the framework and governance for our regulatory reporting. Our Corporate Audit team undertake rolling and cyclical audit activity and targeted reviews of key submissions
    - Third line - Independent audit and assurance activities are undertaken by specialist external auditors.
- **Governance and accountability -** We are committed to the very highest standards of corporate governance with defined accountabilities from the UUW Board level through operational governance and review process**.**
- **Additional communications and publications -** In addition to publishing the minimum information requirements set out by Ofwat within the APR. We are committed to providing regular and transparent reporting of our performance and using a broad range of communications channels to communicate with our customers.
- **Independent challenge and review -** To ensure that our reporting is independently challenged we have established an independent stakeholder forum called the YourVoice panel. The role of the YourVoice panel is to both monitor and challenge us on the delivery of our business plan, to review and advise on our reporting and to scrutinise our customer engagement on the development of our future business plans.

B) 2018/19 Annual Performance Report assurance plan

Our 2018/19 Final assurance plan sets out how all data reported in the 2018/19 APR will be subject to a structured and risk based governance and assurance process, which is summarised in the table below. It also identifies a number of potentially higher risk (targeted) areas which are summarised on the next page.

Risk based assurance plan for the 2018/19 Annual Performance Report

Section	Content	Governance and assurance activities
Risk and Compliance statement	Annual statement confirming compliance with the relevant statutory, licence and regulatory obligations for the provision of services to its customers.	1. Signed off by the UUW Board, based upon the defined governance and assurance approach relevant for each obligation. 2. Economic Regulation team review of information and audit trails review. 3. Technical Auditors (Jacobs) process review and report findings to the Board. Pages 46 to 50.
Regulatory financial reporting	Historical cost financial information. Disaggregation of income, from a regulatory accounting perspective, with reconciliation to the UU statutory accounts.	1. Data providers, their managers and business unit directors produce and approve data, commentaries and methodologies and audit trials to support the reported performance and demonstrate the control checks that have been applied. 2. Finance team review of information and audit trails. 3. Financial Auditors (KPMG) audit as set out in the audit opinion on pages 145 to 146.
Price review and other segmental reporting	Further separation of revenue and costs to allow stakeholders to review companies' performance against the FD.	1. Data providers, their managers and business unit directors produce and approve data, commentaries and methodologies and audit trials to support the reported performance and demonstrate the control checks that have been applied. 2. Finance team review of information and audit trails. 3. Financial Auditors (KPMG) audit as set out in the audit opinion on pages 145 to 146.
Performance summary	A high-level report of the operational performance of the business against the performance commitments set out in the PR14 FD, highlighting any financial incentives accrued in the year.	1. Data providers, their managers and business unit directors produce and approve data, commentaries and methodologies and audit trials to support the reported performance and demonstrate the control checks that have been applied. 2. Economic Regulation team review of information and audit trails. 3. Technical Auditors (Jacobs) review data and commentary and report opinion to the Board.
Additional regulatory tables	Additional financial and non-financial information, including wholesale totex performance against both the PR14 FD assumptions and intercompany unit cost metrics, retail operating cost analysis and financial metrics.	1. Data providers, their managers and business unit directors produce and approve data, commentaries and methodologies and audit trails to support the reported performance and demonstrate the control checks that have been applied. 2. Economic Regulation team review of information and audit trails. 3. Financial Auditors (KPMG) or Technical Auditors (Jacobs) procedures as agreed with management on the relevant tables in Section 2.

Targeted areas, mitigation and assurance

In addition to the generic assurance processes described above and which have been applied to all of the data within the APR, we also reviewed the potential risks to our reporting as part of the development of the assurance plan.

This risk assessment process confirmed that our established systems of governance and control were effective in identifying and managing reporting risk levels. The areas we identified for additional assurance activity in our final assurance plan were flagged as a result of four main factors:

- previous reporting issues had been identified,
- inherent data quality issues (usually due to new requirements or changes in circumstances or reporting regimes)
- high priority areas from a customer or stakeholder view point; and
- areas where delivery of our performance commitment targets may have been at risk.

The targeted areas identified in the final assurance plan are set out in the table below and described in detail in our published Final assurance plan.

Targeted area	Existing / new	Previous issues	Inherent data accuracy	High priority	Delivery and performance
Outcome delivery incentives (ODIs)	Continued		✓	✓	✓
Water quality	Continued			✓	✓
Water availability and leakage	Continued			✓	
Service incentive mechanism	Continued			✓	
Price controls detailed reporting	Continued	✓	✓		
Charges and tariffs schemes	Continued		✓	✓	
Household retail customer experience programme	Continued	✓	✓		
Metering and appointments system	Continued		✓		
PR19 – PR14 reconciliation	Continued	✓	✓	✓	
Competitive market data platforms	Continued			✓	
Wholesale interactions	New		✓	✓	
Water Resource Management Plan	New	✓			
PR19 submissions	New		✓	✓	

Our 2018/19 Final assurance plan contains full details of the reason for the targeted status, the ongoing and planned activity to mitigate the risks and the planned activity to assure our reporting in these areas. The reason for the status of these targeted areas is set out in the table below.

Corporate audit report and findings, set out in Section C of this Appendix, confirm that the assurance activities included within the Final Assurance Plan have been complied with and set out the summary of their findings.

2018/19 targeted areas and reason for status

Targeted area	Reason for targeted status
Outcome delivery incentives	Performance against our AMP6 performance commitments and outcome delivery incentives (ODIs) is a high priority area for customers and other stakeholders. Many of the measures have financial incentives, which will impact upon bills in the 2020-25 period. Many of the ODIs are also complex indexes and rely on large volumes of data recorded and analysed through complex systems and processes.
Assurance	*Governance and assurance as per Final assurance plan*
Water Quality	Water quality performance is an area of particular importance to customers and stakeholders. Last year we were disappointed with our performance and penalties associated with water discolouration (part of WQSI) and water quality events DWI category 3 or above. We have been working closely with the DWI to learn lessons from the incidents we have experienced and are implementing a transformation plan to deliver improvements at water treatment works and in the network.
Assurance	*Governance and assurance as per Final assurance plan*
Water availability and leakage	Water availability and leakage has been identified as a target area due to its importance to stakeholders. The thaw that followed the "Beast from the East" cold spell in February and March 2018 left customers in many parts of the country off supply and resulted in Ofwat's "Out in the cold" report. During the extended dry spell during the summer of 2018, UUW also publicised that it may need to implement a temporary use ban. There is an increasing need for companies to demonstrate how they handle these events and ensuring that they can provide resilient supplies to customers.
Assurance	*Governance and assurance as per Final assurance plan*
Service Incentive Mechanism	We have been reporting our performance against the SIM measure for a number of years and as such this was not identified as high risk as a consequence of internal reporting risks. SIM does, however, remain a high priority area for customers as it is a direct measure of customer service.
Assurance	*Governance and assurance as per Final assurance plan*
Price control detailed reporting	The APR and PR19 processes require greater granularity of our financial reporting with income and expenditure needing to be reported against each of the AMP6 price controls and against different accounting units within the wholesale price controls.
Assurance	*Governance and assurance as per Final assurance plan*
Charges and Tariffs Scheme	We have been developing, assuring and publishing an annual charges scheme for a number of years. During 2017/18 elements of the charges scheme needed to be uploaded to the non-household Central Market Operating System (CMOS). CMOS manages all of the electronic transactions involved in switching customers and provides usage and settlement data which is used in the billing process.
Household retail customer experience programme	The UUW Household Retail team is continuing its implementation of a comprehensive customer experience programme, designed to provide improved customer service at a lower cost to serve. The delivery of this programme is subject to a specific performance commitment to ensure that if the programme can be delivered at a lower cost than

	assumed in the last price review then these savings are passed back to customers. All of the new systems and supporting processes are now delivered. Such programmes inevitably increase the inherent risks to our operational performance levels and reporting. In PR19 IAP feedback Ofwat requested the company should provide evidence of how the proposed change to the customer experience programme outcome delivery incentive is in customers' interests.
Assurance	*Governance and assurance as per Final assurance plan*
Metering and customer appointments system	In October 2018 Amey, UUW's metering partner, introduced a new system called Salesforce to manage the end to end meter fitting and management process. This process includes the making and keeping of appointments, raising and scheduling of metering work, completion and reporting of metering jobs and the subsequent updating of customer accounts with metering information. This system replaced the UU IMS system which was used to report on meter fitting and associated appointments, and as such there is a potential risk associated with the transition to and comprehensive use of the new system.
Assurance	*Governance and assurance as per Final assurance plan*
PR19 – PR14 reconciliation	As part of the PR19 process, water companies need to set out the anticipated impact of their performance during the AMP6 period (2015-20) against the AMP6 targets and incentive regimes, which were set as part of the PR14 process. Ofwat requires companies to submit their projected five year, performance, expenditure and revenue collection levels and resultant incentive impacts in July 2018 alongside the Annual Performance Report (APR) and in advance of the main PR19 business plan submission. The mechanisms involved in this reconciliation include totex menus, Outcome Delivery incentives (ODIs), the Service Incentive Mechanism (SIM), wholesale revenue forecast incentives (WRFIM) and water trading incentives. The performance and incentives reported through these mechanisms will directly impact upon customer bills in the AMP7 (2020-25) period as a consequence of changes to either the starting regulatory capital value (RCV) of the company or changes to allowed revenues.
Assurance	*Governance and assurance as per Final assurance plan*
Competitive market data platforms	To support the development of markets in water resources and bioresources services, the PR19 process is splitting the two PR14 wholesale price controls (water and wastewater) into four new price controls. Separate controls are being established for each of water resources and bioresources and two 'network plus' price controls established to cover the remainder of the wholesale water and wastewater services. Ofwat required companies to publish and provide them with information on their existing assets and operations in Water Resources and Bioresources. The risks to the accuracy of this information is relatively low, as the majority of the information will be available from existing assured sources, although there are some areas of additional disaggregation of information that will be required. However, the accuracy and transparency of this information is important in ensuring that markets in these two areas function effectively for the benefit of customers.
Assurance	*Governance and assurance as per Final assurance plan*
Wholesale interactions with	Since 1 April 2107, 1.2 million businesses, charities and public sector organisations across England have been able to choose who supplies their retail water service such as billing and other services like water efficiency measures. UUW continues to act as the

