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RESPONSIBLE BUSINESS

ANGLIAN WATER SERVICES LIMITED
ANNUAL PERFORMANCE REPORT 2018

Introduction

Annual Performance Report and required regulatory information

In accordance with Ofwat guidance, we present over the following pages the Annual Performance Report (APR), for the year ended 31 March 2018. This provides specific information on progress on delivery of customer outcomes, service levels, transparent costs and financial performance. The APR is prepared to comply with Condition F of the Instrument of Appointment of Anglian Water Services Limited as a water and sewerage undertaker under the Water Industry Act 1991. Additional commentary on our Outcome Delivery achievements is explained in the Strategic Report in our separately published Annual Integrated Report.

Included in the APR is a risk compliance statement which confirms that the Company has complied with all its relevant statutory, licence and regulatory obligations and is taking appropriate steps to manage and/or mitigate any risks it faces. Also included are Board statements on Business Viability, Directors' Responsibilities, and Company Direction and Performance.

The APR performance tables fall into the following four categories:

1. Regulatory financial reporting.
2. Price control and additional segmental reporting.
3. Outcome performance summary.
4. Additional regulatory information.

Commentary has been included beneath the APR tables to explain significant year-on-year variances in performance, and to highlight assumptions where appropriate. The subheadings in the commentary refer to the Ofwat line numbers to aid navigation when reading the spreadsheet version of the APR.

In addition to the above, this report includes our data assurance summary. This sets out the results of the data assurance that the Company has carried out to evidence that the information provided is accurate.

At the end of the report are the Independent Auditors' Report and our External Assurance Report.

The APR is prepared in accordance with the Regulatory Accounting Guidelines (RAGs) issued by Ofwat, which are based on International Financial Reporting Standards (IFRSs). There are differences between IFRSs and the RAGs and where there is a conflict, the RAGs take precedence.

Updates to the original publication

Following publication on 13 July 2018, we received a number of queries from Ofwat. As a result of these queries updates were required to only 2 discrete cells. A further 2 lines were updated as a result of a change in reporting requirement from Ofwat. In addition, in completing our PR19 Business Plan, we have identified a small number of non-financial metrics in the APR that require updating in order to be consistent with our PR19 Business Plan. For full details of changes, please refer to the summary table on pages 216-217.

Table 1F 'Financial Flows' is reported on a shadow basis. We have restated to reallocate between lines and for the two prior years only we have adjusted our tax out/(under) performance resulting in a change to the total shareholder return.

All updated figures have been highlighted in yellow in this document. Any corresponding commentary has also been updated to reflect these changes.

Key Messages

Financial performance:

- Appointed revenue for the year of £1,228.3 million, an increase of £21.1 million (1.7 per cent) on 2016/17 – see table 1A.
- Appointed operating profit of £336.6 million, down 5.2 per cent (reflecting an increase in operational activity and expenditure, and higher depreciation) – see table 1A.
- Good progress on a range of operational efficiencies offsets inflationary cost increases – see table 1A.
- Cash generated from appointed operations £635.7 million, up 1.9 per cent on last year with strong working capital management – see table 1D.
- In response to Ofwat's challenge on financial transparency we have produced for the first time the financial flows of the business on a notional and actual gearing basis on a cumulative average basis for the three years of the AMP and for each year separately – see table 1F.
- Issued the UK utility sector's first ever Sterling Green Bond – see tables 4I.
- Totex efficiencies delivered thanks to focus on innovation and ground-breaking approach to capital delivery alliances – see table 4B.
- Earned Outcome Delivery Incentive (ODI) rewards of £33.3 million over the first three years of the AMP in 2017/18 prices, with one small penalty in 2016/17 – see table 3A.
- In 2017/18 we earned ODIs of £15.0 million in 2017/18 prices, meeting all our performance level commitments for all but one ODI. The one we missed was in mean zonal compliance, where our performance remains in line with prior years and the majority of other companies – see table 3A.

How customers benefit from our ODI performance – see table 3A

- Fewest ever number of contacts from customers about the taste, odour and appearance of their drinking water.
- Best ever performance on water supply interruptions.
- Smallest number of customers at risk of low water pressure since privatisation.
- Increases in the satisfaction of our customers in the value for money of their services and their perception of fairness and affordability (as measured by the Consumer Council for Water).
- Water infrastructure serviceability restored to 'Green' after being 'Amber' in 2016/17.
- With our strong compliance record and governance arrangements, we are regarded as a low risk company by the Drinking Water Inspectorate (DWI). In contrast, four of the largest WASCs are currently subject to Transformation Programmes because of DWI concerns about the risks to their customers of poor drinking water quality.

Public interest at the heart of a sustainable business:

- Number one position in customer service league table.
- Rapid progress on corporate commitments to enhance transparency.
- First water company to remove Cayman company from financial structure.
- Board composition changes including commitment to have a majority of Independent Non-Exec Directors, and appointment of Natalie Ceeney as a new Independent Non-Exec Director.
- Lowering of debt and gearing levels to 2025, through shareholder commitment to reducing and reinvesting dividends.
- Named Business in the Communities (BITC) - Responsible Business of the Year. This recognises our work to embed sustainability throughout our company and our work across different sectors to tackle shared problems.
- Established a Customer Board so that we can have direct access to customer views on an ongoing basis.

Resilient communities, today and tomorrow:

- £65 million additional investment by the shareholders to improve security of supply; extra £100 million of reinvestment already previously committed between 2015 and 2020 by the shareholders.
- 25-year plans published for water (Water Resources Management Plan), water recycling (to be published Summer 2018) and the wider business (Strategic Direction Statement).
- Preparations and immediate response by our people underpinned minimal customer impact during the atypical freeze thaw weather event.
- Total time lost due to interruptions of three or more hours per property was an average 7 minutes 24 seconds per customer for the year (11 minutes 43 seconds in 2016/17) - see table 3A.
- Once again leading the industry with continued low levels of leakage despite the impact of the atypical freeze thaw weather event– see table 3A.
- Invited to join the Leading Utilities of the World, recognised as the gold standard of utility performance.

Board Statement of Company Direction and Performance

This statement sets out how the Board of Anglian Water Services Ltd (the Company) sets the long-term ambitions of the Company and how it intends to meet the significant challenges facing the business and the region it serves.

It also explains how customers' views are an integral part of setting these ambitions and reflecting them in our Business Plan, of agreeing the outcomes we want to achieve and informing the targets we use to measure our performance.

Finally, it describes how management rewards and recent changes to the Company's structure and financing are designed to support an efficient, sustainable and effective business, while improving transparency, trust and confidence in the Company and the wider industry.

Our challenges

Climate change, population and housing growth and the need to protect a natural environment that is under strain: all these challenges are particularly acute in our region, where they combine to pose a unique challenge.

Ours is the driest region in the UK. Water resources are already scarce, and climate change could reduce them further, while at the same time threatening more frequent flooding in this low-lying part of the country. We serve three of the five fastest growing cities in the UK and the region's population could increase by up to a million in the next 25 years. In the worst case, a combination of these pressures could halve the water available to supply. We must address these challenges alongside those common to the industry as a whole, including the need to keep our services affordable.

Our response

In response to this unique combination of challenges, we have developed a unique way of doing business, founded on open innovation and collaboration with customers, stakeholders and with our supply chain through an industry-leading approach to alliancing. This Love Every Drop strategy has forged an efficient, sustainable, responsible business that has delivered industry-leading performance on bills, leakage, carbon reduction and demand management. We have been recognised with a Queen's Award for Enterprise and were named BITC's Responsible Business of the Year in 2017. We remain ambitious and want to push ahead, delivering frontier performance and a sustainable future for the region in partnership with others. We have already:

- Reduced leakage by a third since privatisation to reach industry-leading levels, with the water lost per kilometre of pipe at half the national average.
- Kept the amount of water we supply every day at 1989 levels, despite supplying an extra 600,000 properties – the equivalent of saving 170 litres per property.
- Cut our capital carbon emissions by 57 per cent on 2010 levels and reduced operational carbon emissions by 19.6 per cent in comparison to the 2014/15 baseline. This has driven innovation and efficiencies that feed into lower bills.
- Increased bills by just 20p for every extra £1 charged by other companies since privatisation. Our bills have fallen around 10 per cent in the last five years – twice the industry average – in part due to efficiencies we have shared with customers.

In 2017, we embarked on a process of updating our 25 year Strategic Direction Statement (SDS) – first published in 2007. In formulating our revised SDS, we embarked on a process of engagement and consultation with our customers and other stakeholders. We had in depth discussions with more than 1,300 household customers and nearly 500 non-household customers. Our online community gave us an 'advisory board' made up of engaged customers with whom we could talk in depth about their needs and our plans. The Revised SDS (published in November 2017) reflects the comments received from customers. In particular, customers told us that they expected us to 'better serve customers by driving digital transformation' as part of normal business, rather than framing this as a long term

goal. This feedback was shared with the Board, and the Board agreed that driving digital transformation was one of the key inputs needed to deliver our short/medium term objective (or outcome) of "delighted customers". Stakeholders also put arguments to us that we should include a long-term ambition on improving ecological quality, which was not one of our original ambitions. We agreed, and so added this in.

Our Revised SDS therefore sets out four long-term ambitions for us and our region.

- Make the East of England resilient to the risks of drought and flooding.
- Enable sustainable economic and housing growth.
- Be a carbon neutral business by 2050.
- Work with others to achieve significant improvement in ecological quality across our catchments.

Revising our SDS is just one aspect of on-going programme of engagement across the region, which informs not only our long-term ambitions, but also our outcomes and the Performance Commitments (with linked Outcome Delivery Incentives) that we use to measure our progress towards them.

Our outcomes

Our Business Plan for 2015-2020 was developed following the Company's largest-ever programme of customer engagement.

The views of more than 50,000 people were used to shape the plan and its priorities, and to develop the 10 outcomes that underpin it.

These have recently been updated to stretch ourselves further and to reflect how central our people are to delivering everything we do.

The outcomes are:

- Our people: healthier, happier, safer
- Investing for tomorrow
- Positive impact on communities
- Safe, clean water
- Delighted customers
- Fair charges, fair returns
- Supply meets demand
- A flourishing environment
- A smaller footprint
- Resilient business.

We put our customers' perceptions at the heart of everything we do to ensure that we are making the right decisions for customers and thereby delivering the outcome of "delighted customers". As we note in our 2018 our Annual Integrated Report, in the course of the past year, we have made tangible progress towards delivering this outcome by:

- finishing the year in first place in Ofwat's qualitative SIM survey
- launching our new online account management site for customers, and
- extending our call centre opening hours.

More detail on all of our outcomes can be found in our Annual Integrated Report (AIR). Our progress against these outcomes is measured through 32 performance commitments, which can be seen on pages 70 to 71 of the AIR.

We have the opportunity to earn a reward, or pay a penalty, depending on how we perform against these performance commitments. To make that performance transparent, easy to access and understand, we also publish our progress on a dedicated performance website.

Overall, we are performing well on most of our performance commitments. In the first three years of the current regulatory period we have earned £32.6 million for exceeding performance commitment levels (PCLs) we committed to in 2015. These rewards were spread across seven performance commitments, including leakage, pollutions and supply interruptions. We incurred a penalty of £0.6 million in 2016/17 for shortfall in water infrastructure serviceability, which we remedied in 2017/18.

Performance commitment levels have been set for 15 of our performance commitments in 2017/18. We have met the PCL for 14 of these, with the only shortfall against mean zonal compliance (a measure of the quality of drinking water), where the PCL is 100 per cent.

Our approach to customer engagement: Conversation and co-creation

Building on the success of our stakeholder engagement ahead of PR14, we have put customers at the centre of our business planning. We have moved away from traditional consultations to an on-going conversation with customers to ensure we can respond to their changing expectations and requirements quickly.

Customers and employees have co-created our PR19 Business Plan, helping to shape the engagement and ensure we speak to people at times and in ways that are most relevant to them. As a result, we have already reached far more customers than at PR14, with tens of thousands of people giving us opinions, suggestions and ideas.

Our engagement process has also enabled us to obtain detailed feedback from customers regarding their priorities. We have asked customers to consider the trade-offs between keeping bills low and funding environmental improvements which will benefit customers both now and in the future. Our "Be the Boss" online engagement tool has enabled customers to review the proposals contained in our Outline Plan and to understand the potential impact on bills of making those choices.

Those conversations will continue after the final plan is published later this year, allowing us to keep a finger on the pulse of our region, to really understand what our customers want and what their priorities are, so we can tap into that pool of knowledge at appropriate points of the regulatory process. We have recently established a Customer Board so that we can have direct access to customer views on an on-going basis.

We have worked hard to explain the cost of various outcomes and the trade-offs between available choices, so that customers understand there is always a balance between the desired benefits and the likely impact on future prices. We have also ensured that the Board understands what matters most to customers as they deliberate about our PR19 Business Plan. To this end, we have invited the Chairman of our Customer Engagement Forum to meet with the Board twice over the past 12 months, and our Chairman and other Board Members have attended a meeting of the Customer Engagement Forum. Members of the Board have also attended a number of customer forums in order to hear the views of customers regarding our Outline Plan (including some vulnerable customers) at first hand.

Our company structure: how management and investors drive improved performance

A significant proportion of director and senior management reward is based on performance against demanding targets. At the start of each year, the Board set targets which focus management on driving improvements across the ODIs, customer service, efficiency and ensuring financial returns which maintain investor confidence while being fair to customers. More details of how the Board is rewarded for achieving targets is set out in the Remuneration Report, contained in the Annual Integrated Report.

Our investors also understand and value the need for a sustainable and efficient business that delivers for customers and the environment.

Most of our investors are pension funds and it is important we deliver the fair and sustainable returns that allow them to support their members' pensions, both in the UK and overseas. Those returns must be fair, to strengthen trust and confidence in the water industry. They must also be sustainable, so we can continue to provide a world-class service and deliver the outcomes agreed with our customers.

In recognition of this, the Board of Anglian Water in conjunction with the pension fund backed shareholders announced a series of corporate and financial initiatives to improve transparency, trust and customer confidence. These are set out below.

Improve transparency and clarity of its financial structures:

- We have removed our Cayman Islands subsidiary. The Cayman company – Anglian Water Services Overseas Holdings Limited (AWSOH) – was UK tax resident and never benefited from any tax advantage. Nevertheless, its removal improves the transparency and clarity of our financial structures; and
- as part of the change, we repaid a £1.6 billion inter-company loan from Anglian Water Services Limited (AWSL) to Anglian Water Service Holdings Limited (AWSH) to simplify the presentation of our accounts (particularly around real dividends).

Place public interest at the heart of the business:

- We will work with Ofwat on proposals to ensure we can be held to account for acting in the public interest; and
- we will change the composition of the Anglian Water Services Board so that Independent Non-Executive Directors are in the majority, and not just the largest group.

Make an additional investment commitment to 2020:

- Our owners will invest an extra £65 million in resilience schemes not included in the Company's original plan, by 2020. This will improve the region's ability to deal with drought and flooding and will be paid for through a reduction in dividends to shareholders.

Reduce dividends and borrowings through to 2025:

- Our investors have agreed to a substantial reduction in dividends through to 2025, resulting in a significant reduction in the Company's level of debt and gearing.

All these commitments respond to recent challenges from our economic regulator Ofwat and the Government, and build on work with Ofwat to address the sector's long-term resilience.

We already hold ourselves to the highest standards of accountability and transparency, but we must acknowledge when there is public concern and act accordingly.

Assurance

This Board Statement forms part of our APR and as such falls within the scope of our Independent Auditors' Report on pages 207 to 210.

Our Data Assurance Summary, also included within the APR, describes how we ensure that the information we report is accurate, clear and transparent and the assurance that the Board has received on performance and compliance for 2017/18.

This Board statement was approved by the Board of Directors on 29 June 2018 and signed on its behalf by Claire Russell, Company Secretary.

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Claire Russell
Company Secretary
Dated 29 June 2018

Statement of Directors' Responsibilities

Further to the requirements of company law, the Directors are required to prepare accounting statements which comply with the requirements of Condition F 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.

This additionally requires the Directors to:

- 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.
- 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.
- Confirm that, in their opinion, 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.
- 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.
- 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.
- Keep proper accounting records which comply with Condition F.
- Undertake that the Company's procurement of services activities was in compliance with paragraph 3.1 of Condition F1 of the Licence throughout the year.

These responsibilities are additional to those already set out in the statutory financial statements.

In the case of each of the persons who are Directors at the time when the Report is approved under Section 418 of the Companies Act 2006 the following applies:

a. So far as the Director is aware, there is no relevant audit information of which the Company's auditors are unaware; and
b. He/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 auditors are aware of that information.

Risk and Compliance Statement

As the Board of Anglian Water Services, we confirm the following:

- We have sufficient understanding of our obligations as set out in the Water Industry Act and our licence ('our Obligations').
- We are satisfied that we have sufficient processes and internal systems of control to meet our Obligations.
- Subject to the exceptions listed below, we believe we are meeting all our material obligations.
- We have taken adequate steps to understand the range of expectations of our diverse customer base. We have sought to provide a service offering that best meets those expectations, taking into account the requirements of other stakeholders, the sustainability of the business and the level of water bills that customers are willing and able to pay.
- We have appropriate systems and processes in place to allow us to identify, manage and mitigate our material risks.

Furthermore, we confirm the following:

- We have sufficient financial and management resources to enable us to carry out our regulated activities and have submitted to Ofwat the certificate to this effect required by section F.6A of our Instrument of Appointment.
- The Company has available to it sufficient rights and assets to enable a special administrator to manage the affairs, business and property of the Company in the event that a special administration order were made, as required by condition K.3 of our Instrument of Appointment.
- All trade between the Company and associate companies in the year has been at arm's length, as required by condition F.6 of our Instrument of Appointment.
- With our Annual Integrated Report for the year we have published a statement linking Directors' pay to standards of performance, as required under section 35A of the Water Industry Act 1991.
- We have maintained for the whole year an issuer credit rating for Anglian Water Services Financing Group of investment grade (Baa1) in accordance with condition F.6A of our Instrument of Appointment.

As set out in the business viability statement on pages 15 to 18 of this Annual Performance Report, 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 period set out in that statement.

Exceptions

The section below identifies obligations set out in the Water Industry Act, our Instrument of Appointment and the Regulatory Accounting Guidelines which – with Ofwat's knowledge – we are not complying with.

The Water Industry Act places an 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 so mapped because the cost of doing so is generally agreed to be uneconomic.

Condition J of our Instrument of Appointment creates certain obligations regarding the setting, monitoring and reporting of service targets. Because of changes to the regulatory approach we are no longer required to fulfil these obligations.

We have provided sludge treatment services to other water and sewerage companies and recharged the appointed business for the use of the relevant appointed business assets. These transfer prices have been based on a short-run marginal cost approach, which is not

permitted by Regulatory Accounting Guideline 5.06. We have previously notified Ofwat of this. The transfer prices are compliant with the revised version RAG 5.07 which Ofwat has proposed since the end of the year.

This risk and compliance statement was approved by the Board of Directors on 29 June 2018 and signed on its behalf by Claire Russell, Company Secretary.

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Claire Russell
Company Secretary
Dated 29 June 2018

Business Viability Statement

Background

The Directors are responsible for ensuring the resilience or viability of its water and wastewater services to meet the needs of its customers in the long term. This means the Company must be able to avoid, cope with and recover from disruptions to its operations and finances.

The Directors' review of the longer-term viability of the Company is an extension of our business planning process, which includes financial forecasting, a robust risk management assessment, regular budget reviews and scenario planning. This activity is strengthened by a culture throughout the Company of review and challenge. Our vision and business strategy aim to make sure that our operations are resilient and our finances are sustainable and robust.

As part of Anglian Water Services' approach to defining risk appetite, each year the Directors review our specific risk tolerance levels and consider whether our decision-making behaviours over the past year have been consistent with these risk levels. The Directors confirmed that the Company's behaviours over the past year have been in line with our risk appetite.

Look-forward period

As one of the 10 regional water and sewerage services companies operating in the UK, Anglian Water's prices are set by the industry regulator Ofwat for five-year Asset Management Plan (AMP) periods, which support the Company's underlying costs. This provides reasonable certainty over future tariffs, revenues, costs and cash flows over the current AMP (April 2015 to March 2020).

The Directors have assessed Anglian Water's financial viability over the next five years from April 2018 to March 2023, three years beyond the end of the current AMP period (AMP6) in March 2020. A five-year look-forward period is considered to be appropriate for the following reasons:

- The first two years take us to the end of the current AMP for which there is reasonable certainty and clarity, allowing realistic assessments of our principal risks to be made.
- The last three years of the five-year period are outside the current AMP and therefore subject to the final outcome of the current price review (PR19), which is to be confirmed. However, at this stage we have used the very challenging indicative weighted average cost of capital (WACC) rate that Ofwat has signalled for AMP7 as the basis for our stress testing. We also note that in an incentive-based regulatory regime we have the opportunity to be rewarded for outperforming the regulatory determination. However, given the low indicative WACC rate, we have had to take mitigating action in our planning, resulting in substantial reductions in dividends to achieve financial resilience. Finally, we take note of the Water Industry Act, which requires Ofwat to secure that water companies can (in particular through securing reasonable returns on their capital) finance the proper carrying out of their statutory duties.
- We have developed robust business forecasts that cover this period.
- The Board considered whether there are specific foreseeable risk events relating to the principal risks that are likely to materialise within a five-year period, and that might be substantial enough to affect the Company's viability and therefore should be taken into account when setting the assessment period. These were modelled appropriately within our downside scenarios.
- The Board considers the maturity profiles of debt and the availability of new finance over five years and beyond as part of its review of financial modelling and forecasting, as well as considering the credit ratings of the debt.

Principal risks

We have set out the details of the principal risks facing our Company in our Annual Integrated Report, described in relation to our ability to deliver our 10 outcomes. We identify our principal risks through a robust assessment that includes a continuous cycle of bottom-up reporting and review, and top-down feedback and horizon scanning. Through this assessment, priorities are elevated appropriately and transparently.

The Directors regularly review business plans that show projected cash flows for the remainder of the current AMP period, and long-term cash flow modelling projections that extend into the next AMP period. As we approach the end of a five-year AMP period and await the outcome of the next price determination, the business makes assumptions about the forthcoming price review.

Stress testing the business plan

In reviewing its financial viability, Anglian Water considers the stringent covenant tests required under its securitised structure to provide comfort to our bond holders that our business is viable to the end of the current AMP period and beyond, and to ensure the availability of debt to finance the Company's investment programme. At each regulatory price review and throughout the AMP, the Board satisfies itself that the agreed five-year business plans ensure adequate covenant headroom throughout the AMP period and beyond. This includes extensive stress testing at both Anglian Water and Group level from severe, plausible and reasonable scenarios chosen because they have the greatest risk to the business. The following scenarios have been used individually and in combination:

- Financial and operational impacts arising from severe but plausible crystallisation of the principal risks, and the likely effectiveness of available mitigating actions.
- No further Totex outperformance in the current AMP and beyond.
- Material Totex underperformance.
- Material ODI penalties.
- Regulatory fines and legal penalties. Unfunded pension liabilities and potential cost impacts of Brexit.
- The potential impact of credit rating agencies downgrading the debt for any companies in the Group.
- Cost of debt increases.
- Significant inflation fluctuations.
- Combined scenarios are based on material Totex and retail cost underperformance, along with ODI penalties all occurring in each year of the five-year look-forward period. Other combined scenarios include aggregate cost underperformance coupled with material reductions to revenue associated with lower inflationary scenarios.

Mitigating risks

For each sensitivity and combined scenarios, we identify the appropriate mitigations against the potential risks. In the event that the situations used for stress testing were to result in an unacceptable level of deterioration in the Company's financial metrics, management's principal actions would include further reducing the level of shareholder distributions, potential shareholder equity injections, reviewing the financing structure, and identifying further opportunities to reduce the Company's cost base or financing costs.

The Board formally reviews the output of the stress testing twice a year.

Benefits of the securitised structure

The highly covenanted nature of our financing arrangements (often described as a whole business securitisation) enhances our financial resilience by imposing a rigorous governance framework. This requires continuous monitoring and reporting of our financial and operating performance by senior management, through a well-established business process, to ensure compliance with our financing arrangements, and provides an additional layer of control over how we transact with our stakeholders, including suppliers, business partners, customers, shareholders and lenders, compared to the regulatory frameworks that we are governed by. This structure, together with a track record of strong operational performance, helps ensure that we have good credit ratings and are able to raise debt at similar or better rates than peers. Notwithstanding our strong track record of financial resilience we have agreed that over the current AMP we are reducing our gearing by paying less dividends and we have announced that we expect to see a substantial reduction in dividends to our shareholders through to 2025.

Assurance

Internal assurance is provided by the Board, which reviews and challenges the stress test scenarios selected and the risk mitigation strategies. The Directors also obtain independent third-party assurance on the integrity of the long-term cash flow model that underpins the financial projections. While we do not obtain specific third-party assurance on the stress tests, the external auditors have sight of the relevant Board papers and the process undertaken. They consider whether these are consistent with the Directors' conclusion with respect to business viability, and if the processes undertaken are sufficient and consistent with the statements made.

Directors' Statement

The Directors are required to submit their business plan for the next AMP to Ofwat in September 2018 and this will form the basis for setting customer prices. The current draft of this plan shows that the expectation of a reduced cost of capital set by Ofwat will be a significant challenge to our financeability in the next AMP. However, we are an efficient company with a history of outperformance and we would expect to agree a business plan with the regulator that is financeable and that meets the respective obligations and responsibilities of both the Company and the regulator.

Subject to the final outcome of the new periodic review being aligned with our base plan, the Directors can be satisfied that the business has a reasonable expectation of being able to continue in operation and meet its liabilities as they fall due, at least to March 2023, and is financially resilient. This is based on the reasonable certainty of its future revenue stream, the strength of the balance sheet (in particular the substantial cash balance and strong net assets), the availability of undrawn debt facilities in the unlikely event that debt markets were temporarily restricted, and by reviewing the business plans and strategic models, combined with the robust risk management process described in our Annual Integrated Report.

In making this Statement, the Directors have assumed that funding for capital expenditure in the form of capital markets or bank debt will be available in all reasonable market conditions. They have also considered the impact of the Group structure, inter-company transactions and any other Group activities on the viability of the regulated business.

The business viability statement was approved by the Board of Directors on 29 June 2018 and signed on its behalf by Claire Russell, Company Secretary.

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Claire Russell
Company Secretary
Dated 29 June 2018

Table 1A - Income Statement

For the year ended 31 March 2018

	Line description	Statutory	Adjustments			Total appointed activities
			Differences between statutory and RAG definitions	Non - appointed	Total adjustments	
		£m	£m	£m	£m	£m
1	Revenue	1,248.949	-	(20.685)	(20.685)	**1,228.264**
2	Operating costs	(916.477)	8.349	12.286	20.635	**(895.842)**
3	Other operating income	16.055	(11.917)	-	(11.917)	**4.138**
4	**Operating profit**	348.527	(3.568)	(8.399)	(11.967)	**336.560**
5	Other income	4.595	16.226	-	16.226	**20.821**
6	Interest income	193.291	-	-	-	**193.291**
7	Interest expense	(344.344)	(14.666)	-	(14.666)	**(359.010)**
8	Other interest expense	-	(1.838)	-	(1.838)	**(1.838)**
9	**Profit before tax and fair value movements**	202.069	(3.846)	(8.399)	(12.245)	**189.824**
10	Fair value gains/(losses) on financial instruments	117.600	-	-	-	**117.600**
11	**Profit before tax**	319.669	(3.846)	(8.399)	(12.245)	**307.424**
12	UK Corporation tax	(44.000)	-	1.596	1.596	**(42.404)**
13	Deferred tax	16.300	0.657	-	0.657	**16.957**
14	**Profit for the year**	291.969	(3.189)	(6.803)	(9.992)	**281.977**
15	Dividends	(1,942.667)	-	6.803	6.803	**(1,935.864)**

A Tax Analysis

16	Current year	44.800	-	(1.596)	(1.596)	**43.204**
17	Adjustments in respect of prior years	(0.800)	-	-	-	**(0.800)**
18	**UK Corporation tax**	44.000	-	(1.596)	(1.596)	**42.404**

B	Analysis of non-appointed revenue	Non-appointed
19	Imported Sludge	0.546
20	Tankered waste	2.574
21	Other non-appointed revenue	17.565
22	**Revenue**	**20.685**

1 The table below shows the position after deducting the round-trip inter-company interest receipt of £191.8 million, and dividends not available to the ultimate investors in order to show the actual dividends available for distribution to the ultimate shareholders.

2 Dividends described as not available for distribution to investors in the ultimate parent company refer to dividends used to enable a group restructuring to simplify and enhance the transparency of the corporate structure, or inter-company interest thereon.

3 We assume that the non-appointed business share of the statutory dividend is equal to the non-appointed profit of £6.8 million. This is then deducted from the statutory dividend to derive the appointed dividend.

Line description	Statutory	Adjustments			Total appointed activities
		Differences between statutory and RAG definitions	Non - appointed	Total adjustments	
	£m	£m	£m	£m	£m
Dividends (shown in table 1A)	(1,942.667)	-	6.803	6.803	(1,935.864)
Not available for distribution to investors in the ultimate parent company:					
One off restructuring dividend	1,602.610	-	-	-	1,602.610
Dividend paid by the Company in order to service internal interest	191.786	-	-	-	191.786
Special dividend paid to fund the transfer of the non-household retail business	62.171	-	-	-	62.171
Available for distribution to investors in the ultimate parent company	**(86.100)**	**-**	**6.803**	**6.803**	**(79.297)**

4 The figures in the statutory columns in tables 1A to 1D are based on the company only accounts of Anglian Water. The principal difference between the statutory accounts and the APR is in respect of capitalised interest. For regulatory reporting capitalised interest is not permitted and therefore the adjustments are to reverse out the impact on depreciation, interest and deferred tax. The other adjustments are reclassifications of the following items:

- Profit on disposals of fixed assets is treated as operating costs in the statutory accounts and other operating income in the APR.
- Profit on disposal of the non-household retail business is classified as an exceptional item in the statutory accounts and other income in the APR.
- Release of deferred grants and contributions is classified as other operating income in the statutory accounts and other income in the APR.
- Interest charges in respect of defined benefit pension schemes are classified as interest expense in statutory accounts and other interest expense in the APR.

5 These adjustments are summarised in the following table.

Line description	Adjustments				Total adjustments £m
	Reclassific - ation of profit on disposal of assets £m	Capitalisation of interest and related depreciation £m	Grants and contributions income £m	Reclassific - ation of pension scheme interest £m	
Operating costs	(4.130)	12.479	-	-	**8.349**
Other operating income	4.130	0.008	(16.055)	-	**(11.917)**
Other income	-	0.171	16.055	-	**16.226**
Interest expense	-	(16.504)	-	1.838	**(14.666)**
Other interest expense	-	-	-	(1.838)	**(1.838)**
Deferred tax	-	0.657	-	-	**0.657**
Total	**-**	**(3.189)**	**-**	**-**	**(3.189)**

6 The following commentary is in relation to the appointed business only.

Revenue (1A.1)

7 Total revenue for the year was £1,228.3 million, an increase of £21.1 million (1.7 per cent) on last year. This primarily reflects the regulatory tariff increase, modest increases in consumption and growth in customer numbers, partially offset by the loss of the retail gross margin for non-household customers following the transfer of those customers on 1 April 2017 to Anglian Water Business (National) Limited.

Operating costs (including depreciation) (1A.2)

8 Operating costs of £895.8 million comprise opex of £574.0 million and depreciation of £321.8 million. Overall operating costs (including depreciation) for the year increased by £41.1 million (4.8 per cent) from £854.7 million in 2017. The key movements in operating costs are highlighted in the table below.

Summary of changes in operating expenditure

Category	£m
General inflationary increases	13.7
Providing more effective solutions through operational maintenance, rather than capital investment	12.5
Decrease in minor repair activities to maintain water and waste water below ground infrastructure	(9.2)
Increase in energy prices	7.4
Increase in pension costs	4.7
Operating costs of newly commissioned plant	3.5
Increase in self-insurance claims, principally due to the severe winter weather	3.0
Reinvestment of capital expenditure efficiencies in operational maintenance solutions	2.8
Net efficiency savings achieved	(14.6)
2016/17 operating costs of the non-household business not repeating following the transfer of business on 1 April 2017	(8.1)
Other	0.9
Increase in depreciation	24.5
Net increase in operating costs	**41.1**

9 During the year we identified a number of capital projects which could be replaced with more cost effective operational solutions. This had the effect of increasing operating costs by £12.5 million.

10 Pension costs increased by £4.7 million compared with last year, comprising a £3.0 million increase in respect of the current service cost, and £1.7 million associated with the closure of the defined benefit schemes to future accruals at the end of the year. The principal reason for closing the defined benefit schemes is that the continuing future service costs had become unsustainable compared to the allowed future costs for pension provison. On 1 April 2018 the defined benefit schemes were replaced with a new high quality defined contribution scheme which offers all employees an equitable and more flexible scheme.

11 The cost and efficiency savings are derived from a range of initiatives including energy conservation and self-generation, disposals of surplus land, optimising the sourcing of commodities, centralised management of operations, renegotiating supplier contracts on improved terms, a number of productivity improvements from embedding more lean thinking and processes into the business, and more efficient asset maintenance programmes.

12 Depreciation is up 8.2 per cent compared with last year, consistent with the impact of newly commissioned assets in the year, and a reduction in the useful life of various operational assets.

Other operating income (1A.3)

13 This line comprises primarily profits on fixed asset disposals.

Other income (1A.5)

14 Other income comprises primarily the amortisation of developer contributions received in respect of new housing developments, and is up on last year in line with increased developer activity in the region. This line also includes the profit of £4.6 million on sale of the non-household retail business at the start of the year.

Interest income (1A.6)

15 This is principally interest receivable on the inter-company loan to Anglian Water Services Holdings Limited of £191.8 million. Overall, this is offset by the round-trip dividend referred to above. The inter-company loan was settled in March 2018 as part of a group structure simplification and therefore this will be the last year of this round-trip interest receipt.

Interest expense (1A.7)

16 Interest expense has increased from £293.7 million in 2017 to £359.0 million in 2018. This was primarily the result of the non-cash impact of higher inflation on index-linked debt where average year-on-year Retail Price Index (RPI) inflation increased from 2.1 per cent in the comparative year to 3.7 per cent.

Fair value gains and losses on financial instruments (1A.10)

17 There was a non-cash fair value gain of £117.6 million on derivative financial instruments in 2018, compared with a loss of £116.0 million in 2017. This shift was due to movements in market expectations of long-term interest, inflation and exchange rates. These fair value gains and losses have no commercial or economic impact on the Company's operations or customers. The driving factors for the gain in 2018 compared to the loss in 2017 was a fall in forward inflation expectations together with an increase in forward interest rates. During the year, forward inflation rates fell by c.13 basis points (2017: 38 basis point increase) and forward interest rates increased by 19 basis points (2017: 23 basis point decrease).

Current tax and deferred tax (1A.12 / 1A.13)

18 The current tax charge for the year was £42.4 million (2017: £99.9 million). The decrease was due to a reduction in profits before taking account of fair value adjustments on derivative financial instruments, which have no current tax effect. The charge for 2017 also included a charge of £40.1 million for prior years.

19 The deferred tax credit has reduced from £138.9 million to £17.0 million. The comparative year included the impact of the reduction in future tax rates used to calculate deferred tax from 18 per cent to 17 per cent, which gave rise to a credit of £54.3 million, and also a credit of £28.3 million for prior year items and the refinement to the classification of deferred tax balances. Without the effect of these two items the deferred tax credit for the year has reduced from £56.3 million to £17.0 million. The main reason for this decrease was the movement in fair value on financial derivatives which changed from a loss of £116.0 million last year to a gain of £117.6 million this year.

Dividend (1A.15)

20 Dividends of the appointed business paid that are available to the ultimate investors in the year were £79.3 million (2017: £121.3 million). The reduction in dividend is principally due to the Directors' decision to de-gear to 80 per cent or less by 2020 and further reduce gearing over the next AMP. Dividends that are not available to the ultimate investor amounted to £1,856.6 million and are analysed in the table on page 20.

Table 1B - Statement of Comprehensive Income

	Line description	Statutory	Adjustments			Total appointed activities
			Differences between statutory and RAG definitions	Non - appointed	Total adjustments	
		£m	£m	£m	£m	£m
1	Profit for the year	291.969	(3.189)	(6.803)	(9.992)	**281.977**
2	Actuarial gains/(losses) on post employment plans	64.100	-	-	-	**64.100**
3	Other comprehensive income	15.200	-	-	-	**15.200**
4	**Total Comprehensive income for the year**	371.269	(3.189)	(6.803)	(9.992)	**361.277**

1 The principal difference between the statutory accounts and the APR is in respect of capitalised interest. For regulatory reporting, capitalised interest is not permitted and therefore the adjustments are to reverse out the impact on profit for the year.