the non- household retail market	wholesaler for these customers by managing the provision of water and sewerage services to the business premises. Whilst the market is firmly established, a review of the first year undertaken by Ofwat highlighted that there are still a number of areas where attention is needed to ensure there is an efficient and effective business retail market. The review also found that there is more to do to provide confidence in the quality and consistency of wholesaler performance reporting. This area has been targeted to demonstrate the work that UUW has already undertaken, and the additional work that is planned to ensure that we can fully play our part in supporting smooth and effective market operation.
Assurance	*Governance and assurance as per Final assurance plan*
Water resource management plan (WRMP)	The water resource management plan (WRMP), considers how the supply and demand for water in the region is expected to change over the long term (80 years) and based upon this, identifies potential risks to the resilience of water supply to customers. It then reviews the range of potential options for managing these risks and sets out a preferred long term strategy, ensuring that water supplies remain reliable. In line with statutory requirements UUW (and all other water companies) published its draft WRMP in December 2017 for consultation prior to publishing a final WRMP in Summer 2018. This exercise has inherent data accuracy risks due to the complexity and scale of the exercise and is a high priority area for customers due to the direct impact the preferred approach has on customers and other stakeholders both in the region and nationally.
Assurance	*Governance and assurance as per Final assurance plan, however still awaiting further feedback from DEFRA before finalising. Third party assurance will be carried out by Jacobs*

PR19 –submissions	The price review process (PR19) is a high priority area because it defines an assumed package of performance, expenditure and financing and determines the level of revenue that water companies can recover from customer bills. Our business plan for the 2020-2025 period was published in September 2018. In January 2019 Ofwat published its initial assessment of companies plans (IAP). UUW was placed in the fast track category which meant Ofwat assessed the plan as high quality with no requirement for material intervention to protect customer interests.
Assurance	*Governance and assurance as per Final assurance plan*

C) Summary of the findings of the assurance

This section of Appendix 1 sets out the summary of the findings of the assurance that has been undertaken to support the Annual Performance Report.

Financial auditor – We have employed KPMG to provide an audit opinion or perform procedures as agreed with management on the regulatory accounting information set out in the table below. The coverage of the KPMG audit opinion is set out in more detail, together with the findings from this review on pages 145 to 146 within Section 2.2 of the APR. KPMG have also completed agreed upon procedures for the Section 4 pro forma tables identified in the table below, with no issues noted.

Technical Auditors – We have employed Jacobs, to review the performance and volumetric data used to support the remainder of the data within the APR tables, including the outcome delivery information. The findings from technical auditor's review, which covers the APR information and tables, were presented to the UUW Board in June 2019 and are set out in Section C of this Appendix. The Independent Technical Assurance Statement is set out on page 220.

Jacobs have also been employed to our approach to risk assessment and the approach and processes that we follow to assess compliance with our obligations. This review was undertaken to support our **Risk and Compliance Statement**, with the findings from the review being presented to the June UUW Board meeting. The independent assurance statement is set out immediately following the signed risk and Compliance statement on pages 46 to 50 of this Annual Performance Report.

Corporate audit – UU Corporate Audit have undertaken an independent review of the effectiveness and application of the assurance framework applied to the APR. Their findings were presented directly to the UUW Board and are set out in Section C of this Appendix.

In addition **YourVoice**, the independent stakeholder forum, have reviewed our performance and reporting throughout the year and presented their findings directly to the UUW board. They have also published their reflections on United Utilities' performance during 2018-19, which can be found here.

Annual Performance Report 2019

Appendix 1 - Assurance summary and findings

The table below sets out each area of the APR and shows how the independent assurance has been provided for that are

UUW Annual Performance Report data tables – independent assurance

Annual Performance Report 2019

Appendix 1 - Assurance summary and findings

Data – Tables			
Section 1 Regulatory financial reporting		**Lines**	**Independent assurance**
1A	Income statement	All	KPMG audit opinion
1B	Statement of comprehensive income	All	KPMG audit opinion
1C	Statement of financial position	All	KPMG audit opinion
1D	Statement of cash flows	All	KPMG audit opinion
1E	Net debt analysis at 31 March 2017	All	KPMG audit opinion
1F	Financial flows	All	KPMG audit opinion
Section 2 Price review and other segmental reporting			
2A	Segmental income statement	All	KPMG audit opinion
2B	Totex analysis - wholesale water and wastewater	All	KPMG audit opinion
2C	Operating cost analysis – retail	All	KPMG audit opinion
2D	Historical cost analysis of fixed assets wholesale and retail	All	KPMG audit opinion
2E	Analysis of grants and contributions and land sales – wholesale	All	KPMG audit opinion
2F	Household – revenues by customer type	All	KPMG audit opinion
2G	Non-household water – revenues by tariff type	All	KPMG audit opinion
2H	Non-household wastewater – revenues by tariff type	All	KPMG audit opinion
2I	Revenue analysis	All	KPMG audit opinion
2J	Infrastructure network reinforcement costs	All	KPMG audit opinion
2K	Infrastructure charge reconciliation	All	KPMG audit opinion
Section 3 Performance summary			
3A	Outcome performance table	All	Jacobs agreed upon procedures
3B	Sub measure performance table	All	Jacobs agreed upon procedures
3C	AIM table	All	Jacobs agreed upon procedures
3D	SIM table	All	Jacobs agreed upon procedures
3S	Shadow reporting of new definition data		Jacobs agreed upon procedures
4A	Non-financial information	All	Jacobs agreed upon procedures
4B	Wholesale totex analysis	All	KPMG agreed upon procedures

Section 4 Additional regulatory information			
4C	Impact of AMP performance to date on RCV	All	KPMG agreed upon procedures
4D	Totex analysis – wholesale water	1-24	KPMG agreed upon procedures
4D	Totex analysis – wholesale water	25-28	HMS agreed upon procedures
4E	Totex analysis – wholesale wastewater	1-24	KPMG agreed upon procedures
4E	Totex analysis – wholesale wastewater	25-28	HMS agreed upon procedures
4F	Operating cost analysis – household retail	All	KPMG agreed upon procedures
4G	Wholesale current cost financial performance	All	KPMG agreed upon procedures
4H	Financial metrics	All	KPMG agreed upon procedures
4I	Financial derivatives	All	KPMG agreed upon procedures
4J	Atypical expenditure by business unit - Wholesale water	All	KPMG agreed upon procedures
4K	Atypical expenditure by business unit - Wholesale wastewater	All	KPMG agreed upon procedures
Section 4b Cost assessment data			
4L	Enhancement expenditure by purpose - Wholesale water	All	Jacobs agreed upon procedures
4M	Enhancement expenditure by purpose - Wholesale wastewater	All	Jacobs agreed upon procedures
4N	Operating expenditure - Sewage treatment - Wholesale wastewater – functional expenditure	All	Jacobs agreed upon procedures
4O	Large sewage treatment works - Wholesale wastewater	All	Jacobs agreed upon procedures
4P	Non-financial data for WR, WT and WD - Wholesale water	All	Jacobs agreed upon procedures
4Q	Non-financial data - Properties, population and other - Wholesale water	All	Jacobs agreed upon procedures
4R	Non-financial data - Wastewater network and sludge - Wholesale wastewater	All	Jacobs agreed upon procedures
4S	Non-financial data - sewage treatment - Wholesale wastewater	All	Jacobs agreed upon procedures
4T	Non-financial data - sludge treatment - Wholesale wastewater	All	Jacobs agreed upon procedures
4U	Non-financial data - Properties, population and other	All	Jacobs agreed upon procedures
4V	Operating cost analysis - water resources	All	Jacobs agreed upon procedures
4W	Operating cost analysis - sludge transport, treatment and disposal	All	Jacobs agreed upon procedures

Tables 3S and 4L to 4W and supporting commentaries are not included in the APR and are provided to Ofwat separately. Tables 4L to 4W and supporting commentaries can be found as a standalone reports on our website.

Technical Assurance - 2019 Board Assurance Statement

The following statement was prepared by Jacobs and presented to and discussed with the UUW Board on 25 June 2019.

Annual Performance Report 2019

Appendix 1 - Assurance summary and findings

1. Introduction

For AMP6, all water companies are required by Ofwat to submit an Annual Performance Report (APR) to demonstrate compliance with their separate price controls. This includes specific information on progress on delivery of customer outcomes, service levels, transparent cost information and financial performance. Data used by United Utilities (UUW) to populate the APR has been predominantly derived from their RR19 data return.