2 Appointed comprehensive income for the year of £361.3 million, comprising profit for the year of £282.0 million, actuarial gains on post employment benefits of £64.1 million and other comprehensive income which are gains on cash flow hedges of £15.2 million.

3 As described in the income statement, included within total comprehensive income is £191.8 million of inter-company interest income and £117.6 million of gains on derivative financial instruments and energy hedges. Underlying total comprehensive income was £51.9 million.

4 Other than the changes to the profit for the year as detailed in the commentary for table 1A, there are no differences between the statutory and regulatory accounts on the statement of other comprehensive income.

Actuarial gains on post employment plans (1B.2)

5 Actuarial gains on retirement benefit obligations for the year were £64.1 million (2017: losses of £84.1 million), comprising actuarial gains of £77.4 million partially offset by deferred tax on these gains of £13.3 million. This resulted in Anglian Water Services Limited reporting a net retirement benefit asset of £9.1 million as at 31 March 2018.

Other comprehensive income (1B.3)

6 Other comprehensive income for the year comprises gains on cash flow hedges of £18.3 million (2017: losses of £22.1 million), partially offset by deferred tax on these gains of £3.1 million (2017: losses of £2.6 million).

Table 1C - Statement of Financial Position

	Line description	Statutory	Adjustments			Total appointed activities
			Differences between statutory and RAG definitions	Non - appointed	Total adjustments	
		£m	£m	£m	£m	£m
A	**Non-current assets**					
1	Fixed assets	9,651.965	(330.938)	(11.194)	(342.132)	**9,309.833**
2	Intangible assets	168.287	(6.715)	(0.576)	(7.291)	**160.996**
3	Investments - loans to group companies	-	-	-	-	**-**
4	Investments - other	0.013	-	-	-	**0.013**
5	Financial instruments	89.611	-	-	-	**89.611**
6	Retirement benefit assets	56.288	-	-	-	**56.288**
7	**Total non-current assets**	9,966.164	(337.653)	(11.770)	(349.423)	**9,616.741**
B	**Current assets**					
8	Inventories	10.000	-	-	-	**10.000**
9	Trade & other receivables	478.878	-	-	-	**478.878**
10	Financial instruments	48.495	-	-	-	**48.495**
11	Cash & cash equivalents	285.399	-	(1.596)	(1.596)	**283.803**
12	**Total current assets**	822.772	-	(1.596)	(1.596)	**821.176**
C	**Current liabilities**					
13	Trade & other payables	(574.453)	54.221	11.770	65.991	**(508.462)**
14	Capex creditor	-	(115.572)	-	(115.572)	**(115.572)**
15	Borrowings	(220.046)	77.377	-	77.377	**(142.669)**
16	Financial instruments	(16.421)	-	-	-	**(16.421)**
17	Current tax liabilities	(264.301)	-	1.596	1.596	**(262.705)**
18	Provisions	(5.282)	(16.026)	-	(16.026)	**(21.308)**
19	**Total current liabilities**	(1,080.503)	-	13.366	13.366	**(1,067.137)**
20	**Net current assets / (liabilities)**	(257.731)	-	11.770	11.770	**(245.961)**

D Non-Current liabilities

21	Trade & other payables	-	-	-	-	**-**
22	Borrowings	(6,231.650)	-	-	-	**(6,231.650)**
23	Financial instruments	(862.595)	-	-	-	**(862.595)**
24	Retirement benefit obligations	(47.200)	-	-	-	**(47.200)**
25	Provisions	(10.721)	-	-	-	**(10.721)**
26	Deferred income - G&C's	(434.440)	-	-	-	**(434.440)**
27	Deferred income - adopted assets	(89.057)	-	-	-	**(89.057)**
28	Preference share capital	-	-	-	-	**-**
29	Deferred tax	(863.358)	57.637	-	57.637	**(805.721)**
30	**Total non-current liabilities**	(8,539.021)	57.637	-	57.637	**(8,481.384)**

31	**Net assets**	1,169.412	(280.016)	-	(280.016)	**889.396**

E Equity

32	Called up share capital	10.000	-	-	-	**10.000**
33	Retained earnings & other reserves	1,159.412	(280.016)	-	(280.016)	**879.396**
34	**Total Equity**	1,169.412	(280.016)	-	(280.016)	**889.396**

The Annual Performance Report was approved by the Board of Directors on 29 June 2018 and was signed on their behalf by:

Peter Simpson
Chief Executive

Scott Longhurst
Managing Director of Finance and Non-Regulated Business

1 The statement of financial position is based on the statutory Company only balance sheet with adjustments for interest capitalised and associated deferred tax, and reclassifications of trade and other payables as detailed below.

2 The principal difference between the statutory accounts and APR is in respect of capitalised interest. For regulatory reporting, capitalised interest is not permitted and therefore the adjustments are to reverse out the impact on accumulated depreciation, deferred tax and reserves. The only other adjustments are the reclassification of current grants and contributions and accrued interest to trade and other payables and of capital creditors.

3 These adjustments are summarised in the table below.

Line description	Adjustments					Total adjustments £m
	Reversal of capitalised interest cost £m	Reclassifi - cation of capital creditors £m	Reclassifi - cation of interest accrual on debt £m	Reclassifi - cation of grants and contributions due <1year £m	Deferred tax impact of reversal of capitalised interest cost £m	
Fixed assets	(330.938)	-	-	-	-	(330.938)
Intangible assets	(6.715)	-	-	-	-	(6.715)
Trade & other payables	-	115.572	(77.377)	16.026	-	54.221
Capex creditor	-	(115.572)	-	-	-	(115.572)
Borrowings	-	-	77.377	-	-	77.377
Provisions	-	-	-	(16.026)	-	(16.026)
Deferred tax	-	-	-	-	57.637	57.637
Retained earnings & other reserves	337.653	-	-	-	(57.637)	280.016

4 The following commentary is in relation to the appointed business only.

Fixed assets (1C.1)

5 The net book value (NBV) for tangible fixed assets has increased by £130.3 million due to capital expenditure in the year, partially offset by the depreciation charge.

Intangible assets (1C.2)

6 The NBV of intangible assets increased by £29.0 million over the year, reflecting expenditure on IT systems, partially offset by the amortisation charge for the year.

Investments - loans to group companies (1C.3)

7 On 29 March 2018, following our commitment to simplify our corporate structure, a repayment of a loan from the Company to its intermediary parent company of £1,602.6 million was made.

Retirement benefit surpluses/obligations (1C.6 / 1C.24)

8 Net retirement benefit assets were £9.1 million comprising a surplus of £50.0 million and £6.3 million on Anglian Water Services and Hartlepool schemes respectively, and a £47.2 million obligation on an unfunded scheme.

Current assets (1C.8 - 1C.12)

9 Total current assets have decreased by £142.9 million (14.8 per cent) in the year. This is primarily due to a decrease in cash and cash equivalents of £142.7 million.

Trade and other payables (1C.13)

10 Compared with the prior year, trade payables have increased by £21.6 million (4.4 per cent) to £508.5 million. This is consistent with the increase in operating costs.

Capex creditor (1C.14)

11 Capital creditors have increased by 29 per cent to £115.6 million at 31 March 2018. This reflects the increased capital expenditure in the year, with a significant uplift in the last quarter which is reflected within creditors.

Borrowings (1C.15 / 1C.22)

12 Total borrowings have decreased by £21.8 million in the year. This primarily reflects new term loans of £248.6 million less loan repayments of £253.4 million, increase due to indexation (£110.3 million) and decreases due to exchange rate adjustments (£54.4 million) and debt valuation movements (£48.8 million). A full reconciliation can be found in the analysis of net debt in our statutory accounts.

Current tax liabilities (1C.17)

13 Current tax liabilities have reduced by £3.3 million in the year. The liability solely reflects amounts owed to other group companies where the regulated company, Anglian Water Services Limited, has increased its taxable profits by disclaiming capital allowance only for the benefit of these other companies. There is agreement that the regulated company will pay the tax liabilities arising from the increased taxable profits when it receives the benefit of the disclaimed capital allowances. No amounts are owed to the tax authorities.

Deferred income - adopted assets (1C.27)

14 Adopted assets is a new line for the current year. This relates to assets from developers that have been acquired for nil consideration and capitalised at their fair values.

Deferred tax (1C.29)

15 The deferred tax credit is £57.6 million lower than the statutory accounts due to the reversal of capitalised interest on fixed and intangible assets, lines 1 and 2. Compared with last year the balance is £23.2 million higher.

Retained earnings (1C.33)

16 The difference of £280.0 million between the statutory and regulatory accounts is the reversal of capitalised interest less the related movement in deferred tax as a result of this.

17 As described above, on 29 March 2018, following our commitment to simplify our corporate structure, a restructuring dividend of £1,602.6 million was paid by Anglian Water Services Limited which flowed up to Anglian Water Services Holdings Limited (AWSH), in order for AWSH to repay the inter-company loan. The funds flowed back to Anglian Water Services Limited on the same day when AWSH settled the loan. Whilst the transaction was cash neutral for the Company and Group, it has the effect of reducing the Company's retained earnings by £1,602.6 million.

Table 1D - Statement of Cash Flows

	Line description	Statutory	Adjustments			Total appointed activities
			Differences between statutory and RAG definitions	Non - appointed	Total adjustments	
			£m	£m	£m	£m
A	**Statement of cashflows**					
1	Operating profit	348.527	(3.568)	(8.399)	(11.967)	**336.560**
2	Other income	-	16.055	-	16.055	**16.055**
3	Depreciation	335.473	(12.479)	(1.103)	(13.582)	**321.891**
4	Amortisation - G&C's	(16.055)	-	-	-	**(16.055)**
5	Changes in working capital	(12.741)	-	1.103	1.103	**(11.638)**
6	Pension contributions	(9.181)	(9.849)	-	(9.849)	**(19.030)**
7	Movement in provisions	2.207	9.849	-	9.849	**12.056**
8	Profit on sale of fixed assets	(4.130)	(0.008)	-	(0.008)	**(4.138)**
9	**Cash generated from operations**	644.100	-	(8.399)	(8.399)	**635.701**
10	Net interest paid	(24.601)	1.673	-	1.673	**(22.928)**
11	Tax paid	(23.498)	-	1.596	1.596	**(21.902)**
12	**Net cash generated from operating activities**	596.001	1.673	(6.803)	(5.130)	**590.871**
C	**Investing activities**					
13	Capital expenditure	(443.162)	-	-	-	**(443.162)**
14	Grants & Contributions	40.412	-	-	-	**40.412**
15	Disposal of fixed assets	4.544	-	-	-	**4.544**
16	Other	1,716.509	-	-	-	**1,716.509**
17	**Net cash used in investing activities**	1,318.303	-	-	-	**1,318.303**
18	**Net cash generated before financing activities**	1,914.304	1.673	(6.803)	(5.130)	**1,909.174**
D	**Cashflows from financing activities**					
19	Equity dividends paid	(1,943.194)	-	6.803	6.803	**(1,936.391)**
20	Net loans received	(78.882)	(1.673)	-	(1.673)	**(80.555)**
21	Cash inflow from equity financing	-	-	-	-	**-**
22	**Net cash generated from financing activities**	(2,022.076)	(1.673)	6.803	5.130	**(2,016.946)**
23	**Increase (decrease) in net cash**	(107.772)	-	-	-	**(107.772)**

1 The principal difference between the statutory accounts and the APR is in respect of capitalised interest. For regulatory reporting, capitalised interest is not permitted and therefore the depreciation of capitalised interest has been removed here. The other

adjustments are a reclassification of debt issue costs from interest paid to net loans received and a reclassification of pensions operating expenditure from contributions to movements in provisions.

2 These adjustments are summarised in the table below.

Line description	Adjustments				Total adjustments £m
	Reclassifi - cation of issue costs £m	Capitali - sation of interest and related depreciation £m	Grants and contributions income £m	Reclassifi - cation of pension operating expenditure £m	
Operating profit	-	12.487	(16.055)	-	(3.568)
Other income	-	-	16.055	-	16.055
Depreciation	-	(12.479)	-	-	(12.479)
Pension contributions	-	-	-	(9.849)	(9.849)
Movement in provisions	-	-	-	9.849	9.849
Profit on sale of fixed assets	-	(0.008)	-	-	(0.008)
Net interest paid	1.673	-	-	-	1.673
Net loans received	(1.673)	-	-	-	(1.673)

3 The following commentary is in relation to the appointed business only.

Cash generated from operations (1D.9)

4 Net cash inflow from operating activities increased by £11.7 million from £624.0 million in 2017 to £635.7 million in 2018. This is consistent with the increase in EBITDA of £6.2 million, and a lower movement in working capital of £4.2 million compared to the prior year.

Net cash generated from operating activities (1D.12)

5 In addition to the movement in cash generated from operations, net cash generated from operating activities includes appointed business inter-company tax payments of £21.9 million and interest payments of £22.9 million.

Grants and contributions (1D.14)

6 Grants and contributions receipts were £40.4 million compared to £39.4 million in 2017. The increase of £1.0 million in the year is consistent with an increase in developer activity in the region.

Other investing activities (1D.16)

7 Other investing activities of £1,716.5 million includes the receipt of £1,602.6 million from AWSH in settlement of the inter-company loan in order to simplify the group structure as mentioned previously and below.

Equity dividends paid (1D.19)

Line description	Statutory	Adjustments			Total appointed activities
		Differences between statutory and RAG definitions	Non - appointed	Total adjustments	
	£m	£m	£m	£m	£m
Dividends (shown in table 1D)	(1,943.194)	-	6.803	6.803	(1,936.391)
Not available for distribution to investors in the ultimate parent company[1]:					
One off restructuring dividend	1,602.610	-	-	-	1,602.610
Dividend paid by the Company in order to service internal interest (includes £0.5m relating to the prior year)	192.313	-	-	-	192.313
Special dividend paid to fund the transfer of the non-household retail business	62.171	-	-	-	62.171
Available for distribution to investors in the ultimate parent company	**(86.100)**	**-**	**6.803**	**6.803**	**(79.297)**

[1] Dividends described as not available for distribution to investors in the ultimate parent company refer to dividends used to enable a group restructuring to simplify and enhance the transparency of the corporate structure, or inter-company interest thereon and will cease with effect from 31 March 2018.

8 Dividends of £192.3 million (2017: £192.3 million) were paid to AWSH, in order for AWSH to service the interest payable to the Company on the inter-company loan of £1,602.6 million (2017: £1,602.6 million) mentioned below. In addition to amounts included within the income statement (table 1A) of £191.8 million, a prior year committed dividend of £0.5 million was paid in April 2017. This dividend did not leave the Anglian Water Services regulatory ring fenced group.

9 On 29 March 2018, following our commitment to simplify our corporate structure, a restructuring dividend of £1,602.6 million (2017: £nil) was paid by Anglian Water Services Limited which flowed up to AWSH, in order for AWSH to repay the inter-company loan. The funds flowed back to Anglian Water Services Limited on the same day when AWSH settled the loan.

10 From 1 April 2018, following the settlement of the £1,602.6 million inter-company loan, these interest and dividend payments will no longer be necessary.

11 On 3 April 2017 the Company paid a special dividend of £62.2 million to help fund the statutory transfer of the non-household retail business from Anglian Water Services Limited to Anglian Water Business (National) Limited. These funds were not available for distribution to investors in the ultimate parent company.

Table 1E - Net Debt Analysis

	Line description	Units	Interest rate risk profile			
			Fixed rate	Floating rate	Index linked	Total
1	Borrowings (excluding preference shares)	£m	2,244.652	408.731	3,698.521	**6,351.904**
2	Preference share capital	£m				**-**
3	Total borrowings	£m				**6,351.904**
4	Cash	£m				**(89.569)**
5	Short term deposits	£m				**(197.500)**
6	Net Debt	£m				**6,064.835**
7	Gearing	%				**78.54%**
8	Adjusted gearing	%				**78.10%**
9	Full year equivalent nominal interest cost	£m	127.071	10.311	214.511	**351.893**
10	Full year equivalent cash interest payment	£m	127.071	10.311	79.553	**216.935**
A	**Indicative interest rates**					
11	Indicative weighted average nominal interest rate	%	5.66%	2.52%	5.80%	**5.54%**
12	Indicative weighted average cash interest rate	%	5.66%	2.52%	2.15%	**3.42%**
13	Weighted average years to maturity	nr	7.49	7.95	16.84	**12.96**

Borrowings (excluding preference shares) (1E.1)

1 As per the reporting requirements, borrowings are shown at nominal values plus indexation to 31 March 2018. Accrued interest and fair value adjustments are excluded (and so the numbers shown will not tie through to our Statutory 31 March 2018 IFRS accounts). Debt issue costs have also been excluded. A reconciliation of debt between regulatory accounts and statutory accounts is shown below. The mix of debt has remained broadly similar to prior year as discussed in more detail in the commentary in table 4H.

	Total £m
Borrowings (per regulatory definition)	**6,351.9**
Fair value IFRS adjustments[1]	122.0
Adjust for accreted indexation on swaps[2]	(34.9)
Adjust for leases added per Regulatory requirement[3]	(34.0)
Adjust issue costs[4]	(30.7)
Debt as per Table 1C	6,374.3
Debt interest accrual[5]	77.4
2018 IFRS debt (per statutory accounts)	**6,451.7**

[1] This represents the IAS 39 fair value accounting adjustment to applicable debt and derivatives due to spot foreign exchange and fair value hedge adjustments.

[2] Adjust for accreted indexation of RPI linked derivatives included in the regulatory definition but classified as derivatives under IFRS.

[3] Adjust for additional lease liabilities added to reflect the best estimate of the impact of IFRS 16 (Leases) as the standard has not yet been adopted in the IFRS statutory accounts.

[4] Directly attributable debt issue costs added to the reflect IFRS treatment but excluded from the regulatory definition.

[5] Under the RAGs debt is shown excluding accrued interest. Under IFRS debt is shown including accrued interest.

Cash and Short term deposits (1E.4 / 1E.5)

2 Cash and short-term deposits are split as required by RAG 4.07. This differs from the statutory accounting treatment in that all money market deposits are shown as short-term deposits here, whereas in the statutory accounts these are split based on their original term to maturity with those having an initial term of 3 months or less classified as cash and cash equivalents.

The cash and short term deposits position reported in table 1E differs from the balance sheet in 1C due to the following adjustments:

Description	Amount £m	Comment
Cash per table 1C	283.803	Line 1C.11
Non-appointed adjustment	1.596	Cash is held in the AWSL legal entity and consequently available for liquidity purposes. We made a notional adjustment to cash to reflect the effect of the non appointed business on the face of table 1C.
AWSF cash	1.670	Cash is held in AWSF to settle maturing debt transactions and debt liabilities. All debt raised by AWSF is on lent to AWS under an intercompany agreement. This is reported as an intercompany debtor in table 1C and is available on immediate notice.
Cash per table 1E	287.069	Lines 1E.4 + 1E.5

Adjusted Gearing (1E.8)

3 The adjusted gearing shown is Anglian Water's 'Senior Regulated Asset Ratio (RAR)' ratio as at 31 March 2018 - meaning the ratio of Senior Net Indebtedness to Regulated Asset Value (RAV) under the Common Terms Agreement of our securitised structure.

Interest (1E.9 - 1E.12)

4 Fixed interest has increased marginally year-on-year. This is driven by the inclusion of fixed facility costs such as commitment fees on bank facilities to more completely reflect the Group's cost of financing.

5 Floating interest has reduced year on year reflecting issuances at lower market rates and some changes in economic hedging relationships.

6 Index-linked interest has increased significantly year on year reflecting the impact of the elevated underlying retail price inflation.

Weighted average years to maturity (1E.13)

7 During the year we restructured three real coupon RPI swaps from a weaker counterparty to a stronger counterparty.

8 Final accretion payments were restructured in the period to include ten year accretion pay downs going forward. We moved from a weak counterparty to a stronger counterparty achieving 'compensation' from the weaker counterparty which will finance the funding of the accretion payments going forward.

9 This restructuring impacted the allocation of swaps to debt resulting in variations in the weighted average life (WAL) by debt type, but with a minimal net impact on the portfolio WAL.

Table 1F - Financial Flows

	Average for AMP6	%			£m 12/13 price		
	Line description	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							
1	Return on regulatory equity	5.60%	3.00%	5.60%	139.9	74.9	74.9
1a	Actual performance adjustment 2010-2015	-0.32%	-0.17%	-0.32%	(8.0)	(4.3)	(4.3)
1b	Adjusted Return on regulatory equity	5.28%	2.83%	5.28%	131.9	70.6	70.6
2	Regulatory equity base	2,497	2,497	1,336			
B	**Financing**						
3	Gearing	0.00%	1.40%	2.62%	-	35.0	35.0
4	Variance in corporation tax	0.00%	-2.71%	-5.06%	-	(67.6)	(67.6)
5	Group relief	0.00%	1.39%	2.60%	-	34.8	34.8
6	Cost of debt	0.00%	0.06%	0.12%	-	1.5	1.6
7	Hedging instruments	0.00%	-0.48%	-1.15%	-	(12.1)	(15.4)
8	Sub total	5.28%	2.49%	4.42%	131.9	62.2	59.0
C	**Operational Performance**						
9	Totex out / (under) performance	0.00%	1.86%	3.47%	-	46.4	46.4
10	ODI out / (under) performance	0.00%	0.40%	0.74%	-	9.9	9.9
11	Retail out / (under) performance	0.00%	0.09%	0.16%	-	2.2	2.2
12	Sub Total	0.00%	2.34%	4.37%	-	58.4	58.4
13	**Total earnings**	**5.28%**	**4.83%**	**8.79%**	**131.9**	**120.6**	**117.4**
14	RCV growth	2.32%	2.32%	2.32%	99.9	57.8	30.9
15	**Total shareholder return**	**7.60%**	**7.15%**	**11.11%**	**231.8**	**178.4**	**148.4**
16	Net dividend	4.00%	4.28%	7.99%	99.9	106.8	106.8
17	Retained Value	3.60%	2.87%	3.12%	131.9	71.7	41.6
D	**Dividends reconciliation**						
18	Gross Dividend	4.00%	31.14%	58.18%	99.9	777.5	777.5
19	Interest Receivable on Intercompany loans	0.00%	26.86%	50.19%	-	670.7	670.7
20	Net dividend	4.00%	4.28%	7.99%	99.9	106.8	106.8

Footnotes:

1. Numbers included in the above table are in 2012/13 prices in line with Ofwat guidance.

2. The numbers in the percentage column above are subject to rounding difference as a result of the way that the percentages are calculated in the Ofwat table templates. These differences do not have a material impact on the numbers presented.

3. In the dividends reconciliation, the line 'D19: Interest Receivable on Intercompany Loans' also includes, for 2017/18 only, the one off dividends to fund the settlement of an intercompany loan of £1.4 billion (2017/18 prices: £1.6 billion) and to fund the transfer of the non-household retail business (£55.3 million (2017/18 prices: £62.2 million)) as shown in the table below.

Line description	2015/16 appointed 2012/13 Prices £m	2016/17 appointed 2012/13 Prices £m	2017/18 appointed 2012/13 Prices £m	Average appointed 2012/13 Prices £m
D18: Gross Dividends (shown above)	(319.2)	(289.9)	(1,723.3)	(777.5)
Dividends not available for distribution to investors in the ultimate parent company (note 1):				
Round trip internal dividend paid by the Company in order to service internal interest	181.9	177.6	170.7	176.7
One off internal restructuring dividend to settle intercompany loan	-	-	1,426.6	475.5
One-off special internal dividend paid to fund the internal transfer of the non-household retail business	-	-	55.3	18.4
D19: Interest Receivable on Intercompany Loans	181.9	177.6	1,652.6	670.7
D20: Net Dividends: Available for distribution to investors in ultimate parent company	**(137.3)**	**(112.3)**	**(70.7)**	**(106.8)**

Note 1: From 1 April 2018, following the settlement of the £1,602.6 million (2012/13 prices: £1,426.6 million) inter-company loan, the internal interest and dividend payments will no longer be necessary.

2015/16 – 2017/18 Average

Introduction

The actual return on actual equity versus actual return on notional equity

1 Where actual regulated equity is different from Ofwat's notional regulated equity of 37.5 per cent of RCV, the actual return on actual equity column in the table above will show different percentage returns for the same performance. In our case, as a consequence of having higher gearing and less regulated equity than the notional company, any underperformance will adversely impact returns disproportionately for shareholders. Conversely, any outperformance will deliver proportionately greater returns. This is evident in the financing and operational performance shown in table 1F.

Effect of inflation on real cost of debt out/(under) performance (line B6)

2 The real cost of fixed rate debt is influenced by the actual inflation rate which is subtracted from the nominal cost of debt to derive the real cost of debt. In setting the FD, Ofwat assumed an inflation rate of 2.80 per cent for embedded and new debt in order to derive the real allowed cost of debt.

3 All else being equal, higher inflation will therefore decrease the real cost of non-index linked debt and vice versa for lower inflation. In years when inflation is higher than the Ofwat assumed 2.80 per cent, all else being equal, the real cost of debt outperformance will increase, with the exception of the real cost of index linked debt which is not directly impacted by the actual level of inflation.

4 The mix of embedded debt between fixed, floating and index linked debt, will also therefore impact real cost of debt out/(under) performance, when inflation differs from Ofwat's 2.80 per cent assumption. The greater the proportion of fixed debt, the greater real cost of debt outperformance when inflation is higher than Ofwat's assumed 2.80 per cent and vice versa.

5 Over half of our debt is index linked debt and will therefore not be impacted by any movement in the annual rate of inflation away from the 2.80 per cent inflation assumed by Ofwat at the PR14 FD.

Effect of hedging instruments on real cost of debt out/(under) performance (line B7)

6 In order to achieve the most efficient financing costs, Anglian Water manages debt costs through the issue of underlying debt and derivatives combined. We do not manage our financing costs as separate portfolios of debt and derivatives. This is also prompted by hedge accounting requirements and documentation, and the Board approved treasury policy. The use of hedging instruments allows the business to access a broader range of markets for funding (e.g. US and EU debt investors) and as such provides for both greater security in the event of a market disruption to UK financial markets and allows the business to select the best priced market for each issuance as funding is required.

7 The regulated return asks for an impact of hedging "as calculated by the business". Economically the business has undertaken a debt plus derivative arrangement where the outturn rate achieved would outperform a direct issuance (e.g. Fixed issuance + interest rate swap provides a lower coupon than a direct sterling issuance) making the impact of derivatives a predetermined benefit against the contemporary alternative and this is the basis that the business calculates the cost of debt and monitors performance to the allowed return.

8 We have separated out the derivatives from the underlying debt instruments and used this as a proxy for the cost of hedging. This shows an underperformance, mainly due to the economic benefit of using RPI swaps rather than raising RPI bonds directly at the time of issuance being offset by the subsequent fall in interest rate since instruments were raised. We have no break clauses in these derivative transactions, so over the whole-life of these transactions we would continue to expect to realise the same economic benefit.

Commentary – For 2015/16 – 2017/18 Average

9 The average for the period 2015/16 - 2017/18 is calculated by the data table template provided by Ofwat as the sum of the three years divided by three, rather than the average of the opening and closing positions.

A – Equity base

A1a: Actual performance adjustment 2010-2015: (0.32 per cent) vs. (0.17 per cent) notional

10 This relates to the PR09 out/(under) performance adjustments, contained in the 'companies populated PR14 financial models file' (Post financeability adjustments). The small performance adjustments relate to the Revenue Correction Mechanism offset, in part, by the reward received for Service Incentive Mechanism (SIM) and an Opex Incentive Adjustment. The above excludes totex menu additional income adjustments as this is not related to PR09 out/(under) performance.

B - Financing

B3: Gearing out/(under) performance: 2.62 per cent vs. 1.40 per cent notional

11 The actual regulated equity to RCV ratio of 20.0 per cent, compares to the 37.5 per cent assumed by Ofwat for a notional company. The calculation in row B3 shows that the favourable impact of replacing more expensive cost of equity, 5.60 per cent, with cheaper cost of debt, 2.59 per cent, in the actual ratio is 2.62 per cent for the period. Although our gearing is higher than the national level assumed by Ofwat, we are steadily reducing our leverage and have committed to reduce to the mid 70's.

B6 & B7: Cost of debt and hedging out/(under) performance: (1.03 per cent) vs. (0.42 per cent) notional

12 The gearing outperformance in row B3 above should be read in conjunction with row B6 which measures the actual cost of debt out/(under) performance compared to the FD and B7 which measures the impact that hedging has on our cost of debt. All else being equal, the benefit of higher gearing in B3 above should be offset by an increase in cost of debt in row B6 associated with higher gearing (Modigliani Miller theorem).

13 However, our 'securitised', highly covenanted, structure protects customers and lenders thereby helping mitigate the additional debt cost of higher gearing allowing us to raise debt at rates that are competitive with our peers. Our covenants, which include commitments to support strong credit ratings, are one of the main reasons we can access debt at good prices. This structure transfers a higher proportion of risk on to the shareholders in the event of any operational or financial underperformance. The tax benefit from higher borrowings and hence higher tax deductible interest costs have been passed on to customers through lower bills as the tax revenue building block reflects actual gearing as opposed to notional gearing.

14 As set out in the introduction above, our cost of debt out/(under) performance is heavily impacted by the rate of actual inflation in the period. The reason for the cost of debt underperformance in the combined rows B6 and B7 for the period of 1.03 per cent can be largely explained by the impact of average inflation in the period, 2.32 per cent, being lower than that assumed in the FD, 2.80 per cent. As a consequence of lower inflation, our actual real cost of debt in the period is higher than assumed in the FD. The underperformance of the notional company is lower at 0.42 per cent due to the higher equity denominator as discussed in the introduction section above.

B4: Variance in corporation tax out/(under) performance: (5.06 per cent) vs. (2.71 per cent) notional

15 The variance in corporation tax compares the tax allowance included in the FD to the actual tax charge in the regulatory accounts. The underperformance in the period of 5.06 per cent is due to the additional tax charges relating to the disclaiming of capital allowances in order to recover Advance Corporation Tax (ACT), details of which can be seen in the reconciliations for each year.

B5: Group relief out/(under) performance: 2.60 per cent vs. 1.39 per cent notional

16 Where losses are surrendered to Anglian Water under the group relief regulations it pays for this group relief at the current rate of corporation tax. There is therefore no financial benefit in relation to this.

17 The exception to this is where losses are surrendered from our intermediary parent company, Anglian Water Services Holdings Limited (AWSH), which are as a result of the inter-company interest it pays to us. This is detailed in the table below:

	2015/16	2016/17	2017/18	Average
	2012/13 Prices	2012/13 Prices	2012/13 Prices	2012/13 Prices
	£m	£m	£m	£m
Interest paid by parent	181.9	177.6	170.7	176.7
Interest received by Anglian Water	181.9	177.6	170.7	176.7
Tax rate	20%	20%	19%	19.7%
Tax payable on interest received	36.4	35.6	32.4	34.8
Group relief received from parent	36.4	35.6	32.4	34.8

18 This has been agreed with HM Revenue & Customs and is consistent with the FD.

19 As the FD tax calculation discounts the impact of this inter-company interest when calculating the appointee profit/loss and corresponding tax allowance, there is an equal and opposite tax underperformance in row B6 'Variance in Corporation tax'as illustrated in the reconciliation table for each year.

20 From 1 April 2018, following the settlement of the £1,602.6 million inter-company loan, the annual inter-company interest and dividend payments will no longer be necessary.

C - Operational out/(under) performance: 4.37 per cent vs. 2.34 per cent notional

C9: Totex out/(under) performance: 3.47 per cent vs. 1.86 per cent notional

21 Totex outperformance in the three years was strong and this is amplified in the actual equity column because of higher gearing. This concentrates the outperformance on a smaller equity base thereby increasing the percentage return. Conversely, any underperformance would have a similar proportional effect on the equity return. We intend to invest over and above our plan in the final two years of the AMP and, as a consequence, future reported totex is expected to show much lower outperformance or even underperformance in the last two years of the AMP. The outperformance on the notional company basis is lower at 1.86 per cent for the reasons discussed above.

22 By maximising the benefits of our alliances, along with innovation, supply chain efficiencies, lean process improvements, energy efficiency projects and general tight cost control, we are delivering efficiencies across our programme. These will continue to be key areas of focus as we progress through the AMP.

C10: ODI out/(under) performance: 0.74 per cent vs. 0.40 per cent notional

23 Our ODI outperformance reflects good operational performance in the period resulting in rewards earned on leakage, water supply interuptions and pollutions and one small penalty on water infrastructure serviceability in 2016/17. Again, the percentage return, of 0.74 per cent is higher than the notional company, 0.40 per cent, reflecting the lower regulated equity used as the denominator.

C11: Retail out/(under) performance: 0.16 per cent vs. 0.09 per cent notional

24 Retail performance is largely in line with the FD, the favourable result is due to various small efficiencies across retail.

C13: Total earnings: 8.79 per cent actual regulated equity

25 A strong operational performance has resulted in positive returns on totex efficiencies and ODIs, over the three year period worth 4.37 per cent. There is a further small net upside on financing (gearing, cost of debt and hedging) of 1.59 per cent. This is partly offset by a downside in tax of 2.46 per cent. Adding this to the notional return on notional equity of 5.28 per cent results in total earnings over the three years of 8.79 per cent.

C14: RCV growth: 2.32 per cent

26 This is calculated as RCV times average RPI inflation in the period, of 2.32 percent, and represents the inflationary impact on the value of the RCV.

C16: Net dividends: 7.99 per cent vs. 4.28 per cent notional

27 This represents dividends available to the parent company. The net average annual dividend accounted for in the FD of £99.9 million, 4.00 per cent, compares to an actual dividend of £106.8 million, 4.28 per cent, based on the notional regulated equity and 7.99 per cent based on the actual regulated equity. The slightly higher average annual dividend reflects the relatively high distributable free cash flow for the last year of the previous AMP, 2014/15, together with good cash performance in the period, outperformance on totex and ODIs during the first three years of the current AMP. This is offset in part by reduced dividends in year three, following our commitment to degear. The net impact of this is a slightly higher yield of 4.28 per cent notional amplified to 7.99 per cent actual by the smaller regulated equity base.

	For the 12 months ended 31 March 2016	%			£m 12/13 price		
	Line description	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							
1	Return on regulatory equity	5.63%	2.91%	5.63%	140.0	72.5	72.5
1a	Actual performance adjustment 2010-2015	-0.28%	-0.14%	-0.28%	(7.0)	(3.6)	(3.6)
1b	Adjusted Return on regulatory equity	5.35%	2.77%	5.35%	133.0	68.9	68.9
2	Regulatory equity base	2,486	2,486	1,287			
B	**Financing**						
3	Gearing	0.00%	1.46%	2.82%	-	36.3	36.3
4	Variance in corporation tax	0.00%	-1.07%	-2.07%	-	(26.7)	(26.7)
5	Group relief	0.00%	1.46%	2.83%	-	36.4	36.4
6	Cost of debt	0.00%	-1.11%	-2.77%	-	(27.6)	(35.6)
7	Hedging instruments	0.00%	-0.18%	-0.46%	-	(4.5)	(5.9)
8	Sub total	5.35%	3.33%	5.70%	133.0	82.8	73.4
C	**Operational Performance**						
9	Totex out / (under) performance	0.00%	0.91%	1.76%	-	22.7	22.7
10	ODI out / (under) performance	0.00%	0.44%	0.85%	-	11.0	11.0
11	Retail out / (under) performance	0.00%	-0.03%	-0.06%	-	(0.7)	(0.7)
12	Sub Total	0.00%	1.33%	2.56%	-	33.0	33.0
13	**Total earnings**	**5.35%**	**4.66%**	**8.26%**	**133.0**	**115.7**	**106.3**
14	RCV growth	1.05%	1.05%	1.05%	26.1	26.1	13.5
15	**Total shareholder return**	**6.40%**	**5.71%**	**9.32%**	**99.4**	**141.9**	**119.9**
16	Net dividend	4.00%	5.52%	10.67%	99.4	137.3	137.3
17	Retained Value	2.40%	0.18%	-1.35%	0.0	4.6	(17.4)
D	**Dividends reconciliation**						
18	Gross Dividend	4.00%	12.84%	24.80%	99.4	319.2	319.2
19	Interest Receivable on Intercompany loans	0.00%	7.32%	14.13%	-	181.9	181.9
20	Net dividend	4.00%	5.52%	10.67%	99.4	137.3	137.3

Footnotes:

1. Numbers included in the above table are in 2012/13 prices in line with Ofwat guidance.

2. The numbers in the percentage column above are subject to rounding difference as a result of the way that the percentages are calculated in the Ofwat table templates. These differences do not have a material impact on the numbers presented.

3. We note that the blue highlighted cells in the table for the year ended 31 March 2016, uses a formula prescribed by Ofwat that miscalculates these numbers, showing £99.4 million instead of £159.1 million and £0.0 million instead of £59.7 million. However these cells are in isolation and have no impact on the percentage return calculation.