The reports prepared by the Company are required to be accessible to all stakeholders so that they show how the sector is delivering for its customers, environment and wider society and in this regard, Ofwat has provided a series of standard templates and accompanying guidance for the outcome, performance commitment and incentive mechanisms. The information in the spreadsheet will assist stakeholders to track and compare actual performance.

In addition to the above, Ofwat also requires that supplementary cost assessment data is incorporated into the APR to help inform their future markets and price setting work ('Water 2020'). Where the required cost assessment data was not already captured within the RR data return, UUW has added additional lines to ensure all data reported is subject to independent technical assurance.

In order to help inform the setting of the outcome performance commitments from 2020 onwards, Ofwat has also developed consistent reporting guidance for three metrics (leakage, supply interruptions and sewer flooding). Whilst companies are required to report these 'shadow' measures alongside the APR, UUW has also incorporated these requirements into the RR19 data return. From 2018/19 onwards, Ofwat also require shadow reporting for vulnerability metrics relating to a common AMP 7 PC for the Priority Services Register.

Furthermore, some of the RR19 data lines have been further enhanced to also include forecasts for the remaining year of AMP6, which have also been subject to independent technical assurance.

Each company's Board is accountable for the quality and transparency of the information they provide on their performance and for implementing assurance procedures to make sure they meet all of their legal and regulatory obligations.

Jacobs has been engaged by UUW to provide external technical assurance, in order to confirm that specific technical and expenditure elements of the RR19 have been compiled in accordance with the guidance[1] of, the Water Services Regulatory Authority (Ofwat), good practice and the PR14 Determination.

The report below sets out our approach.

Our key findings are summarised in Appendix A.

[1] **Guidance includes:**

- Regulatory Accounting Guidelines version 4.08
- APR table templates and guidance
- Performance commitments and definitions agreed with Ofwat for the AMP6 period, or as subsequently superseded
- Ofwat's most recent June Return guidance
- Cost Assessment and Shadow Reporting definitions and guidance
- UUW procedures, definitions and assumptions which should where relevant, be compliant with the guidance hierarchy above
- Ofwat's most recent June Return guidance
- Cost Assessment and Shadow Reporting definitions and guidance
- UUW procedures, definitions and assumptions which should where relevant, be compliant with the guidance hierarchy above

2. Role and Scope

Jacobs UK Ltd has been engaged to provide an independent review of UUW's compliance and governance processes covering the key technical information presented in or supporting their regulatory performance and public domain information reports.

The scope of our work has been determined by UUW, and largely agreed in our Outline Assurance Plan, dated 21st March 2019, which is summarised as follows:

APR information (as reported in RR19), which is prepared in accordance with Ofwat's APR guidance and information which supported the Final Determination for the AMP6 period and includes:

- General information
- Customer service information
- Operational activities and performance
- Networks and treatment
- Capital expenditure allocations to revenue controls and business streams, to investment categories and to measures of success
- Calculation of 2018/19 performance associated with the Outcome Delivery Incentive mechanisms
- Other miscellaneous metrics

Where the above guidance does not cover the items assured, they are assessed against the guidelines set out by Ofwat for June Return information up to 2012, where detailed Reporting Requirements can be used to assess compliance and consistency of reporting over time and between companies.

Performance Commitments/Measures of Success (included with the APR)

The requirements for this information were established at PR14 where the definitions were documented for the performance commitments, the AMP6 targets and operating thresholds were set and penalty/reward mechanisms were agreed for a number of these.

Many of the components involved in the Measures of Success are developed from the RR19 information above, and we checked to ensure each Measure of Success had been populated with the appropriate RR19 performance data. Our key findings relating to the MoS are summarised in Appendix A.

Cost Assessment Submission (included with the APR)

This is an additional data requirement, that was initially requested by Ofwat in 2016/17 to assist in their cost assessment modelling to help inform their future markets and price setting work ('Water 2020') but is now required as part of the Company's APR submission. Whilst some of this data was already captured by UUW within previous RR data returns, additional lines/tables were included and are now reviewed on an annual basis to enable population of the complete dataset.

Shadow Reporting /Convergence Measures (included with the APR)

Companies have worked together, and with Ofwat, to develop consistent reporting guidance for three metrics (leakage, supply interruptions and sewer flooding) to help inform the setting of the outcome performance commitments from 2020 onwards. Reporting against these requirements was initially incorporated into RR18 and has been carried on for RR19. From 2018/19 onwards, Ofwat now also require shadow reporting for vulnerability metrics relating to a common AMP 7 PC for the Priority Services Register.

AMP6 Forecasts (used to support the PR14 reconciliation submission)

For data sets where the line owner is common to both, forecast data for the remaining year of AMP6 have also been included in the RR19 assurance for use in the PR14 reconciliation process.

In addition to the assurance activities summarized above, as detailed in our Outline Assurance Plan, our assurance scope for 2018/19 was extended as follows:

Risk and Compliance Statement (RCS)

As set out in IN 19/06, Ofwat requires companies to publish an annual risk and compliance statement, where each company is required to consider their obligations in both legislation and their licences. As with other company information, it is important that stakeholders can have trust and confidence in the RCS. To support this, UUW engaged us to provide assurance in this area by reviewing the processes that support the declarations in the RCS.

CEP update for Debt Manager & Salesforce metering review

Reviews undertaken during the year to confirm delivery of the above mentioned AMP6 obligations.

3. Approach

3.1 Process

Our approach is summarised in the following steps:

1. Agree Scope with UUW
2. Produce and agree Assurance Plan
3. Review preliminary topic information
4. Undertake Face-to-Face Audits
   - Check that the Company's reported data conforms to the published guidance (generally JR11 Ofwat Reporting Requirements KPI, cost assessment or shadow reporting guidance)
   - Identify and examine the material assumptions to assess their reasonableness, and challenge those which we deem to be inappropriate
   - Where appropriate, test on a sample basis, UUW's approach against its stated methods, procedures, policies and assumptions, and reliability of source data
   - Review the appropriateness of the confidence grades assigned,
   - Assess performance in the Report Year and check consistency against that of previous years and,
   - Ensure relevant performance data has been accurately utilised in the calculation of the various Measures of Success, where applicable.
5. Summarise Audit Findings (SAF)
   - For 2018/19, we have agreed a slight change in approach to the SAF format, adopting a more concise approach to SAF preparation. For RR19, the SAF consists of a brief bullet point summary of the findings and a tabulation of any outstanding issues or areas identified for further UUW action. The purpose of this change in approach was to meet UUW's tighter reporting timetable and ensure a SAF is available in advance of the Level 2 sign off.
6. Close out key issues – through iteration between auditor and UUW specialists, escalating through both organisations where appropriate to agree, as appropriate: adjustment to reported information; future action plans; or additional statements which provide adequately transparency of the issue.
7. Presentations and preparation of Reports and Assurance Statement.

3.2 Assessment

We use the following RAG coding to simply highlight the areas of concern

Figure 1 RAG Criteria used in our Assessments for RR19 (including additional Cost Assessment and Shadow Reporting Data) and Measures of Success information

Key to Audit RAG status	
R	Material concerns over the validity of the submission
A	Minor concerns over reported data or concerns over supporting documentation
B	Content with reported information but supporting data needs completion/noting/future improvements required
G	No material exceptions and compliant with the requirements

Annual Performance Report 2019
Appendix 1 - Assurance summary and findings

The following tests are applied to the data presented and accompanying commentaries:

Figure 2 Example of Tests applied to RR19 and Measures of Success information

RR19 Table Criteria	RAG	Assessment
Performance and Significant events	Green	Has the company met their respective targets and is the reporting process well managed/maintained?
Methodology	Green	Does the methodology remain unchanged from previous year and is it clearly laid out with key data sources, processes and well-defined control points?
Assumptions	Green	Are all assumptions reasonable and appropriately applied?
Source Data	Green	Has the source data been clearly identified, is it complete beyond material concern and is it well managed through to accurate systems input?
Clarity of Audit Trails	Green	Is the audit trail detailed, comprehensive and traceable back to source?
Confidence Grades	Green	Do you concur with the confidence grades presented by the company?
Governance	Green	Has all evidence of appropriate sign-off been provided?
AMP6 Forecast Information	Green	Is the forecast data for 2019/20 appropriate and suitably evidenced?

MoS Criteria	RAG	Assessment
MoS Performance Data	Green	Are the performance figures accurately carried forward to the Measure of Success and correctly calculated in accordance with Ofwat's final PR14 methodology?

4. Findings

Below we highlight the exceptions and other key findings.

A summary of the exceptions and recommended areas for improvement have been identified as shown in Appendix A.

Exceptions based summary reports of each RR19 and associated Measure of Success audit will be provided under separate cover.