4. Block D: Dividend reconciliation - further analysis in the table below.

Line description	Total appointed activities 2015/16 Prices £m	Total appointed activities 2012/13 Prices £m
D18: Gross Dividends (shown above)	(338.6)	(319.2)
Dividends not available for distribution to investors in the ultimate parent company:		
Dividend paid by the Company in order to service internal interest (note 1)	192.8	181.9
D20: Net Dividends: Available for distribution to investors in ultimate parent company	**(145.8)**	**(137.3)**

Note 1: From 1 April 2018, following the settlement of the £1,602.6 million inter-company loan, the internal interest and dividend payments will no longer be necessary.

2015/16

Introduction

The actual return on actual equity versus actual return on notional equity

28 Where actual regulated equity is different from Ofwat's notional regulated equity of 37.5 per cent of RCV, the actual return on actual equity column in the table above will show different percentage returns for the same performance. In our case, as a consequence of having higher gearing and less regulated equity than the notional company, any underperformance will adversely impact returns disproportionately for shareholders. Conversely, any outperformance will deliver proportionately greater returns. This is evident in the financing and operational performance shown in the above table.

Commentary – For 2015/16

A – Equity base

A1a: Actual performance adjustment 2010-2015: (0.28 per cent) vs. (0.14 per cent) notional

29 This relates to the PR09 out/(under) performance adjustments, contained in the 'companies populated PR14 financial models file' (Post financeability adjustments). The small performance adjustments relate to the Revenue Correction Mechanism offset, in part, by the reward received for Service Incentive Mechanism (SIM) and an Opex Incentive Adjustment. The above excludes totex menu additional income adjustments as this is not related to PR09 out/(under) performance.

B - Financing

B3: Gearing out/(under) performance: 2.82 per cent vs. 1.46 per cent notional

30 The actual regulated equity to RCV ratio of 19.3 per cent, compares to the 37.5 per cent assumed by Ofwat for a notional company. The calculation in row B3 shows that the favourable impact of replacing more expensive cost of equity, 5.63 per cent, with cheaper cost of debt, 2.59 per cent, in the actual ratio is 2.82 per cent for 2015/16. Although our gearing is higher than the national level assumed by Ofwat, we are steadily reducing our leverage and have committed to reduce to the mid 70's.

B6 & B7: Cost of debt and hedging out/(under) performance: (3.23 per cent) vs. (1.29 per cent) notional

31 The gearing outperformance in row B3 above should be read in conjunction with row B6 which measures the actual cost of debt out/(under) performance compared to the FD and B7 which measures the impact that hedging has on our cost of debt. All else being equal, the benefit of higher gearing in B3 above should be offset by an increase in cost of debt in row B6 associated with higher gearing (Modigliani Miller theorem).

32 However, our 'securitised', highly covenanted, structure protects customers and lenders thereby helping mitigate the additional debt cost of higher gearing allowing us to raise debt at rates that are competitive with our peers. Our covenants, which include commitments to support strong credit ratings, are one of the main reasons we can access debt at good prices. This structure transfers a higher proportion of risk on to the shareholders in the event of any operational or financial underperformance. The tax benefit from higher borrowings and hence higher tax deductible interest costs have been passed on to customers through lower bills as the tax revenue building block reflects actual gearing as opposed to notional gearing.

33 As set out in paragraphs 2-5 of the introduction on pages 36-37, our cost of debt out/(under) performance is heavily impacted by the rate of actual inflation in the year. The reason for the cost of debt underperformance in the combined rows B6 and B7 for 2015/16 of 3.23 per cent can be largely explained by the impact of average RPI inflation in the year, 1.05 per cent, being lower than that assumed in the FD, 2.80 per cent. As a consequence of lower inflation, our actual real cost of fixed debt in the year is higher than assumed in the FD. The underperformance of the notional company is lower at 1.29 per cent due to the higher equity denominator as discussed in the introduction section above.

34 As set out in paragraphs 6-9 of the introduction on page 37, we have separated out the derivatives from the underlying debt instruments and used this as a proxy for the cost of hedging. This shows an underperformance, mainly due to the economic benefit of using RPI swaps rather than raising RPI bonds directly at the time of issuance being offset by the subsequent fall in interest rate since instruments were raised. We have no break clauses in these derivative transactions, so over the whole-life of these transactions we would continue to expect to realise the same economic benefit.

B4 & B5: Variance in corporation tax and group relief out/(under) performance: 0.76 per cent vs. 0.39 per cent notional

35 The variance in corporation tax compares the tax allowance included in the FD to the actual tax charge in the regulatory accounts. As detailed in the commentary in paragraph 19 on page 39 in order to understand the underlying tax out/(under) performance of the business lines B4 and B5 should be viewed in totality, as the group relief outperformance is matched by a corresponding underperformance in the variance in corporation tax line. The outperformance in the year 0.76 per cent is mainly due to a lower level of disallowable depreciation and a higher level of capital allowances claimed in the year, together with a prior year credit in the year due to the agreement of prior year tax computations. A full reconciliation can be seen in the following table.

Variance in Corporation tax	2016							
	Actual Outturn	Actual 12/13 price	FD	Variance	Tax rate	Tax effect	Return on notional regulated equity	Return on actual regulated equity
	A	B	C	D=C-B	E	D*E		
	£m	£m	£m	£m	(allowed)	£m	%	%
The tax payable at the standard rate of corporation tax on the profit/(loss) on appointed activities								
Profit for the year per regulatory accounts	185.0	174.5						
IAS 39 adjustments	89.7	84.6						
Interest received from Parent Company	(192.8)	(181.9)						
	81.9	77.3	74.7	2.6	20%	(0.5)		
Any adjustment for accelerated or deferred capital allowances								
Disallowable depreciation (note 1)	243.5	229.7	243.1	(13.4)				
Allowable capital allowances	(204.6)	(193.0)	(189.5)	(3.5)				
	38.9	36.7	53.6	(16.9)	20%	3.4		
Other adjustments								
Other FD adjustments	(26.8)	(25.3)	(27.3)	2.0	20%	(0.4)		
Taxable Profit	94.0	88.7	101.0	(12.3)		2.5		
Corporation tax charged at 20 per cent	(18.8)	(17.7)	(20.2)	2.5				
Any amounts for prior year adjustments	7.7	7.3	-	7.3		7.3		
Corporation tax charge	(11.1)	(10.5)	(20.2)	9.7		9.7	0.39%	0.76%
Tax on internal interest income group relieved						(36.4)	-1.46%	-2.83%
Variance in corporation tax						**(26.7)**	**-1.07%**	**-2.07%**
Note 1: Disallowable depreciation disclosed above includes both permanent differences and timing differences. This differs from that described as depreciation and amortisation in the tax reconciliation in the notes to the APR, which only includes timing differences, with permanent differences disclosed in 'Items not deductible for tax purposes'.								
Regulated equity base £m							2,486	1,287
Group relief								
Group relief in respect of tax on internal intercompany interest received (2012-13 price)						**36.4**	**1.46%**	**2.83%**

Note: Other FD adjustments primarily relate to adjustments for pension prepayments and non-infrastructure grants and contribution amortisation.

C - Operational out/(under) performance: 2.56 per cent vs. 1.33 per cent notional

C9: Totex out/(under) performance: 1.76 per cent vs. 0.91 per cent notional

36 Totex outperformance in the year was strong and this is amplified in the actual equity column because of higher gearing. This concentrates the outperformance on a smaller equity base thereby increasing the percentage return. Conversely, any underperformance would have a similar proportional effect on the equity return. We intend to invest over and above our plan in the final two years of the AMP and, as a consequence, future reported totex is expected to show much lower outperformance or even underperformance in the last two years of the AMP. The outperformance on the notional company basis is lower at 0.91 per cent for the reasons discussed above.

37 By maximising the benefits of our alliances, along with innovation, supply chain efficiencies, lean process improvements, energy efficiency projects and general tight cost control, we are delivering efficiencies across our programme. These will continue to be key areas of focus as we progress through the AMP.

C10: ODI out/(under) performance: 0.85 per cent vs. 0.44 per cent notional

38 Our ODI outperformance reflects good operational performance in the year resulting in rewards earned on water supply interruptions and pollutions. We incurred no ODI penalties in the year. Again, the percentage return of 0.85 per cent on actual regulated equity is higher than the notional company, 0.44 per cent, reflecting the lower regulated equity used as the denominator.

C11: Retail out/(under) performance: (0.06 per cent) vs. (0.03 per cent) notional

39 Retail performance is largely in line with the FD, the small underperformance is due to various small inefficiencies across retail.

C13: Total earnings: 8.26 per cent actual regulated equity

40 A strong operational performance has resulted in positive returns on totex efficiencies and ODIs of 2.56 per cent. There is a further upside on tax of 0.76 per cent. This is partly offset by an underperformance on financing of 0.41 per cent. Adding this to the notional return on motional equity of 5.35 per cent results in total earnings over the year of 8.26 per cent.

C14: RCV growth: 1.05 per cent

41 This is calculated as RCV times average RPI inflation in the year, of 1.05 per cent, and represents the inflationary impact on the value of the RCV.

C16: Net dividends: 10.67 per cent vs. 5.52 per cent notional

42 This represents dividends available to the parent company. The net dividend accounted for in the FD of £99.4 million, 4.00 per cent, compares to an actual dividend of £137.3 million, 5.52 per cent, based on the notional regulated equity and 10.67 per cent based on the actual regulated equity. The slightly higher average annual dividend reflects the relatively high distributable free cash flow for the last year of the previous AMP, 2014/15, together with good cash performance in the period and outperformance on totex and ODIs during the first year of the current AMP. The net impact of this is a slightly higher yield of 5.52 per cent notional amplified to 10.67 per cent actual by the smaller regulated equity base.

	For the 12 months ended 31 March 2017	%			£m 12/13 price		
	Line description	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							
1	Return on regulatory equity	5.63%	2.91%	5.63%	139.3	71.9	71.9
1a	Actual performance adjustment 2010-2015	-0.34%	-0.18%	-0.34%	(8.4)	(4.3)	(4.3)
1b	Adjusted Return on regulatory equity	5.29%	2.73%	5.29%	130.9	67.6	67.6
2	Regulatory equity base	2,474	2,474	1,277			
B	**Financing**						
3	Gearing	0.00%	1.46%	2.82%	-	36.0	36.0
4	Variance in corporation tax	0.00%	-4.66%	-9.02%	-	(115.2)	(115.2)
5	Group relief	0.00%	1.44%	2.78%	-	35.6	35.6
6	Cost of debt	0.00%	-0.01%	-0.03%	-	(0.3)	(0.4)
7	Hedging instruments	0.00%	-0.41%	-1.03%	-	(10.2)	(13.2)
8	Sub total	5.29%	0.54%	0.81%	130.9	13.4	10.3
C	**Operational Performance**						
9	Totex out / (under) performance	0.00%	2.95%	5.71%	-	72.9	72.9
10	ODI out / (under) performance	0.00%	0.21%	0.42%	-	5.3	5.3
11	Retail out / (under) performance	0.00%	0.06%	0.13%	-	1.6	1.6
12	Sub Total	0.00%	3.23%	6.25%	-	79.8	79.8
13	**Total earnings**	**5.29%**	**3.77%**	**7.06%**	**130.9**	**93.2**	**90.1**
14	RCV growth	2.16%	2.16%	2.16%	53.4	53.4	27.6
15	**Total shareholder return**	**7.45%**	**5.93%**	**9.22%**	**184.3**	**146.6**	**117.7**
16	Net dividend	4.00%	4.54%	8.79%	99.0	112.3	112.3
17	Retained Value	3.45%	1.39%	0.42%	85.3	34.3	5.4
D	**Dividends reconciliation**						
18	Gross Dividend	4.00%	11.72%	22.70%	99.0	289.9	289.9
19	Interest Receivable on Intercompany loans	0.00%	7.18%	13.91%	-	177.6	177.6
20	Net dividend	4.00%	4.54%	8.79%	99.0	112.3	112.3

Footnotes:

1. Numbers included in the above table are in 2012/13 prices in line with Ofwat guidance.

2. The numbers in the percentage column above are subject to rounding difference as a result of the way that the percentages are calculated in the Ofwat table templates. These differences do not have a material impact on the numbers presented.

3. Block D: Dividend reconciliation - further analysis in the table below.

Line description	Total appointed activities 2016/17 Prices £m	Total appointed activities 2012/13 Prices £m
D18: Gross Dividends (shown above)	(313.9)	(289.9)
Dividends not available for distribution to investors in the ultimate parent company:		
Dividend paid by the Company in order to service internal interest (note 1)	192.3	177.6
D20: Net Dividends: Available for distribution to investors in ultimate parent company	**(121.6)**	**(112.3)**

Note 1: From 1 April 2018, following the settlement of the £1,602.6 million inter-company loan, the internal interest and dividend payments will no longer be necessary.

Introduction

The actual return on actual equity versus actual return on notional equity

43 Where actual regulated equity is different from Ofwat's notional regulated equity of 37.5 per cent of RCV, the actual return on actual equity column in the table above will show different percentage returns for the same performance. In our case, as a consequence of having higher gearing and less regulated equity than the notional company, any underperformance will adversely impact returns disproportionately for shareholders. Conversely, any outperformance will deliver proportionately greater returns. This is evident in the financing and operational performance shown in the above table.

Commentary – For 2016/17

A – Equity base

A1a: Actual performance adjustment 2010-2015: (0.34 per cent) vs. (0.18 per cent) notional

44 This relates to the PR09 out/(under) performance adjustments, contained in the 'companies populated PR14 financial models file' (Post financeability adjustments). The small performance adjustments relate to the Revenue Correction Mechanism offset, in part, by the reward received for Service Incentive Mechanism (SIM) and an Opex Incentive Adjustment. The above excludes totex menu additional income adjustments as this is not related to PR09 out/(under) performance.

B - Financing

B3: Gearing out/(under) performance: 2.82 per cent vs. 1.46 per cent notional

45 The actual regulated equity to RCV ratio of 19.3 per cent, compares to the 37.5 per cent assumed by Ofwat for a notional company. The calculation in row B3 shows that the favourable impact of replacing more expensive cost of equity, 5.63 per cent, with cheaper cost of debt, 2.59 per cent, in the actual ratio is 2.82 per cent for 2016/17. Although our gearing is higher than the national level assumed by Ofwat, we are steadily reducing our leverage and have committed to reduce to the mid 70's.

B6 & B7: Cost of debt and hedging out/(under) performance: (1.06 per cent) vs. (0.42 per cent) notional

46 The gearing outperformance in row B3 above should be read in conjunction with row B6 which measures the actual cost of debt out/(under) performance compared to the FD and B7 which measures the impact that hedging has on our cost of debt. All else being equal, the benefit of higher gearing in B3 above should be offset by an increase in cost of debt in row B6 associated with higher gearing (Modigliani Miller theorem).

47 However, our 'securitised', highly covenanted, structure protects customers and lenders thereby helping mitigate the additional debt cost of higher gearing allowing us to raise debt at rates that are competitive with our peers. Our covenants, which include commitments to support strong credit ratings, are one of the main reasons we can access debt at good prices. This structure transfers a higher proportion of risk on to the shareholders in the event of any operational or financial underperformance. The tax benefit from higher borrowings and hence higher tax deductible interest costs have been passed on to customers through lower bills as the tax revenue building block reflects actual gearing as opposed to notional gearing.

48 As set out in paragraphs 2-5 of the introduction on pages 36-37, our cost of debt out/(under) performance is heavily impacted by the rate of actual inflation in the year. The reason for the cost of debt underperformance in the combined rows B6 and B7 for 2016/17 of 1.06 per cent can be largely explained by the impact of average RPI inflation in the year, 2.16 per cent, being lower than that assumed in the FD, 2.80 per cent. As a consequence of lower inflation, our actual real cost of fixed debt in the year is higher than assumed in the FD. The underperformance of the notional company is lower at 0.42 per cent due to the higher equity denominator as discussed in the introduction section above.

49 As set out in paragraphs 6-9 of the introduction on page 37, we have separated out the derivatives from the underlying debt instruments and used this as a proxy for the cost of hedging. This shows an underperformance, mainly due to the economic benefit of using RPI swaps rather than raising RPI bonds directly at the time of issuance being offset by the subsequent fall in interest rate since instruments were raised. We have no break clauses in these derivative transactions, so over the whole-life of these transactions we would continue to expect to realise the same economic benefit.

B4 & B5: Variance in corporation tax and group relief out/(under) performance: (6.24 per cent) vs. (3.22 per cent) notional

50 The variance in corporation tax compares the tax allowance included in the FD to the actual tax charge in the regulatory accounts. As detailed in the commentary in paragraph 19 on page 39 in order to understand the underlying tax out/(under) performance of the business lines B4 and B5 should be viewed in totality, as the group relief outperformance is matched by a corresponding underperformance in the variance in corporation tax line. The underperformance in the year of 6.24 per cent is mainly due to the additional tax charge created by capital allowance disclaimers in both the current year and the previous year in order to recover ACT. These disclaimers were not envisaged when the FD was prepared and therefore were not included in the FD. A full reconciliation can be seen in the following table.

	2017							
	Actual Outturn	Actual 12/13 price	FD	Variance	Tax rate	Tax effect	Return on notional regulated equity	Return on actual regulated equity
	A	B	C	D=C-B	E	D*E		
	£m	£m	£m	£m	(allowed)	£m	%	%
The tax payable at the standard rate of corporation tax on the profit/(loss) on appointed activities								
Profit for the year per regulatory accounts	154.7	142.8						
IAS 39 adjustments	116.0	107.1						
Interest received from Parent Company	(192.3)	(177.6)						
	78.4	72.4	53.4	19.0	20%	(3.8)		
Any adjustment for accelerated or deferred capital allowances								
Disallowable depreciation (note 1)	243.3	224.7	254.9	(30.2)				
Allowable capital allowances	-	-	(217.0)	217.0				
	243.3	224.7	37.9	186.8	20%	(37.4)		
Other adjustments								
Other FD adjustments	(22.8)	(21.1)	(28.3)	7.2	20%	(1.4)		
Taxable Profit	298.9	276.0	63.0	213.0		(42.6)		
Corporation tax charged at 20 per cent	(59.8)	(55.2)	(12.6)	(42.6)				
Any amounts for prior year adjustments	(40.1)	(37.0)	-	(37.0)		(37.0)		
Corporation tax charge	(99.9)	(92.2)	(12.6)	(79.6)		(79.6)	-3.22%	-6.24%
Tax on internal interest income group relieved						(35.6)	-1.44%	-2.78%
Variance in corporation tax						**(115.2)**	**-4.66%**	**-9.02%**
Note 1: Disallowable depreciation disclosed above includes both permanent differences and timing differences. This differs from that described as depreciation and amortisation in the tax reconciliation in the notes to the APR, which only includes timing differences, with permanent differences disclosed in 'Items not deductible for tax purposes'.								
Regulated equity base £m							2,474	1,277
Group relief								
Group relief in respect of tax on internal intercompany interest received (2012-13 price)						**35.6**	**1.44%**	**2.78%**

Note: Other FD adjustments primarily relate to adjustments for pension prepayments and non-infrastructure grants and contribution amortisation.

C - Operational out/(under) performance: 6.25 per cent vs. 3.23 per cent notional

C9: Totex out/(under) performance: 5.71 per cent vs. 2.95 per cent notional

51 Totex out-performance in the year was very strong and this is amplified in the actual equity column because of lower actual regulated equity. Using notional equity the return is also strong but lower at 2.95 per cent reflecting the higher denominator of notional equity. However, we intend to invest over and above our plan in the final two years of the AMP and, as a consequence, future reported totex is expected to show much lower outperformance or even underperformance in the last two years of the AMP.

52 By maximising the benefits of our alliances, along with innovation, supply chain efficiencies, lean process improvements, energy efficiency projects and general tight cost control we are delivering efficiencies across our programme. These will continue to be key areas of focus as we progress through the AMP.

C10: ODI out/(under) performance: 0.42 per cent vs. 0.21 per cent notional

53 Our ODI outperformance reflects good operational performance in the year resulting in rewards earned on leakage and pollution, partially offset by one small penalty on water infrastructure serviceability. Again, the percentage return of 0.42 per cent is higher than the notional company, 0.21 per cent, reflecting the lower regulated equity used as the denominator.

C11: Retail out/(under) performance: 0.13 per cent vs. 0.06 per cent notional

54 Retail performance is largely in line with the FD, the favourable result is due to various small efficiencies across retail.

C13: Total earnings: 7.06 per cent regulated equity

55 A strong operational performance has resulted in positive returns on totex efficiencies and ODIs over the year worth 6.25 per cent. There is a further net upside on financing of 1.76 per cent. This is partly offset by an underpeformance in tax of 6.24 per cent. Adding the net of these to the notional return on notional equity of 5.29 per cent results in total earnings over the year of 7.06 per cent.

C14: RCV growth: 2.16 per cent

56 This is calculated as RCV times average RPI inflation in the year, of 2.16 per cent, and represents the inflationary impact on the value of the RCV.

C16: Net dividends: 8.79 per cent vs. 4.54 per cent notional

57 This represents dividends available to the parent company. The net dividend account for in the FD of £99.0 million, 4.00 per cent, compares to an actual dividend of £112.3 million, 4.54 per cent, based on the notional regulated equity and 8.79 per cent based on the actual regulated equity. The higher dividend yield reflects the impact of outperformance. The net impact of this is a slightly higher yield of 4.54 per cent notional amplified to 8.79 per cent actual by the smaller regulated equity base.

	For the 12 months ended 31 March 2018	%			£m 12/13 price		
	Line description	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							
1	Return on regulatory equity	5.55%	3.17%	5.55%	140.4	80.2	80.2
1a	Actual performance adjustment 2010-2015	-0.34%	-0.19%	-0.34%	(8.6)	(4.9)	(4.9)
1b	Adjusted Return on regulatory equity	5.21%	2.98%	5.21%	131.8	75.3	75.3
2	Regulatory equity base	2,530	2,530	1,445			
B	**Financing**						
3	Gearing	0.00%	1.29%	2.26%	-	32.7	32.7
4	Variance in corporation tax	0.00%	-2.41%	-4.22%	-	(61.0)	(61.0)
5	Group relief	0.00%	1.28%	2.24%	-	32.4	32.4
6	Cost of debt	0.00%	1.28%	2.83%	-	32.5	40.9
7	Hedging instruments	0.00%	-0.85%	-1.87%	-	(21.5)	(27.0)
8	Sub total	5.21%	3.57%	6.46%	131.8	90.4	93.3
C	**Operational Performance**						
9	Totex out / (under) performance	0.00%	1.72%	3.01%	-	43.5	43.5
10	ODI out / (under) performance	0.00%	0.53%	0.93%	-	13.4	13.4
11	Retail out / (under) performance	0.00%	0.22%	0.39%	-	5.6	5.6
12	Sub Total	0.00%	2.47%	4.33%	-	62.5	62.5
13	**Total earnings**	**5.21%**	**6.04%**	**10.78%**	**131.8**	**152.9**	**155.8**
14	RCV growth	3.74%	3.74%	3.74%	94.5	94.5	54.0
15	**Total shareholder return**	**8.95%**	**9.78%**	**14.52%**	**226.3**	**247.4**	**209.8**
16	Net dividend	4.00%	2.79%	4.89%	101.2	70.7	70.7
17	Retained Value	4.95%	6.98%	9.62%	125.1	176.7	139.1
D	**Dividends reconciliation**						
18	Gross Dividend	4.00%	68.11%	119.26%	101.2	1,723.3	1,723.3
19	Interest Receivable on Intercompany loans	0.00%	65.32%	114.37%	-	1,652.6	1,652.6
20	Net dividend	4.00%	2.79%	4.89%	101.2	70.7	70.7

Footnotes:

1. Numbers included in the above table are in 2012/13 prices in line with Ofwat guidance.

2. The numbers in the percentage column above are subject to rounding difference as a result of the way that the percentages are calculated in the Ofwat table templates. These differences do not have a material impact on the numbers presented.

3. Block D: Dividend reconciliation - as agreed with the Financial Flows team at Ofwat, the line called 'D19: Interest Receivable on Intercompany Loans' includes two one-off internal dividends for 2017/18 as shown in the table below.

Line description	Total appointed activities 2017/18 Prices £m	Total appointed activities 2012/13 Prices £m
D18: Gross Dividends (shown above)	(1,935.9)	(1,723.3)
Dividends not available for distribution to investors in the ultimate parent company (note 1):		
Round trip internal dividend paid by the Company in order to service internal interest	191.8	170.7
One off internal restructuring dividend to settle intercompany loan	1,602.6	1,426.6
One-off special internal dividend paid to fund the internal transfer of the non-household retail business	62.2	55.3
D19: Interest Receivable on Intercompany Loans	1,856.6	1,652.6
D20: Net Dividends: Available for distribution to investors in ultimate parent company	**(79.3)**	**(70.7)**

Note 1: From 1 April 2018, following the settlement of the £1,602.6 million inter-company loan, the internal interest and dividend payments will no longer be necessary.

2017/18

Introduction

The actual return on actual equity versus actual return on notional equity

58 Where actual regulated equity is different from Ofwat's notional regulated equity of 37.5 per cent of RCV, the actual return on actual equity column in the table above will show different percentage returns for the same performance. In our case, as a consequence of having higher gearing and less regulated equity than the notional company, any underperformance will adversely impact returns disproportionately for shareholders. Conversely, any outperformance will deliver proportionately greater returns. This is evident in the financing and operational performance shown in the above table.

Commentary – For 2017/18

A – Equity base

A1a: Actual performance adjustment 2010-2015: (0.34 per cent) vs. (0.19 per cent) notional

59 This relates to the PR09 out/(under) performance adjustments, contained in the 'companies populated PR14 financial models file' (Post financeability adjustments). The small performance adjustments relate to the Revenue Correction Mechanism offset, in part, by the reward received for Service Incentive Mechanism (SIM) and an Opex Incentive Adjustment. The above excludes totex menu additional income adjustments as this is not related to PR09 out/(under) performance.

B - Financing

B3: Gearing out/(under) performance: 2.26 per cent vs. 1.29 per cent notional

60 The actual regulated equity to RCV ratio of 21.5 per cent, compares to the 37.5 per cent assumed by Ofwat for a notional company. The calculation in row B3 shows that the favourable impact of replacing more expensive cost of equity, 5.55 per cent, with cheaper cost of debt, 2.59 per cent, in the actual ratio is 2.26 per cent for 2017/18. Although our gearing is higher than the national level assumed by Ofwat, we are steadily reducing our leverage and have committed to reduce to the mid 70's.

B6 & B7: Cost of debt and hedging out/(under) performance: 0.96 per cent vs. 0.43 per cent notional

61 The gearing out-performance in row B3 above should be read in conjunction with row B6 which measures the actual cost of debt out/under-performance compared to the FD and B7 which measures the impact that hedging has on our cost of debt. All else being equal, the benefit of higher gearing in B3 above should be offset by an increase in cost of debt in row B6 associated with higher gearing (Modigliani Miller theorem).

62 However, our 'securitised', highly covenanted, structure protects customers and lenders thereby helping mitigate the additional debt cost of higher gearing allowing us to raise debt at rates that are competitive with our peers. Our covenants, which include commitments to support strong credit ratings, are one of the main reasons we can access debt at good prices. This structure transfers a higher proportion of risk on to the shareholders in the event of any operational or financial underperformance. The tax benefit from higher borrowings and hence higher tax deductible interest charges have been passed on to customers through lower bills as the tax revenue building block reflects actual gearing as opposed to notional gearing.

63 As set out in paragraphs 2-5 of the introduction on pages 36-37, our cost of debt out/(under) performance is heavily impacted by the rate of actual inflation in the year. The reason for the cost of debt outperformance in the combined rows B6 and B7 for 2017/18 of 0.96 per cent can be explained by the impact of average RPI inflation in the year, 3.74 per cent, being higher than assumed by Ofwat, 2.80 per cent. As a consequence of higher inflation, our actual real cost of fixed debt in the year is lower than assumed in the FD.

64 However in the earlier years of AMP6 the opposite has been true and inflation has been lower than assumed by Ofwat. Largely as a consequence of lower inflation in these years the real cost of debt was higher than assumed in the FD and, Anglian Water reported an underperformance against cost of debt of 3.22 per cent in 2015/16 and 1.06 per cent in 2016/17.

65 As set out in paragraphs 6-9 of the introduction on page 37, we have separated out the derivatives from the underlying debt instruments and used this as a proxy for the cost of hedging. This shows an underperformance, mainly due to the economic benefit of using RPI swaps rather than raising RPI bonds directly at the time of issuance being offset by the subsequent fall in interest rate since instruments were raised. We have no break clauses in these derivative transactions, so over the whole-life of these transactions we would continue to expect to realise the same economic benefit.

B4 & B5: Variance in corporation tax and group relief out/(under) performance: (1.96 per cent) vs. (1.12 per cent) notional

66 The adverse variance in corporation tax compares the tax allowance included in the FD to the actual tax charge in the regulatory accounts. As detailed in the commentary in paragraph 19 on page 39 in order to understand the underlying tax out/(under) performance of the business lines B4 and B5 should be viewed in totality, as the group relief outperformance is matched by a corresponding underperformance in the variance in corporation tax line. The underperformance in the year of 1.96 per cent is mainly due to the additional tax charge created by not claiming any capital allowances in order to recover

ACT in the year. These disclaimers were not envisaged when the FD was prepared and therefore were not included in the FD. A full reconciliation can be seen in the following table. The effect of a change in tax rate refers to the reduction in corporation tax from 20 per cent, which was allowed in the FD, to 19 per cent.

	2018							
	Actual Outturn	Actual 12/13 price	FD	Variance	Tax rate	Tax effect	Return on notional regulated equity	Return on actual regulated equity
	A	B	C	D=C-B	E	D*E		
	£m	£m	£m	£m	(allowed)	£m	%	%
The tax payable at the standard rate of corporation tax on the profit/(loss) on appointed activities								
Profit for the year per regulatory accounts	307.4	274.8						
IAS 39 adjustments	(117.6)	(104.7)						
Interest received from Parent Company	(191.8)	(170.8)						
	(2.0)	(0.7)	38.0	(38.7)	20%	7.7		
Any adjustment for accelerated or deferred capital allowances								
Disallowable depreciation (note 1)	253.5	225.7	271.0	(45.3)				
Allowable capital allowances	-	-	(232.4)	232.4				
	253.5	225.7	38.6	187.1	20%	(37.4)		
Other adjustments								
Other FD adjustments	(24.0)	(21.4)	(29.5)	8.1	20%	(1.6)		
Effect of change in tax rate						2.0		
Taxable Profit	227.5	203.7	47.1	156.6		(29.3)		
Corporation tax charged at applicable tax rate	(43.2)	(38.7)	(9.4)	(29.3)				
Any amounts for prior year adjustments	0.8	0.7	-	0.7		0.7		
Corporation tax charge	(42.4)	(38.0)	(9.4)	(28.6)		(28.6)	-1.13%	-1.98%
Tax on internal interest income group relieved						(32.4)	-1.28%	-2.24%
Variance in corporation tax						**(61.0)**	**-2.41%**	**-4.22%**
Note 1: Disallowable depreciation disclosed above includes both permanent differences and timing differences. This differs from that described as depreciation and amortisation in the tax reconciliation in the notes to the APR, which only includes timing differences, with permanent differences disclosed in 'Items not deductible for tax purposes'.								
Regulated equity base £m							2,530	1,445
Group relief								
Group relief in respect of tax on internal intercompany interest received (2012-13 price)						**32.4**	**1.28%**	**2.24%**

Note: Other FD adjustments primarily relate to adjustments for pension prepayments and non-infrastructure grants and contribution amortisation.

C - Operational out/(under) performance actual: 4.33 per cent vs. 2.47 per cent notional

C9: Totex out/(under) performance: 3.01 per cent vs. 1.72 per cent notional

67 Totex outperformance in the year was strong and this is amplified in the actual equity column because of higher gearing. This concentrates the outperformance on a smaller equity base thereby increasing the percentage return. Conversely, any underperfomance would have a similar proportional effect on the equity return. We intend to invest these efficiencies over and above our plan in the final two years of the AMP, with c.£26 million already invested in the year, and as a consequence, future reported totex is expected to show much lower out-performance or even underperformance.

68 By maximising the benefits of our alliances, along with innovation, supply chain efficiencies, lean process improvements, energy efficiency projects and general tight cost control, we are delivering efficiencies across our programme. These will continue to be key areas of focus as we progress through the AMP.

C10: ODI out/(under) performance: 0.93 per cent vs. 0.53 per cent notional

69 Our ODI outperformance reflects a strong operational performance resulting in rewards earned on interruptions to supply, leakage and pollution. We incurred no ODI penalties in the year. Again, the percentage return of 0.93 per cent is higher than the notional company, 0.53 per cent, reflecting the lower regulated equity used as the denominator

C11: Retail out/(under) performance: 0.39 per cent vs. 0.22 per cent notional

70 Retail performance is largely in line with the FD, the favourable result is due to various small efficiencies across retail. As previously communicated to Ofwat, the retail performance excludes the one-off profit on disposal of the non-household retail business of £4.0 million (2012/13 prices), which, if included, would have the effect of increasing the outperformance by 0.30 per cent (Notional: 0.16 per cent).

C13: Total earnings: 10.78 per cent regulated equity

71 A strong operational performance has resulted in positive returns on totex efficiencies and ODIs over the year worth 4.33 per cent. There is a further net upside on financing of 3.22 per cent which is partly offset by the downside on tax of 1.98 per cent. Adding this to the notional return on notional equity of 5.21 per cent results in total earnings over the year of 10.78 per cent.

C14: RCV growth: 3.74 per cent

72 This is calculated as RCV times average RPI inflation in the year, of 3.74 per cent, and represents the inflationary impact on the value of the RCV.

C16: Net dividends: 4.89 per cent vs. 2.79 per cent notional

73 This represents dividends available to the parent company. The net dividend accounted for in the FD of £101.2 million, 4.00 per cent, compares to an actual dividend of £70.7 million, 2.79 per cent, based on the notional regulated equity and 4.89 per cent based on the actual regulated equity. We have reduced dividends as we degear and we have also announced that we expect to see a substantial reduction in dividends to shareholders through to 2025.

Table 2A - Segmental Income Statement

	Line description	Retail		Wholesale						Total
		Household	Non-Household	Water resources	Water Network+	Water Total	Waste water Network+	Sludge	Wastewater total	
		£m	£m	£m	£m	£m	£m	£m	£m	£m
1	Revenue - price control	90.286	-		455.114	**455.114**	671.018		**671.018**	**1,216.418**
2	Revenue - non price control	-	-		10.246	**10.246**	1.600		**1.600**	**11.846**
3	Operating expenditure	(74.723)	-	(35.803)	(189.723)	**(225.526)**	(215.343)	(58.359)	**(273.702)**	**(573.951)**
4	Depreciation - tangible fixed assets	(0.704)	-	(8.596)	(108.928)	**(117.524)**	(132.471)	(35.741)	**(168.212)**	**(286.440)**
5	Amortisation - intangible fixed assets	(0.688)	-	(1.452)	(3.892)	**(5.344)**	(29.040)	(0.379)	**(29.419)**	**(35.451)**
6	Other operating income	0.004	-	0.184	0.042	**0.226**	3.744	0.164	**3.908**	**4.138**
7	Operating profit before recharges	14.175	-			**117.192**			**205.193**	**336.560**
	A Recharges in respect of 'principal use' assets									
8	Recharges from other segments	(3.873)	-	(1.570)	(10.603)	**(12.173)**	(0.005)	(4.116)	**(4.121)**	**(20.167)**
9	Recharges to other segments	0.010	-	-	-	**-**	20.157	-	**20.157**	**20.167**
10	Operating profit	10.312	-			**105.019**			**221.229**	**336.560**
11	Surface water drainage rebates									0.875

Revenue (2A.1 and 2A.2)

1 Total revenue for the year was £1,228.3 million, up £21.1 million (1.7 per cent) on last year, which is explained in the table 1A commentary. Non-price control revenue reflects bulk supplies and rechargeable works income which is at a similar level to 2016/17.

Operating expenditure, depreciation and amortisation (2A.3-5)

2 Operating costs of £895.8 million comprise operating expenditure of £574.0 million and depreciation (including amortisation) of £321.8 million. Overall operating costs (including depreciation) for the year increased by £9.3 million in real terms (1.0 per cent) from £886.7 million in 2016/17. The increase in opex costs (on a statutory, nominal basis for the whole business, excluding depreciation) is explained in the commentary to table 1A.

Other operating income (2A.6)

3 Other operating income represents the profit on disposal of fixed assets which increased by £1.6 million over the prior year due to a number of significant land disposals completed in 2017/18.

Recharges from/to other segments (2A.8 and 2A.9)

4 This is the recharge of depreciation on assets used by multiple price controls, primarily shared information technology and vehicle assets. As the business unit of principal use, wastewater network+ incurs the gross depreciation charge for these shared assets in the first instance.