4.1 RR19 (incorporating: APR, Cost Assessment, Shadow Reporting, AMP6 Forecasts) and Measures of Success

- The reported data is materially compliant with Ofwat's Reporting Requirements (PR14 and/or June Return as appropriate), Cost Assessment and Shadow Reporting line definitions
- The commentaries and statements provide a fair and balanced commentary of the Company's 2018/19 circumstances and performance
- Procedures and assumptions are generally reasonable and well embedded, well documented and appropriately implemented
- Whilst there are no Red status concerns, some data is still outstanding at the time this statement was prepared, relating to the water related convergence (shadow) reporting measures (unplanned outages and leakage) as well as the water and wastewater capex variance analysis. Whilst we have marked these items as Amber, we do not anticipate any issues, as the capex variance processes have been previously reviewed with no concerns; and the methodologies for convergence (shadow) reporting are still being developed in readiness for AMP7 reporting, with data currently provided on a 'best endeavours' basis.
- In addition to the above, there are a small number of further Amber status concerns remaining, that relate primarily to the inadequacy of methodologies used to derive additional 'cost assessment' data relating to the wastewater network (specifically sewer rehabilitation) and interpretation of guidance relating to the SIM calculation, which may potentially impact on achievement of upper quartile performance.
- Overall, UUW staff were knowledgeable, helpful, receptive and generally well prepared for the audits. However, there were a number of instances where data and supporting information was not available, meaning that scheduled audits were unable to be completed. Whilst this was often due to the need to further refine or amend methodologies in order to improve the quality of reported data, delays have significantly prolonged the audit programme, and impacted on our ability to provide timely SAFs in advance of Level 2 sign off.
- Notwithstanding the above, we continue to see very good evidence of senior management engagement.

As highlighted above, whilst there are a few Amber status concerns, which we discuss in further detail below, the majority of the observations raised (Blue), are relatively minor and are mainly recommendations for UUW to review their processes and to watch the trends over the coming year, (see Appendix A for further details).

4.2 Summary of Amber Findings

Table 2 – BO3-WN - Average minutes supply lost per property (per annum) convergence measure (T3S) – Methodology to ensure compliance with the convergence measure definition, and resultant data still outstanding at the time of reporting

Table 5b – MoS R-A1 (SIM) (T3D) – We have previously highlighted an inconsistency in Ofwat's Table 3D which involves the number of decimal places that are used to calculate the annual customer satisfaction score. For RR19 we sought clarification from Ofwat, however, although this guidance confirmed some elements of the calculation process, there still remains some uncertainty regarding the use of unrounded averages of billing, water and wastewater satisfaction scores for each wave used in the calculation of the overall customer satisfaction score, with the different approaches potentially producing slightly different SIM scores within the range +/- 0.05. UU's method seems appropriate and we understand the Company's decision to retain their existing methodology in order to ensure, consistency with the approach adopted in previous submissions (including prior year's APR/Regulator Return and PR19), especially as this year is the final year of reporting SIM. However, there remains a risk that this approach may be inconsistent with other companies' interpretation of the guidelines and therefore could potentially affect SIM table position and potential rewards when these are published by Ofwat – hence the Amber assessment.

Table 10 – Leakage & PCC convergence measures (T3S) – Whilst the methodology to ensure compliance with the convergence measure definitions has now been developed, the resultant data was still outstanding at the time of reporting.

Table 16 – Cost Assessment Data – Sewer/Rising Main Rehabilitation (T4R) – We were unable to validate the relatively small length of sewer that was refurbished (L20&21) during the year, due to issues with the reporting process and the absence of a sufficiently robust audit trail. We also found that UUW had overstated historic sewer rehabilitation data (L20-21) for RR18. This issue also results in an error in the calculated sewer age profile (L17). UUW has now confirmed that the RR18 data had been corrected through the query process with Ofwat, however, this had not been reflected in the internal documents that we reviewed. UUW has subsequently confirmed that the information is now in the process of being corrected, with further review and confirmation by Corporate Audit proposed prior to submission of the final tables.

Table E1, E8 & E16 – Capex Variance Analysis (T4J, T4K, T4L & 4M)– Variance analysis still outstanding at time of reporting

5 Independent Technical Assurance Statement

Jacobs UK Ltd has been appointed by United Utilities Water to provide independent technical assurance of the data that feeds into their regulatory submissions.

Through a series of meetings and information exchanges, we have reviewed and tested the methodologies, processes and supporting evidence on which the statements in the Annual Performance Report 2019 are based, and we have considered the material accuracy of these statements, the performance data presented and the conclusions drawn by United Utilities Water. Our detailed findings will be provided under separate cover.

On the basis of our audit work and with exceptions as noted in Appendix A, we are satisfied that the information within and which supports the RR19 has been assembled using appropriate data and methodologies and provides a reliable representation of Company performance. There is also good evidence of senior management engagement, governance and programme management.

GA Hawken

Technical Assurance Director

Jacobs UK Ltd

25 June 2019

Corporate Audit

Review of regulatory reporting 2018/19

Annual Performance Report 2019

Appendix 1 – Performance commitment sub measures

FINAL 21 June 2019

1. Executive Summary

1.1. Purpose

To report the results of the audit work carried out by Corporate Audit to support the approval of the 2018/19 Annual Performance report (APR) by the UUW Board.

1.2. Context

Ofwat has set out its approach to monitoring and assuring the delivery of the AMP6 contract. The two key elements of this framework are:

- The Annual Performance Report (APR), which outlines Ofwat's minimum information requirements; and
- The Company Monitoring Framework, which sets out the review and assurance processes that support UU's reporting.

The Annual Performance Report, together with a summary of the results of the data assurance ('Assurance Report'), needs to be published by 15 July each year. Our audit is therefore timed to provide assurance over the process by which regulatory data is compiled in advance of UUW Board sign-off.

1.3. Audit Objective

The objective of the audit is to provide assurance in respect of the governance, processes and key controls over the production of the 2018/19 Annual Performance Report and associated Assurance Report. Refer to Section 2 for details of the scope of the audit.

1.4. Conclusion

Based on the work carried out, we are satisfied that data reported in sections 3 and 4 of the Annual Performance Report is supported by underlying systems, data and tables, and that it has been compiled in accordance with RAG 3.11 "Guideline for the format and disclosures for the annual performance report".

The overall governance arrangements in place and assurance activities to ensure the regulatory data is compiled accurately and completely have been followed sufficiently in accordance with the published Assurance Plan, and the proposed Assurance Report is a fair reflection of the associated assurance activities and results thereof.

At the time of this report, the Leakage and Average Minutes Supply Lost tables were being finalised and the APR was still being finalised. Corporate Audit will confirm these tables have been appropriately signed-off and will continue to review subsequent versions of the APR document and feedback our comments in real time until the document is finalised.

2. Background and scope of review

2.1. Background

There are two key elements of Ofwat's framework for monitoring and assuring the delivery of the AMP6 contract:

- The Company Monitoring Framework, which sets out the review and assurance processes that support UU's reporting; and
- The Annual Performance Report, which outlines Ofwat's minimum information requirements.

The Company Monitoring Framework

This is designed to ensure that stakeholders can have confidence in the information that is provided by water companies and to make sure that the assurance of this information is provided in a proportionate way. The framework considers both the data assurance activities that companies put in place to provide accurate data and the wider assurance that they provide to demonstrate that they are listening to customers and delivering services they want and can afford.

Ofwat assesses companies between three categories: self-assurance, targeted assurance and prescribed assurance, with UUW being in the 'self-assurance' category. As part of the 2018/19 annual reporting cycle, UUW has published two documents:

- A statement of risks, strengths and weaknesses in regulatory reporting, together with a draft assurance plan (published November 2018). This is a consultation document, with Ofwat being one of those consulted; and
- The final assurance plan, setting out the assurance that will be adopted for the 2018/19 regulatory reporting. This was published in March 2019 and reflects feedback obtained during the draft assurance plan and further internal analysis.

Governance arrangements will continue to follow the '3 lines of assurance' model and are built upon the established processes in place for previous years' annual regulatory reporting.

The Annual Performance Report

Ofwat require companies to report on their financial and operational performance in an Annual Performance Report (APR). This includes information specific to customers and stakeholders, together with information that enables comparison between companies across the sector.

As part of the APR Ofwat require that a risk and compliance statement is published annually, setting out how the company has complied with its relevant statutory, licence and regulatory obligations and is taking appropriate steps to manage and/or mitigate key risks it faces.

The APR is supplemented by a series of data tables and supporting commentary in four main sections:

- Section 1: Regulatory financial reporting;
- Section 2: Price control and additional segmental reporting of costs and revenues;
- Section 3: Performance summary, including outcome delivery performance; and
- Section 4: Additional regulatory information, including totex and financeability information.

The Annual Performance Report, together with a summary of the results of the data assurance ('Assurance Report'), needs to be published by 15 July each year. Our audit is therefore timed to provide assurance over the process by which regulatory data is compiled in advance of UUW Board sign-off.

Key Risks

The overall risk is that inaccurate, incomplete or misleading data / information is published and reported to Ofwat resulting in regulatory action being taken against UU and/or its individual Directors. Consequently, financial penalties could be imposed together with a loss of confidence by customers and investors and a "demotion" of Company Monitoring Framework category.

2.2. Scope

The scope of this review supplements the assurance provided by KPMG and Jacobs, providing the Board with assurance over the 2018/19 regulatory reporting governance, processes and key controls in advance of the Board sign-off of the Annual Performance Report and Assurance Report prior to publication in July 2019.

The audit covered the following areas:

- The validity and consistency of the data reported in Sections 3 and 4 of the Annual Performance Report. This included sample testing to agree data back to underlying UU records and systems. Note: this review did not duplicate the testing performed by KPMG;
- Consistency of the commentary with the underlying data within the APR;
- Compliance of the reported data in the APR with key aspects of Regulatory Guideline 3.11 "Guideline for the format and disclosures for the annual performance report";
- Overall governance arrangements in place to ensure the regulatory data is complete & accurate and reported in line with the required timescales;
- Confirmation, on a sample basis, that assurance activities detailed in UU's published Final Assurance Plan have been completed; and
- Review the proposed Assurance Report (to be published along with the Annual Performance Report 2018/19) to ensure it is a fair reflection of the associated assurance activities and results thereof.

Exclusions from scope

- As testing will be performed on a sample basis, the review did not verify all the regulatory data or compliance with regulatory obligations;
- Sections 1 & 2 of the Annual Performance Report which were subject to external audit by KPMG with opinion;
- Review of the ODI data collection, incentive calculations and reporting processes as this will be performed by the technical auditor Jacob;
- The review did not assess the underlying adequacy of other assurance activities performed or the competency and objectivity of the assurance provider; and
- The regulatory performance of the business.

3. Summary of work carried out and findings

3.1. Consistency of the data reported in Sections 3 and 4 of the Supporting Tables to the Annual Performance Report

We selected a sample of 10 data table blocks (which included multiple lines) and these were traced back to the underlying systems and records with reference to the supporting Methodology Statements. We tested for consistency of the reported data within the commentary of the "annual performance report".

Whilst our sampling did not reveal any inconsistencies, the technical audit performed by Jacobs did highlight some issues which required some re-work of some tables. This is explained in 3.4 below.

3.2. Consistency of the commentary with the underlying data within the APR

We have reviewed the APR document for issues of presentation and consistency as the document was being prepared. We fed back our observations and suggestions to Economic Regulation in real time such that they could be responded to, and then confirmed that the required changes had been appropriately incorporated into the APR.

At the time of writing, the APR was still being compiled, and we will continue to review subsequent versions of the document and feedback our comments in real time until the document is finalised.

3.3. Compliance of the reported data in the APR with key aspects of Regulatory Guideline 3.11

We reviewed the content of the Annual Performance Report against the requirements set out in RAG 3.11 "Guideline for the format and disclosures for the annual performance report" for omissions or contradictions.

No issues were noted.

3.4. **Overall governance arrangements in place to ensure the regulatory data is completed accurately, completely and to the required timescales**

In respect of sample data from 3.1, we ensured that the management review of the Performance and Compliance Statements and Methodology Statements had been evidenced in line with the Assurance Plan. *At the time of this report, physical sign offs were outstanding for two table sets:*

- Table 10 – Leakage & PCC convergence measures: the technical audit identified an issue which requires lengthy modelling to be undertaken and as such this may not be completed prior to the Board meeting 25 June 2019.
- Table 2 – BO3-WN - Average minutes supply lost per property (per annum) convergence measure: the work on this measure was being recalculated following the technical audit and requires sign-off.

Corporate Audit will continue to work with the business to obtain evidence of the required sign-offs.

3.5. Confirmation that assurance activities detailed in UU's published Final Assurance Plan have been completed in line with the plan

We verified, on a sample basis, that the assurance activities as described within the Assurance Plan had been performed. In particular, we reviewed the explanation of KPMG's and Jacob's responsibilities within the Final Assurance Plan against the respective assurance reports.

No issues were noted.

3.6. **Review the proposed Assurance Report to ensure it is a fair reflection of the associated assurance activities and results thereof**

We have reviewed the draft Assurance Report and are satisfied that it is a fair reflection of the assurance activities performed and the results of those activities.

We recommended updating the Assurance report with commentary to reflect the assurance activities on the targeted areas of assurance and confirmed that the amendments were made to the Assurance Report.

Annual Performance Report 2019

Appendix 2 – Performance commitment sub measures

Introduction

This appendix sets out how the reported performance levels and associated outperformance payments and penalty calculations have been determined for our performance commitments that are based upon an index of sub measures. Information is provided for the 2015/16, 2016/17, 2017/18 and 2018/19 calculations.

Our index based performance commitments are:

- A3 - Water Quality Service Index
- B2 - Reliable Water Service Index
- S-A1 - Private sewers index
- S-A2 Wastewater network performance index
- S-B2 Sewer flooding index
- S-D2 Maintaining our WwTW

A description of the performance of these index measures is provided in Section 1 of the APR.

The performance for each of the sub measures is also set out in Pro forma Table 3B, within Section 2.5 of the APR.

Performance commitment A3 - Water Quality Service Index

Derivation of top level index score

The overall index score for this measure is calculated by multiplying the actual performance by the weighting for each sub-measure, summing the results and adding a constant (-15,628.2236).

A3 - Water Quality Service Index 2015/16 performance
The derivation of the 2015/16 index score of 120.4653 is set out below. The actual performance is multiplied by the weighting for each of the sub-measures.

Performance targets	Sub-measure incentive contribution	Target Performance 2015/16	Actual Performance 2015/16	Weighting	Target	Actual Performance 2015/16 x weighting
WTW Coliform non-compliance (%)	Penalty only	0.06	0.06	-16.21712812	-0.6487	-0.9730
SR Integrity Index	Penalty only	99.98	99.98	37.39055984	3737.5604	3738.3082
No. of WTW turbidity fails	Penalty only	1	1	-0.076539797	-0.2296	-0.0765
Mean Zonal Compliance (%)	Penalty only	99.96	99.96	116.549188	11650.2568	11650.2568
Distribution Maintenance Index (%)	Penalty only	99.89	99.89	4.48246986	447.7091	447.7539
Sum of weighted target performance for penalty only sub measures					**15834.6480**	**15835.2694**
No. unwanted customer contacts for water quality (per year)	Penalty and outperformance	9,171	9,171	-0.009440671	-87.0996	-86.5804

Weighted sum	15748.6890
Constant	-15628.2236
Weighted sum plus constant (i.e. Index score)	120.4654

Derivation of the 2015/16 outperformance payments or penalty

The calculation of the penalty and the outperformance payments for this measure are determined on a different basis. The size of any penalty associated with the WQSI is determined by the under-performance of all six sub-measures.

The size of any outperformance payments is however based upon the outperformance of the customer contact submeasure only. For the outperformance payments calculation the other five (water quality) sub-measures do not contribute to the outperformance payments as water quality compliance is a statutory obligation and it was not deemed to be appropriate to gain an outperformance payments for meeting our statutory obligations.

Therefore the size of any WQSI outperformance payments is based upon the actual customer contact value plus the lower of a) the sum of the weighted actual scores or b) the sum of the weighted target scores, for the five water quality compliance measures. The derivation of the index score used in the outperformance payments calculation is set out below:

Sum of lower of target or actual performance for performance measures plus actual customer contact performance	15748.0676
Add constant	-15628.2236
Index score for reward calculation	119.8440

The outperformance payments is therefore determined as = (Index score for outperformance payments calculation – Reward deadband) x reward incentive rate

Outperformance payments = (119.8439843-119.3) x 0.471 = £0.227 million

A3 - Water Quality Service Index 2016/17 performance

The derivation of the 2016/17 index score of 116.923 is set out below. The actual performance is multiplied by the weighting for each of the sub-measures.

Performance targets	Sub-measure incentive contribution	Target Performance 2016/17	Actual Performance 2016/17	Weighting	Target Performance 2016/17 x weighting	Actual Performance 2016/17 x weighting
WTW Coliform non-compliance (%)	Penalty only	0.04	0.01	-16.21712812	-0.6487	-0.1622
SR Integrity Index	Penalty only	99.96	99.98	37.39055984	3737.5604	3738.3082
No. of WTW turbidity fails	Penalty only	3.00	2	-0.076539797	-0.2296	-0.1531
Mean Zonal Compliance (%)	Penalty only	99.96	99.96	116.549188	11650.2568	11650.2568
Distribution Maintenance Index (%)	Penalty only	99.88	99.85	4.48246986	447.7091	447.5746
Sum of weighted target performance for penalty only sub-measures					**15834.6480**	**15835.8244**
No. unwanted customer contacts for water quality (per year)	Penalty and reward	8,065	9,605	-0.009440671	-76.1419	-90.6776

Weighted sum	15745.1467
Constant	-15628.2236
Weighted sum plus constant (i.e. Index score)	116.923

Derivation of the 2016/17 outperformance payments or penalty

The calculation of the penalty and the reward for this measure are determined on a different basis.

The size of any penalty associated with the WQSI is determined by the underperformance of all six sub-measures. The size of any outperformance payments is however based upon the outperformance of the customer contact sub-measure only. For the outperformance payments calculation the other five (water quality) sub-measures do not contribute to the outperformance payments as water quality compliance is a statutory obligation and it was not deemed to be appropriate to gain an outperformance payments for meeting our statutory obligations.

Therefore the size of any WQSI outperformance payments is based upon the actual customer contact value plus the lower of a) the sum of the weighted actual scores or b) the sum of the weighted target scores, for the five water quality compliance measures. The derivation of the index score used in the outperformance payments calculation is set out below:

Sum of lower of target or actual performance for performancemeasures	15834.6480
Sum of lower of target or actual performance for performancemeasures plus actual customer contact performance	15743.9703
Add constant	-15628.2236
Index score for penalty calculation	115.7467

As the index score is also below the penalty cap the capped penalty has been applied. The penalty is therefore determined as = (Penalty deadband – Penalty cap) x penalty incentive rate

Penalty = (130.3-125.6) x -0.77 = -£3.619million.