Table 2B - Totex Analysis - Wholesale

	Line description	Water Resources £m	Water Network+ £m	Wastewater Network+ £m	Sludge £m	Total £m
A	**Operating expenditure**					
1	Power	7.600	25.269	36.496	0.550	**69.915**
2	Income treated as negative expenditure	(0.161)	(0.940)	(1.177)	(7.410)	**(9.688)**
3	Abstraction charges/ discharge consents	10.035	0.474	6.387	0.080	**16.976**
4	Bulk supply/ Bulk discharge	-	1.627	-	-	**1.627**
5	Other operating expenditure - renewals expensed in year (Infrastructure)	-	26.736	17.657	-	**44.393**
6	Other operating expenditure - renewals expensed in year (Non-Infrastructure)	-	-	0.206	-	**0.206**
7	Other operating expenditure - excluding renewals	13.801	90.784	134.102	61.481	**300.168**
8	Local authority and Cumulo rates	3.112	38.823	21.054	3.240	**66.229**
9	Total operating expenditure excluding third party services	34.387	182.773	214.725	57.941	**489.826**
10	Third party services	1.416	6.950	0.618	0.418	**9.402**
11	Total operating expenditure	35.803	189.723	215.343	58.359	**499.228**
B	**Capital Expenditure**					
12	Maintaining the long term capability of the assets - infra	0.507	35.183	25.785	-	**61.475**
13	Maintaining the long term capability of the assets - non-infra	5.909	57.725	88.223	16.052	**167.909**
14	Other capital expenditure - infra	0.476	30.623	34.471	-	**65.570**
15	Other capital expenditure - non-infra	4.262	32.596	75.217	3.338	**115.413**
16	Infrastructure network reinforcement	-	11.642	25.017	-	**36.659**
17	Total gross capital expenditure excluding third party services	11.154	167.769	248.713	19.390	**447.026**
18	Third party services	0.069	0.946	7.143	-	**8.158**
19	Total gross capital expenditure	11.223	168.715	255.856	19.390	**455.184**
C	**Grants and contributions**					
20	Grants and contributions	-	21.529	14.202	-	**35.731**
21	Totex	47.026	336.909	456.997	77.749	**918.681**
D	**Cash Expenditure**					
22	Pension deficit recovery payments	0.411	3.389	4.230	1.670	**9.700**
23	Other cash items	-	-	-	-	**-**
E	**Total**					
24	Totex including cash items	47.437	340.298	461.227	79.419	**928.381**

1 Total operating costs were £499.2 million, an increase of £4.2 million (0.8 per cent) in real terms on the previous report year (including atypical items).

2 Wholesale regulated capital expenditure for 2017/18 was £455.2 million, split water £179.9 million, wastewater £275.3 million.

A change in operating expenditure compared to 2016-17

3 Water services operating expenditure increased by £3.1 million (1.5 per cent) in real terms and against an underlying baseline. Wastewater costs decreased by £2.3 million (0.8 per cent) in real terms on an underlying basis. The overall increase in wholesale costs was £0.8 million or 0.16 per cent.

Movement in costs 2016/17 to 2017/18

	Water £m	Wastewater £m	Total £m
2016/17 reported total operating expenditure	212.6	264.4	477.0
Atypical power credits in 2016/17	1.0	1.7	2.7
Atypical rates in 2016/17	-	1.3	1.3
Underlying operating expenditure 2016/17	**213.6**	**267.4**	**481.0**
Inflation @ 3.7%	8.0	9.9	17.9
2016/17 underlying costs indexed to 2017/18 prices	**221.6**	**277.3**	**498.9**
2017/18 total operating expenditure	**225.5**	**273.7**	**499.2**
Atypical transactions:			
Legal costs	(1.0)	(1.3)	(2.3)
Closure of defined benefit pension scheme	(0.6)	(1.0)	(1.6)
Power rebate and provision release	0.8	1.8	2.6
Rates provision release	-	1.8	1.8
Underlying operating expenditure 2017/18	**224.7**	**275.0**	**499.7**
(Increase) / decrease in underlying expenditure from 2016/17	**(3.1)**	**2.3**	**(0.8)**

A Operating Expenditure

Key Variances in underlying costs (real terms)

Water

4 The key change in the year was due to the increase in reactive work on our water network with an increase in costs of c.£7.0 million to meet service delivery and leakage targets. Power costs increased by £0.8 million and we saw a reduction in business rates of c.£4.0 million along with a number of other smaller cost reductions.

Wastewater

5 Underlying operating costs reduced in real terms by £2.3 million due mainly to the reduction in reactive repair work to our wastewater network of c.£10.0 million, reduced prosecution costs of c.£4.0 million, offset by increased general and support costs.

B Capital expenditure

6 The figures presented relate to all our regulated capital investment on wholesale services, including the Hartlepool region. Total capital investment comprises wholesale expenditure of £455.2 million and retail expenditure of £5.7 million.

7 Wholesale capital expenditure increased by £79.9 million, rising from £375.3 million in 2016/17 to £455.2 million in 2017/18. This increase is a result of £23.5 million of additional capital maintenance spend in respect of our commitment to reinvest £100.0 million of efficiencies over the AMP together with an increased number of projects entering their build phase.

8 Where possible, expenditure is allocated directly to the applicable price control. Where this is not possible because use of the asset is shared between two or more price controls (for example with capital expenditure on shared information systems, central offices and vehicles used by support services), expenditure is allocated to the price control of principal use and a subsequent recharge of the relevant depreciation charge is made between price controls.

9 This approach differs from that used in the preparation of the 2014 business plan submission where shared capital expenditure was allocated across price controls on the basis of asset use.

10 There have been no other material changes in allocation methodology since the 2014 business plan.

11 Total capital expenditure includes £8.2 million of spend on assets used to fulfill third-party agreements.

D Cash expenditure

12 The only cash expenditure incurred that is not included in our operating cost totals relates to pension deficit payments. The total paid in the year was £10.8 million, of which £9.7 million is wholesale.

Table 2C - Operating Cost Analysis - Retail

	Line description	Household £m	Non-household £m	Total £m
	Operating expenditure			
1	Customer services	17.337	-	**17.337**
2	Debt management	9.386	-	**9.386**
3	Doubtful debts	27.453	-	**27.453**
4	Meter reading	3.289	-	**3.289**
5	Services to developers		-	**-**
6	Other operating expenditure	17.258	-	**17.258**
7	Total operating expenditure excluding third party services	74.723	-	**74.723**
8	Third party services operating expenditure	-	-	**-**
9	**Total operating expenditure**	74.723	-	**74.723**
10	Depreciation - tangible fixed assets	0.705	-	**0.705**
11	Amortisation - intangible fixed assets	0.688	-	**0.688**
12	**Total operating costs**	76.116	-	**76.116**
13	Debt written off	27.427	-	**27.427**

1 Total operating costs were £76.1 million, an increase of £3.1 million (4.2 per cent) on the previous report year in real terms and £1.1 million above our allowed costs of £75.0 million.

2 Of the reported costs of £76.1 million, we have seen an increase of £1.5 million compared to the previous year as a result of the transfer of the non-household retail business, where some fixed costs that were previously shared, are now borne by household. We also incurred £0.5 million of atypical costs in the year.

3 Household retail capex was £5.7 million, primarily for the introduction of new and enhanced information services software used within the retail business. This spend on new software has resulted in an increase in amortisation of intangible retail assets of £0.4 million from the prior year.

4 Total household customers increased by c.15,000 in the year (0.54 per cent), with unmeasured customers down by 33,100 (5.0 per cent) and measured customers increasing by 48,100 (2.3 per cent).

Change in retail operating expenditure compared to 2016/17

Movement in costs 2016/17 to 2017/18

	Total £m
2016/17 total operating expenditure	70.4
Inflation @ 3.7%	2.6

	Total £m
2016/17 expenditure indexed to 2017/18 prices	**73.0**
2017/18 reported operating expenditure	**76.1**
Atypical costs-legal claims and closure of Defined Benefit pension scheme	(0.5)
Underlying total operating expenditure 2017/18	**75.6**
Increase in underlying retail operating costs	**(2.6)**

Key Variances (real terms)

5 Household costs in the year increased by £2.6 million in real terms removing the impact of atypical costs in the year. Costs were above our determination with the increase during the year due to a combination of increases in general and support costs across the business and also the impact from the transfer of the non-household business, with the effect that fixed costs that had previously been shared are now allocated to household retail.

Debt written off

6 Total household debt written off was £27.4 million, a decrease of £9.7 million over the prior year write offs of £37.1 million (these figures differ slightly to those quoted in our statutory accounts which include the write off of some legacy non-household debt).

Table 2D - Historic Cost Analysis of Fixed Assets - Wholesale and Retail

	Line description	Wholesale				Retail		Total
		Water Resources	Water Network+	Wastewater Network+	Sludge	Household	Non-Household	
		£m	£m	£m	£m	£m	£m	£m
A	**Cost**							
1	At 1 April 2017	285.542	5,176.940	6,734.582	683.043	10.846	0.577	**12,891.530**
2	Disposals	(0.133)	(35.528)	(35.253)	(3.189)	(0.324)	(0.577)	**(75.004)**
3	Additions	6.429	177.022	195.400	17.950	(0.371)	-	**396.430**
4	Adjustments	-	-	-	-	-	-	**-**
5	Assets adopted at nil cost	-	-	20.924	-	-	-	**20.924**
6	At 31 March 2018	291.838	5,318.434	6,915.653	697.804	10.151	-	**13,233.880**
B	**Depreciation**							
7	At 1 April 2017	(69.788)	(1,262.687)	(2,089.923)	(282.302)	(6.793)	(0.090)	**(3,711.583)**
8	Disposals	0.116	35.299	35.120	3.026	0.324	0.090	**73.975**
9	Adjustments	-	-	-	-	-	-	**-**
10	Charge for the year	(8.596)	(108.928)	(132.471)	(35.741)	(0.704)	-	**(286.440)**
11	At 31 March 2018	(78.268)	(1,336.316)	(2,187.274)	(315.017)	(7.173)	-	**(3,924.048)**
12	Net book amount at 31 March 2018	213.570	3,982.118	4,728.379	382.787	2.978	-	**9,309.832**
13	Net book amount at 1 April 2017	215.754	3,914.253	4,644.659	400.741	4.053	0.487	**9,179.947**
D	**Depreciation charge for year**							
14	Principal services	(8.596)	(108.928)	(132.471)	(35.741)	(0.704)	-	**(286.440)**
15	Third party services	-	-	-	-	-	-	**-**
16	**Total**	(8.596)	(108.928)	(132.471)	(35.741)	(0.704)	-	**(286.440)**

1 The net book amount includes £428.5 million in respect of assets in the course of construction, £89.7 million of newly constructed adopted assets and a £3,096.2 million revaluation of assets undertaken 1 April 2013.

2 Table 2D excludes intangible assets with a net book amount at 31 March 2018 of £161.3 million (2017: £135.5 million).

3 Cost additions include negative amount adjustments where assets have been moved internally from business units and positive amounts where assets have moved internally to business units (all movements netting to zero within the Company apart from £0.2 million of assets moved out of Table 2D to non-appointed business). The related depreciation brought forward adjustments have been reflected within the depreciation charge for the year of the respective business units. The decision to move assets with a cost of £0.7 million from Retail Household has resulted in a negative additions figure for the year in Retail Household of £0.4 million.

4 The sludge depreciation charge for the year is higher than previous years due to the depreciation on assets which have been retained for resilience purposes being accelerated over the remainder of AMP 6 as these assets will no longer form part of the sludge treatment strategy from 1 April 2020.

Assumptions used

5 In accordance with RAG 2.07, section 2.3.2, where assets are used by more than one business unit, these have been reported in full in the business unit of principal use. A recharge based on depreciation is made between business units to account for the use of these assets by the non-principal user(s).

6 Due to the above, all management and general assets have been assigned to wastewater or water according to their project types except where they have been identified as being principally Retail assets.

7 An offline assessment is made to determine whether assets are solely wholesale, solely retail or shared between the two.

8 None of our third party capital expenditure is spent on assets used solely for the fulfillment of third party agreements. As such all third party expenditure is included within the principal services asset values.

Table 2E - Analysis of Capital Contributions and Land Sales - Wholesale

	Line description	Current year			
		Fully recognised in income statement	Capitalised and amortised (in income statement)	Fully netted off capex	Total
		£m	£m	£m	£m
A	**Grants and contributions - water**				
1	Connection charges (s45)	-	9.592	-	**9.592**
2	Infrastructure charge receipts (s146)	-	8.011	-	**8.011**
3	Requisitioned mains (s43, s55 & s56)	-	3.926	-	**3.926**
4	Other contributions (price control)	-	-	-	**-**
5	Diversions (s185)	-	-	3.056	**3.056**
6	Other contributions (non-price control)	-	-	-	**-**
7	**Total**	-	21.529	3.056	**24.585**
8	Value of adopted assets		-		**-**
B	**Grants and contributions - wastewater**				
9	Infrastructure charge receipts (s146)	-	9.019	-	**9.019**
10	Requisitioned sewers (s100)	-	1.391	-	**1.391**
11	Other contributions (price control)	-	2.700	-	**2.700**
12	Diversions (s185)	-	0.237	3.322	**3.559**
13	Other contributions (non-price control)	-	0.855	-	**0.855**
14	**Total**	-	14.202	3.322	**17.524**
15	Value of adopted assets		20.924		**20.924**

	Line description	Current year		
		Water	Wastewater	Total
		£m	£m	£m
C	**Movements in capitalised grants and contributions**			
16	Brought forward	249.585	179.900	**429.485**
17	Capitalised in year	21.529	14.202	**35.731**
18	Amortisation (in income statement)	(8.754)	(6.676)	**(15.430)**
19	Carried forward	262.360	187.426	**449.786**
D	**Land sales**			
20	Proceeds from disposals of protected land	0.597	3.148	**3.745**

Movements in deferred grants and contributions excludes assets adopted at nil value.

1 Grants and contributions are deferred and released to other income in the income statement over the useful life of the corresponding fixed assets.

2 Adopted assets are included at fair value - £20.9 million of newly constructed sewers and pumping stations.

A - Grants and contributions - water

Connection charges (2E.1)

3 Connection charges include the cost of the domestic meters.

Diversions (2E.5)

4 Water diversion income of £3.1 million was netted off in full against the associated capital expenditure. Where the contribution received is less than the total cost of the diversion, as is typically the case, any difference is capitalised.

B - Grants and contributions - wastewater

Other contributions (price control) (2E.11)

5 These only include supervision fees relating to sewer adoptions.

Diversions (2E.12)

6 Of the £3.6 million of wastewater diversion income, £3.3 million was netted off in full against the associated capital expenditure. The remaining £0.2 million, which is deferred and released to the income statement over the life of the associated assets, was income received in relation to supervision fees where a third party performs the diversion.

Other contributions (non-price control) (2E.13)

7 These only include new sewer connections to existing sewers.

C - Balance sheet

Brought forward (2E.16)

8 The brought forward balance for Water has been adjusted up by £0.002m to correct for the accumulation of historical rounding differences.

9 Movements in capitalised grants and contributions does not include assets adopted at nil cost.

D - Land sales

Proceeds (2E.20)

10 Proceeds are net of costs. Most proceeds are from the sale of minor pieces of land. There were no items requiring prior approval from Ofwat.

Table 2F - Household - Revenues by Customer Type

	Line description	Wholesale charges revenue £m	Retail revenue £m	Total revenue £m	Number of customers (000s)	Average household retail revenue per customer £
1	Unmeasured water only customer	20.573	1.923	22.496	97.480	**19.73**
2	Unmeasured wastewater only customer	72.104	5.073	77.177	256.468	**19.78**
3	Unmeasured water and wastewater customer	138.292	10.734	149.026	271.669	**39.51**
4	Measured water only customer	20.471	3.010	23.481	135.664	**22.19**
5	Measured wastewater only customer	113.592	12.582	126.174	557.379	**22.57**
6	Measured water and wastewater customer	520.134	56.964	577.098	1,454.665	**39.16**
7	**Total**	**885.166**	**90.286**	**975.452**	**2,773.325**	**32.56**

Total (2F.7)

1 The increase in total household revenue year on year reflects primarily the allowed regulatory price increase of 2.2 per cent, together with the growth in customer numbers, and the value of the net under-accrual of £8.0 million recognised for 2016-17 (2015-16 under-accrual of £7.8 million), partly offset by a small reduction in billed demand of 0.65 per cent and the net impact of switching from unmeasured to measured supply.

2 The household retail revenue control is a total revenue control, which can be recovered across the household customer base. The allowed revenue is calculated by multiplying the cost to serve per service category by the number of unique customers served on each basis. The costs to serve including an allowed margin by service category are set out in the modification factor table (Table AA2.2) in the company specific appendix to the Final Determination.

3 Actual reported unmeasured retail revenue is £1.3 million above allowed revenue based on the weighted average number of unique customers by service. Measured retail revenue is £4.3 million higher than allowed revenues. This reflects the smoothing of revenue recovery across the customer base, as allowed by the control.

4 The net position of £5.6 million over recovery (6.6 per cent of retail revenue) reflects the following:

- The under-accrual from the prior year (£0.2 million);
- The lower take-up of the social tariff LITE compared to forecast when setting charges; and
- The increased take up of the concessionary tariff Aquacare Plus but at lower levels of average usage as compared to forecast when setting charges.

5 The latter two points mean that the cross subsidy for the social/concessionary tariffs, accounted for through retail revenue, is over-recovered.

Table 2G - Non-household Water - Revenues by Customer Type

	Line description	Wholesale charges revenue £m	Retail revenue £m	Total revenue £m	Number of connections (000s)	Average non-household retail revenue per connection £
A	**Non-Default tariffs**					
1	Total non-default tariffs	-	-	-	-	**-**
B	**Default tariffs**					
2	Unmeasured (potable water)	-	-	-	-	**-**
3	Hartlepool Unmeasured (potable water)	-	-	-	-	**-**
4	Streamline Green (potable water) - (0.0Ml to 0.5Ml)	-	-	-	-	**-**
5	Streamline Orange (potable water) - (0.5Ml to 5.0Ml)	-	-	-	-	**-**
6	Streamline Orange (non-potable) - (0.0Ml to 5.0Ml)	-	-	-	-	**-**
10	Hartlepool Commercial (potable water) - (0.0Ml to 50.0Ml)	-	-	-	-	**-**
17	Special Agreements (potable water) - (0.0Ml +)	-	-	-	-	**-**
18	Special Agreements (non potable water) - (0.0Ml +)	-	-	-	-	**-**
19	Water supplies 5 to 50 MI	-	-	-	-	**-**
20	Water supplies 50 MI and over	-	-	-	-	**-**
21	Total default tariffs	-	-	-	-	**-**
22	**Total**	-	-	-	-	**-**

	Line description	Number of customers (000s)	Average non-household retail revenue per customer £
C	**Revenue per customer**		
23	Total	-	**-**

1 Line numbers shown are as per the Ofwat table templates, these numbers are not sequential due to lines marked as n/a not being included.

2 Table has been left blank as we have exited all non-household market activities. The value of wholesale water revenue for the year is £124.7 million.

Table 2H - Non-household Wastewater - Revenues by Customer Type

Line description	Wholesale charges revenue £m	Retail revenue £m	Total revenue £m	Number of connections (000s)	Average non-household retail revenue per connection £
Non-Default tariffs					
Total non-default tariffs	-	-	-	-	-
Default tariffs					
Unmeasured (Sewerage)	-	-	-	-	-
Streamline Green (Sewerage) - (0.0Ml to 0.5Ml)	-	-	-	-	-
Streamline Orange (Sewerage) - (0.5Ml to 5.0Ml)	-	-	-	-	-
Unmeasured (Trade Effluent)	-	-	-	-	-
Streamline Green (Trade Effluent) - (0.0Ml to 0.5Ml)	-	-	-	-	-
Streamline Orange (Trade Effluent) - (0.5Ml to 5.0Ml)	-	-	-	-	-
Wastewater services 5 to 50 MI	-	-	-	-	-
Wastewater services 50 MI and over	-	-	-	-	-
Total default tariffs	-	-	-	-	-
Total	-	-	-	-	-

Line description	Number of customers (000s)	Average non - household retail revenue per customer £
Revenue per customer		
Total	-	-

1 Line numbers shown are as per the Ofwat table templates, these numbers are not sequential due to lines marked as n/a not being included.

2 Table has been left blank as we have exited all non-household market activities. The value of wholesale wastewater revenue for the year is £116.3 million.

Table 2I - Revenue Analysis and Wholesale Control Reconciliation

	Line description	Household £m	Non-household £m	Total £m
A	**Wholesale charge - water**			
1	Unmeasured	84.576	0.317	**84.893**
2	Measured	245.871	112.312	**358.183**
3	Third party revenue	-	12.038	**12.038**
4	**Total**	330.447	124.667	**455.114**
B	**Wholesale charge - wastewater**			
5	Unmeasured	146.394	0.710	**147.104**
6	Measured	408.325	115.589	**523.914**
7	Third party revenue	-	-	**-**
8	Total	554.719	116.299	**671.018**
9	Wholesale Total	885.166	240.966	**1,126.132**
C	**Retail revenue**			
10	Unmeasured	17.730	-	**17.730**
11	Measured	72.556	-	**72.556**
12	Other third party revenue	-	-	**-**
13	Retail total	90.286	-	**90.286**
D	**Third party revenue - non-price control**			
14	Bulk Supplies - water			**8.474**
15	Bulk Supplies - wastewater			**1.600**
16	Other third party revenue			**0.787**
E	**Principal services - non-price control**			
17	Other appointed revenue			**0.985**
18	Total appointed revenue			**1,228.264**

	Line description	Water £m	Wastewater £m	Total £m
19	Wholesale revenue governed by price control	455.114	671.018	**1,126.132**
20	Grants & contributions	21.529	13.110	**34.639**
21	Total revenue governed by wholesale price control	476.643	684.128	**1,160.771**
22	Amount assumed in wholesale determination	467.535	681.357	**1,148.892**
23	Adjustment for in-period ODI revenue	0.726	-	**0.726**
24	Adjustment for WRFIM	(2.800)	0.081	**(2.719)**
25	Total assumed revenue	465.461	681.438	**1,146.899**
26	Difference	11.182	2.690	**13.872**

Amount assumed in wholesale determination (2I.22)

1 Wholesale revenue controls are set for water and wastewater separately. The values set out in the Final Determination in 2012/13 prices are repriced based on RPI to give the allowed revenue for 2017/18. This calculation of allowed revenue was adjusted for over/under recovery of allowed revenue in the 2015/16 charging year and for the AMP5 blind year revenue true-up; both mechanisms as set out in the PR14 reconciliation rulebook. It also included the in-period ODI reward for leakage performance in 2015/16. The resulting calculation of revenue is the used for setting charges for the 2017/18 Charges Scheme.

2 Allowed wholesale water revenue and wholesale wastewater revenue for was calculated as £465.5 million and £681.4 million respectively.

Difference (2I.26)

3 The level of wholesale water revenue recovered from household customers is £11.2 million above allowed revenues. This outperformance represents 2.4 per cent of allowed revenue. This outperformance is split between main charges revenue (£10.2 million) and grants & contributions revenue (£1.0 million). Main charges outperformance results from the under-accrual recognised for 2016/17 (£5.3 million) and less switching to measured charges than forecast when setting tariffs.

4 The level of wholesale wastewater revenue is £2.7 million above allowed revenue. The outperformance represents 0.4 per cent respectively of allowed revenue. The revenue out-performance for wastewater main charges against allowed revenue was £3.6 million, reflecting higher WOC demand, lower numbers of customers switching to measured charging and the under-accrual for 2016/17 (£2.5 million).

Grants & contributions (2I.20)

5 We do not receive any grants. In the current year all contributions were received for new development.

6 Contributions in respect of water were greater than the indexed FD by £1.0 million, due to the continuing improvement in the housing market. Contributions in respect of wastewater were less than the indexed FD by £0.9 million. This is due to the impact of removing certain types of requisition offers to developers.

Table 2J - Infrastructure Network Reinforcement

	Line description	Network reinforcement capex £m	On site / site specific capex (memo only) £m
A	**Wholesale water network+ (treated water distribution)**		
1	Distribution and trunk mains	9.617	1.063
2	Pumping and storage facilities	2.025	1.154
3	Other	-	-
4	**Total**	11.642	2.217
B	**Wholesale wastewater network+ (sewage collection)**		
5	Foul and combined systems	19.632	12.187
6	Surface water only systems	0.136	0.047
7	Pumping and storage facilities	5.249	1.673
8	Other	-	-
9	**Total**	25.017	13.907

General assumptions (2J.1-9)

1 Table 2J shows the total capital expenditure on network reinforcement split between below ground infrastructure assets and pumping and storage facilities.

2 The onsite / site specific capex is the expenditure included within total network reinforcement capex which relates to a specific new developments.

3 The source of the data is the project systems module of our SAP business management system. Each project holds as part of its master data Business Investment Category (BIC) codes which map the expenditure to infrastructure and non infrastructure, and between water and wastewater network+.

4 All network reinforcement spend is in relation to below ground infrastructure, pumping stations and storage facilities. No expenditure is therefore shown within "other".

Wastewater below ground infrastructure (2J.5-6)

5 For wastewater network+ infrastructure spend, an assessment of all projects has been performed to determine whether the costs are in relation to foul and combined or surface water only systems.

Table 3A - Outcome Performance

#	Unique ID	Performance commitment	Unit	2017-18 performance level - actual	2017-18 CPL met?	2017-18 outperformance payment or underperformance penalty - in-period ODIs (indicator)	2017-18 outperformance payment or underperformance penalty - in-period ODIs (£m, to 4 dp)	2017-18 outperformance payment or underperformance penalty - ODIs payable at the end of AMP6 (indicator)	2017-18 outperformance payment or underperformance penalty - ODIs payable at the end of AMP6 (£m, to 4 dp)	31 March 2020 forecast - total AMP6 outperformance payment or underperformance penalty (indicator)	31 March 2020 forecast - total AMP6 outperformance payment or underperformance penalty (£m, to 4 dp)
1	PR14ANHWSW_W-A2	W-A2: Water supply interruptions	time	7.40	Yes	-	-	Outperformance payment	5.6720	Outperformance payment	17.8100
2	PR14ANHWSW_W-A3	W-A3: Properties at risk of persistent low pressure	nr	297	Yes	-	-	-	-	Outperformance payment	6.0000
3	PR14ANHWSW_W-A4	W-A4: Water quality contacts	nr	1.23	Yes	-	-	-	-	-	-
4	PR14ANHWSW_W-B1	W-B1: Value for money perception - variation from baseline against WaSCs (water)	%	8	Yes	-	-	Outperformance payment	0.2000	Outperformance payment	0.2750
5	PR14ANHWSW_W-C1	W-C1: Percentage of population supplied by single supply system	%	45.3	-	-	-	-	-	-	-
6	PR14ANHWSW_W-C2	W-C2: Frequency of service level restrictions (hosepipe bans)	nr	1	-	-	-	-	-	-	-
7	PR14ANHWSW_W-D1	W-D1: Security of Supply Index (SoSI) - dry year annual average	score	100	-	-	-	-	-	-	-
8	PR14ANHWSW_W-D2	W-D2: Security of Supply Index (SoSI) - critical period (peak) demand	score	100	-	-	-	-	-	-	-
9	PR14ANHWSW_W-D3	W-D3: Per property consumption (PPC) (litres/household/day reduction)	nr	-4	-	-	-	-	-	Underperformance penalty	-7.7700
10	PR14ANHWSW_W-D4	W-D4: Leakage - three-year average	nr	183	Yes	Outperformance payment	4.6350	-	-	Outperformance payment	20.6000
11	PR14ANHWSW_W-E1	W-E1: Percentage of SSSIs (by area) with favourable status	%	99	-	-	-	-	-	-	-
12	PR14ANHWSW_W-E2	W-E2: Environmental compliance (water)	nr	4	-	-	-	-	-	-	-
13	PR14ANHWSW_W-F1	W-F1: Operational carbon (% reduction from 2015 baseline)	%	20	-	-	-	-	-	-	-
14	PR14ANHWSW_W-F2	W-F2: Embodied carbon (% reduction from 2010 baseline)	%	57	-	-	-	-	-	-	-
15	PR14ANHWSW_W-G1	W-G1: Survey of community perception	%	55	-	-	-	-	-	-	-
16	PR14ANHWSW_W-H1	W-H1: Water infrastructure	category	Green	Yes	-	-	-	-	Underperformance penalty	-0.5580

#	Unique ID	Performance commitment	Unit	2017-18 performance level - actual	2017-18 CPL met?	2017-18 outperformance payment or underperformance penalty - in-period ODIs (indicator)	2017-18 outperformance payment or underperformance penalty - in-period ODIs (£m, to 4 dp)	2017-18 outperformance payment or underperformance penalty - ODIs payable at the end of AMP6 (indicator)	2017-18 outperformance payment or underperformance penalty - ODIs payable at the end of AMP6 (£m, to 4 dp)	31 March 2020 forecast - total AMP6 outperformance payment or underperformance penalty (indicator)	31 March 2020 forecast - total AMP6 outperformance payment or underperformance penalty (£m, to 4 dp)
17	PR14ANHWSW_W-H2	W-H2: Water non-infrastructure	category	Green	Yes	-	-	-	-	-	-
18	PR14ANHWSW_W-I1	W-I1: Mean zonal compliance (MZC)	%	99.96	No	-	-	Underperformance penalty deadband	-	Underperformance penalty deadband	-
19	PR14ANHWSWW_S-A2	S-A2: Properties flooded internally from sewers - three-year average (reduction)	nr	79	-	-	-	-	-	Outperformance payment	8.6400
20	PR14ANHWSWW_S-A3	S-A3: Properties flooded externally from sewers - three-year average (reduction)	nr	1357	-	-	-	-	-	-	-
21	PR14ANHWSWW_S-A4	S-A4: Percentage of sewerage capacity schemes incorporating sustainable solutions	%	46	-	-	-	-	-	-	-
22	PR14ANHWSWW_S-B1	S-B1: Value for money perception variation from baseline against WaSCs (wastewater)	%	5	Yes	-	-	Outperformance payment	0.1250	Outperformance payment	0.2500
23	PR14ANHWSWW_S-C1	S-C1: Percentage of bathing waters attaining excellent status	%	63.3	-	-	-	-	-	-	-
24	PR14ANHWSWW_S-C2	S-C2: Percentage of SSSIs (by area) with favourable status	%	98.833	-	-	-	-	-	-	-
25	PR14ANHWSWW_S-C3	S-C3: Pollution incidents (category 3)	nr	219	Yes	-	-	Outperformance payment	2.2520	Outperformance payment	13.4520
26	PR14ANHWSWW_S-C4	S-C4: Environmental compliance (wastewater)	nr	36	-	-	-	-	-	-	-
27	PR14ANHWSWW_S-D1	S-D1: Operational carbon (% reduction from 2015 baseline)	%	20	-	-	-	-	-	-	-
28	PR14ANHWSWW_S-D2	S-D2: Embodied carbon (% reduction from 2010 baseline)	%	57	-	-	-	-	-	-	-
29	PR14ANHWSWW_S-E1	S-E1: Survey of community perception	%	55	-	-	-	-	-	-	-
30	PR14ANHWSWW_S-F1	S-F1: Sewerage infrastructure	category	Green	Yes	-	-	-	-	-	-
31	PR14ANHWSWW_S-F2	S-F2: Sewerage non-infrastructure	category	Green	Yes	-	-	-	-	-	-
32	PR14ANHHHR_R-A1	R-A1: Qualitative service incentive mechanism (SIM) score	text	1st among the 10 WaSCs	Yes	-	-	-	-	-	-
33	PR14ANHHHR_R-A2	R-A2: Service incentive mechanism (SIM)	score	88	-	-	-	-	-	-	-

#	Unique ID	Performance commitment	Unit	2017-18 performance level - actual	2017-18 CPL met?	2017-18 outperformance payment or underperformance penalty - in-period ODIs (indicator)	2017-18 outperformance payment or underperformance penalty - in-period ODIs (£m, to 4 dp)	2017-18 outperformance payment or underperformance penalty - ODIs payable at the end of AMP6 (indicator)	2017-18 outperformance payment or underperformance penalty - ODIs payable at the end of AMP6 (£m, to 4 dp)	31 March 2020 forecast - total AMP6 outperformance payment or underperformance penalty (indicator)	31 March 2020 forecast - total AMP6 outperformance payment or underperformance penalty (£m, to 4 dp)
34	PR14ANHHHR_R-A3	R-A3: Customer Satisfaction Index prepared by UK Institute of Customer Service	rank	6/25	-	-	-	-	-	-	-
35	PR14ANHHHR_R-B1	R-B1: Fairness of bills perception - variation from baseline against WaSCs	%	9	Yes	-	-	Outperformance payment	0.2250	Outperformance payment	0.4250
36	PR14ANHHHR_R-B2	R-B2: Affordability perception - variation from baseline against WaSCs	%	10	Yes	-	-	Outperformance payment	0.2500	Outperformance payment	0.5000
37	PR14ANHHHR_R-C1	R-C1: Operational carbon (% reduction from 2015 baseline)	%	20	-	-	-	-	-	-	-
38	PR14ANHHHR_R-C2	R-C2: Embodied carbon (% reduction from 2010 baseline)	%	57	-	-	-	-	-	-	-
39	PR14ANHHHR_R-D1	R-D1: Survey of community perception	%	55	-	-	-	-	-	-	-

1 Table 3A shows how we have performed against our ODIs in 2017/18 and, where applicable, how this compares with the agreed Committed Performance Levels (CPL). We do not have a CPL for every ODI. Where this is the case we have shown a blank in the sixth column "2017/18 CPL met?".

2 We update our Customer Engagement Forum (CEF) on current performance at every meeting. The information reported in Table 3A is consistent with the reports on Outcome Delivery Incentive (ODI) performance we made to our CEF during the year and after year end.

3 The table shows that we have earned rewards for performance in seven ODIs: leakage, supply interruptions, pollution incidents and the four customer perception ODIs. These rewards and penalties are stated in the table in 2012/13 prices, to be consistent with our PR14 Final Determination and comply with Ofwat's guidance. In the table below we have inflated these figures at year average RPI to 2017/18 figures to make them more relevant to stakeholders.

4 With the exception of our leakage ODI, where we will claim any reward or penalty in-period (i.e. before 2020), the reward for all ODIs will be claimed at the end of the regulatory period (ie after 2020).

	Rewards/penalties from 2017/18 ODI performance (£m)	
	2012/13 Prices	2017/18 prices
Interruptions to supply	5.7	6.4
Leakage	4.6	5.2
Pollution incidents	2.3	2.5
Value for money perception - water	0.2	0.2
Value for money perception - wastewater	0.1	0.1
Fairness of bills perception	0.2	0.3
Affordability perception	0.3	0.3
TOTAL	**13.4**	**15.0**

5 In previous years we have been reluctant to make forecasts about the total rewards and penalties we are likely to earn by the end of the regulatory period. Given we have now completed three of the five years of the current regulatory period we can start to be more confident about our period-end position. In 3A we have therefore included our best estimates of 2020 rewards and penalties. However, we note that uncertainties affect our final outturns for all ODIs.

6 Further commentary on progress against our ODIs is included in our Annual Integrated Report. Detail about all our ODIs is also available on our website at www.anglianwater.co.uk.

Water supply interruptions (3A.1)

7 The total time lost due to interruptions greater than 3 hours per property was 7 minutes 24 seconds (11 minutes 43 seconds in 2016/17).

8 There has been a continued emphasis on verification throughout 2017/18 with implementation of weekly status reporting. Changes to structures and process within Anglian Water were made in late 2016/17. These include the introduction of a senior level Operations Manager on shift 24/7 within the control room and continued investment in pressure logging. These factors have contributed to preparing for events more quickly and opening the Incident Room earlier and more frequently. This ensures that potential risk is mitigated or escalated faster, leading to increased business focus, awareness and resolution.

9 Restoration techniques and the ethos on restoring service before making repairs has become business as usual, along with the methods and approach of customer communication.

10 Whilst the freeze-thaw event in early March presented a major challenge, the overall picture for 2017/18 was consistent temperatures with few fluctuations. When the colder temperatures arrived, the well-drilled protocols, dedicated investment and resilience of our assets and employees meant that our customers were largely unaffected.

Properties at risk of persistent low pressure (3A.2)

11 The number of reportable properties on the register at year end is 297, compared with 460 at the end of 2016/17. This is below the 2017/18 Committed Performance Level of 361 properties. During the year there were 258 additions and 421 removals. There are currently no reportable properties within the Hartlepool area.

12 Of the 297 properties below the reference level, 18 were reportable due to common services and 38 are included under Section 65 of the 1991 Water Industry Act where a property receives pressure below the reference level due to its height in relation to the storage point.

13 Of the 421 removals from the register made during 2017/18, 334 were removed following a capital intervention and 87 following operational improvements such as service pipe replacement or rezoning.

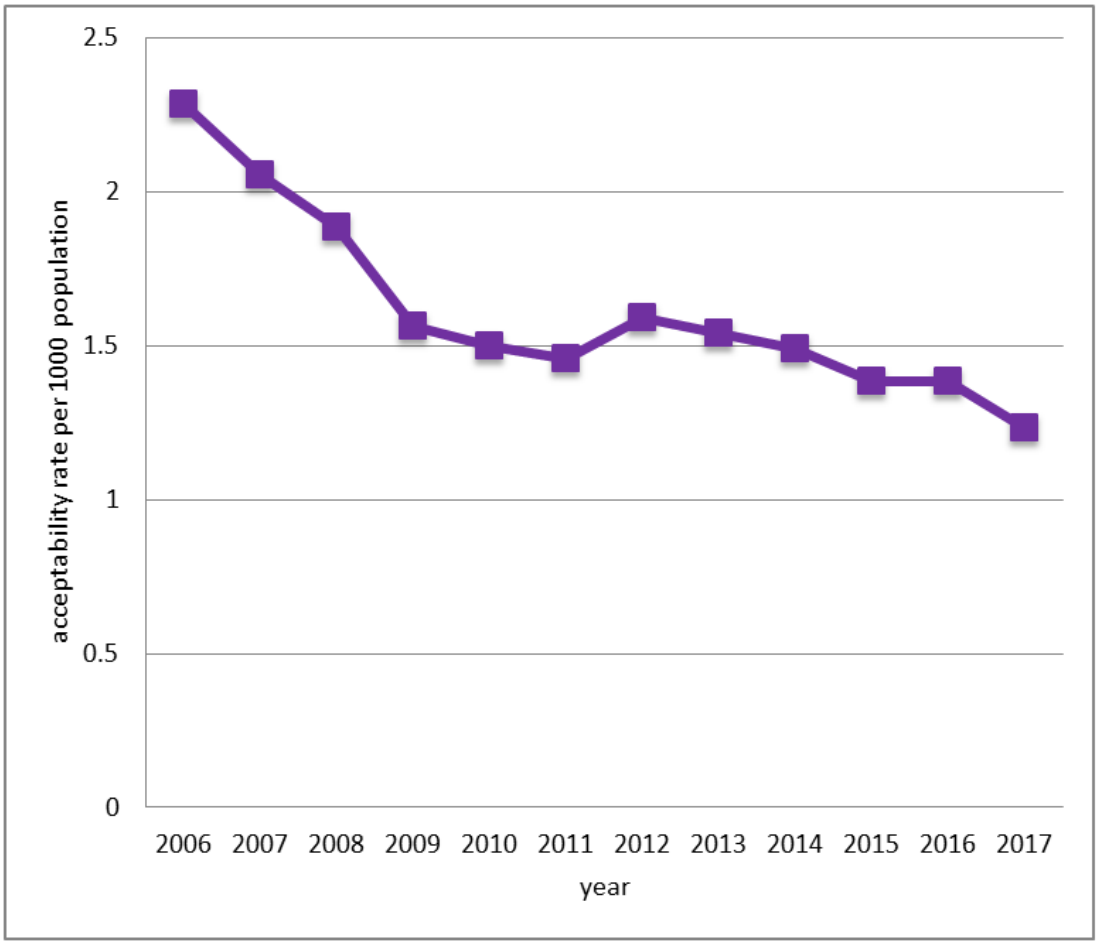
14 Seven capital schemes to improve pressures have realised benefits in 2017/18:

- Haddenham Booster & Optimisation – 287 properties were removed from the register following the installation and commissioning of a new booster at Haddenham water tower combined with a network optimisation scheme which increases the pressure in the high points of Haddenham and Sutton villages.
- Normanby le Wold – 15 properties were removed from the register following the removal of a small reservoir from service. The pressure to these properties had been reduced due to the location of the reservoir.
- Wigtoft Bank, Boston – 11 properties were removed from the register following the replacement of 1.15km of 2 inch main.
- Gringley on the Hill – eight properties have been transferred to a nearby higher pressure system by installing 0.17km of new main.
- South Wootton - six properties were removed from the register following the installation and commissioning of a new booster station.
- Hothorpe – five properties were removed from the register following the replacement of 0.4km of main and the installation of a flow control valve.
- Middle Rasen – two properties were removed from the register following the replacement of a long, inadequate service pipe.

Water quality contacts (3A.3)

15 The number of acceptability contacts received in 2017 was 1.23 per 1,000 population served. This is our lowest rate ever recorded with a significant improvement on the 2016 figure of 1.38.

Water Quality Acceptability Contact Rate 2006-2017



16 Our approach to improving the acceptability rate continues through our 'Keep Water Healthy' initiative that has now been running for over four years. We continue to engage our customers with this through multiple platforms, including social media. We have additionally seen a steady increase in website hits on our drinking water quality web pages, which aim to provide customers with information and advice to help prevent water quality problems related to our customers' internal plumbing.

17 In 2017 we further developed our strategy to identify and handle clusters of contacts at the very early stages. This has allowed us to both minimise any further impacts and proactively notify other customers in the area.

Value for money perception - variation from baseline against WaSCs (Water) (3A.4)

18 In the Consumer Council for Water (CCWater) 2017 survey, 79 per cent of our customers said that they thought their water bills were good value for money, which is a increase compared to 73 per cent in 2015. This is 7 per cent above the average scored by other WASCs. Compared to the ODI baseline, which is 1 per cent below average (based on 2011 and 2012 scores), we have improved our score by 8 per cent.

Population served by a single supply system (3A.5)

19 The ODI for supply demand resilience is 'Percentage of Population on Single Water Supplies', defined as the proportion of household customers exposed to the risk of loss of supply due to a resilience type event. This includes works failures in multiple source systems which result in the loss of supply to some customers.

20 The approach taken to develop the water supply resilience ODI was to identify the resulting deficit if each water treatment works was taken out of service for a prolonged period. The deficit was converted to an equivalent number of household customers and the percentage of population at risk calculated. The risk to the whole region was summed to form the supply demand resilience ODI.

21 The baseline ODI figure derived for PR14, 27.5 per cent, was based on an early modelling set. It did not include the following:

- The Hartlepool Water system.
- Treatment works where resilience schemes had been initiated in AMP5 for completion in AMP6 (e.g. the major Grafham WTW scheme).
- Resilience schemes which have previously been rejected by Ofwat (e.g. Newton WTW).
- Schemes with resilience benefits being delivered in other programmes (e.g. Great Wratting).

22 To show a more accurate representation of resilience for the whole company, we undertook additional modelling during 2014/15 to include all treatment works that could have a resilience impact. This produced a revised AMP6 baseline for the ODI of 46.9 per cent. The revised baseline ODI represents the current 'percentage of population on a single source' if a works were to fail today. Therefore it shows the 'pre-position' for treatment works such as Grafham where resilience schemes are still under construction.

23 The table below shows our progress during AMP6 against this revised baseline. During 2017/18 two resilience schemes were completed, providing a 0.94 per cent reduction. The outturn ODI for the year 2017/18 becomes 45.3 per cent.

ODI % Population on Single Water Supply

Year	Schemes Delivered	% Population on Single Water Supply reduction from delivered schemes	ODI % Population on Single Water Supply
Baseline			46.9
2015/16	Caistor WTW	0.63	46.3
2016/17	No schemes delivered	0.00	46.3
2017/18	Driby WTW	0.21	46.1
2017/18	Twelve Acre Wood WTW	0.73	45.3

24 The Grafham resilience scheme is planned for completion in 2018/19 and will provide a significant reduction in the ODI next year. Our ODI strategy demonstrates that we are on target to meet the Committed Performance Level of 24.7 per cent by 2020 through delivery of a number of schemes.

Frequency of service level restrictions (hosepipe bans) (3A.6)

25 There have been no restrictions on the use of sprinklers or unattended hosepipes in 2017/18. Our ODI measures the number of restrictions in a rolling ten year period. The figure for this line is 1, as there was a hose pipe ban in our region in 2012/13.

Security of Supply Index (SoSI) - dry year annual average (3A.7)

26 The Zonal Index was zero for all Resource Zones in 2017/18 and therefore SoSI remains 100.

Security Of Supply Index (SoSI) - critical period (peak) demand (3A.8)

27 The peaking factor has not been updated from the previous year. Although there was a peak in distribution input in June 2017, analysis shows that this was a lower peak than the historically-used peak from July 2006.

28 The Zonal Index is zero for all Resource Zones in 2017/18 and therefore SoSI remains 100.

Per property consumption (3A.9)

29 Per household consumption (PHC) increased in 2017/18 from 314.4 to 315.9 litres/property/day. The rise was driven by an increase in customer demand during the first three months of the year due to the warm weather and very dry April. We are actively implementing schemes to reduce customer demand including:

- Encouraging customers to switch to metered billing,
- our water efficiency programme and
- pressure management.

30 Our smart metering trial in Newmarket points to higher than anticipated internal plumbing losses caused by leaking toilets with drop valves. This has provided us with further evidence to support our smart metering programme in AMP7, which will help us pinpoint the issues.

Leakage - three year average (3A.10)

31 Leakage for 2017/18 is assessed at 182.7 Ml/d. This represents a 2.0 Ml/d decrease from 2016/17.

32 Our Leakage Outcome Delivery Incentive (ODI) mechanism for AMP6 uses a three year rolling average leakage figure to measure our outturn against the performance commitment of 192 Ml/d. As a result, the 2017/18 ODI reported leakage figure also includes the figure for 2015/16 and 2016/17.

33 The ODI mechanism rewards performance below the target. In year three of AMP6, the target for maximum reward of £5.2 million would be achieved with a three year rolling figure of 182 Ml/d. Actual three year rolling leakage is assessed at 183 Ml/d, therefore delivering £4.6 million of the £5.2 million maximum reward available.

34 Our leakage strategy has remained the same this year. We continue to have successes in bringing down leakage in areas targeted by our intensive leakage detection process and network optimisation:

- Network/pump optimisation schemes - The optimisation team have implemented 22 optimisation schemes this year, delivering 3.13 Ml/d of leakage reduction.
- Intensive leakage detection programme - This process has now reviewed 663 District Metered Areas (DMAs), resulting in a leakage reduction of 3.75 Ml/d this year.
- Detection resources - We have continued to maintain an elevated number of detection technicians since 2015/16 in order to mitigate against the risk of breakout of leaks. On average, 125 technicians were employed over the whole of 2017/18 to search for leaks, up from 122 in 2016/17 and 118 in 2015/16.

35 The reductions achieved by these initiatives provided the necessary headroom against the rises in leakage caused by the winter events.

36 In 2017/18 we saw two cold spells that impacted the network and caused increased bursts and leakage:

- In mid-December the south-west of our region was adversely impacted by the first snowfall of the winter.
- The significant freeze/thaw event from 22 February to 5 March 2018 affected all of our region.

37 Despite the inevitable short-term spike in leakage caused by these events, we recovered quickly. Due to the good progress we made in the early part of the year driving leakage down, these events did not deflect us from the glide path towards meeting our ambitious goals for leakage reduction and our specific targets for 2020.

Sites Of Specific Scientific Interest (SSSIs) (3A.11 / 3A.24)

38 Natural England (NE) assesses the condition of our Sites of Special Scientific Interest (SSSIs), which we have a legal duty to maintain and enhance. Currently 99.94 per cent of our SSSIs (by area) are in either 'favourable' (98.833 per cent) or 'unfavourable recovering' (1.104 per cent) condition. There are some small sites where we own a small portion of the overall area that are in 'unfavourable no change' (0.031 per cent) or 'unfavourable declining' condition (0.031 per cent).

39 No sites that we are responsible for are classified as part destroyed or destroyed.

Environmental compliance (Water) (3A.12)

40 In 2017/18 we delivered two obligations which count towards this performance commitment measure. These were Eels Regulations schemes at Cadney and Ardleigh. Whilst construction is complete at Covenham, it will not be reported until additional work agreed with the EA has been completed to resolve a defect.

41 The Environment Agency (EA) have confirmed a derogation for Marham abstraction point, which means that the obligation at this location is no longer required.

42 In the first two years of AMP6, we completed Eels Regulations schemes at Tetney Weir and Cloves Bridge, which brings our total number of obligations delivered to four.

Operational carbon (3A.13 / 3A.27 / 3A.37)

43 For operational carbon we are certified to CEMARS GOLD (ISO-14064), one of only 28 UK companies who have seven years of continuous carbon reduction against this standard.

44 Operational carbon emissions for 2017/18 have been calculated using the UKWIR Carbon Accounting Methodology complying with Defra guidelines. For 2017/18 we have used version 12 of the UKWIR GHG workbook which includes the latest Defra guidelines on greenhouse gas conversion factors (2013).

45 Gross operational GHG emissions for the report year have reduced against the 2014/15 baseline by 19.6 per cent from 455,335 t/CO2e to 366,000 t/CO2e. The main external factors impacting emissions in 2017/18 are a reduction in grid electricity emission factor of 28 per cent and a change in global warming potential for methane and nitrous oxide, increasing process emissions by 8.5 per cent. With reductions in renewable generation, grid electricity consumption matched the baseline year.

46 Once again, in 2017/18 the energy initiative delivered a positive contribution with 6.51 GWh (full year effect) of energy savings, mitigating 2,503 t/CO2e.

Embodied carbon (3A.14 / 3A.28 / 3A.38)

47 We achieved a 57 per cent reduction in capital carbon against our 2010 baseline.

Survey of community perception (3A.15 / 3A.29 / 3A.39)

48 This was a new measure for AMP6. An independent survey of customers is used to provide data for the ODI, which is a reputational measure.

49 The survey explores the extent to which people are aware of activities we carry out in the communities we serve, and how this influences their opinions of how we care for these communities. It asks questions on:

- The inclusivity / accessibility of our service.
- The extent to which customers believe we operate ethically, sustainably and fairly.
- The extent to which our water parks and nature reserves are visited and valued.
- The extent to which customers have a real personal belief in the value of water.

50 Performance is assessed on the percentage of customers who 'agree strongly' or 'agree slightly' in response to the question from the survey which asks: 'to what extent do you agree that Anglian Water cares about the communities it serves?' This question is asked before customers are prompted about our community initiatives. The first year's results were used to set a baseline at 56 per cent.

51 Around 1,300 people in total are interviewed each reporting year. Quotas are set to ensure the sample is representative geographically, and for customers in vulnerable circumstances. Results are statistically significant to about +/-2.8 per cent at 95 per cent Confidence Interval. A significant improvement from baseline would be a 4 per cent increase on the baseline; this has been used to set a target of 60 per cent for the measure to be achieved by 2020.

52 The 2017/18 survey was conducted independently by Allto (previously McCallum Layton) with a mixture of online and face to face interviewing of people across the Anglian and Hartlepool regions. Interviews were conducted in four waves across the report year to account for seasonal variation or one-off events.

53 A total of 1,196 customers responded to the ODI question in the 2017/18 survey. The results for 2017/18 show that 55 per cent of those surveyed thought that we care about the communities we serve, an increase on the results from the previous year (2016/17: 52 per cent). A breakdown of results is shown in the table below.

Response	Percentage
Agree strongly	15.4
Agree slightly	39.4
Neither agree nor disagree	39.0
Disagree slightly	4.3
Disagree strongly	1.9

54 The company is limited on action that can be taken to improve results, due to the breadth of factors that could influence opinions underpinning the ODI measure. For future years i.e. 2018/19 and 2019/20, we have decided to include the relevant question in already planned research, rather than conducting a survey solely for this ODI.

Serviceability - Water infrastructure (3A.16)

55 In 2017/18 all four of our water infrastructure indicators were assessed as Green. This is because all four were within their upper control limits. Under the mechanism of our serviceability assessment this means that the overall assessment for the water infrastructure sub-service returns to Green from being Amber in 2016/17.

56 Further detail of our performance against the four water infrastructure sub-measures is set out in Table 3B.

Serviceability - Water non-infrastructure (3A.17)

57 In 2017/18 all three of our water non-infrastructure indicators were assessed as Green. This is because all three were within their upper control limits. Under the mechanism of our serviceability assessment this means that the overall assessment for the water non-infrastructure sub-service remains Green.

58 Further detail of our performance against the three water non-infrastructure sub-measures is set out in Table 3B.

Mean zonal compliance (3A.18)

59 Overall Mean Zonal Compliance (MZC) for 2017 was 99.96 per cent, which was above our internal target of 99.95 per cent. This index was impacted by 55 exceedances in the Anglian region, comprising 24 odour, nine metaldehyde, five iron, five nickel, four lead, three taste, two *E.coli*, one trihalomethane, one nitrite and one nitrite-nitrate formula exceedance.

60 There were no exceedances impacting MZC in the Hartlepool region.

Properties flooded internally from sewers – three year average (reduction) (3A.19)

61 This ODI measures the change from our 2014/15 baseline. Both baseline and report year figures are shown as three year averages to smooth out the impact of exceptional years. We count floodings due to both overloaded sewers and other causes and include incidents attributable to severe weather. The figure for 2017/18 was 396, compared to the 2014/15 baseline of 475 properties, which is a reduction of 79 properties.

Properties flooded externally from sewers – three year average (reduction) (3A.20)

62 This ODI measures the change from our 2014/15 baseline. Both baseline and report year figures are shown as three year averages to smooth out the impact of exceptional years. We count floodings due to both overloaded sewers and other causes and include incidents attributable to severe weather. The figure for 2017/18 was 4,824, compared to the 2014/15 baseline of 6,181 properties, which is a reduction of 1,357 properties.

Percentage of sewerage capacity schemes incorporating sustainable solutions (3A.21)

63 We have completed 21 sewerage capacity schemes within the qualifying business cases during 2017/18. Eleven of these included significant elements of sustainable solutions. Over the three years to date of the regulatory period this gives us a total of 21 schemes with elements of sustainable solutions out of a total of 46 schemes completed. This translates into 46 per cent for the performance commitment measure.

Value for money perception - variation from baseline against WaSCs (Wastewater) (3A.22)

64 In CCWater's 2017 survey, 78 per cent of our customers said that they thought their sewerage bills were good value for money, which is an increase compared to 76 per cent in 2015. This is 3 per cent above the average scored by the other WaSCs after being 1 per cent below average in 2016. Compared to the ODI baseline, which is 2 per cent below average (based on 2011 and 2012 scores), we show an improvement of 5 per cent.

Percentage of bathing waters attaining 'Excellent' status (3A.23)

65 The number of 'Excellent' bathing waters declined to 31 in 2017 (32 in 2016). Jaywick dropped to 'Good' in 2017; the sources of bacteria there are as yet unknown. We are working with other stakeholders to locate and deliver improvements. The full results for all 49 bathing waters in our region is shown below.

Bathing Waters	Classification
Cleethorpes	Good
Humberston Fitties	Excellent
Mablethorpe Town	Excellent
Sutton-on-Sea	Excellent
Moggs Eye	Excellent
Anderby	Excellent
Chapel St Leonards	Excellent
Ingoldmells South	Excellent
Skegness	Excellent
Heacham	Sufficient
Hunstanton Main Beach	Sufficient
Hunstanton (Old Hunstanton)	Good
Wells	Good
Sherington	Excellent
West Runton	Excellent
East Runton	Excellent
Cromer	Excellent
Mundesley	Excellent
Sea Palling	Excellent
Hemsby	Excellent
Caister Point	Excellent
Great Yarmouth North	Excellent
Great Yarmouth Pier	Excellent
Great Yarmouth South	Excellent
Gorleston Beach	Excellent
Lowestoft (North of Claremont Pier)	Good
Lowestoft (South of Claremont Pier)	Good
Southwold The Pier	Excellent
Southwold The Denes	Sufficient
Felixstowe North	Excellent
Felixstowe South	Excellent
Dovercourt	Excellent
Walton	Good
Frinton	Good
Holland	Excellent
Clacton	Excellent
Clacton (Groyne 41)	Poor

Bathing Waters	Classification
Jaywick	Good
Clacton Beach Martello Tower	Good
Brightlingsea	Excellent
West Mersea	Sufficient
Shoebury East	Excellent
Shoeburyness	Excellent
Southend Thorpe Bay	Excellent
Southend Jubilee	Good
Southend Three Shells	Good
Southend Westcliff Bay	Excellent
Southend Chalkwell	Good
Leigh Bell Wharf	Sufficient

Pollution incidents (Category 3) (3A.25)

66 The number of Category 3 incidents marginally increased in 2017 to 219 (217 in 2016). This is reflective of the continued delivery of our pollution prevention strategy and public awareness of pollution incidents.

67 There were 219 Category 3 wastewater pollution incidents in 2017 - comprising 214 from pre-transfer assets, four from transferred sewers and one from an adopted pumping station.

Category 3	Excluding Transferred	Transferred	Total
CSO, RM, FS	109	4	113
Other Assets	105	1	106
Total	**214**	**5**	**219**

Environmental compliance (Wastewater) (3A.26)

68 In 2017/18 we delivered schemes which have delivered 33 obligations counting against this performance commitment measure. These are National Environment Programme schemes under No Deterioration (ND) drivers. These are shown in the table below.

Location	ND1 driver	ND2 driver
Attleborough	X	
Broadholme	X	
Chalton	X	
Corby	X	
Deepings	X	
Ditchingham	X	
Dunstable	X	
Great Whelnetham	X	
Grimston	X	X
Hundon	X	
Ingoldisthorpe	X	X
Lakenheath	X	X

Location	ND1 driver	ND2 driver
Lavenham		X
Letchworth	X	X
Long Stratton	X	
Newnham (Northamptonshire)		X
North Hykeham	X	
Poringland	X	
Sleaford		X
Soham		X
Southminster		X
Stanbridgeford	X	
Stanningfield	X	
Tuddenham	X	X
Upminster (Bury Farm)		X
Watton	X	
Wymondham	X	X

69 In the first two years of AMP6, we completed three Groundwater Directive schemes, which brings our total number of obligations delivered to 36.

Serviceability - sewerage infrastructure (3A.30)

70 In 2017/18 all four of our sewerage infrastructure indicators were assessed as Green. This is because all four were within their upper control limits. Under the mechanism of our serviceability assessment this means that the overall assessment for the sewerage infrastructure sub-service remains Green.

71 Further detail of our performance against the four sewerage infrastructure sub-measures is set out in Table 3B.

Serviceability - sewerage non-infrastructure (3A.31)

72 In 2017/18 both of our sewerage infrastructure indicators were assessed as Green. This is because both were within their upper control limits. Under the mechanism of our serviceability assessment this means that the overall assessment for the sewerage non-infrastructure sub-service remains Green.

73 Further detail of our performance against the two sewerage non-infrastructure sub-measures is set out in Table 3B.

Qualitative Service Incentive Mechanism (SIM) (3A.32)

74 Based on the average of the four quarterly Ofwat surveys carried out in 2017/18 we achieved an annual satisfaction score of 4.52. This score was the leading in the industry and as such secured us first place in the qualitative league table. Our quarterly scores were:

75 Quarter 1 – 4.65

76 Quarter 2 – 4.35

77 Quarter 3 – 4.52

78 Quarter 4 – 4.55

Service Incentive Mechanism (SIM) (3A.33)

79 Our quantitative score this year has improved by nine points, resulting in our strongest result since SIM reporting began. All elements of the quantitative measure were improved on our 2016/17 performance.

80 Our combined SIM score for 2017/18 is 88.4.

81 Given our performance on SIM in the regulatory period to date and our expectations for the remainder of the period, we expect to earn a financial reward. However, in accordance with RAG 4.07 we have not reported any earned or forecast financial reward or penalty from SIM in this table.

Unwanted telephone contacts

82 Unwanted telephone contacts received by third party companies working on our behalf, including debt collection agencies, have not been included as all agencies' calls are below 1 per cent of our total calls received.

83 Due to the complexity of data recording, we do not exclude calls about non-appointed activity. This is due to the difficulty in ensuring all call agents are fully aware of what constitutes a non-appointed activity. We continue to believe that the actual number of such contacts received would have a negligible impact on the overall reported numbers.

84 This report year we have continued our channels of proactive communication to our customers. SMS messaging and social media posts are regularly used for operational issues. Our proactive outbound communication team remain a key channel within billing. We also continue to use SMS messaging to remind customers when payments are due and where they may be eligible for a refund of any over-payment.

85 During this report year we have launched our new online customer portal where customers are now able to self serve their account management. At the end of the report year over 180,000 customers had registered for this service.

86 This report year we have seen a 9 per cent reduction in our unwanted call numbers. This has been achieved across most areas and contact types.

Total written complaints

87 This report year we have seen a reduction of 26 per cent in our written complaint numbers, with all business areas receiving fewer complaints.

88 Whilst our highest numbers of complaints are again this year regarding bills and debt recovery, we have received 1,523 fewer than last year. This is a result of improved first time resolution from our contact centre staff. The large areas of complaint reduction are regarding our debt policies and data sharing.

89 Water recycling complaints have seen a 38 per cent reduction this year, with 523 fewer complaints received. The biggest reductions have been attributed to improvements with odour issues and external flooding.

90 More proactive approaches, better communication to our customers and greater employee ownership and empowerment have contributed to these reductions.

Total complaints escalated to second stage

91 We have had a 19 per cent reduction in repeat, second stage complaints this year, with 158 received.

92 We continue to strive towards first time resolution and proactive positive contact for every complaint received. We also continue to use SMS messaging where we have not been able to speak to the customer. This helps us to identify and address any further queries the customer may have.

CCWater complaints

93 No complaints this report year have prompted an investigation by the Consumer Council for Water, a reduction from two in 2016/17.

Customer Satisfaction Index score prepared by UK Institute Of Customer Service (3A.34)

94 The UK Customer Satisfaction Index (UK CSI) score is a national measure of customer satisfaction. It is based on a six-monthly online survey of consumers who are intended to be demographically representative of the UK population.

95 For 2017/18 we scored 77.5 on the UK CSI, which ranked us 6th out of the 25 Utility Companies included in the measure. This outperformed the average utility sector score of 74.75. The utility companies included in each survey varies. For this reason we are using the average of the July 17 and January 18 survey scores to determine our score. The position is based on the average score of those companies that featured in both July and January surveys.

Fairness of bills perception (3A.35)

96 In CCWater's 2017 survey, 67 per cent of our customers said that they thought their bills were fair, which is a 3 per cent increase compared to 64 per cent in 2016. This is 6 per cent above the average scores for other WaSCs, who scored an average of 61 per cent for the year. Compared to the ODI baseline, which is 3 per cent below average (based on 2011 and 2012 scores), we have shown an improvement of 9 per cent.

Affordability perception (3A.36)

97 In CCWater's 2017 survey, 81 per cent of our customers said that they thought their bills were affordable, which is a 6 per cent increase compared to 2016. We are now 8 per cent above average compared to the other WaSCs, which is also an increase of 6 per cent from 2016. We have shown an improvement of 10 per cent compared to the ODI baseline, which was based on 2011 and 2012 scores.

Table 3B - Sub-measure Performance

	Unique ID	PC / sub-measure ID	PC / sub-measure	Unit	2016-17 performance level - actual	2017-18 performance level - actual	2017-18 CPL met?
1	PR14ANHWSW_W-H1	00	W-H1: Water infrastructure	category	Amber	Green	Yes
2	PR14ANHWSW_W-H1	01	Unplanned interruptions >12 hours	nr	2,459	1,263	Yes
3	PR14ANHWSW_W-H1	02	Reactive mains bursts	0	+10.0%	-11	Yes
4	PR14ANHWSW_W-H1	03	Customer contacts - discolouration	0	0.41	0.36	Yes
5	PR14ANHWSW_W-H1	04	Distribution maintenance index	0	0.04	0.05	Yes
6	PR14ANHWSW_W-H2	00	W-H2: Water non-infrastructure	category	Green	Green	Yes
7	PR14ANHWSW_W-H2	01	WTW with coliforms detected	0	3	4	Yes
8	PR14ANHWSW_W-H2	02	Percentage (%) service reservoirs with >5% coliforms	%	0.00	0.00	Yes
9	PR14ANHWSW_W-H2	03	WTW turbidity	0	0	0	Yes
10	PR14ANHWSWW_S-F1	00	S-F1: Sewerage infrastructure	category	Green	Green	Yes
11	PR14ANHWSWW_S-F1	01	Pollution incidents	nr	105	113	Yes
12	PR14ANHWSWW_S-F1	02	Sewer collapses	nr	228	246	Yes
13	PR14ANHWSWW_S-F1	03	Internal flooding (overloaded + other causes)	nr	264	161	Yes
14	PR14ANHWSWW_S-F1	04	Sewer blockages	nr	10,522	11,936	Yes
15	PR14ANHWSWW_S-F2	00	S-F2: Sewerage non-infrastructure	category	Green	Green	Yes
16	PR14ANHWSWW_S-F2	01	Population equivalent (PE) WwTW in breach of consent	%	0.18	0.48	Yes
17	PR14ANHWSWW_S-F2	02	WwTW failing numeric consent	0	0.42	1.11	Yes

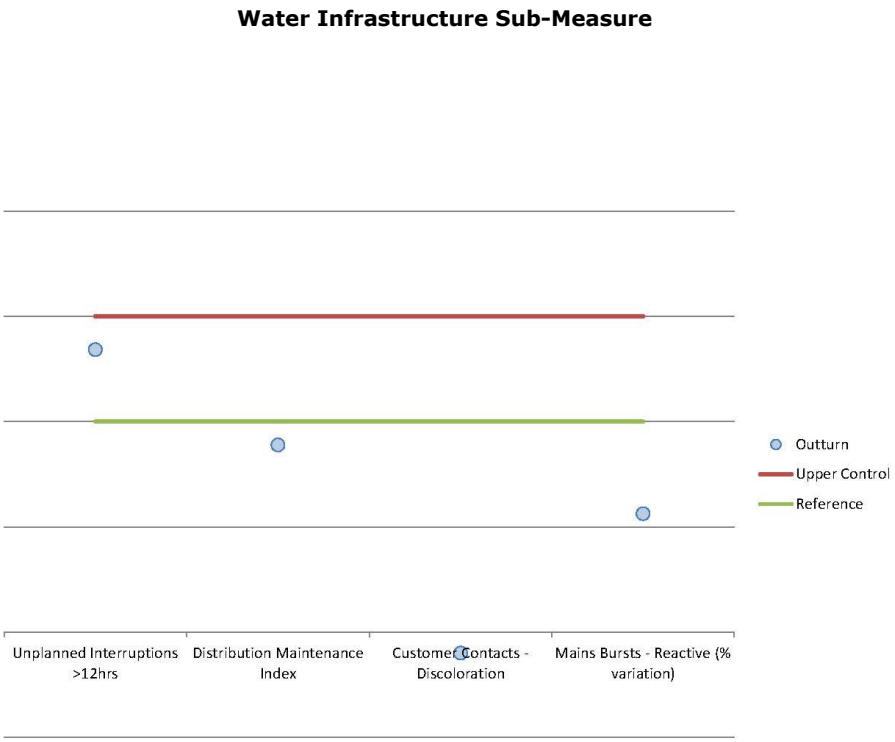
1 To continue to provide the services that our customers expect now and over the long term, we need to look after our assets (e.g. equipment, pipes and buildings). We use the term serviceability to mean the ability of our assets to continue delivering a reference level of service to customers.

2 Serviceability is assessed by 13 sub-measures. The measures are split over four types of asset. For each measure we agree a 'normal' level, called the reference level, which is typically close to the best historical performance. We must also make sure that we do not exceed the worst level of performance that can be accounted for by reasonable natural variation – this is called the upper control limit. If our performance is worse than this upper control limit a penalty may be incurred. Table 3B shows our performance in 2017/18 against each of the sub-measures.

3 Further detail about all our serviceability sub-measures is available on our website at www.anglianwater.co.uk. This includes an explanation about how our sub-measure performance translates into penalties.

W-H1: Water infrastructure (3B.1)

4 In 2017/18 all four of our water infrastructure indicators were assessed as Green. This is because all four were within their upper control limits. Under the mechanism of our serviceability assessment this means that the overall assessment for the water infrastructure sub-service returns to Green from being Amber in 2016/17. The performance of each sub-measure against its reference level and upper control limit is shown on the chart below.



Unplanned interruptions >12 hours (3B.2)

5 The total number of properties affected by unplanned interruptions of greater than 12 hours was 1,263.

6 Out of those, 642 properties, or 51 per cent of the total for 2017/18, were from four events: Brandon (270 properties), West Runton (168), Upper Boddington (103) and Daventry (101). There has been a significant decrease in the number of properties affected by unplanned supply interruptions greater than 12 hours this year when compared with 2,459 reported in 2016/17.

Reactive mains bursts (3B.3)

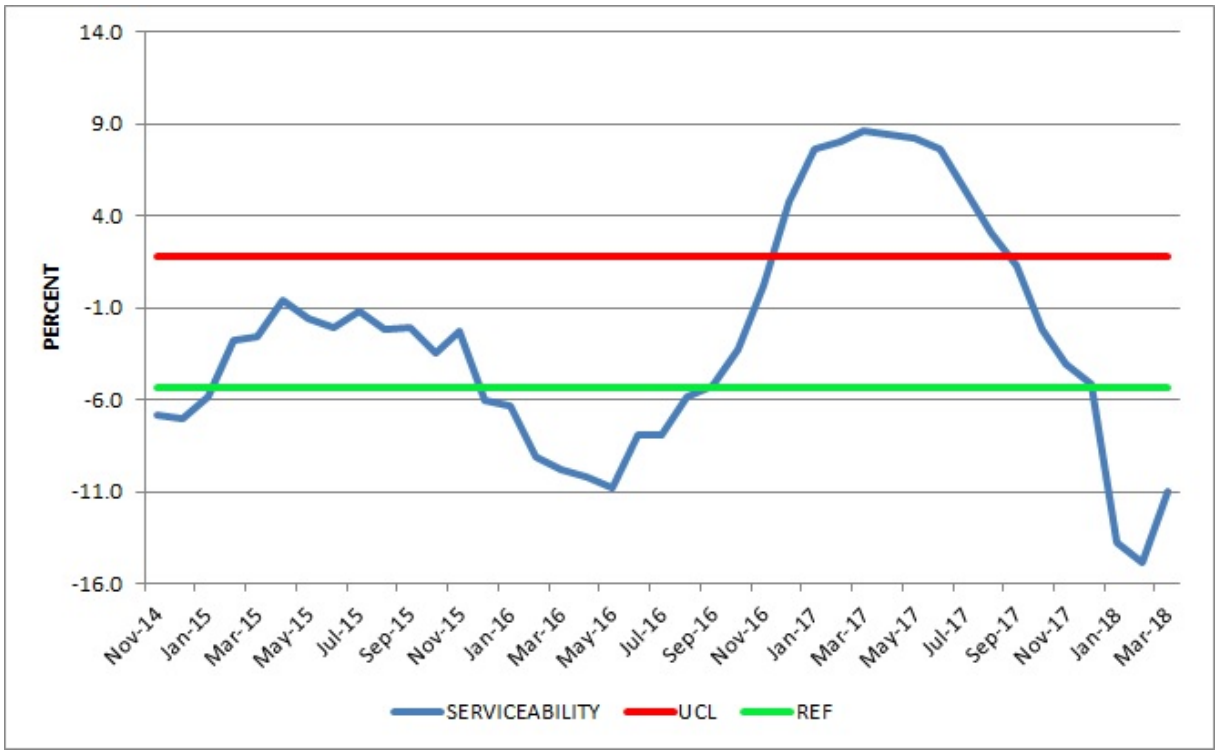
7 In response to 2016/17 performance of +10.0 per cent, increased focus has been placed on ensuring that our data capture is correct, and we now review the notification text of each burst to ensure correct assignation, rather then relying on automated processes.

8 Since the start of AMP6 (April 2015), we have changed our serviceability measure for burst mains to report the number of reactive burst mains as a variation from the modelled output produced by the Cranfield model. To maintain consistency with our Price Review submissions we will use the same model that was used for those submissions throughout AMP6.

9 The Cranfield University WISPA (Water Infrastructure Serviceability Performance Assessment) model is used to normalise our reactive burst main numbers. The model applies the local weather, soils, mains material, diameter, age and DMA characteristics to predict the expected number of reactive bursts. Adjusting for exogenous variables enables our performance to be determined without the impact of seasonal effects.

10 The differences between the Cranfield University WISPA predictive model and the number of reactive burst mains (on a 12 month rolling basis) is shown in the graph below.

Burst Mains deviation from model



11 We exceeded the upper control limit in 2016/17, but we are pleased to report that performance has improved in 2017/18. This is due to a combination of the model indicating we should have more bursts based on the weather experienced in the region along with a reduction in the number of reactive bursts observed (3,441 bursts in 2017/18, compared to 3,900 in 2016/17).