A3 - Water Quality Service Index 2017/18 calculation

The derivation of the 2017/18 index score of 98.645 is set out below. The actual performance is multiplied by the weighting for each of the sub-measures.

Performance targets	Sub-measure incentive contribution	Target Performance 2017/18	Actual Performance 2017/18	Weighting	Target Performance 2017/18 x weighting	Actual Performance 2017/18 x weighting
WTW Coliform non-compliance (%)	Penalty only	0.04	0.01	-16.21712812	-0.6487	-0.1622
SR Integrity Index	Penalty only	99.96	99.97	37.39055984	3737.5604	3737.9343
No. of WTW turbidity fails	Penalty only	3	1	-0.076539797	-0.2296	-0.0765
Mean Zonal Compliance (%)	Penalty only	100.00	99.97	116.549188	11654.9188	11651.4223
Distribution Maintenance Index (%)	Penalty only	99.88	99.89	4.48246986	447.7091	447.7539
Sum of weighted target performance for penalty only sub-measures					**15839.3099**	**15836.8718**
No. unwanted customer contacts for water quality (per year)	Penalty and reward	6,904.46	11,652	-0.009440671	-65.1784	-110.0027

Weighted sum	15836.8718
Constant	-15628.2236
Weighted sum plus constant (i.e. Index score)	98.6455

Derivation of the 2017/18 outperformance payments or penalty

The calculation of the penalty and the reward for this measure are determined on a different basis.

The size of any penalty associated with the WQSI is determined by the underperformance of all six sub-measures. The size of any outperformance payments is however based upon the outperformance of the customer contact sub-measure only. For the outperformance payments calculation the other five (water quality) sub-measures do not contribute to the outperformance payments as water quality compliance is a statutory obligation and it was not deemed to be appropriate to gain an outperformance payments for meeting our statutory obligations.

Therefore the size of any WQSI outperformance payments is based upon the actual customer contact value plus the lower of a) the sum of the weighted actual scores or b) the sum of the weighted target scores, for the five water quality compliance measures. The derivation of the index score used in the outperformance payments calculation is set out below:

Sum of lower of target or actual performance for performancemeasures plus actual customer contact performance	15834.6480
Sum of lower of target or actual performance for performancemeasures plus actual customer contact performance	15743.9703
Add constant	-15628.2236
Index score for penalty calculation	98.6455

The index score is below the penalty cap the capped penalty has been applied. The penalty is therefore determined as = (Penalty deadband – Penalty cap)*penalty incentive rate.

Penalty = (145.9-141.2) x -0.77 = £3.619 million.

The mean zonal compliance penalty isn't applicable because the larger WQSI penalty applies.

A3 - Water Quality Service Index 2018/19 calculation

The derivation of the 2017/18 index score of 101.182 is set out below. The actual performance is multiplied by the weighting for each of the sub-measures.

Performance targets	Sub-measure incentive contribution	Target Performance 2018/19	Actual Performance 2018/19	Weighting	Target Performance 2018/19 x weighting	Actual Performance 2018/19 x weighting
WTW Coliform non-compliance (%)	Penalty only	0.04	0.01	-16.21712812	-0.6487	-0.1622
SR Integrity Index	Penalty only	99.96	99.98	37.39055984	3737.5604	3738.3082
No. of WTW turbidity fails	Penalty only	3	1	-0.076539797	-0.2296	0.0000
Mean Zonal Compliance (%)	Penalty only	100.00	99.93	116.549188	11654.9188	11646.7604
Distribution Maintenance Index (%)	Penalty only	99.88	99.86	4.48246986	447.7091	447.6194
Sum of weighted target performance for penalty only sub-measures					**15839.3099**	**15832.5258**
No. unwanted customer contacts for water quality (per year)	Penalty and reward	6,904	11,652	-0.009440671	-65.1784	-103.1205

Weighted sum	15729.4053
Constant	-15628.2236
Weighted sum plus constant (i.e. Index score)	101.1817

Derivation of the 2018/19 outperformance payments or penalty

The calculation of the penalty and the reward for this measure are determined on a different basis.

The size of any penalty associated with the WQSI is determined by the underperformance of all six sub-measures. The size of any outperformance payments is however based upon the outperformance of the customer contact sub-measure only. For the outperformance payments calculation the other five (water quality) sub-measures do not contribute to the outperformance payments as water quality compliance is a statutory obligation and it was not deemed to be appropriate to gain an outperformance payments for meeting our statutory obligations.

Therefore the size of any WQSI outperformance payments is based upon the actual customer contact value plus the lower of a) the sum of the weighted actual scores or b) the sum of the weighted target scores, for the five water quality compliance measures. The derivation of the index score used in the outperformance payments calculation is set out below:

Sum of lower of target or actual performance for performancemeasures plus actual customer contact performance	15832.5258
Sum of lower of target or actual performance for performancemeasures plus actual customer contact performance	15729.4053
Add constant	-15628.2236
Index score for penalty calculation	101.1817

The index score is below the penalty cap the capped penalty has been applied. The penalty is therefore determined as = (Penalty deadband – Penalty cap)*penalty incentive rate.

Penalty = (145.9-141.2) x -0.77 = £3.619 million.

The mean zonal compliance penalty isn't applicable because the larger WQSI penalty applies.

Performance commitment B2 - Reliable Water Service Index

Derivation of top level index score

The overall index score for this measure is calculated by multiplying the actual performance by the weighting for each sub-measure, summing the results and adding a constant (134.147).

B2 - Reliable Water Service Index 2015/16 performance

The derivation of the 2015/16 16.447 index score is set out below. The actual performance is multiplied by the weighting for each of the sub-measures.

Performance targets	Sub-measure incentive contribution	Target Performance 2015/16	Actual Performance 2015/16	Weighting	Actual performance 2015/16 x weighting
Total bursts	Penalty only	5080	4785	-0.002021816	-9.674387565
Interruptions greater than 12 hours	Penalty and reward	730	11431	-0.007902017	-90.32796146
Poor pressure	Penalty and reward	272	262	-0.008468338	-2.21870443
No. unwanted customer contacts for water availability (per year)	Penalty and reward	48000	47,011	-0.000329251	-15.47840593

Weighted sum	-117.6994594
Constant	134.147
Weighted sum plus constant (i.e. Index score)	16.447

Derivation of the 2015/16 reward or penalty

The calculation of the penalty and the outperformance payments for this measure are determined on a different basis. The size of any penalty associated with the RWSI is determined by the under-performance of all four submeasures.
The size of any outperformance payments is however based upon the outperformance of the interruptions, poor pressure and unwanted contacts sub-measures only.

As the index score of 16.447 is in penalty all four measures are used in the index score for calculating the penalty.

As the index score is also below the penalty cap the capped penalty has been applied. The penalty is therefore determined as = (Penalty deadband – Penalty cap)*penalty incentive rate

Penalty = (95 – 94) x 7.974 = £7.974million.

B2 - Reliable Water Service Index 2016/17 performance

The derivation of the 2016/17 77.840 index score is set out below. The actual performance is multiplied by the weighting for each of the sub-measures.

Performance targets	Sub-measure incentive contribution	Target Performance 2016/17	Actual Performance 2016/17	Weighting	Actual performance 2016/17 x weighting
Total bursts	Penalty only	5080	4590	-0.002021816	-9.280133526
Interruptions greater than 12 hours	Penalty and reward	730	3759	-0.007902017	-29.70368359
Poor pressure	Penalty and reward	272	345	-0.008468338	-2.921576445
No. unwanted customer contacts for water availability (per year)	Penalty and reward	48000	43740	-0.000329251	-14.4014268

Weighted sum	-56.30682036
Constant	134.147
Weighted sum plus constant (i.e. Index score)	77.83989824

Derivation of the 2016/17 reward or penalty

The calculation of the penalty and the reward for this measure are determined on a different basis.

The size of any penalty associated with the RWSI is determined by the under-performance of all four sub-measures. The size of any reward is however based upon the outperformance of the interruptions, poor pressure and unwanted contacts sub-measures only.

As the index score of 77.840 is in penalty all four measures are used in the index score for calculating the penalty.

As the index score is also below the penalty cap the capped penalty has been applied. The penalty is therefore determined as = (Penalty deadband – Penalty cap)*penalty incentive rate

Penalty = (95.5 – 94.5) x 7.974 = £7.974 million.

B2 - Reliable Water Service Index 2017/18 calculations

The derivation of the 2017/18 70.827 index score is set out below. The actual performance is multiplied by the weighting for each of the sub-measures.

Performance targets	Sub-measure incentive contribution	Target Performance 2017/18	Actual Performance 2017/18	Weighting	Actual performance 2017/18 x weighting
Total bursts	Penalty only	5080	4590	-0.002021816	-9.065821075
Interruptions greater than 12 hours	Penalty and reward	730	3759	-0.007902017	-36.59424281
Poor pressure	Penalty and reward	272	345	-0.008468338	-2.354197831
No. unwanted customer contacts for water availability (per year)	Penalty and reward	48000	43740	-0.000329251	-15.30587855

Weighted sum	-63.32014026
Constant	134.147
Weighted sum plus constant(i.e. Index score)	70.82657834

Derivation of the reward or penalty

The calculation of the penalty and the outperformance payments for this measure are determined on a different basis. The size of any penalty associated with the RWSI is determined by the under-performance of all four sub measures.

The size of any outperformance payments is however based upon the outperformance of the interruptions, poor pressure and unwanted contacts sub-measures only.

As the index score of 70.827 is in penalty all four measures are used in the index score for calculating the penalty.

As the index score is also below the penalty cap the capped penalty has been applied. The penalty is therefore determined as = (Penalty deadband – Penalty cap)*penalty incentive rate

Penalty = (96 – 95) x 7.974 = £7.974 million

B2 - Reliable Water Service Index 2018/19 calculations

The derivation of the 2018/19 98.457 index score is set out below. The actual performance is multiplied by the weighting for each of the sub-measures.

Performance targets	Sub-measure incentive contribution	Target Performance 2018/19	Actual Performance 2018/19	Weighting	Actual performance 2018/19 x weighting
Total bursts	Penalty only	5080	5212	-0.002021816	-10.53770282
Interruptions greater than 12 hours	Penalty and reward	730	730	-0.007902017	-6.708812814
Poor pressure	Penalty and reward	272	262	-0.008468338	-2.21870443
No. unwanted customer contacts for water availability (per year)	Penalty and reward	48000	49278	-0.000329251	-16.22481733

Weighted sum	-35.69003739
Constant	134.147
Weighted sum plus constant (i.e. Index score)	98.45668121

Derivation of the reward or penalty

The calculation of the penalty and the outperformance payments for this measure are determined on a different basis. The size of any penalty associated with the RWSI is determined by the under-performance of all four sub-measures.

The size of any outperformance payments is however based upon the outperformance of the interruptions, poor pressure and unwanted contacts sub-measures only.

As the index score of 98.457 is within the penalty deadband (96.5) therefore no penalty is incurred.

Performance commitment S-A1 - Private sewers index

S-A1 - Private sewers index Index calculation

The index is calculated by multiplying the performance for each of the sub-measures by its associated willingness to pay (WTP) figure. Each of the resulting figures is then summed together and the total divided by the summed FY14 total performance (1,315,538). The result of this is multiplied by 100 to generate the index score.

S-A1 - Private sewers index 2015/16 performance

Sub-measure	Performance	WTP	Total
Sewer blockages	13,906	59.30	824,625.80
Sewer collapses / rising main bursts	361	97.10	35,053.10
Pollution incidents (Ww infra)	5	1516.30	7,581.50
Sewer flooding (internal)	418	297.50	124,355.00
Sewer flooding (external)	4,605	46.6	214,593.00
		Total	1,206,208.40
		Constant	(1,206,208.40/1,315,538) x 100
		Weighted sum plus constant (i.e. Index score)	91.69

Derivation of the reward or penalty

This measure is in outperformance payments for 2015/16. The outperformance payments is calculated by assessing how many index points performance is below the outperformance payments deadband (up to a maximum of 6.9 points) and multiplying the result by the incentive rate of £1.069 million per point. As shown in the table below our performance is below the outperformance payments cap of 91.90, therefore this figure has been used to calculate the outperformance payments not our actual performance of 91.69.

PC 2015/16	100.00
2015/16 performance	91.69
Reward dead band	98.80
Reward cap	91.90
Incentive rate	£1.069m
Reward calculation	(98.8-91.90)* £1.069
Reward	**£7.38m**

S-A1 - Private sewers index 2016/17 performance

Sub-measure	Performance	WTP	Total
Sewer blockages	14,031	59.30	832,038.30
Sewer collapses / rising main bursts	391	97.10	37,966.10
Pollution incidents (Ww infra)	1	1,516.30	1,516.30
Sewer flooding (internal)	415	297.50	123,462.50
Sewer flooding (external)	4,599	46.60	214,313.40
		Total	1,209,296.60
		Constant	(1,209,296.60/1,315,538) x 100
		Weighted sum plus constant (i.e. Index score)	91.92

Derivation of the reward or penalty

This measure is in outperformance payments for 2016/17. The outperformance payments is calculated by assessing how many index points performance is below the outperformance payments deadband (up to a maximum of 6.9 points) and multiplying the result by the incentive rate of £1.069 million per point. As shown in the table below our performance is below the reward cap of 91.90, therefore this figure has been used to calculate the outperformance payments not our actual performance of 91.69.

PC 20117/18	100.00
2017/18 performance	91.69
Reward dead band	98.80
Reward cap	91.90
Incentive rate	£1.069m
Reward calculation	(98.8-91.92)* £1.069
Reward	**£7.35m**

S-A1 - Private sewers index 2017/18 performance

Sub-measure	Performance	WTP	Total
Sewer blockages	13,809	59.30	818,873.7
Sewer collapses / rising main bursts	302	97.10	29,324.2
Pollution incidents (Ww infra)	4	1,516.30	6,065.2
Sewer flooding (internal)	276	297.50	82,110.0
Sewer flooding (external)	3,901	46.60	181,786.6
		Total	1,118,160
		Constant	(1,118,160 / 1,315,538) x 100
		Weighted sum plus constant (i.e. Index score)	85.0

Derivation of the reward or penalty

This measure is in outperformance payments for 2017/18. The outperformance payments is calculated by assessing how many index points performance is below the outperformance payments deadband (up to a maximum of 6.9 points) and multiplying the result by the incentive rate of £1.069 million per point. As shown in the table below our performance is below the outperformance payments cap of 91.90, therefore this figure has been used to calculate the outperformance payments not our actual performance of 85.0.

PC 2017/18	100.00
2017/18 performance	85.0
Reward dead band	98.8
Reward cap	91.9
Incentive rate	£1.069m
Reward calculation	(98.8-91.0)* £1.069
Reward	**£7.376m**

S-A1 - Private sewers index 2018/19 performance

Sub-measure	Performance	WTP	Total
Sewer blockages	14,589	59.30	865,127.7
Sewer collapses / rising main bursts	316	97.10	30,683.6
Pollution incidents (Ww infra)	2	1,516.30	3,032.6
Sewer flooding (internal)	308	297.50	91,630.0
Sewer flooding (external)	3,949	46.60	184,023.4
		Total	1,174,497.3
		Constant	(1,174,497.3 / 1,315,538) x 100
		Weighted sum plus constant (i.e. Index score)	89.27

Derivation of the reward or penalty

This measure is in outperformance for 2018/19. The outperformance payment is calculated by assessing how many index points performance is below the outperformance deadband (up to a maximum of 6.9 points*) and multiplying the result by the incentive rate of £1.069 million per point. As shown in the table below our performance is below the outperformance payments cap of 91.90, therefore this figure has been used to calculate the outperformance payments not our actual performance of 89.27.

PC 2018/19	100.00
2018/19 performance	89.27
Reward dead band	98.8
Reward cap	91.9
Incentive rate	£1.069m
Reward calculation	(98.8-91.9)* £1.069
Reward	**£7.376m**

Performance commitment S-A2 Wastewater network performance index

Index calculation

The index is calculated by multiplying the performance for each of the sub-measures by its associated WTP figure. The resulting figures are then summed together and the total divided by the summed total of the FY14 performance (288,266). The result of this is multiplied by 100 to generate the index score.

S-A2 Wastewater network performance index 2015/16 performance

Sub-measure	Performance	WTP	Total
Sewer blockages	7,473	26.1	195,045.30
Sewer collapses / rising main bursts	261	97.1	25,343.10
Sewer collapses / rising main bursts	51	485.2	24,745.20
Equipment failures (ww infra)	2,704	6.3	17,035.20

Total	262,168.80
Constant	(262,168.80/288,266)*100
Weighted sum divided by constant (i.e. Index score)	**90.95**

Derivation of the reward or penalty

This measure is below our performance commitment of 106.2, however as it is incentivised through a penalty only mechanism, no outperformance payment is to be applied.

S-A2 Wastewater network performance index 2016/17 performance

Sub-measure	Performance	WTP	Total
Sewer blockages	7,469	26.1	194,940.90
Sewer collapses / rising main bursts	268	97.1	26,022.80
Sewer collapses / rising main bursts	46	485.2	22,319.20
Equipment failures (ww infra)	2,322	6.3	14,628.60

Total	257,911.50
Constant	(257,911.50/288,266)*100
Weighted sum divided by constant (i.e. Index score)	**89.47**

Derivation of the reward or penalty

This measure is below our performance commitment of 103.2, however as it is incentivised through a penalty only mechanism, no outperformance payment is to be applied.

S-A2 Wastewater network performance index 2017/18 performance

Sub-measure	Performance	WTP	Total
Sewer blockages	7,047	26.1	22,527.20
Sewer collapses / rising main bursts	232	97.1	183,926.70
Sewer collapses / rising main bursts	47	485.2	19,139.40
Equipment failures (ww infra)	3,038	6.3	248,397.70

Total	261,588.00
Constant	(257,527.2/288,266)*100
Weighted sum divided by constant (i.e. Index score)	**86.17**

Derivation of the reward or penalty

This measure is below our performance commitment of 99.4, however as it is incentivised through a penalty only mechanism, no outperformance payments is to be applied.