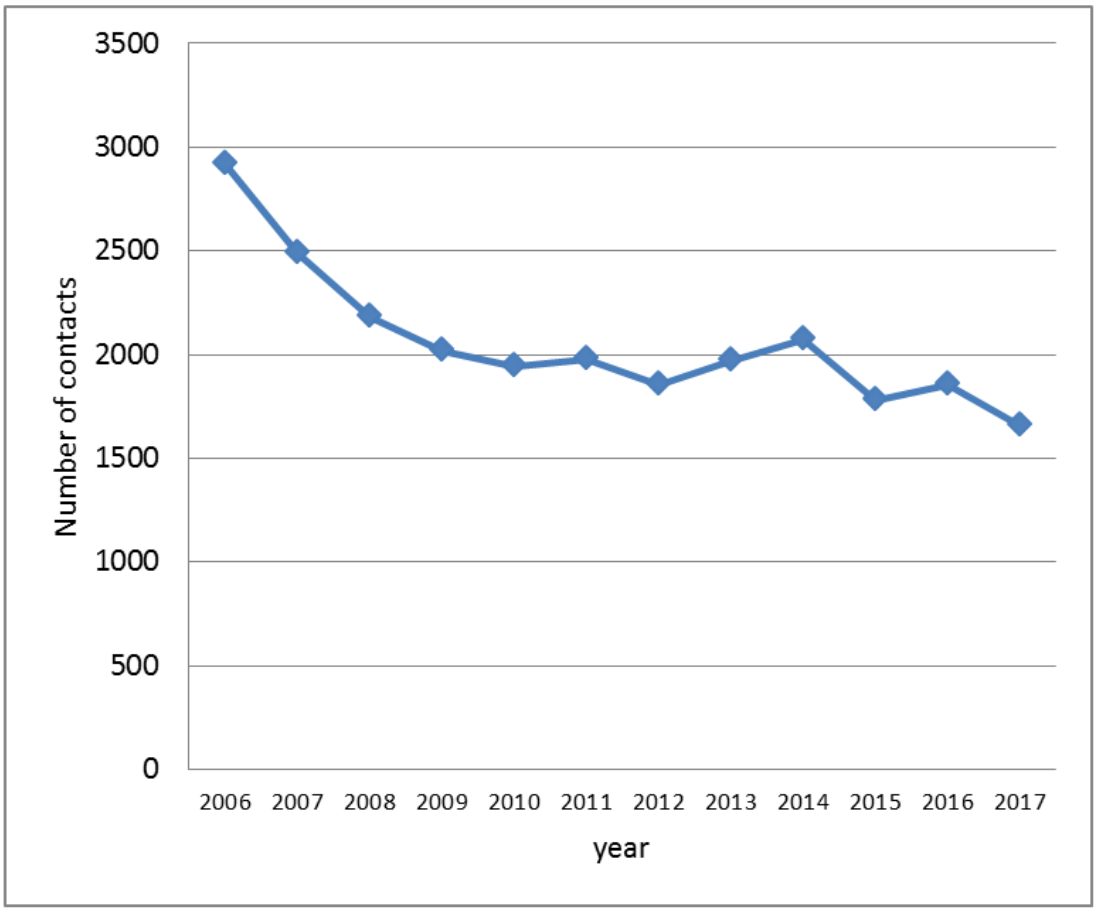
12 Local level model results are used to support our AMP6 water mains rehabilitation programme. The model has been used to identify our regional risk of mains bursting due to environmental changes and we have implemented this in our Asset Management appraisal processes.

Customer contacts - discolouration (3B.4)

13 Discolouration (brown/black or orange) is a subset of the acceptability of water to consumers measure reported by DWI annually in the Chief Inspector's Report.

14 The number of discolouration contacts (brown/black or orange) received per 1,000 population served in 2017 was 0.36. The number of contacts received has decreased as a result of our planned sedimentation removal programmes, optimisation of our networks and proactive customer notifications. The graph below shows the historic trend in combined number of discolouration contacts received.

Water Quality Discolouration Contacts 2006-2017

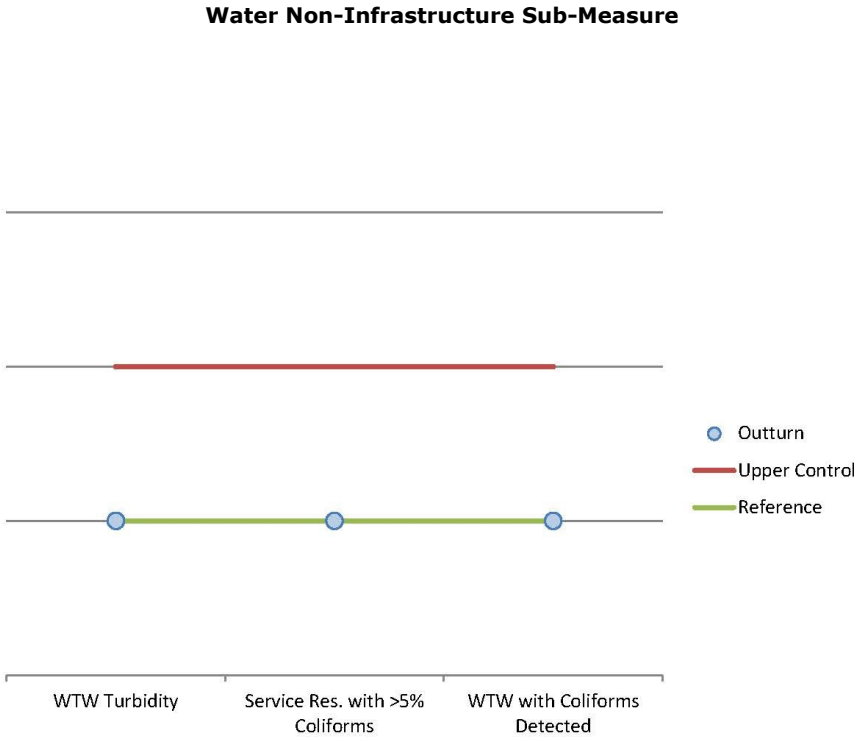


Distribution Maintenance Index (3B.5)

15 The Distribution Maintenance Index (DMI) for 2017 was 0.05 per cent (measured as non-compliance). Five iron exceedances contributed to the DMI score. These exceedances comprised iron exceedances in Pettistree, Desborough, Wellingborough, Northampton and Barrow Public Water Supply Zones (PWSZs).

W-H2: Water non-infrastructure (3B.6)

16 In 2017/18 all three of our water non-infrastructure indicators were assessed as Green. This is because all three were within their upper control limits. Under the mechanism of our serviceability assessment this means that the overall assessment for the water non-infrastructure sub-service remains Green. The performance of each sub-measure against its reference level and upper control limit is shown on the chart below.



WTW with coliforms detected (3B.7)

17 There were four WTWs at which coliforms were detected in 2017. This was a significant decrease on the eight WTWs with coliform detections in 2015 but slightly above the year end figure of three WTWs for 2016. There were no detections of *E.coli* at any WTW in 2017.

18 Coliforms were detected on a single occasion at Mumby, Fring, Great Wratting and Saltersford WTWs. All exceedances were fully investigated and commentaries were provided to the DWI for each exceedance. Our investigations were deemed satisfactory and no enforcement action was initiated by the DWI.

Percentage (%) service reservoirs with >5% coliforms (3B.8)

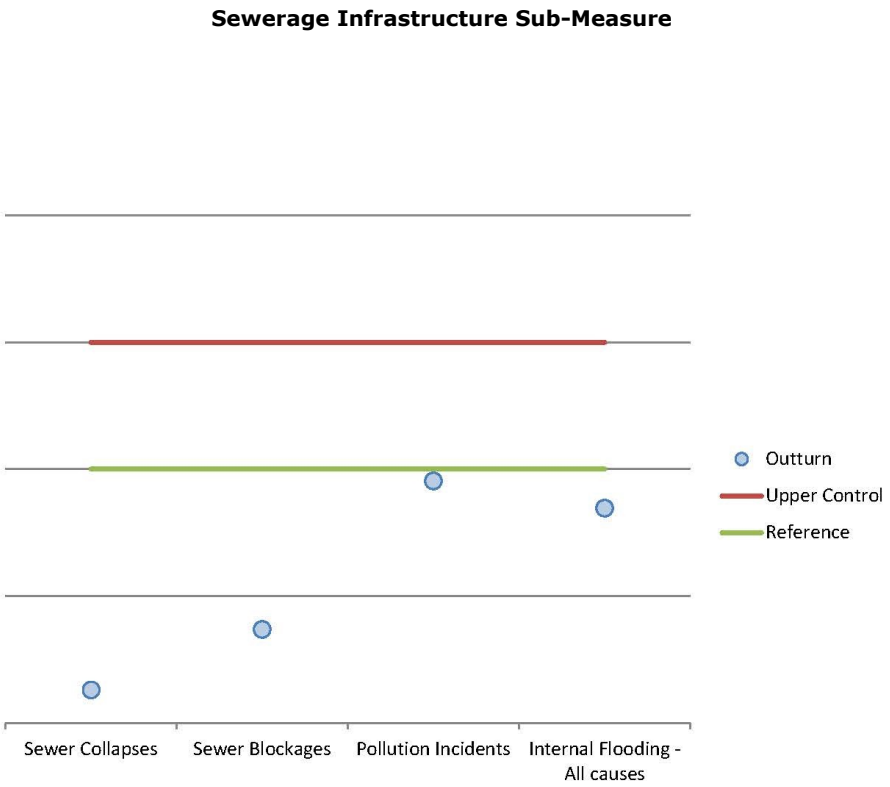
19 The percentage of service reservoirs with coliforms detected in more than 5 per cent of samples has remained at 0 per cent for 2017.

WTW turbidity (3B.9)

20 There were no WTWs with a turbidity 95-percentile greater than or equal to 0.5 NTU for 2017.

S-F1: Sewerage infrastructure (3B.10)

21 In 2017/18, all four of our sewerage infrastructure indicators were assessed as Green. This is because all four were within their upper control limits. Under the mechanism of our serviceability assessment this means that the overall assessment for the sewerage infrastructure sub-service remains Green. The performance of each sub-measure against its reference level and upper control limit is shown on the chart below.



Pollution incidents (3B.11)

22 The data for this line is based on the 2017 calendar year.

23 During 2017 there were 113 category 1-3 pollution incidents which were attributed to serviceability assets, namely combined sewer overflows (CSOs), rising mains and foul sewers (2016: 105). The bulk of the incidents were on foul sewers (84), with CSOs accounting for nine incidents and rising mains accounting for twenty incidents.

24 There were four incidents from transferred foul sewers but these are not included for the purposes of the serviceability measure.

Pollution Incidents on Serviceability Assets

	Cat 1	Cat 2	Cat 3	Total
Pre-transfer assets	0	4	109	113
Transferred assets (not included for serviceability)	0	0	4	4
Total	0	4	113	117

Sewer collapses (3B.12)

25 There were 136 burst rising mains and 110 gravity sewer collapses during 2017/18, excluding assets that transferred after 2011. Failure history and likely impact are used to determine our rising mains rehabilitation programme and the scope of our intervention is tested using soils maps. These have been successful in ensuring that we target our rehabilitation at the pipeline sections required to ensure that we maintain optimal serviceability across our rising mains. Our sewer rehabilitation programme continues to maintain the improved level of collapses reported.

Internal flooding (overloaded and other causes) (3B.13)

26 This was a new measure for AMP6 and this is the fourth year we have reported. It is the sum of properties flooded from public sewers due to sewer overloaded (including those attributable to severe weather) and other causes. Incidents attributable to sewers that transferred to us in 2011 are excluded.

27 We reported 264 properties for 2016/17 and, following a dry year, we are reporting 161 for 2017/18.

28 The table below shows the last five years data and the breakdown of cause.

Flooding Causes - Public Sewers

Causes	2013/14	2014/15	2015/16	2016/17	2017/18
Overloaded sewers (excl. severe weather)	36	54	27	61	20
Severe Weather	15	30	17	14	8
Pumping Station Failure	19	41	9	10	17
Equipment Failure	1	2	5	9	0
Jetting	10	10	8	7	10
Blockage	133	118	148	152	100
Collapse	11	8	6	11	6
Total	**225**	**263**	**220**	**264**	**161**

29 We have had 52 fewer incidents due to blockages than in the previous year. We are continuing with our 'Keep it Clear' campaign, where we target hotspot blockage areas to inform customers how to prevent blockages (see Sewer Blockages below).

30 There were no internal flooding incidents caused by equipment failures on public sewers for 2017/18.

Sewer blockages (3B.14)

31 Public sewer blockage numbers have increased this report year from 10,522 in 2016/17 to 11,936 in 2017/18, but are still within the upper control limit and below the reference level. We continue to closely monitor blockage jobs and have implemented several initiatives aimed at reducing blockages, whilst at the same time improving customer service and satisfaction.

32 This total number includes 470 blockages which we added following challenge by our auditor. These represent approximately 4 per cent of the total. The audit identified some aspects of our systems reporting where there was the potential for legitimate public sewer blockages to be omitted unintentionally. Given the complexity of identifying these blockages and timescales needed to do so, we analysed a sample of records to estimate the total likely impact of this and added this number to our existing number of blockages. We have also committed to refine our processes to ensure that these records can be included in future reports.

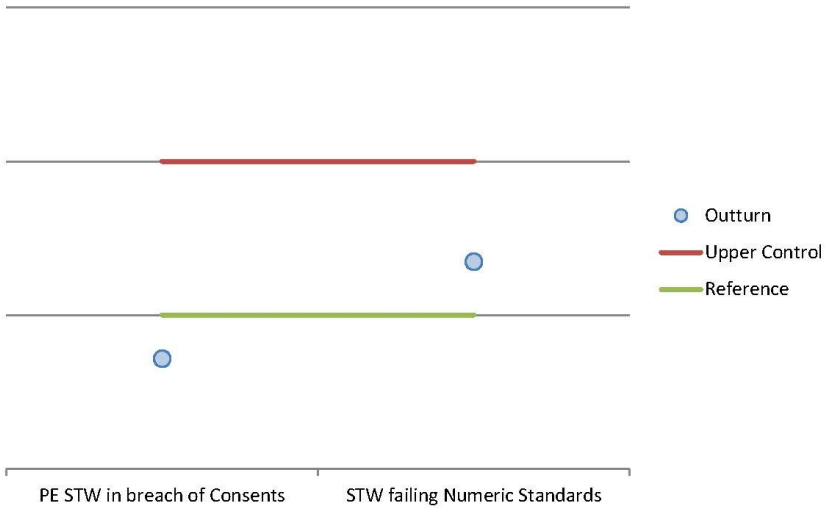
33 We continue our programme of inspections and interventions to help identify and resolve any physical issues. Planned preventative maintenance is carried out in areas that are considered to be at a high risk of blockages that may cause other service failures, such as flooding or pollution incidents. We remove interceptors and repair sewer defects on both ex-Section 24 as well as traditional public sewers. This practice has been updated to apply to individual premises where we recognise these customers are contacting us more than once in 12 months for a water recycling enquiry. We also include these customers in our Keep It Clear campaign where relevant.

34 We engage directly with our customers in districts where sewer blockages occur more often than usual. As part of our 'Keep It Clear' campaign we are working with local organisations to reduce the numbers of avoidable blockages (caused by incorrect disposal of fats, oils, greases, wet wipes, etc). We have extended the campaign to 24 different locations around the Anglian region. In almost every location, our campaign has seen a sustained reduction in blockages with many areas recording greater than a 50 per cent reduction.

S-F2: Sewerage non-infrastructure (3B.15)

35 In 2017/18 both of our sewerage non-infrastructure indicators were assessed as Green. This is because both were within their upper control limits. Under the mechanism of our serviceability assessment this means that the overall assessment for the sewerage non-infrastructure sub-service remains Green. The performance of each sub-measure against its reference level and upper control limit is shown on the chart below.

Sewerage Non-Infrastructure Sub-Measure



Population equivalent (PE) WwTW in breach of consent (3B.16)

36 Two Water Recycling Centres (WRC), Biggleswade and Towcester, failed in 2017 against these criteria. These WRCs represents 0.48 per cent of our total resident population served by works with numeric consents of 6,724,378.

Failing WRCs

Water Recycling Centre	Failing Category
Biggleswade WRC	UWWTR Phosphorus
Towcester WRC	OSM Sanitary LUT

WwTW failing numeric consents (3B.17)

37 This is a measure of the percentage of our WRCs which were compliant during 2017, according to the Environment Agency End of Year (EoY) Performance report. Out of 718 WRCs with numeric consents, eight were non-compliant for 2017. At 98.89 per cent compliance for 2017, this is a deterioration compared to 2016 (three works out of 718, 99.58 per cent).

38 To improve discharge permit compliance, the following improvements have or will be implemented:

- Continuation of high level reporting on a daily, weekly and monthly basis. High risk sites have daily reports, where performance is investigated, improved and reported back in a closed loop process.
- Continued use of Causelink Sologic root causes technique, which provides more in depth analysis to understand and prevent causes of failures.
- Flow Investigation audits were carried out at 239 WRCs.
- Upper Tier Audits carried out at high risk sites.
- All Service Delivery Scientists have now been assessed through the Scientist Licence To Operate.
- Development of an Advanced Licence to Operate for Optimisers.
- Development of a new Technical Training Course – Environmental Protection, which will be delivered to all Work, Collection and Maintenance Technicians on a rolling basis.

39 The eight non-compliant WRCs were Biggleswade, Cromer, Harwich and Dovercourt, Ipswich-Cliff Quay, Southwold, Towcester, Uppingham and Winteringham.

40 The difference in the way serviceability is calculated compared to EoY Performance is:

- Look up table failures (BOD, SS, NH3) are dependent on sampling frequency, as to be compliant a WRC must pass 95 per cent of samples. The EoY performance report includes failing works throughout the year whereas serviceability is based on the samples taken at year end. Therefore where the number of samples taken at a WRC during the year has increased (by returning from reduced to normal frequency) the WRC has the potential to become compliant for serviceability by year end, but would remain non-compliant for the EoY Performance report.
- Failing samples attributed to a specific mechanical breakdown are now counted in the EoY Performance report. The rationale was that such samples were not taken under normal operating conditions and so were rescheduled. Historically they did not appear.

41 There was no difference in the WRCs failing in the EoY Performance report and those failing for serviceability in 2017.

Table 3C - Abstraction Incentive Mechanism

	Abstraction site	2017-18 AIM performance [Ml]	2017-18 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	Marham (R Nar)	0	0	0	0	No flows below Q95 in 2017/18.
2	Costessey (R Wensum)	178	26	183	14	Baseline reflects changes already made to abstraction to reduce impact. Further reductions are difficult due to poor water quality at alternative site, but installation of a new treatment works will solve this (due 2019).
	Total	178	26	183	14	

1 The Anglian Water supply area is geographically large with a significant rural population and experiences some of the lowest rainfall in the country. The Environment Agency has assessed the region as being in 'serious water stress' and, in addition, it is recognised as being particularly vulnerable to the impacts of climate change. The region is characterised by a high number of water–dependent designated conservation sites and we work closely with the Environment Agency to manage the associated environmental pressures. Our region's slow moving rivers are often ecologically diverse and, whilst they can support abstraction, this may cause environmental stress during periods of low rainfall.

2 Since privatisation, and as a result of the outcome of extensive environmental assessments, we have made significant investment to help understand and minimise the impacts of our abstractions. As a result, we have reduced output from, relocated or closed a number of our abstraction sources. We have also completed a wide range of environmental mitigation measures, the most notable of which was the creation of the 30 hectare wildlife lagoons at Rutland Water. We are completing a number of river restoration schemes in AMP6 to mitigate any potential abstraction impacts and have identified a further programme of river habitat improvements in AMP7.

3 During AMP5, two Anglian Water surface water sources were identified for sustainability changes to address the impacts to the respective rivers immediately downstream from our abstraction points. At both, we have agreed to upfront licence changes with the Environment Agency which will reduce the permitted hands-off flow/minimum residual flow requirements within specified time periods. These licence changes were not made immediately due to the need for significant capital investment in order to maintain public water supplies. In the meantime we are seeking to manage current abstraction rates from the sites in order to minimise any ongoing environmental impact.

4 We are reporting on both these sites for the Abstraction Incentive Mechanism (Table 3C): Marham (River Nar) and Costessey (River Wensum).

Marham (River Nar) (3C.1)

5 The hands-off flow requirement in the Marham abstraction licence for the River Nar is due to increase from April 2025. This will result in a large sustainability change for the Marham source and any alterations to our current abstraction regime in this resource zone will require significant investment. We have assessed the impacts in our Draft Water Resources Management Plan 2019 and have included a new transfer option for delivery by 2025. We also agreed with the Environment Agency and Natural England to implement interim river restoration and enhancement measures for the River Nar during AMP6.

6 The option to manage the demand from alternate abstraction sources is limited primarily to use of the Wellington Wellfield groundwater source. Use of the Wellington Wellfield is the identified drought contingency measure for the Marham source, and is constrained by the annual abstraction licence limit.

7 Abstraction from the Marham surface water source during 2017/18 has shown a steady decrease over the reporting period.

Costessey (River Wensum) (3C.2)

8 The minimum residual flow requirement in the Costessey abstraction licence for the River Wensum is due to increase from April 2019. The licence changes result in a significant sustainability reduction of 46 Ml/d which is being addressed through an AMP6 investment scheme to enhance the treatment at the downstream Heigham surface water source. The scheme will complete by March 2019. We agreed with the Environment Agency and Natural England to progressively reduce abstraction from Costessey and to re-instate the Heigham intake which is located outside of the River Wensum Special Area of Conservation. Since 2011 abstraction at Costessey has reduced by a third.

9 We will continue to manage the demand from the River Wensum through use of the Heigham intake as much as possible, without compromising public water supply as a result of poor water quality.

10 During the 2017/18 reporting period there were 27 occasions when flows in the Wensum dropped below the Q95 threshold (the lowest 5 per cent of flows normally experienced in the river).

Table 3D - Service Incentive Mechanism

	Line description	Score nr
A	**Qualitative performance**	
1	1st survey score	4.65
2	2nd survey score	4.35
3	3rd survey score	4.52
4	4th survey score	4.55
5	Qualitative SIM score (out of 75)	66.00
B	**Quantitative performance**	
6	Total contact score	52.56
7	Quantitative SIM score (out of 25)	22.37
C	**SIM score**	
8	Total annual SIM score (out of 100)	88.37

1 For commentary please see Table 3A lines 32 and 33.

Table 4A - Non-financial Information

	Line description	Units	Current year	
			Unmeasured	Measured
	Retail			
A	**Household**			
1	Number of void households	000s	25.608	77.785
2	Per capita consumption (excluding supply pipe leakage) l/h/d	l/h/d	161.67	129.29

	Wholesale			
B	**Volume (Ml/d)**		**Water**	**Wastewater**
3	Bulk supply export	Ml/d	53.852	1.991
4	Bulk supply import	Ml/d	2.624	7.405
5	Distribution input	Ml/d	1,112.343	

Number of void households (4A.1)

1 The following table shows revised void numbers for the years ended 31 March 2016 and 2017. During the internal assurance process it became apparent that the prior year numbers had not been shown on a basis consistent with the regulatory accounting guidelines. Wastewater only premises had been omitted from the figures and non-chargeable properties had been included.

	Unmeasured	Measured
Year ended 31 March 2017		
Number of void households	28.361	76.005
Year ended 31 March 2016		
Number of void households	28.232	68.903

Bulk supply exports (4A.3)

2 Water exports relate mainly to bulk supplies to Affinity Water and Severn Trent Water. Sewerage exports relate to discharges to ten Water Recycling Centres in the Thames Water and Severn Trent Water areas.

Bulk supply import (4A.4)

Wastewater

3 Water bulk supplies relate to small imports from all our neighbouring water companies. Sewerage imports primarily relate to discharges to two Water Recycling Centres from Thames Water customers.

Table 4B - Wholesale Totex Analysis

	Line description	Current year		Cumulative 2015-20	
		Water £m	Wastewater £m	Water £m	Wastewater £m
A	**Actual totex**				
1	Actual totex	387.735	540.646	1,070.366	1,413.689
B	**Items excluded from the menu**				
2	Third party costs	(9.380)	(8.179)	(22.775)	(13.566)
3	Pension deficit recovery payments	(3.800)	(5.900)	(11.224)	(16.676)
4	Other 'Rule book' adjustments	-	-	-	(0.442)
5	Total items excluded from the menu	(13.180)	(14.079)	(33.999)	(30.684)
C	**Transition expenditure**				
6	Transition expenditure	-	-	26.837	28.591
D	**Adjusted Actual totex**				
7	Adjusted Actual totex	374.555	526.567	1,063.204	1,411.596
8	Adjusted Actual totex base year prices	333.363	468.657	975.798	1,294.336
E	**Allowed totex**				
9	Allowed totex based on final menu choice – base year prices	338.032	492.627	1,076.348	1,485.116

Actual totex (4B.1)

1 Actual totex in the year was £928.4 million.

Items excluded from the menu (4B.2-5)

2 Costs excluded from the menu are third party costs of £17.6 million and pension deficit payments of £9.7 million (lines 2 and 3), making adjusted actual totex £901.1 million (line 7).

Adjusted actual totex base year prices (4B.8)

3 At base year prices (2012/13), adjusted actual totex in the year is £802.1 million.

Allowed totex (4B.9)

4 Allowed menu totex is £830.7 million in base year prices (line 9), giving an adjusted out-performance of £28.6 million in the year.

Totex outperformance

5 Outperformance in year is due to efficiencies achieved of £86.2 million offset by timing differences (expenditure earlier than planned) of £57.6 million.

6 The difference in base year prices between total allowed totex and adjusted actual totex on a cumulative basis is £291.3 million, comprising totex outperformance of c.£278 million and programme phasing differences of c.£13 million.

7 Our totex outperformance of c.£278 million is as a result of numerous totex efficiency measures and initiatives. Totex and Capital programme efficiencies continue to be driven through our Alliance delivery model, delivering efficient, innovative and lower carbon solutions. Our operating cost efficiency has been achieved through initiatives including supply chain efficiencies, lean process improvements, energy efficiency projects and general tight cost control. These will continue to be key areas of focus as we progress through the AMP.

8 By maximising the benefits of our alliances and innovation, and delivering strong efficiencies across our programme we are able to deliver further benefits for customers. This commenced in 2017/18 and in total we are increasing our planned investment by £165.0 million over AMP6 to enhance our service to customers. This includes £65.0 million in resilience schemes not included in the company's original plan. During 2017/18 we re-invested £23.5 million in capital maintenance projects and £2.8 million in operational initiatives.

Table 4C - Forecast Impact of Performance on RCV

	Line description	Water £m	Wastewater £m
1	Cumulative totex over/underspend so far in the price control period	(108.400)	(206.902)
2	Customer share of cumulative totex over/underspend	(54.821)	(102.808)
3	RCV element of customer share of cumulative totex over/underspend	(48.379)	(99.252)
4	Adjustment for ODI rewards or penalties	-	-
5	RCV determined at FD at 31 March	2,994.219	4,727.991
6	Projected 'shadow' RCV	2,945.840	4,628.739

Cumulative totex over/underspend so far in the price control period (4C.1)

1 This is the difference between the actual cumulative totex and the allowed totex in the price control period. Actual totex excludes third party opex and capex, pension deficit repair costs, and other rule book adjustments. Allowed totex is allowed totex based on the Company's final menu choice. In calculating the cumulative difference we have inflated each individual year's allowed totex (in base year 2012/13 prices) to the individual year's outturn prices and totalled them (i.e. 2015/16 allowed totex inflated to 2015/16 prices, 2016/17 allowed totex inflated to 2016/17 prices, and 2017/18 allowed totex inflated to 2017/18 prices. The three years are then totalled). Actual totex in each year at the individual year outturn prices (i.e. actual 2015/16 totex at 2015/16 prices, 2016/17 actual totex at 2016/17 prices, and 2017/18 actual totex at 2017/18 prices) is totalled for the three years. The difference between the two totals is reported as the cumulative totex underspend so far in the price control period.

Customer share of cumulative totex over/underspend (4C.2)

2 The cost sharing percentage is sourced from the PR14 Final Determination Wholesale Menu Models for water and wastewater. The cost sharing percentage from the menu models is the Anglian Water share (water 49.4 per cent, wastewater 50.3 per cent), therefore the customer share is one minus this rate.

3 The customer share has been calculated for each individual year of the AMP to date (i.e. underspend in the year multiplied by the customer share), with each year's customer share calculated in the individual year's outturn prices. The three year's customer share is then totalled (i.e. 2015/16 customer share in 2015/16 prices, 2016/17 customer share in 2016/17 prices and 2017/18 customer share in 2017/18 prices).

RCV element of customer share of cumulative totex over/underspend (4C.3)

4 Calculated using the PR14 Reconciliation Rulebook calculations.

Adjustment for ODI rewards or penalties (4C.4)

5 Anglian Water has no ODI rewards / penalties which affect RCV (all ODI financial rewards / penalties are revenue items).

RCV determined at FD at 31 March (4C.5)

6 Obtained from RCVs published on the Ofwat website (address below):

https://www.ofwat.gov.uk/publication/regulatory-capital-values-2018/

Projected 'shadow' RCV (4C.6)

7 Calculated field, the sum of lines 4C.3 to 4C.5.

Table 4D - Wholesale Totex Analysis - Water

	Line description	Units	Water resources		Network+				Total
			Abstraction licences	Raw water abstraction	Raw water transport	Raw water storage	Water treatment	Treated water distribution	
A	**Operating expenditure**								
1	Power	£m	-	7.600	4.106	0.196	7.132	13.835	**32.869**
2	Income treated as negative expenditure	£m	-	(0.161)	(0.124)	-	(0.252)	(0.564)	**(1.101)**
3	Abstraction charges/ discharge consents	£m	10.035	-	-	-	0.474	-	**10.509**
4	Bulk supply	£m	-	-	-	-	1.627	-	**1.627**
5	Other operating expenditure - renewals expensed in year (Infrastructure)	£m	-	-	-	-	-	26.736	**26.736**
6	Other operating expenditure - renewals expensed in year (Non-Infrastructure)	£m	-	-	-	-	-	-	**-**
7	Other operating expenditure - excluding renewals	£m	-	13.801	2.847	0.034	26.393	61.510	**104.585**
8	Local authority and Cumulo rates	£m	-	3.112	0.588	-	6.678	31.557	**41.935**
9	**Total operating expenditure excluding third party services**	£m	10.035	24.352	7.417	0.230	42.052	133.074	**217.160**
10	Third party services	£m	0.553	0.863	2.005	-	1.803	3.142	**8.366**
11	**Total operating expenditure**	£m	10.588	25.215	9.422	0.230	43.855	136.216	**225.526**
B	**Capital Expenditure**								
12	Maintaining the long term capability of the assets - infra	£m	-	0.507	0.084	-	-	35.099	**35.690**
13	Maintaining the long term capability of the assets - non-infra	£m	-	5.909	0.884	0.413	28.821	27.607	**63.634**
14	Other capital expenditure - infra	£m	-	0.476	0.937	-	-	29.686	**31.099**
15	Other capital expenditure - non-infra	£m	-	4.262	0.518	-	25.055	7.023	**36.858**
16	Infrastructure network reinforcement	£m	-	-	-	-	-	11.642	**11.642**
17	Total gross capital expenditure (excluding third party)	£m	-	11.154	2.423	0.413	53.876	111.057	**178.923**
18	Third party services	£m	-	0.069	(0.006)	-	0.964	(0.012)	**1.015**
19	**Total gross capital expenditure**	£m	-	11.223	2.417	0.413	54.840	111.045	**179.938**
C	**Grants and contributions**								
20	Grants and contributions	£m	-	-	-	-	-	(21.529)	**(21.529)**
21	Totex	£m	10.588	36.438	11.839	0.643	98.695	225.732	**383.935**
D	**Cash Expenditure**								
22	Pension deficit recovery payments	£m	-	0.411	0.102	-	1.233	2.054	**3.800**
23	Other cash items	£m	-	-	-	-	-	-	**-**
24	Totex including cash items	£m	10.588	36.849	11.941	0.643	99.928	227.786	**387.735**

Line description	Units	Water resources		Network+			
		Abstraction licences	Raw water abstraction	Raw water transport	Raw water storage	Water treatment	Treated water distribution

E Unit cost information (operating expenditure)

25	Licenced volume available	Ml	604,851.000					
25	Volume abstracted	Ml		481,440.009				
25	Volume transported	Ml			117,949.361			
25	Average volume stored	Ml				295.230		
25	Distribution input volume	Ml					406,004.100	
25	Distribution input volume	Ml						406,004.100
26	Unit cost	£/Ml	17.505	52.374	79.882	779.054	108.016	335.504
27	Population	000s	4,615.018	4,615.018	4,615.018	4,615.018	4,615.018	4,615.018
28	Unit cost	£/pop	2.294	5.464	2.042	0.050	9.503	29.516

1 Line numbers shown within the table are as per the Ofwat APR spreadsheet.

Change in operating expenditure compared to 2016/17 - Regulatory Accounts

2 Underlying water services operating expenditure increased by £3.1 million (1.4 per cent) in real terms.

Movement in costs 2016/17 to 2017/18

	Water resources £m	Raw water transport and storage £m	Water treatment £m	Treated water distribution £m	Water Total £m
2016/17 reported operating costs	35.9	9.0	41.3	126.4	212.6
Atypical power credits in 2016/17	0.3	0.1	0.2	0.4	1.0
Underlying costs 2016/17	36.2	9.1	41.5	126.8	213.6
Inflation @ 3.7%	1.4	0.3	1.6	4.7	8.0
2016/17 underlying costs indexed to 2017/18 prices	**37.6**	**9.4**	**43.1**	**131.5**	**221.6**
2017/18 reported operating costs	**35.8**	**9.6**	**43.9**	**136.2**	**225.5**
Atypical transactions:					
Legal costs	(0.1)	-	(0.2)	(0.7)	(1.0)
Closure of defined benefit pension scheme	(0.1)	-	(0.2)	(0.3)	(0.6)
Power rebate and provision release	0.2	0.1	0.2	0.3	0.8
Underlying costs 2017/18	**35.8**	**9.7**	**43.7**	**135.5**	**224.7**
(Increase)/decrease in underlying costs from 2016/17	**1.8**	**(0.3)**	**(0.6)**	**(4.0)**	**(3.1)**

Operating expenditure (4D.1-11)

Water resources

3 The £1.8 million decrease is the result of a number of smaller cost reductions including £0.2 million on power, £0.9 million in abstraction licences, £0.4 million in business rates and an increase of £0.2 million in third party costs. Of the £0.9 million decrease in abstraction charges, £0.5 million is the result of the increased allocation of costs to third party services.

Raw water transport and storage

4 Although total costs increased by only £0.3 million in real terms, we saw an increase in third party costs of £0.9 million, offset by a combination of small cost decreases of £0.6 million. The increase in third party costs was due to an increase in bulk supply in the period and also a change to cost allocation following a review. Having reviewed the guidance on raw water storage, four minor sites and associated costs that were previously included within water treatment have been re-classified under raw water storage. This includes reservoirs with no natural catchment, no abstraction licence and with storage of less than 15 days.

Water treatment

5 Small increases in power costs and other operating expenditure were partially offset by a reduction in business rates during the year giving an overall increase in costs of £0.6 million.

Treated water distribution

6 Costs in real terms increased by £4.0 million, the result of increased costs of £7.0 million for repair and maintenance to our network, and increase in power costs of £0.6 million, both partially offset by a reduction in business rates of £3.0 million and other smaller decreases of £0.6 million.

Capital Expenditure (4D.12-19)

7 All of our capital expenditure is delivered through projects where master data is used to identify whether the expenditure is for maintaining the long term capability of assets or other capital assets for both infrastructure and non infrastructure.

8 This master data is also used for the classifying expenditure within the relevant price control. The majority of capital expenditure is directly attributable to the price control. Where this is not possible, capital expenditure is assigned to the business unit of principal use with an appropriate recharge of depreciation charges for these shared assets made between price control segments in table 2A.

Cash Expenditure (4D.22)

9 Cash expenditure reflects the share of pension deficit payments allocated to water services.

Unit Cost Information (4D.25-28)

Licensed volume available (abstraction licences)

10 The volume given is the annual quantity we have licensed for public water supply. This does not include licences for the transfer of water between sources, such as river abstraction for the purpose of filling reservoirs.

Volume abstracted (raw water abstraction)

11 The volume given is for water abstracted for the purpose of public water supply, as reported to the Environment Agency as part of the statutory return. This figure does not include volumes transferred between sources.

Volume transported (raw water transport)

12 This figure includes the volume abstracted from satellite sources which are wholly located at sites remote from where treatment takes place.

Average volume stored (raw water storage)

13 Having reviewed the guidance on raw water storage, four minor sites and associated costs that were previously included within water treatment have been re-classified under raw water storage. This includes reservoirs with no natural catchment, no abstraction licence and with storage of less than 15 days.

Distribution Input Volume (water treatment and treated water distribution)

14 The total volume of treated water input to supply.

Population

15 This line is the same as table 4Q.15. Please refer here for relevant commentary.

Table 4E - Wholesale Totex Analysis - Wastewater

Line description	Units	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										
1 Power	£m	6.199	2.807	1.198	24.845	1.447	-	0.550	-	**37.046**
2 Income treated as negative expenditure	£m	(0.141)	(0.063)	(0.027)	(0.946)	-	-	(5.415)	(1.995)	**(8.587)**
3 Discharge consents	£m	0.753	0.337	0.146	5.058	0.093	-	0.080	-	**6.467**
4 Bulk discharge	£m	-	-	-	-	-	-	-	-	**-**
5 Other operating expenditure - renewals expensed in year (Infrastructure)	£m	10.769	4.808	2.080	-	-	-	-	-	**17.657**
6 Other operating expenditure - renewals expensed in year (Non-Infrastructure)	£m	-	-	-	0.206	-	-	-	-	**0.206**
7 Other operating expenditure - excluding renewals	£m	35.889	15.198	6.982	71.878	4.155	22.728	28.366	10.387	**195.583**
8 Local authority rates and Cumulo rates	£m	0.099	0.044	0.019	19.844	1.048	0.070	3.139	0.031	**24.294**
9 **Total operating expenditure excluding third party services**	£m	53.568	23.131	10.398	120.885	6.743	22.798	26.720	8.423	**272.666**
10 Third party services	£m	-	-	-	0.618	-	0.015	0.363	0.040	**1.036**
11 Total operating expenditure	£m	53.568	23.131	10.398	121.503	6.743	22.813	27.083	8.463	**273.702**
B Capital Expenditure										
12 Maintaining the long term capability of the assets - infra	£m	14.612	8.212	2.877	0.084	-	-	-	-	**25.785**
13 Maintaining the long term capability of the assets - non-infra	£m	18.998	10.682	3.742	52.006	2.795	1.074	11.779	3.199	**104.275**
14 Other capital expenditure - infra	£m	19.599	11.014	3.858	-	-	-	-	-	**34.471**
15 Other capital expenditure - non-infra	£m	6.671	3.749	1.314	60.309	3.174	-	3.338	-	**78.555**
16 Infrastructure network reinforcement	£m	14.223	7.994	2.800	-	-	-	-	-	**25.017**
17 Total gross capital expenditure (excluding third party services)	£m	74.103	41.651	14.591	112.399	5.969	1.074	15.117	3.199	**268.103**
18 Third party services	£m	0.010	-	-	6.777	0.356	-	-	-	**7.143**
19 **Total gross capital expenditure**	£m	74.113	41.651	14.591	119.176	6.325	1.074	15.117	3.199	**275.246**
C Grants and contributions										
20 Grants and contributions	£m	(10.651)	(2.054)	(1.497)	-	-	-	-	-	**(14.202)**
21 Totex	£m	117.030	62.728	23.492	240.679	13.068	23.887	42.200	11.662	**534.746**
C Cash Expenditure										
22 Pension deficit recovery payments	£m	1.225	0.334	0.111	2.449	0.111	0.779	0.557	0.334	**5.900**
23 Other cash items	£m	-	-	-	-	-	-	-	-	**-**
24 Totex including cash items	£m	118.255	63.062	23.603	243.128	13.179	24.666	42.757	11.996	540.646

Line description	Units	Network+ Sewage collection			Network + Sewage treatment		Sludge		
		Foul	Surface water drainage	Highway drainage	Sewage treatment and disposal	Imported sludge liquor treatment	Sludge transport	Sludge treatment	Sludge disposal

D Unit cost information (operating expenditure)

25	Volume collected	Ml	495,747.000							
25	Volume collected	Ml		211,305.000						
25	Volume collected	Ml			95,744.000					
25	Biochemical Oxygen Demand (BOD)	Tonnes				152,912.000				
25	Biochemical Oxygen Demand (BOD)	Tonnes					15,291.200			
25	Volume transported	m3						2,687,909.000		
25	Dried solid mass treated	ttds							142.382	
25	Dried solid mass disposed	ttds								99.218
26	Unit cost	£/unit	108.055	109.467	108.602	794.594	440.973	8.487	190,213.651	85,297.023
27	Population	000s	6,007.840	6,007.840	6,007.840	6,007.840	6,007.840	6,007.840	6,007.840	6,007.840
28	Unit cost	£/pop	8.916	3.850	1.731	20.224	1.122	3.797	4.508	1.409

1 Line numbers shown within the table are as per the Ofwat APR spreadsheet.

Change in operating expenditure compared to 2016/17 - regulatory accounts

2 Underlying sewerage services operating expenditure fell by £2.3 million (0.8 per cent) in real terms.

Movement in costs 2016/17 to 2017/18

	Collection £m	Sewage Treatment £m	Sludge £m	Sewerage Total £m
2016/17 reported operating costs	81.1	128.8	54.5	264.4
Atypical power credits in 2016/17	0.5	1.2		1.7
Atypical rates 2106/17		1.1	0.2	1.3
Underlying costs 2016/17	**81.6**	**131.1**	**54.7**	**267.4**
Inflation @ 3.7%	3.0	4.9	2.0	9.9
2016/17 underlying costs indexed to 2017/18 prices	**84.6**	**136.0**	**56.7**	**277.3**
2017/18 reported operating costs	**87.1**	**128.2**	**58.4**	**273.7**
Atypical transactions:				
Legal costs	(0.4)	(0.6)	(0.3)	(1.3)
Closure of defined benefit pension scheme	(0.3)	(0.4)	(0.3)	(1.0)
Power rebate and provision release	0.5	1.2	0.1	1.8

	Collection £m	Sewage Treatment £m	Sludge £m	Sewerage Total £m
Rates provision release		1.6	0.2	1.8
Underlying costs 2017/18	**86.9**	**130.0**	**58.1**	**275.0**
(Increase)/decrease in underlying costs from 2016/17	**(2.3)**	**6.0**	**(1.4)**	**2.3**

Operating expenditure (4E.1-11)

Network+ Collection

3 Total collection costs increased by £2.3 million in real terms. This includes a reduction in network repair activity of c.£10 million offset by an increase in other operating costs of approximately £12 million including employment costs, prosecution fines and the full impact of the transfer of private sewers.

Network+ Sewage treatment

4 The decrease of £6.0 million was largely due to the movement in costs on prosecution fines. 2016/17 saw a relatively high level of accruals, a number of which have been released in 2017/18, resulting in a swing year-on year of c.£4.2 million. The balance consists of a rates rebates of £0.5 million, reduced materials and repairs of £0.5 million plus a number of smaller reductions.

Sludge

5 The increase of £1.4 million includes an increase in power costs of £0.5 million, a reduction of income treated as negative expenditure of £0.4 million in addition to a number of smaller cost changes.

Capital Expenditure (4E.12-19)

6 All of our capital expenditure is delivered through projects where master data is used to identify whether the expenditure is for maintaining the long term capability of assets or other capital assets for both infrastructure and non infrastructure.

7 This master data is also used for the classifying expenditure within the relevant price control. The majority of capital expenditure is directly attributable to price control. Where this is not possible, capital expenditure is assigned to the business unit of principal use with an appropriate recharge of depreciation charges for these shared assets made between price control segments in table 2A.

8 An allocation was required for the foul, surface water drainage and highway drainage split. The allocation was based on flow estimate models provided by Anglian Water's modelling team.

9 An allocation was also required for the sewage treatment and disposal and the imported sludge liquor treatment. This allocation is based on a population equivalent calculation.

Cash Expenditure (4E.22)

10 Cash expenditure reflects the share of pension deficit payments allocated to wastewater services.

Unit Cost Information (Operating Expenditure)

Volume collected - foul, surface water and highways (4E.25)

11 We used hydraulic models covering 100 per cent of our region to assess the relative volumes used in the unit cost analysis. Foul flows are based on population data, including non-residential population. Surface water and highways volumes consider the annual rainfall experienced in our region and use an assessment of surface types such as highways and roofed area to derive volumes.

Biochemical Oxygen Demand (BOD) - sewage treatment and sludge liquor treatment (4E.25)

12 Sewage treatment is total pollution load in tonnes per year discharged into the sewerage system. Based on modelled volumes, we assume BOD on sludge liquor treatment is 10 per cent of reported sewage treatment BOD.

Volume transported - sludge transport (4E.25)

13 Total liquid sludge hauled during the year.

Dried mass solid treated and dried mass solid disposed (4E.25)

14 These figures have been calculated in line with the same methodology that we used to produce data for Table 4R.25 and 4R.29.

Population (4E.27)

15 This line is the same as table 4U.11. Please refer here for relevant commentary.

Table 4F - Operating Cost Analysis - Household Retail

Line description	Household unmeasured				Household measured				Total
	Water only	Waste-water only	Water and waste-water	Total	Water only	Waste-water only	Water and waste-water	Total	
	£m	£m	£m	**£m**	£m	£m	£m	**£m**	**£m**
A Operating expenditure									
1 Customer services	0.499	1.477	1.726	3.702	0.834	2.793	10.008	13.635	**17.337**
2 Debt management	0.152	0.937	2.542	3.631	0.149	0.636	4.970	5.755	**9.386**
3 Doubtful debts	1.441	4.819	1.638	7.898	2.425	6.428	10.702	19.555	**27.453**
4 Meter reading					0.196	0.966	2.127	3.289	**3.289**
5 Other operating expenditure	0.454	1.199	1.841	3.494	0.752	2.680	10.332	13.764	**17.258**
6 **Total operating expenditure excluding third party services**	2.546	8.432	7.747	18.725	4.356	13.503	38.139	55.998	**74.723**
7 Third party services operating expenditure	-	-	-	-	-	-	-	-	**-**
8 Total operating expenditure	2.546	8.432	7.747	18.725	4.356	13.503	38.139	55.998	**74.723**
9 Depreciation - tangible fixed assets (on assets existing at 31 March 2015)	0.014	0.048	0.069	0.131	0.023	0.108	0.368	0.499	**0.630**
10 Depreciation - tangible fixed assets (on assets acquired since 1 April 2015)	0.002	0.006	0.008	0.016	0.003	0.013	0.043	0.059	**0.075**
11 Amortisation - intangible fixed assets (on assets existing at 31 March 2015)	0.002	0.010	0.014	0.026	0.005	0.021	0.073	0.099	**0.125**
12 Amortisation - intangible fixed assets (on assets acquired since 1 April 2015)	0.013	0.043	0.061	0.117	0.021	0.096	0.329	0.446	**0.563**
13 **Total operating costs**	2.577	8.539	7.899	19.015	4.408	13.741	38.952	57.101	**76.116**
14 Capital expenditure	0.127	0.435	0.619	1.181	0.209	0.968	3.309	4.486	**5.667**

B Demand-side efficiency and customer-side leaks analysis - Household

15	Demand-side water efficiency - gross expenditure	**1.533**
16	Demand-side water efficiency - expenditure funded by wholesale	**-**
17	Demand-side water efficiency - net retail expenditure	**1.533**
18	Customer-side leak repairs - gross expenditure	**1.522**
19	Customer-side leak repairs - expenditure funded by wholesale	**-**
20	Customer-side leak repairs - net retail expenditure	**1.522**

Operating expenditure (4F.1-13)

1 Total household retail costs increased by £3.1 million (4.2 per cent) in real terms, with underlying costs up by £2.6 million (3.6 per cent).

2 The bad debt charge is unchanged from the prior year in nominal terms, and shows a reduction of £1.5 million in real terms. Other operating costs have increased due to the general increase in support costs and also the transfer of the non-household business, where previously shared fixed costs are now allocated to household, the latter increasing reported costs by £1.5m compared to the prior year.

Movement in costs 2016/17 to 2017/18

	Total £m
2016/17 reported operating costs	70.4
Inflation @ 3.7%	2.6
2016/17 underlying costs indexed to 2017/18 prices	**73.0**
2017/18 reported operating costs	**76.1**
Atypical costs-legal claims and closure of DB pension scheme	(0.5)
Underlying costs 2017/18	**75.6**
(Increase) / decrease in underlying costs from 2016/17	**(2.6)**

3 Household unmeasured operating costs increased by £1.0 million in real terms, with an increase in general and support costs and £0.5 million real terms reduction in the bad debt charge.

4 Household measured costs increased by £1.6 million in real terms, after a real terms reduction in the bad debt charge of £1.0 million.

Capital expenditure (4F.14)

5 Household retail capital expenditure was £5.7 million, primarily for the introduction of new and enhanced information services software used within the retail business.

Table 4G - Wholesale Current Cost Financial Performance

	Line description	Water £m	Wastewater £m	Total £m
1	Revenue	465.360	672.618	**1,137.978**
2	Operating expenditure	(225.526)	(273.702)	**(499.228)**
3	Capital maintenance charges	(140.109)	(275.179)	**(415.288)**
4	Other operating income	0.226	3.908	**4.134**
5	Current cost operating profit	99.951	127.645	**227.596**
6	Other income	10.600	10.221	**20.821**
7	Interest income	74.943	118.348	**193.291**
8	Interest expense	(139.197)	(219.813)	**(359.010)**
9	Other interest expense	(0.713)	(1.125)	**(1.838)**
10	Current cost profit before tax and fair value movements	45.584	35.276	**80.860**
11	Fair value gains/(losses) on financial instruments	45.596	72.004	**117.600**
12	Current cost profit before tax	91.180	107.280	**198.460**

1 All commentary relates to the appointed business unless otherwise stated.

Capital maintenance charges (4G.3)

2 The capital maintenance charges comprise 2016/2017 current cost depreciation (CCD) indexed by RPI to 2017/18, plus the change in historical cost depreciation for wholesale non infrastructure assets in the year, plus a notional Infrastructure Renewals Charge (IRC). The IRC is based on the average forecast level of capitalised infrastructure renewals expenditure over the AMP period. A detailed breakdown is shown below:

Line Description	Water £m	Wastewater £m	Total £m	Notes
Prior year current cost depreciation	109.560	240.233	349.793	Bought forward from 2016/17
Retail Price index inflation at 3.742 per cent	4.100	8.990	13.090	Per Office of National Statistics published financial year 2017/18 RPI figure
Change in historical cost depreciation 2017/18	3.619	8.623	12.242	Wholesale non-infra depreciation movement 2016/17 to 2017/18
	117.279	257.847	375.125	
Notional infrastructure renewals charge on non-expensed infrastructure renewals expenditure	22.831	17.332	40.163	Average capital maintenance infrastructure spend for AMP 6. Figures are actuals for years 1-3 and forecast for years 4-5
	140.109	275.179	415.288	

Other income (4G.6)

3 Other income comprises £4.7 million in relation to the sale of the non-household retail business on 1 April 2017 and £16.1 million for the amortisation of developer contributions received new housing developments. This has been allocated between water and wastewater on the basis of the 2016/17 closing RCV.

Interest and fair value movements (4G.7 - 4G.9 / 4G.11)

4 Interest and fair value movements are allocated between water and wastewater on the basis of closing RCV.

Table 4H - Financial Metrics

	Line description	Units	Metric
A	**Financial indicators**		
1	Net debt	£m	6,064.835
2	Regulated equity	£m	1,657.375
3	Regulated gearing	%	78.5%
4	Post tax return on regulated equity	%	9.2%
5	RORE (return on regulated equity)	%	7.3%
6	Dividend yield	%	8.5%
7	Retail profit margin - Household	%	1.5%
8	Retail profit margin - Non household	%	0.0%
9	Credit rating	Text	Baa1
10	Return on RCV	%	4.2%
11	Dividend cover	dec	2.0
12	Funds from operations (FFO)	£m	602.509
13	Interest cover (cash)	dec	27.3
14	Adjusted interest cover (cash)	dec	14.0
15	FFO/Debt	dec	0.1
16	Effective tax rate	%	14.1%
17	RCF	£m	(1,333.882)
18	RCF/capex	dec	(3.010)
B	**Revenue and earnings**		
19	Revenue (actual)	£m	1,216.418
20	EBITDA (actual)	£m	642.467
C	**Borrowings**		
21	Proportion of borrowings which are fixed rate	%	35.3%
22	Proportion of borrowings which are floating rate	%	6.4%
23	Proportion of borrowings which are index linked	%	58.2%
24	Proportion of borrowings due within 1 year or less	%	1.7%
25	Proportion of borrowings due in more than 1 year but no more than 2 years	%	3.3%
26	Proportion of borrowings due in more than 2 years but but no more than 5 years	%	18.3%
27	Proportion of borrowings due in more than 5 years but no more than 20 years	%	58.5%
28	Proportion of borrowings due in more than 20 years	%	18.1%

Exclusion of inter-company dividends and interest

1 The ratios used in section A 'Financial indicators' of table 4H do not accurately measure performance as they exaggerate both underlying income and underlying dividends by including certain internal transactions which overall net to nil. These transactions are not part of the metrics used by external stakeholders, such as the rating agencies and bondholders, and in the calculations used in the Final Determination as they significantly distort the real underlying performance of the business.

2 Therefore, in order to calculate more accurate and meaningful metrics, relevant to stakeholders, it is important to exclude these internal transactions which comprise internal interest income of £191.8 million and a corresponding internal dividend of £191.8 million payable by the company to Anglian Water Services Holdings Limited, a parent undertaking, in order to service this internal interest. This gives a net nil cash position. In addition to the amounts of £191.8 million included within the income statement, a prior year committed dividend of £0.5 million was paid in April 2017; the cash figure is therefore £192.3 million. The internal transactions also comprise a non-recurring internal dividend of £1,602.6 million used to settle the internal loan of £1,602.6 million thereby ensuring that these internal transactions will not occur in future years.

3 The table below shows the relevant underlying ratios in the column headed 'Underlying metric'. These underlying ratios are reconciled through the adjustment columns to the metrics within the 'Financial indicators' section of table 4H on page 117. Where applicable, the commentary on the following pages is in relation to the underlying metric.

Reconciliation of table 4H to the underlying metric

	Line description	Units	4H Metric	Adjustments			Underlying metric
				Round trip interest	Round trip dividend	Loan dividend	
A	**Financial indicators**						
1	Net debt	£m	6,064.835				6,064.835
2	Regulated equity	£m	1,657.375				1,657.375
3	Regulated gearing	%	78.5%				78.5%
4	Post tax return on regulated equity	%	9.2%	-12.0%	-	-	-2.8%
5	RORE (return on regulated equity)	%	7.3%				7.3%
6	Dividend yield	%	8.5%				8.5%
7	Retail profit margin - Household	%	1.5%				1.5%
8	Retail profit margin - Non household	%	0.0%				0.0%
9	Credit rating	Text	Baa1				Baa1
10	Return on RCV	%	4.2%				4.2%
11	Dividend cover	dec	2.0	(1.356)	-	-	0.6
12	Funds from operations (FFO)	£m	602.509	(192.313)	-	-	410.196
13	Interest cover (cash)	dec	27.3	(24.370)	-	-	2.9
14	Adjusted interest cover (cash)	dec	14.0	(12.490)	-	-	1.5
15	FFO/Debt	dec	0.1	(0.0)	-	-	0.1
16	Effective tax rate	%	14.1%				14.1%
17	RCF	£m	(1,333.882)	(192.313)	192.313	1,602.610	268.728
18	RCF/capex	dec	(3.0)	(0.4)	0.4	3.6	0.6

The ratios impacted by the removal of the internal transactions, discussed in paragraphs 1-3, are highlighted in purple.

Net debt (4H.1)

4 The principal difference between statutory and regulatory net debt is that Ofwat's definition of regulatory net debt excludes accrued interest (£77.4 million) and fair value adjustments (£122.0 million). A full reconciliation between statutory and regulatory borrowings can be found in table 1E.

Regulated equity (4H.2)

5 Compared with prior year regulated equity has increased by £113.8 million to £1,657.4 million. This reflects the increase in RCV over the year and the slightly lower increase in last year's net debt.

Regulated gearing (4H.3)

6 Regulated gearing represents net debt per table 1E divided by year-end RCV. It has decreased from 79.1 per cent at 31 March 2017 to 78.5 per cent at 31 March 2018, primarily due to the increase in RCV of £346.0 million, more than offsetting the increase in net debt of £232.4 million, as a consequence of our deleveraging objectives.

Post tax return on regulated equity (4H.4)

7 This represents profit/(loss) after current tax excluding fair value movements. The loss for 2017/18 was 2.8 per cent compared with 1.6 per cent in 2016/17. This increase is due principally to the loss after current tax (excluding fair value gains and the round trip interest received from AWSH) being £44.4 million for 2017/18 compared with a loss of £21.5 million in the prior year. A reconciliation to table 1A can be seen in the table below.

Line Description	2018 £m	2017 £m
Profit before tax and fair value movements	**189.824**	270.700
UK corporation tax	**(42.404)**	(99.900)
Round trip interest	**(191.786)**	(192.313)
Loss after current tax (excluding fair value movements and round trip interest)	**(44.366)**	(21.513)

RORE (4H.5)

8 RORE calculates the returns on a regulatory basis by reference to the notional gearing level of 62.5 per cent and average RCV for the year. The base RORE of 5.6 per cent set at the Final Determination is adjusted for the following factors net of any tax impact:

1. the company share of totex out or underperformance.

2. the company share of any out or underperformance on retail costs.

3. the impact of any ODI or SIM penalties or rewards earned in the year, even if they are not payable/receivable until the following AMP.

4. the difference between the actual interest charge (in real terms) and the allowed interest (real) on notional debt.

9 We have calculated RORE for the three years to March 2018 as 7.3 per cent (2017/18: 7.9 per cent), compared with base RORE of 5.6 per cent.

10 The movements between base and actual RORE are shown in note 8 in the notes to the Annual Performance Report.

Dividend yield (4H.6)

11 The dividend used to calculate the dividend yield is the Anglian Water Services Limited (AWSL) total appointee dividend for the year less internal dividends not available for distribution to shareholders. These internal dividends are those paid to the parent company within the ring-fence, Anglian Water Services Holdings Limited (AWSH), solely to enable AWSH to pay interest on the inter-company loan back to AWSL. In addition and as previously stated, an internal dividend of £1,602.6 million was paid to AWSH in order for AWSH to settle the inter-company loan from AWSL. As the flow of this loan settlement is consistent with the round-trip interest, that is, the funds flowed back to AWSL on the same day as it paid the dividend to AWSH to settle the loan, we have also excluded this dividend from the calculation.

12 The underlying dividend yield for the year was 4.8 per cent compared with 7.9 per cent in the previous year, this is due to the lower appointee dividend paid in the year (£79.3 million compared with £121.6 million in the prior year) and higher regulated equity (£1,657.4 million at 31 March 2018 compared with £1,543.6 million at 31 March 2017). The underlying dividend yield of 4.8 per cent excludes the internal dividend paid to fund the sale of the non-household retail business disclosed in table 1A, of £62.2 million, which was not available for distribution to investors in the ultimate parent company. Excluding this internal dividend is consistent with the treatment in table 1F 'Financial Flows', as instructed by the Financial Flows team at Ofwat. The effect of including this dividend, as represented in the table above, is to increase the dividend yield to 8.5 per cent.

Retail profit margin - household and non-household (4H.7 / 4H.8)

13 Both lines 7 and 8 are Ofwat calculated cells.

14 The retail profit margins are calculated as earnings before interest and tax (after deducting wholesale charges) divided by total revenue charged to household or non-household customers respectively. Household has decreased slightly from 1.7 per cent in the prior year to 1.5 per cent in 2017/18.

15 Non-household retail margin in 2017/18 was 0.0 per cent compared with 1.7 per cent in the previous year as a result of the transfer of the non-household retail business in 2017/18 and our exit from the non-household retail market.

Return on RCV (4H.10)

16 Return on RCV for the year was 4.2 per cent compared with 3.8 per cent for the prior year. The increase is consistent with the increase in profit before interest but after current tax compared with the prior year, partially offset by the increase in average RCV.

Dividend cover (4H.11)

17 Dividend cover has increased from 0.01 last year to 0.6 this year. The primary reason for the increase is the fair value gain on derivatives in the current year of £117.6 million (2017: loss of £116.0 million) as stated in table 1A.

Funds from operations (4H.12)

18 The funds from operations (FFO) metric excludes internal interest receivable from AWSH of £192.3 million (2017: £192.3 million) in order to avoid overstating FFO.

19 FFO is net cash generated from operating activities adjusted to remove the changes in working capital. Ofwat acknowledge that their approach to calculating this differs from some of the methodologies applied by the credit rating agencies.

20 FFO for the year was £410.2 million compared with £389.2 million for the prior year. The increase is due principally to the reduction in net interest payments in the year.

Interest cover (cash) (4H.13)

21 Interest cover (cash) equal to FFO as calculated above plus interest paid on borrowings as a percentage of interest paid on borrowings. Interest paid on borrowings excludes any accretion of interest linked debt which is a non cash item.

22 The interest cover ratio for the year was 2.9 compared with 2.7 for the prior year. This increase is a result of the lower interest paid in the year, as described above.

Adjusted interest cover (cash) (4H.14)

23 Adjusted interest cover (cash) adjusts for regulatory depreciation of £304.9 million (2017: 287.9 million) as published by Ofwat.

24 The cover ratio for the year was 1.5 compared with 1.4 for the prior year. This increase is a result of the lower interest paid in the year, as described above, largely offset by an increased regulatory depreciation charge in the year.

FFO/debt (4H.15)

25 The ratio for 2017/18 is 0.1 compared with 0.1 for the prior year. This reflects the increased FFO, offset by the increased net debt in the current year.

26 As noted above, Ofwat acknowledges that its approach to calculating FFO/debt differs from some of the methodologies applied by the credit rating agencies.

Effective tax rate (4H.16)

27 Effective tax rate is the current tax charge for the appointed business as a percentage of the profit before tax and fair value movements for the appointed business.

28 The rate for 2017/18 was 14.1 per cent compared with 38.7 per cent in the prior year. This decrease is largely as a result of adjustments in 2016/17 in respect of prior periods which reflects an over-prudent view taken in previous years. No capital allowance claims have been made, reflecting our current programme of disclaiming all capital allowances in order to utilise Surplus Advanced Corporation Tax (ACT) held on the balance sheet. The Surplus ACT is expected to be fully utilised by March 2019. The following table outlines the movements in the current tax charge:

	2017/18 £m	2016/17 £m
Profit before tax per the Annual Performance Report (A)	307.4	154.6
Corporation tax charged at 19% (2016-17: 20%)	58.4	54.1
Depreciation and amortisation	47.1	47.5
Capital allowances	-	-
Items not taxable	(1.6)	(0.4)
Items not deductible for tax purposes	2.1	2.0
Short-term timing differences	(4.1)	(4.9)
Fair value gains/losses on financial instruments (not deductible)	(22.3)	23.2
Group relief utilised	(36.4)	(38.5)
Current tax charge for the year before adjustments in respect of previous years (B)	43.2	59.8
Adjustments in respect of previous years	(0.8)	40.1
Current tax charge for the year after adjustments in respect of previous years	42.4	99.9
Effective tax rate (B/A)	14.1%	38.7%

Regulated free cash flow (4H.17)

29 Regulated free cash flow (RCF) is calculated as FFO less dividends paid. As described above, FFO excludes internal interest received from AWSH of £192.3 million (2017: £192.3 million), an equal internal dividend is paid by the Company in order for AWSH to service this interest, as such the internal dividend has also been excluded from the calculation. In addition, the internal dividend disclosed in the dividend yield note of £1,602.6 million was also excluded from the calculation as there was no cash flow impact to the Company, as the funds flowed back to AWSL on the same day as it paid the internal dividend to AWSH to settle the loan.

30 Free cash flow for the year was £268.7 million compared with £267.4 million for the prior year. The increase reflects the increase in FFO referred to above, partially offset by the one off internal dividend of £62.2 million paid to fund the transfer of the non-household retail business.

RCF/capex (4H.18)

31 The ratio for the year was 0.6 compared with the prior year of 0.8. This is consistent with higher RCF being more than offset by increased capital expenditure in the year.

Revenue and EBITDA (4H.19 / 4H.20)

32 EBITDA (earnings before interest tax depreciation and amortisation) is calculated using the price control revenue as set out in table 4H and the associated costs. It includes only amounts which are relevant to the price control.

33 Both revenue and EBITDA are higher than last year due to the increased customer tariffs partially offset by increased opex as explained in the commentaries for tables 1A and 2A.

Borrowings (4H.21 - 4H.28)

34 The Group’s policy for the management of interest rate risk is to achieve a balanced mix of funding at inflation, fixed and floating rates of interest. To guard against the adverse movements in interest rates having a detrimental impact on the business and to enable covenanted obligations and credit ratings to be met, the overall underlying debt portfolio is maintained between 30 per cent and 60 per cent for fixed rate debt, between 30 per cent and 55 per cent for inflation-linked debt, and between 5 per cent and 15 per cent for floating rate debt. Percentages are measured against the Group's RCV. Within these hedging levels, the Group endeavours to obtain the finest rates (lowest borrowing and finest depositing rates) consistent with ensuring that the relevant treasury objectives are met in full, i.e. the provision of adequate finance for Anglian Water Services Group at all times and maintaining security of principal. Derivatives are used to ensure the targeted interest rate profile is achieved.

35 The proportion of borrowings split between fixed, floating and inflation-linked remain broadly in line with the prior year which reflects the continuation of the business' funding policy detailed above.

36 The maturity profile in the medium to long term has remained broadly consistent with the borrowings managed to access a diversified investor group and to avoid significant concentrations of refinancing. No more than 20 per cent of the Group's refinancing requirement will fall due in any 24 month period and no more than 40 per cent within any 5 year period.

37 The reduction in amounts due in one year or less is due to the natural timing of debt maturities.

Table 4I - Financial Derivatives

	Line description	Nominal value by maturity (net)			Total value at 31 March 2018		Total accretion at 31 March 2018	Interest rate (weighted average for 12 months to 31 March 2018)	
		1 to 2 years	2 to 5 years	Over 5 years	Nominal value (net)	Mark to Market		Payable	Receivable
		£m	£m	£m	£m	£m	£m	%	%
	Derivative type								
A	**Interest rate swap (sterling)**								
1	Floating to fixed rate	-	475.964	1,002.600	1,478.564	(334.724)	**-**	4.18%	1.12%
2	Floating from fixed rate	-	186.700	970.000	1,156.700	54.474	**-**	0.77%	2.30%
3	Floating to index linked	-	-	565.931	565.931	(538.609)	**(35.120)**	2.62%	1.12%
4	Floating from index linked	-	-	-	-	-	**-**	-	-
5	Fixed to index-linked	-	-	-	-	-	**-**	-	-
6	Fixed from index-linked	-	-	-	-	-	**-**	-	-
7	**Total**	-	662.664	2,538.531	3,201.195	(818.859)	**(35.120)**		
B	**Foreign Exchange**								
8	Cross currency swap USD	-	-	-	-	-	**-**	-	-
9	Cross currency swap EUR	-	-	-	-	-	**-**	-	-
10	Cross currency swap YEN	-	-	-	-	-	**-**	-	-
11	Cross currency swap Other	-	-	-	-	-	**-**	-	-
12	**Total**	-	-	-	-	-	**-**		
C	**Currency interest rate**								
13	Currency interest rate swaps USD	-	389.822	315.023	704.845	67.844	**-**	3.26%	4.58%
14	Currency interest rate swaps EUR	-	-	-	-	-	**-**	-	-
15	Currency interest rate swaps YEN	91.012	-	-	91.012	47.279	**-**	1.52%	3.01%
16	Currency interest rate swaps Other	-	-	-	-	-	**-**	-	-
17	**Total**	91.012	389.822	315.023	795.857	115.123	**-**		
D	**Forward currency contracts**								
18	Forward currency contracts USD	-	-	-	-	-	**-**	-	-
19	Forward currency contracts EUR	-	-	-	-	-	**-**	-	-
20	Forward currency contracts YEN	-	-	-	-	-	**-**	-	-
21	Forward currency contracts Other	-	-	-	-	-	**-**	-	-
22	**Total**	-	-	-	-	-	**-**		
E	**Other financial derivatives**								
23	Other financial derivatives	36.723	57.153	319.040	412.916	(37.174)	**-**	3.64%	2.56%
F	**Total**								
24	Total financial derivatives	127.735	1,109.639	3,172.594	4,409.968	(740.910)	**(35.120)**		

1 The nominal value is the face value of the financial instruments, these instruments are marked to market at the end of each reporting period and reported in the balance sheet at their fair value. The total of financial instruments in table 1C of £740.9 million agrees to the table due to the inclusion of £9.1 million of energy hedges which relate to the risk management of the businesses operating costs. Whilst this does not strictly relate to financing obligations, the positions have been included based on the RAG guidance document which stipulates power as an example of other financial derivatives.

Floating to fixed rate (4I.1)

2 Anglian Water has a number of interest rate derivatives. We pre-hedged our AMP6 debt requirements recognising concerns that interest rates would increase significantly over the AMP. A number of these positions remain forward starting as the AMP progresses. For the purposes of including the rates applicable to these derivatives in the weighted average interest rate calculations, the contracted forward fixed rate has been included for the fixed rate legs and the contracted forward margin plus the market libor rate as at 31 March 2018 for the floating rate legs. In comparison to the prior year new derivatives were executed in relation to the restricting of the RPI swaps and the nominal value has increased to reflect this.

3 The weighted average interest payable has fallen marginally due to the lower fixed pay rate achieved on the new positions in the year with the impact mitigated by the relatively small notionals involved. Weighted average interest receivable has increased due to the increased libor assumptions which have risen c.30 basis points for the most common 6 month rate in this trade grouping.

Floating from fixed rate (4I.2)

4 The increase in floating from fixed rate derivative positions is principally driven by the swaps transacted on the £250 million green bond which was traded in July 2017 which was fully swapped to a floating rate and the entry into an additional £17.9 million pay float receive fixed interest rate swap to close out the forward starting pre-hedge position associated with this refinancing. This was offset by the maturity of the £75.0 million pay float receive fixed interest rate swap associated with the maturity of the £150.0 million class B debt which matured in October 2017.

5 Weighted average interest rates payable have increased in line with the increase in underlying libor rates. This impact is more moderate in the category due to the higher weighting of 3 month libor linked deals where the rate increase has been more moderate c.25 basis points (bps). The reduction in the weighted average received fixed rate interest rate is due to the newly transacted pay floating receive fixed interest rate swaps associated with the green bond transaction where the received fix legs had a weighted average interest rate of c.1.1 per cent.

Floating to index linked (4I.3)

6 There has been no significant change in the floating to index linked notional in the current year although Anglian Water has reduced its long term exposure to RPI rates by restructuring 3 long dated RPI swaps to provide for 10 yearly paydowns. This restructuring resulted in £73.9 million of accreted indexation being paid down in the current financial year resulting in the reduction in the accretion position year on year and subsequently lower RPI linked coupons on an ongoing basis but does not alter the notional of the deals.

7 Weighted average interest rates payable for RPI linked debt have increased marginally by 27bps. This increase is the net impact of a significant increase in the RPI rate year on year of c.80bps based on trade resets, offset by the benefit obtained from the restructuring of the three RPI linked positions whereby Anglian Water negotiated a lower real coupon on the deals. The increase in the weighted average receive position reflects the increase in 3 and 6 month libors as noted in the commentaries above.

Currency interest rate swaps USD / YEN (4I.13 / 4I.15)

8 Our USD and YEN portfolio of swaps have not changed since the prior year apart from the natural movement in maturity classification.

Other financial derivatives (4I.23)

9 Other financial derivatives includes electricity hedges and fixed to fixed interest rate swaps. The rates quoted are the fixed rates on the swaps.The receivable rate on other interest rate derivatives has moved due to the timing of pre-issuance hedges locking in where the prior year did not include a full year.

Assumptions:

10 For forward starting derivatives the LIBOR rate as at 31 March 2018 has been used for calculations.

11 The Group holds derivative financial instruments which contain more than 2 legs (i.e. multiple pay and receive legs). In legal terms these form a single contract but these have been split to reflect the relevant risks implied. Where the risks could be consolidated (i.e. pay RPI receive floating) this has been done to best reflect the net impact of the instruments.

12 The Mark to Market position is the full fair value of the positions with the total accretion column representing the accretion component of this full amount.