S-A2 Wastewater network performance index 2018/19 Performance

Sub-measure	Performance	WTP	Total
Sewer blockages	7,276	26.1	189,903.60
Sewer collapses / rising main bursts	239	97.1	23,206.90
Sewer collapses / rising main bursts	53	485.2	25,715.60
Equipment failures (ww infra)	3,613	6.3	22,761.90

Total	261,588.00
Constant	(261,588.00 /288,266)*100
Weighted sum divided by constant (i.e. Index score)	**90.75**

Derivation of the reward or penalty

This measure is below our performance commitment of 95.60, however as it is incentivised through a penalty only mechanism, no outperformance payments is to be applied.

Performance commitment S-B2 Sewer flooding index

Index calculation

The index is calculated by multiplying the performance for each of the sub-measures by its associated WTP figure. Each of the resulting figures is then summed together and the total divided by the summed total FY14 performance (258,753). The result of this is multiplied by 100 to generate the index score.

S-B2 Sewer flooding index 2015/16 performance

Sub-measure	Performance	WTP	Total
Properties flooded due to other causes	839	117.1	98,246.9
Properties flooded due to hydraulic overload	147	117.1	17,213.7
Areas flooded due to other causes	3,391	26.3	89,183.3
Areas flooded due to hydraulic overload	455	26.3	11,966.5
Incidents of repeat flooding	377	117.1	44,146.7
		Total	260,757.10
		Constant	(260,757.10/258,753)*100
		Weighted sum divided by constant (i.e. Index score)	**100.77**

Derivation of the reward or penalty

This measure is above our performance commitment of 93.1, however it is below the penalty deadband of 103.7 therefore no penalty is to be applied.

S-B2 Sewer flooding index 2016/17 Performance

Sub-measure	Performance	WTP	Total
Properties flooded due to other causes	794	117.1	92,977.40
Properties flooded due to hydraulic overload	147	117.1	17,213.70
Areas flooded due to other causes	3,274	26.3	86,106.20
Areas flooded due to hydraulic overload	215	26.3	5,654.50
Incidents of repeat flooding	362	117.1	42,390.20
		Total	244,342.00
		Constant	(244,342.00/258,753)*100
		Weighted sum divided by constant (i.e. Index score)	**94.43**

Derivation of the reward or penalty

This measure is in penalty for 2016/17. The penalty is calculated by assessing how many index points performance is above the penalty deadband (up to a maximum of 10.4 points) and multiplying the result by the incentive rate of £2.032 million per point.

PC 2016/17	83.9
2016/17 performance	94.43
Penalty dead band	93.7
Penalty collar	104.1
Incentive rate	£2.032m
Penalty calculation	(94.43-93.7)* £2.032
Penalty	**£1.484m**

S-B2 Sewer flooding index 2017/18 Performance

Sub-measure	Performance	WTP	Total
Properties flooded due to other causes	559	117.1	65,459
Properties flooded due to hydraulic overload	91	117.1	10,656
Areas flooded due to other causes	2,863	26.3	75,297
Areas flooded due to hydraulic overload	212	26.3	5,576
Incidents of repeat flooding	206	117.1	24,123
		Total	181,110.10
		Constant	(181,110.10/258,753)*100
		Weighted sum divided by constant (i.e. Index score)	**69.99**

Derivation of the reward or penalty

This measure is below our performance commitment of 73.9, however it is above the outperformance payments deadband of 65.0 therefore no outperformance payments is to be applied.

S-B2 Sewer flooding index 2018/19 Performance

Sub-measure	Performance	WTP	Total
Properties flooded due to other causes	551	117.1	64,522.10
Properties flooded due to hydraulic overload	15	117.1	1,756.50
Areas flooded due to other causes	2,848	26.3	74,902.40
Areas flooded due to hydraulic overload	146	26.3	3,839.80
Incidents of repeat flooding	124	117.1	14,520.40
		Total	159,541.20
		Constant	(159,541.20/258,753)*100
		Weighted sum divided by constant (i.e. Index score)	61.66

PC 2018/19	70.30
2018/19 performance	61.66
Reward dead band	62.20
Reward collar	48.70
Incentive rate	£1.05m
Reward calculation	(62.2-61.66)* £1.05
Reward	**£0.567m**

Derivation of the reward or penalty

This measure is in reward for 2018/19. This is calculated by assessing how many index points performance is below the reward deadband (up to a maximum of 13.5 points) and multiplying the result by the incentive rate of £1.05 million per point.

Performance commitment S-D2 Maintaining our WwTW Index calculation

The index is calculated by summing the points each WwTW has accrued for its environmental performance in the year. The maximum potential points that a works in each size band can receive for each level of failure or risk is shown in the table below, with these values based upon an annual failure or being at that level of risk for the full 12 month period.
The performance of each works can change month by month, with the score for each works being based upon the monthly performance, with the total score over the twelve months being assigned to the highest risk category for that works.

This year two works from size band 1-4 hand three works from size band 6a have been classified as a failing works.

A more detailed description of this methodology can be found in our definition documents which can be found at the following link.

Maximum annual risk points

Risk status	Size band	Index points
Failed works	Size band 1-4	4.0967
	Size band 5	8.1934
	Size band 6a	16.3867
	Size band 6b	40.9668
High risk	Size band 1-4	0.0819
	Size band 5	0.1639
	Size band 6	0.8193
Medium risk	Size band 1-4	0.0410
	Size band 5	0.0819
	Size band 6	0.4097

S-D2 Maintaining our WwTW Index calculation 2015/16 performance

Risk status	Performance	Number of works
WwTWs failing EA permit - small (size band 1-4)	0.0000	0
WwTWs failing EA permit - medium (size band 5)	16.3868	2
WwTWs failing EA permit - large (size band 6a &6b)	73.8768	3
WwTWs at high risk of failing EA permit - small (size band 1-4)	0.0376	2
WwTWs at high risk of failing EA permit - medium (size band 5)	0.0000	0
WwTWs at high risk of failing EA permit - large (size band 6)	0.1365	2
WwTWs at medium risk of failing EA permit - small (size band 1-4)	0.3713	65
WwTWs at medium risk of failing EA permit - medium (size band 5)	0.0272	4
WwTWs at medium risk of failing EA permit - large (size band 6)	0.6485	11
Total points	**91.4847**	**87**

Incentive calculation

This measure is below our performance commitment of 83, however this measure is penalty only therefore no outperformance payments is applied.

S-D2 Maintaining our WwTW Index calculation 2016/17 performance

Risk status	Performance	Number of works
WwTWs failing EA permit - small (size band 1-4)	8.1934	2
WwTWs failing EA permit - medium (size band 5)	0.0000	0
WwTWs failing EA permit - large (size band 6a &6b)	49.1601	1
WwTWs at high risk of failing EA permit - small (size band 1-4)	0.1159	6
WwTWs at high risk of failing EA permit - medium (size band 5)	0.0341	2
WwTWs at high risk of failing EA permit - large (size band 6)	0.0000	0
WwTWs at medium risk of failing EA permit - small (size band 1-4)	0.3104	16
WwTWs at medium risk of failing EA permit - medium (size band 5)	0.041	9
WwTWs at medium risk of failing EA permit - large (size band 6)	0.8874	12
Total points	**57.7082**	**48**

Incentive calculation

This measure is below our performance commitment of 83, however this measure is penalty only therefore no outperformance payments is applied.

S-D2 Maintaining our WwTW Index calculation 2017/18 performance

Risk status	Performance	Number of works
WwTWs failing EA permit - small (size band 1-4)	12.2901	3
WwTWs failing EA permit - medium (size band 5)	0.0000	0
WwTWs failing EA permit - large (size band 6a &6b)	16.3867	1
WwTWs at high risk of failing EA permit - small (size band 1-4)	0.1603	13
WwTWs at high risk of failing EA permit - medium (size band 5)	0.0956	3
WwTWs at high risk of failing EA permit - large (size band 6)	0.4096	2
WwTWs at medium risk of failing EA permit - small (size band 1-4)	0.3204	56
WwTWs at medium risk of failing EA permit - medium (size band 5)	0.0546	6
WwTWs at medium risk of failing EA permit - large (size band 6)	0.7507	15
Total points	**30.4680**	**99**

Incentive calculation

This measure is below our performance commitment of 83, however this measure is penalty only therefore no outperformance payments is applied.

S-D2 Maintaining our WwTW Index calculation 2018/19 Performance

Risk status	Performance	Number of works
WwTWs failing EA permit - small (size band 1-4)	4.0967	1
WwTWs failing EA permit - medium (size band 5)	0.0000	0
WwTWs failing EA permit - large (size band 6a &6b)	32.7734	3
WwTWs at high risk of failing EA permit - small (size band 1-4)	0.2932	26
WwTWs at high risk of failing EA permit - medium (size band 5)	0.0137	1
WwTWs at high risk of failing EA permit - large (size band 6)	0.7168	4
WwTWs at medium risk of failing EA permit - small (size band 1-4)	0.3102	56
WwTWs at medium risk of failing EA permit - medium (size band 5)	0.0751	7
WwTWs at medium risk of failing EA permit - large (size band 6)	0.8874	16
Total points	**39.1665**	114

Incentive calculation

This measure is below our performance commitment of 54.32, however this measure is penalty only therefore no outperformance payments is applied.


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