Table 4J - Atypical Expenditure - Wholesale Water

Line description	Water resources		Network+				Total
	Abstraction licences	Raw water abstraction	Raw water transport	Raw water storage	Water treatment	Treated water distribution	
	£m	£m	£m	£m	£m	£m	£m
A Operating expenditure (excl. atypicals)							
1 Power	-	7.787	4.210	0.196	7.308	14.175	**33.676**
2 Income treated as negative expenditure	-	(0.161)	(0.124)	-	(0.252)	(0.564)	**(1.101)**
3 Abstraction charges/ discharge consents	10.035	-	-	-	0.474	-	**10.509**
4 Bulk supply	-	-	-	-	1.627	-	**1.627**
5 Other operating expenditure							
6 - Renewals expensed in year (Infrastructure)	-	-	-	-	-	26.736	**26.736**
7 - Renewals expensed in year (Non-Infrastructure)	-	-	-	-	-	-	**-**
8 - Other operating expenditure excluding renewals	-	13.613	2.794	0.034	25.979	60.529	**102.949**
9 Local authority and Cumulo rates	-	3.112	0.588	-	6.678	31.557	**41.935**
10 Total operating expenditure (excluding third party services)	10.035	24.351	7.468	0.230	41.814	132.433	**216.331**
10 Third party services	0.553	0.863	2.005	-	1.803	3.142	**8.366**
11 Total operating expenditure	10.588	25.214	9.473	0.230	43.617	135.575	**224.697**
B Capital expenditure (excl. atypicals)							
12 Maintaining the long term capability of the assets - infra	-	0.507	0.084	-	-	35.099	**35.690**
13 Maintaining the long term capability of the assets - non-infra	-	5.909	0.884	0.413	28.821	27.607	**63.634**
14 Other capital expenditure - infra	-	0.476	0.937	-	-	29.686	**31.099**
15 Other capital expenditure - non-infra	-	4.262	0.518	-	25.055	7.023	**36.858**
16 Infrastructure network reinforcement	-	-	-	-	-	11.642	**11.642**
17 Total gross capital expenditure excluding third party services	-	11.154	2.423	0.413	53.876	111.057	**178.923**
18 Third party services	-	0.069	(0.006)	-	0.964	(0.012)	**1.015**
19 Total gross capital expenditure	-	11.223	2.417	0.413	54.840	111.045	**179.938**
20 Grants and contributions	-	-	-	-	-	21.529	**21.529**
21 Totex	10.588	36.437	11.890	0.643	98.457	225.091	**383.106**
C Cash expenditure (excl. atypicals)							
22 Pension deficit recovery payments	-	0.411	-	-	1.335	2.054	**3.800**
23 Other cash items	-	-	-	-	-	-	**-**
24 Totex including cash items	10.588	36.848	11.890	0.643	99.792	227.145	**386.906**

	Line description	Water resources		Network+				Total
		Abstraction licences	Raw water abstraction	Raw water transport	Raw water storage	Water treatment	Treated water distribution	
		£m	£m	£m	£m	£m	£m	£m
D	**Atypical expenditure**							
25	Legal claims	-	0.117	0.044	-	0.214	0.629	**1.004**
26	DB pension closure costs	-	0.071	0.009	-	0.200	0.352	**0.632**
27	Power cost rebate and provision release	-	(0.187)	(0.104)	-	(0.176)	(0.340)	**(0.807)**
35	Total atypical expenditure	-	0.001	(0.051)	-	0.238	0.641	**0.829**
E	**Total expenditure**							
36	Total expenditure	10.588	36.849	11.839	0.643	100.030	227.786	**387.735**

1 Lines 28 to 34 were additional lines available for companies to use if required. As we have not used these lines they have not been included in the above table.

Block A Operating expenditure (4J.1-11)

2 Please refer to our commentary covering table 4D for an explanation of operating expenditure.

Block B Capital expenditure (4J.12-21)

3 Anglian Water has no atypical capital expenditure in 2017/18.

Block C Cash expenditure (4J.22-24)

4 Please refer to our commentary covering table 4D for an explanation of cash expenditure.

Block D Atypical expenditure (4J.25-35)

5 Legal Claims - we incurred an unusually large legal claim during the year, outside the normal level experienced.

6 Defined benefit pension closure costs - our defined benefit pension scheme closed to future accrual at 31 March 2018 and as a result a series of one-off costs were incurred during the year.

7 Power cost rebate and provision release - during the year we received a rebate in relation to prior year over-charging and also released some provisions that were no longer required.

Table 4K - Atypical Expenditure - Wholesale Wastewater

	Line description	Network+ Sewage Collection			Network+ Sewage Treatment		Sludge			Total
		Foul	Surface water drainage	Highway drainage	Sewage treatment and disposal	Sludge liquor treatment	Sludge transport	Sludge treatment	Sludge disposal	
		£m	£m	£m	£m	£m	£m	£m	£m	£m
A	**Operating expenditure (excl. atypicals)**									
1	Power	6.480	2.934	1.252	25.972	1.513	-	0.575	-	38.726
2	Income treated as negative expenditure	(0.141)	(0.063)	(0.027)	(0.946)	-	-	(5.415)	(1.995)	(8.587)
3	Discharge Consents	0.753	0.337	0.146	5.058	0.093	-	0.080	-	6.467
4	Bulk discharge	-	-	-	-	-	-	-	-	-
	Other operating expenditure									
5	- Renewals expensed in year (Infrastructure)	10.769	4.808	2.080	-	-	-	-	-	17.657
6	- Renewals expensed in year (Non-Infrastructure)	-	-	-	0.206	-	-	-	-	0.206
7	- Other operating expenditure excluding renewals	35.406	15.008	6.899	70.931	4.103	22.493	28.133	10.291	193.264
8	Local authority and Cumulo rates	0.106	0.047	0.020	21.345	1.127	0.075	3.376	0.033	26.129
9	Total operating expenditure (excluding third party services)	53.373	23.071	10.370	122.566	6.836	22.568	26.749	8.329	273.862
10	Third party services	-	-	-	0.618	-	0.015	0.363	0.040	1.036
11	Total operating expenditure	53.373	23.071	10.370	123.184	6.836	22.583	27.112	8.369	274.898
B	**Capital expenditure (excl. atypicals)**									
12	Maintaining the long term capability of the assets - infra	14.612	8.212	2.877	0.084	-	-	-	-	25.785
13	Maintaining the long term capability of the assets - non-infra	18.998	10.682	3.742	52.006	2.795	1.074	11.779	3.199	104.275
14	Other capital expenditure - infra	19.599	11.014	3.858	-	-	-	-	-	34.471
15	Other capital expenditure - non-infra	6.671	3.749	1.314	60.309	3.174	-	3.338	-	78.555
16	Infrastructure network reinforcement	14.223	7.994	2.800	-	-	-	-	-	25.017
17	Total gross capital expenditure excluding third party services	74.103	41.651	14.591	112.399	5.969	1.074	15.117	3.199	268.103
18	Third party services	0.010	-	-	6.777	0.356	-	-	-	7.143
19	Total gross capital expenditure	74.113	41.651	14.591	119.176	6.325	1.074	15.117	3.199	275.246
20	Grants and contributions	10.651	2.054	1.497	-	-	-	-	-	14.202
21	Totex	116.835	62.668	23.464	242.360	13.161	23.657	42.229	11.568	535.942
C	**Cash expenditure (excl. atypicals)**									
22	Pension deficit recovery payments	1.225	0.334	0.111	2.449	0.111	0.779	0.557	0.334	5.900
23	Other cash items	-	-	-	-	-	-	-	-	-
24	Totex including cash items	118.060	63.002	23.575	244.809	13.272	24.436	42.786	11.902	541.842

	Line description	Network+ Sewage Collection			Network+ Sewage Treatment		Sludge			Total
		Foul	Surface water drainage	Highway drainage	Sewage treatment and disposal	Sludge liquor treatment	Sludge transport	Sludge treatment	Sludge disposal	
		£m	£m	£m	£m	£m	£m	£m	£m	£m
D	**Atypical expenditure**									
25	Legal claims	0.250	0.108	0.048	0.566	0.031	0.106	0.126	0.039	1.274
26	DB pension closure costs	0.233	0.082	0.035	0.381	0.021	0.129	0.107	0.057	1.045
27	Power cost rebate and provision release	(0.281)	(0.127)	(0.054)	(1.127)	(0.066)	-	(0.025)	-	(1.680)
28	Rates provision release	(0.007)	(0.003)	(0.001)	(1.501)	(0.079)	(0.005)	(0.237)	(0.002)	(1.835)
35	Total atypical expenditure	0.195	0.060	0.028	(1.681)	(0.093)	0.230	(0.029)	0.094	(1.196)
E	**Total expenditure**									
36	Total expenditure	118.255	63.062	23.603	243.128	13.179	24.666	42.757	11.996	540.646

1 Lines 29 to 34 were additional lines available for companies to use if required. As we have not used these lines they have not been included in the above table.

Block A Operating expenditure (4K.1-11)

2 Please refer to our commentary covering table 4E for an explanation of operating expenditure.

Block B Capital expenditure (4K.12-21)

3 Anglian Water has no atypical capital expenditure in 2017/18.

Block C Cash expenditure (4K.22-24)

4 Please refer to our commentary covering table 4E for an explanation of cash expenditure.

Block D Atypical expenditure (4K.25-35)

5 Legal Claims - we incurred an unusually large legal claim during the year, outside the normal level experienced.

6 Defined benefit pension closure costs - our defined benefit pension scheme closed to future accrual at 31 March 2018 and as a result a series of one-off costs were incurred during the year.

7 Power cost rebate an provision release - during the year we received a rebate in relation to prior year over-charging and also released some provisions that were no longer required.

8 Rates provision release - we were able to release a provision relating to the pre-2017 revaluation that was no longer required.

Table 4L - Enhancement Capital Expenditure - Wholesale Water

Line description	Expenditure in report year							Cumulative expenditure on schemes completed in the report year						
	Water resources		Network+				Total	Water resources		Network+				Total
	Abstraction licences	Raw water abstraction	Raw water transport	Raw water storage	Water treatment	Treated water distribution		Abstraction licences	Raw water abstraction	Raw water transport	Raw water storage	Water treatment	Treated water distribution	
	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m
A	**Enhancement expenditure by purpose**													
1	NEP - Making ecological improvements at abstractions (Habitats Directive, SSSI, NERC, BAPs)	-	0.066	0.138	-	-	-	**0.204**	-	-	-	-	-	-	**-**
2	NEP - Eels Regulations (measures at intakes)	-	1.780	-	-	-	-	**1.780**	-	1.736	-	-	-	-	**1.736**
3	Addressing low pressure	-	-	-	-	-	1.210	**1.210**	-	-	-	-	-	1.506	**1.506**
4	Improving taste / odour / colour	-	-	-	-	(0.005)	-	**(0.005)**	-	-	-	-	-	-	**-**
5	Meeting lead standards	-	-	-	-	0.043	1.045	**1.088**	-	-	-	-	0.191	1.086	**1.277**
6	Supply side enhancements to the supply/demand balance (dry year critical / peak conditions)	-	-	-	-	-	-	**-**	-	-	-	-	-	-	**-**
7	Supply side enhancements to the supply/demand balance (dry year annual average conditions)	-	2.403	0.999	-	9.966	-	**13.368**	-	1.868	1.011	-	-	-	**2.879**
8	Demand side enhancements to the supply/demand balance (dry year critical / peak conditions)	-	-	-	-	-	-	**-**	-	-	-	-	-	-	**-**
9	Demand side enhancements to the supply/demand balance (dry year annual average conditions)	-	-	-	-	-	6.609	**6.609**	-	-	-	-	-	5.399	**5.399**
10	New developments	-	-	-	-	-	20.659	**20.659**	-	-	-	-	-	22.114	**22.114**
11	New connections element of new development (CPs, meters)	-	-	-	-	-	11.169	**11.169**	-	-	-	-	-	11.607	**11.607**
12	Investment to address raw water deterioration (THM, nitrates, Crypto, pesticides, others)	-	-	0.094	-	8.120	-	**8.214**	-	-	-	-	10.266	-	**10.266**
13	Resilience	-	0.086	0.219	-	4.531	2.027	**6.863**	-	0.077	-	-	1.549	1.649	**3.275**
14	SEMD	-	0.418	-	-	2.144	0.717	**3.279**	-	0.322	-	-	1.449	0.519	**2.290**
15	NEP - Investigations	-	-	-	-	0.256	-	**0.256**	-	-	-	-	-	-	**-**
16	Improvements to river flows	-	-	-	-	-	-	**-**	-	-	-	-	-	-	**-**

	Line description	Expenditure in report year							Cumulative expenditure on schemes completed in the report year						
		Water resources		Network+				Total	Water resources		Network+				Total
		Abstraction licences	Raw water abstraction	Raw water transport	Raw water storage	Water treatment	Treated water distribution		Abstraction licences	Raw water abstraction	Raw water transport	Raw water storage	Water treatment	Treated water distribution	
		£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m
A	**Enhancement expenditure by purpose**														
17	Metering (excluding cost of providing metering to new service connections) - meters requested by optants	-	-	-	-	-	2.043	**2.043**	-	-	-	-	-	1.962	**1.962**
18	Metering (excluding cost of providing metering to new service connections)- meters introduced by companies	-	-	-	-	-	2.440	**2.440**	-	-	-	-	-	2.344	**2.344**
19	Metering (excluding cost of providing metering to new service connections) - other	-	-	-	-	-	0.432	**0.432**	-	-	-	-	-	0.415	**0.415**
35	**Total enhancement capital expenditure**	**-**	**4.753**	**1.450**	**-**	**25.055**	**48.351**	**79.609**	**-**	**4.003**	**1.011**	**-**	**13.455**	**48.601**	**67.070**

1 Lines 20 to 34 were additional lines available for companies to use if required. As we have not used these lines they have not been included in the above table.

Enhancement expenditure by purpose (4L.1-35)

2 Figures in this table are at price of the day. The comparable version in 2016/17 was at 2012/13 prices.

3 The above table includes £0.001 million of enhancement capital expenditure in relation to third-party agreements at the Wing and Grafham water treatment works. This spend is included within the third party services capex of £1.015 million in table 4D.

4 The source of the data is the project systems module of our SAP business management system. Each project holds as part of its master data Business Investment Category (BIC) codes which indicate the Ofwat categories of enhancement and maintenance, infrastructure and non infrastructure, and also align with accounting separation categories. The codes are mapped to their relevant lines in the table.

5 Supply- and demand-side schemes that deliver enhancements to the supply/demand balance dry year average conditions may also contribute to critical/peak conditions enhancements. As the primary driver of the spend, we have allocated all expenditure to the dry year average lines (lines 7 and 9).

6 We record expenditure in the year in which it is incurred, which means that for many schemes expenditure is spread over a number of years. In contrast, we record outputs in the year that schemes are commissioned. This means that in some years we may show expenditure without any apparent output.

7 On certain schemes we will incur additional expenditure on schemes where the output has been claimed in a prior year. Such spend includes additional landscaping, ancillary asset, telemetry and compensation costs and has been excluded from table 4L. The below table outlines the expenditure incurred in 2017/18 on schemes for which outputs have previously been claimed.

Expenditure on projects where output was claimed in previous years

Line Description	Raw Water Distribution £m	Treated Water Distribution £m	Water Resources £m	Water Treatment £m	Total £m
Addressing low pressure	-	0.009	-	-	0.009
Demand side enhancements to the supply/demand balance (dry year annual average conditions)	-	0.109	-	-	0.109
Investment to address raw water deterioration (THM, nitrates, Crypto, pesticides, others)	0.069	-	-	0.717	0.786
Meeting lead standards	-	-	-	0.075	0.075
New developments	-	(0.056)	-	-	(0.056)
Other	-	-	-	(0.002)	(0.002)
Resilience	-	0.087	-	(0.005)	0.082
WINEP / NEP ~ Eels Regulations (measures at intakes)	-	-	0.205	-	0.205
Grand Total	**0.069**	**0.149**	**0.205**	**0.785**	**1.208**

Table 4M - Enhancement Capital Expenditure - Wholesale Wastewater

Line description	Expenditure in report year									Cumulative expenditure on schemes completed in the report year								
	Network+Sewage Collection			Network+Sewage Treatment		Sludge			Total	Network+Sewage Collection			Network+Sewage Treatment		Sludge			Total
	Foul	Surface water drainage	Highway drainage	Sewage treatment and disposal	Sludge liquor treatment	Sludge transport	Sludge treatment	Sludge disposal		Foul	Surface water drainage	Highway drainage	Sewage treatment and disposal	Sludge liquor treatment	Sludge transport	Sludge treatment	Sludge disposal	
	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m
A	**Enhancement capital expenditure by purpose**																	
1	First time sewerage (s101A)	8.948	5.029	1.762	0.675	0.036	-	-	-	**16.450**	2.329	1.309	0.459	-	-	-	-	-	**4.097**
2	Sludge enhancement (quality)	-	-	-	-	-	-	3.291	-	**3.291**	-	-	-	-	-	-	0.277	-	**0.277**
3	Sludge enhancement (growth)	-	-	-	-	-	-	-	-	**-**	-	-	-	-	-	-	-	-	**-**
4	NEP - Conservation drivers	-	-	-	-	-	-	-	-	**-**	-	-	-	-	-	-	-	-	**-**
5	NEP - Eels Regulations (measures at outfalls)	-	-	-	-	-	-	-	-	**-**	-	-	-	-	-	-	-	-	**-**
6	NEP - Event Duration Monitoring at intermittent discharges	1.815	1.020	0.357	-	-	-	-	-	**3.192**	1.885	1.060	0.371	-	-	-	-	-	**3.316**
7	NEP - Flow monitoring at sewage treatment works	-	-	-	-	-	-	-	-	**-**	-	-	-	-	-	-	-	-	**-**
8	NEP - Monitoring of pass forward flows at CSOs	-	-	-	-	-	-	-	-	**-**	-	-	-	-	-	-	-	-	**-**
9	NEP - Schemes to increase flow to full treatment	-	-	-	(0.097)	(0.005)	-	-	-	**(0.102)**	-	-	-	-	-	-	-	-	**-**
10	NEP - Schemes to increase storm tank capacity	-	-	-	0.010	0.001	-	-	-	**0.011**	-	-	-	-	-	-	-	-	**-**
11	NEP - Storage schemes to reduce spill frequency at CSOs, storm tanks, etc	-	-	-	-	-	-	-	-	**-**	-	-	-	-	-	-	-	-	**-**
12	NEP - Chemicals monitoring/ investigations/ options appraisals	-	-	-	2.441	0.128	-	-	-	**2.569**	-	-	-	2.449	0.129	-	-	-	**2.578**
13	NEP - National phosphorus removal technology investigations	-	-	-	-	-	-	-	-	**-**	-	-	-	-	-	-	-	-	**-**
14	NEP - Groundwater schemes	-	-	-	0.289	0.015	-	-	-	**0.304**	-	-	-	-	-	-	-	-	**-**
15	NEP - Investigations	-	-	-	0.860	0.045	-	-	-	**0.905**	-	-	-	0.871	0.046	-	-	-	**0.917**

	Line description	Expenditure in report year									Cumulative expenditure on schemes completed in the report year								
		Network+Sewage Collection			Network+Sewage Treatment		Sludge			Total	Network+Sewage Collection			Network+Sewage Treatment		Sludge			Total
		Foul	Surface water drainage	Highway drainage	Sewage treatment and disposal	Sludge liquor treatment	Sludge transport	Sludge treatment	Sludge disposal		Foul	Surface water drainage	Highway drainage	Sewage treatment and disposal	Sludge liquor treatment	Sludge transport	Sludge treatment	Sludge disposal	
		£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m
A	**Enhancement capital expenditure by purpose**																		
16	NEP - Nutrients (N removal)	-	-	-	-	-	-	-	-	**-**	-	-	-	-	-	-	-	-	**-**
17	NEP - Nutrients (P removal at activated sludge STWs)	-	-	-	4.005	0.211	-	-	-	**4.216**	-	-	-	6.803	0.358	-	-	-	**7.161**
18	NEP - Nutrients (P removal at filter bed STWs)	-	-	-	10.491	0.552	-	-	-	**11.043**	-	-	-	9.713	0.511	-	-	-	**10.224**
19	NEP - Reduction of sanitary parameters	-	-	-	28.534	1.502	-	-	-	**30.036**	-	-	-	12.332	0.649	-	-	-	**12.981**
20	NEP - UV disinfection (or similar)	0.098	0.055	0.019	0.086	0.005	-	-	-	**0.263**	-	-	-	-	-	-	-	-	**-**
21	NEP - Discharge relocation	-	-	-	1.839	0.097	-	-	-	**1.936**	-	-	-	4.044	0.213	-	-	-	**4.257**
22	NEP - Flow 1 schemes	-	-	-	-	-	-	-	-	**-**	-	-	-	-	-	-	-	-	**-**
23	Odour	0.046	0.026	0.009	0.843	0.044	-	0.046	-	**1.014**	0.047	0.026	0.009	0.853	0.045	-	-	-	**0.980**
24	New development and growth	15.434	8.674	3.038	-	-	-	-	-	**27.146**	14.441	8.116	2.843	-	-	-	-	-	**25.400**
25	Growth at sewage treatment works (excluding sludge treatment)	-	-	-	15.411	0.811	-	-	-	**16.222**	-	-	-	1.089	0.057	-	-	-	**1.146**
26	Resilience	-	-	-	0.512	0.027	-	-	-	**0.539**	-	-	-	0.393	0.021	-	-	-	**0.414**
27	SEMD	-	-	-	0.935	0.049	-	-	-	**0.984**	-	-	-	0.701	0.037	-	-	-	**0.738**
28	Reduce flooding risk for properties	5.184	2.913	1.021	-	-	-	-	-	**9.118**	5.037	2.831	0.992	-	-	-	-	-	**8.860**
29	Private Sewers	8.968	5.040	1.766	-	-	-	-	-	**15.774**	9.316	5.235	1.834	-	-	-	-	-	**16.385**
44	**Total enhancement capital expenditure**	40.493	22.757	7.972	66.834	3.518	-	3.337	-	**144.911**	33.055	18.577	6.508	39.248	2.066	-	0.277	-	**99.731**

1 Lines 30 to 43 were additional lines available for companies to use if required. As we have not used these lines they have not been included in the above table.

Enhancement capital expenditure by purpose (4M.1-44)

2 This is Enhancement expenditure for wholesale Wastewater services, and is stated at price of the day.

3 The above table includes £6.868 million of enhancement capital expenditure in relation to third-party agreements at Chalton and Doddinghurst water recycling centres. This spend is included within the third party services capex of £7.143 million in table 4E.

4 The source of the data is the project systems module of our SAP business management system. Each project holds as part of its master data Business Investment Category (BIC) codes which indicate the Ofwat categories of enhancement and maintenance, infrastructure and non infrastructure, and also align with accounting separation categories. The codes are mapped to their relevant lines in the table.

5 We record expenditure in the year in which it is incurred, which means that for many schemes expenditure is spread over a number of years. In contrast, we record outputs in the year that schemes are commissioned. This means that in some years we may show expenditure without any apparent output.

6 An allocation was required for the foul, surface water drainage and highway drainage split. The allocation was based on flow estimate models provided by Anglian Water's modelling team.

7 An allocation was also required for the sewage treatment and disposal and the imported sludge liquor treatment. This allocation is based on a population equivalent calculation.

8 On certain schemes we will incur additional expenditure on schemes where the output has been claimed in a prior year. Such spend includes additional landscaping, ancillary asset, telemetry and compensation costs and has been excluded from table 4M. The table below outlines the expenditure incurred in 2017/18 on schemes for which outputs have previously been claimed.

Expenditure on projects where output was claimed in previous years

Line Description	Sewage Collection	Sewage Treatment	Sludge Treatment	Total
First time sewerage (s101A)	0.721	-	-	0.721
Growth at sewage treatment works (excluding sludge treatment)	-	0.266	-	0.266
New development and growth	1.919	-	-	1.919
Reduce flooding risk for properties	0.950	-	-	0.950
Sludge enhancement (quality)	-	-	0.171	0.171
WINEP / NEP ~ Chemicals monitoring / investigations / options appraisals	-	0.026	-	0.026
WINEP / NEP ~ Event Duration Monitoring at intermittent discharges	0.005	-	-	0.005
WINEP / NEP ~ Groundwater schemes	-	0.015	-	0.015
WINEP / NEP ~ Nutrients (P removal at filter bed STWs)	-	0.770	-	0.770
WINEP / NEP ~ Reduction of sanitary parameters	-	1.778	-	1.778
WINEP / NEP ~ UV disinfection (or similar)	0.030	-	-	0.030
Grand Total	**3.625**	**2.855**	**0.171**	**6.651**

Table 4N - Operating Expenditure - Sewage Treatment

	Line description	Network+ £000	Sludge £000	Total £000
1	Direct costs of STWs in size band 1	3,543	-	**3,543**
2	Direct costs of STWs in size band 2	2,989	-	**2,989**
3	Direct costs of STWs in size band 3	8,245	-	**8,245**
4	Direct costs of STWs in size band 4	16,306	-	**16,306**
5	Direct costs of STWs in size band 5	12,447	-	**12,447**
6	General & support costs of STWs in size bands 1 to 5	12,572	-	**12,572**
7	Direct costs of STWs in size band 6	38,895	-	**38,895**
8	General & support costs of STWs in size band 6	11,739	-	**11,739**
9	Service charges for STWs in size band 6	979	-	**979**
10	Estimated terminal pumping costs size band 6 works	3,112	-	**3,112**
11	Estimated sludge costs size band 6 works	-	-	**-**
12	**Total operating expenditure (excluding 3rd party services)**	106,736	-	**106,736**

1. The total operating expenditure (excluding 3rd party services) is the sum of rows 1 to 8 as rows 9 and 10 are included within row 7 above.

Network +

1 This column includes total sewage treatment operating expenditure excluding 3rd Party costs and business rates. Total sewage treatment operating expenditure includes both Sewage treatment and Sludge liquor treatment (Table 4E Network + sewage treatment).

Sludge

2 Column Sludge is shown as nil as we have no recorded sludge costs in the sewage treatment activity.

Direct costs of STWs in size bands 1 to 5 & 6 (4N.1 - 4N.5 / 4N.7)

3 Direct sewage treatment costs are captured by individual cost centres for Water Recycling Centres where possible using our general ledger costing system (SAP). Allocations are used to split power costs between sludge and sewage treatment activities with further allocations employed for service charges, shared costs and non specific site costs including direct management. Water Recycling Centres are grouped into their respective site bands (1 to 6) and the direct operating costs summed by band sizes.

4 The direct costs include any onsite terminal pumping costs but exclude all off-site terminal pumping. The direct costs also include service charges (Line 9) but exclude business rates.

5 Line 7 reconciles to table 4O (Large sewage treatment works) Line 11 total band 6 direct costs.

General & support costs of STW's in bands size 1 to 5 and 6 (4N.6 / 4N.8)

6 General & support costs are allocated to Water Recycling Centres based on the direct costs. General & support costs include all support function costs (Finance, Human Resources, Regulation, Legal and IT) as well as the Director and senior management team costs. Water Recycling Centres are grouped into their respective site bands (1 to 5 & 6) with the general & support costs summed by band sizes 1 to 5 and 6.

7 General & support costs exclude business rates.

8 Line 7 reconciles to table 4O (Large sewage treatment works) Line 12 total band 6 general and support expenditure.

Service charges for STWs in size band 6 (4N.9)

9 Service charges all relate to payments to the Environment Agency for discharge consents relating to Water Recycling Centres. Service charges are allocated back to Water Recycling Centres and summed for all band 6 sites.

10 Line 9 reconciles to table 4O (Large sewage treatment works) Line 14 total band 6 service charges.

Estimated terminal pumping costs size band 6 works (4N.10)

11 Estimated direct (onsite) terminal pumping costs included in the band 6 direct costs (Line 7). These are captured at site level using our general ledger system with allocations employed for power costs and non specific site costs.

12 Line 10 reconciles to table 4O (Large sewage treatment works) Line 15 estimated terminal pumping expenditure.

Estimated sludge costs in size band 6 works (4N.11)

13 All sludge costs have been excluded from both direct and General and support costs for Network + Sewage Treatment.

Total operating expenditure excluding 3rd party costs (4N.12)

14 Numbers in this line reconcile to Table 4E Line 9 (total operating expenditure excluding 3rd party costs) excluding business rates shown in Table 4E Line 8 for columns Network + sewage treatment.

Table 4O - Large Sewage Treatment Works

	Line description	Units	STWNAMED01	STWNAMED02	STWNAMED03	STWNAMED04	STWNAMED05	STWNAMED06	STWNAMED07	STWNAMED08	STWNAMED09	STWNAMED10
A	**Sewage treatment works - Explanatory variables**											
1	Works name	text	ANWICK STW	BASILDON STW	BEDFORD STW	BENFLEET STW	BOSTON STW	BOURNE STW	BRACKLEY STW (NEW)	BRAINTREE STW	BROADHOLME STW	CAISTER - PUMP LANE STW
2	Classification of treatment works	text	TA2	SAS	TA2	SB	SB	TA2	TA2	TA2	TA2	SAS
3	Population equivalent of total load received	000	32.87	121.38	160.80	27.56	40.00	29.07	39.14	28.62	240.70	110.68
4	Suspended solids consent	mg/l	26	45	30	80	70	22	25	16	30	0
5	BOD5 consent	mg/l	13	25	20	25	25	11	11	8	17	25
6	Ammonia consent	mg/l	6	10	7	20	0	3	3	3	3	0
7	Phosphorus consent	mg/l	2	0	1	0	0	2	2	2	1	0
8	UV consent	mW/s/cm2	0	0	0	0	0	0	0	0	0	0
9	Load received by STW	kgBOD5/d	1972	7283	9648	1654	2400	1744	2348	1717	14442	6641
10	Flow passed to full treatment	m3/d	4,291	23,665	44,444	6,013	10,486	6,339	7,082	7,157	53,421	29,156
B	**Sewage treatment works - Operating expenditure**											
11	Direct expenditure	£000	372	929	1260	205	294	262	319	375	1307	721
12	General and support expenditure	£000	107	272	365	59	85	76	92	124	380	210
13	Functional expenditure	£000	479	1201	1625	264	379	338	411	499	1687	931
14	Service charges	£000	14	40	26	14	14	16	15	16	26	14
15	Estimated terminal pumping expenditure	£000	0	103	186	0	0	0	0	0	26	0

Line description	Units	STWNAMED11	STWNAMED12	STWNAMED13	STWNAMED14	STWNAMED15	STWNAMED16	STWNAMED17	STWNAMED18	STWNAMED19	STWNAMED20
A Sewage treatment works - Explanatory variables											
1 Works name	text	CAMBRIDGE STW	CANVEY ISLAND STW	CANWICK STW	CHELMSFORD STW	CLACTON-ON-SEA HAVEN STW	COLCHESTER STW	CORBY STW	COTTON VALLEY STW	DUNSTABLE STW	FELIXSTOWE STW
2 Classification of treatment works	text	SAS	SAS	TB2	SAS	SAS	SAS	TA2	TA2	TA2	SAS
3 Population equivalent of total load received	000	160.93	38.72	116.34	145.23	48.84	134.96	116.30	311.71	48.23	32.14
4 Suspended solids consent	mg/l	20	0	30	40	0	60	20	25	20	120
5 BOD5 consent	mg/l	15	25	10	20	25	25	10	12	12	25
6 Ammonia consent	mg/l	5	0	3	10	0	15	1	5	3	50
7 Phosphorus consent	mg/l	1	0	1	0	0	0	1	1	2	0
8 UV consent	mW/s/cm2	0	0	0	0	0	30	0	0	0	0
9 Load received by STW	kgBOD5/d	9656	2323	6980	8714	2930	8097	6978	18703	2894	1928
10 Flow passed to full treatment	m3/d	51,347	5,514	30,623	36,941	12,791	27,053	17,888	70,514	10,166	8,311
B Sewage treatment works - Operating expenditure											
11 Direct expenditure	£000	999	318	895	970	525	1117	1518	2288	580	414
12 General and support expenditure	£000	291	92	259	282	153	329	439	666	167	120
13 Functional expenditure	£000	1290	410	1154	1252	678	1446	1957	2954	747	534
14 Service charges	£000	24	15	26	41	12	26	15	43	15	13
15 Estimated terminal pumping expenditure	£000	203	0	228	38	17	256	9	201	0	0

	Line description	Units	STWNAMED21	STWNAMED22	STWNAMED23	STWNAMED24	STWNAMED25	STWNAMED26	STWNAMED27	STWNAMED28	STWNAMED29	STWNAMED30
A	**Sewage treatment works - Explanatory variables**											
1	Works name	text	FLITWICK STW	FORNHAM ALL SAINTS STW	GREAT BILLING STW	GRIMSBY-PYEWIPE STW	HAVERHILL STW	HITCHIN STW	HUNTINGDON (GODMANCHESTER) STW	INGOLDMELLS STW	IPSWICH-CLIFF QUAY RAEBURN ST	KINGS LYNN STW
2	Classification of treatment works	text	TA2	TB2	TA2	SAS	TB2	TA2	TA2	SAS	SAS	TA2
3	Population equivalent of total load received	000	28.75	88.33	315.36	136.81	29.34	35.65	38.22	56.28	145.42	62.83
4	Suspended solids consent	mg/l	25	16	25	0	20	30	30	0	200	100
5	BOD5 consent	mg/l	15	8	13	25	10	15	20	25	25	25
6	Ammonia consent	mg/l	5	2	5	0	4	4	7	0	50	0
7	Phosphorus consent	mg/l	2	2	1	0	2	1	1	0	0	0
8	UV consent	mW/s/cm2	0	0	0	0	0	0	0	0	0	0
9	Load received by STW	kgBOD5/d	1725	5300	18922	8209	1761	2139	2293	3377	8725	3770
10	Flow passed to full treatment	m3/d	5,734	10,428	71,169	47,684	6,201	6,912	11,472	14,100	31,600	20,617
B	**Sewage treatment works - Operating expenditure**											
11	Direct expenditure	£000	252	547	2172	1313	(1,153)	478	460	304	1191	1129
12	General and support expenditure	£000	73	157	637	385	86	138	133	89	334	330
13	Functional expenditure	£000	325	704	2809	1698	(1,067)	616	593	393	1525	1459
14	Service charges	£000	15	15	41	25	15	16	15	7	27	26
15	Estimated terminal pumping expenditure	£000	0	11	517	179	61	48	0	50	140	1

	Line description	Units	STWNAMED31	STWNAMED32	STWNAMED33	STWNAMED34	STWNAMED35	STWNAMED36	STWNAMED37	STWNAMED38	STWNAMED39	STWNAMED40
A	**Sewage treatment works - Explanatory variables**											
1	Works name	text	LEIGHTON LINSLADE STW	LETCHWORTH STW	LOWESTOFT STW	MARSTON STW (LINCS)	NEWMARKET STW	PETERBOROUGH (FLAG FEN) STW	ROCHFORD STW	SHENFIELD AND HUTTON STW	SOUTHEND STW	SPALDING STW
2	Classification of treatment works	text	TB2	TA2	SAS	TB2	TA2	TA1	TA1	TA2	SAS	SB
3	Population equivalent of total load received	000	41.89	44.32	85.60	74.38	26.00	211.28	33.68	42.76	193.69	72.60
4	Suspended solids consent	mg/l	35	25	0	15	20	24	60	20	150	120
5	BOD5 consent	mg/l	25	13	25	10	12	9	25	10	25	25
6	Ammonia consent	mg/l	8	3	0	3	4	3	0	3	0	0
7	Phosphorus consent	mg/l	2	1	0	2	2	0	0	2	0	0
8	UV consent	mW/s/cm2	0	0	0	0	0	0	0	0	0	0
9	Load received by STW	kgBOD5/d	2513	2659	5136	4463	1560	12677	2021	2566	11621	4356
10	Flow passed to full treatment	m3/d	7,154	7,182	17,108	14,935	5,325	59,245	9,366	12,429	54,343	10,364
B	**Sewage treatment works - Operating expenditure**											
11	Direct expenditure	£000	393	799	1250	328	355	2115	476	925	2263	345
12	General and support expenditure	£000	113	231	363	95	103	614	138	268	655	100
13	Functional expenditure	£000	506	1030	1613	423	458	2729	614	1193	2918	445
14	Service charges	£000	16	15	13	15	16	17	14	16	26	10
15	Estimated terminal pumping expenditure	£000	14	21	4	4	0	134	0	0	401	20

Line description	Units	STWNAMED41	STWNAMED42	STWNAMED43	STWNAMED44	STWNAMED45	STWNAMED46	STWNAMED47	STWNAMED48	STWNAMED49
A	**Sewage treatment works - Explanatory variables**									
1	Works name	text	ST NEOTS STW	TETNEY-NEWTON MARSH STW	THETFORD STW	TILBURY STW	WEST WALTON STW	WHILTON STW	WHITLINGHAM TROWSE STW	WICKFORD STW	WITHAM STW
2	Classification of treatment works	text	TB2	TA2	TA2	SAS	SAS	TB2	TA2	TA1	SAS
3	Population equivalent of total load received	000	40.57	56.65	32.15	153.13	101.29	30.39	294.81	41.86	40.10
4	Suspended solids consent	mg/l	90	45	50	0	80	24	40	45	40
5	BOD5 consent	mg/l	25	25	25	25	25	12	20	22	20
6	Ammonia consent	mg/l	0	0	16	65	20	3	7	10	10
7	Phosphorus consent	mg/l	2	0	2	0	0	2	1	0	0
8	UV consent	mW/s/cm2	0	30	0	0	0	0	0	30	0
9	Load received by STW	kgBOD5/d	2434	3399	1929	9188	6077	1823	17689	2512	2406
10	Flow passed to full treatment	m3/d	11,129	18,907	6,557	42,093	14,132	5,569	68,816	10,460	5,705
B	**Sewage treatment works - Operating expenditure**									
11	Direct expenditure	£000	226	432	427	1944	1221	273	1929	423	410
12	General and support expenditure	£000	65	125	124	580	353	79	563	122	118
13	Functional expenditure	£000	291	557	551	2524	1574	352	2492	545	528
14	Service charges	£000	15	24	16	40	14	24	25	14	22
15	Estimated terminal pumping expenditure	£000	0	6	10	183	0	0	12	0	29

Works name, classification of treatment works and population equivalent of total load received (4O.1 - 3)

1 We have calculated the population equivalent and the loads on a basis consistent with how we used to report table 17b in the June Return. The numbers exclude imported effluents (tankering) and include non-resident population.

BOD5 Consent (4O.5)

2 For a number of Water Recycling Centres the UWWTD BOD limit of 25mg/l is tighter than the normal BOD limit specified in the Environmental Permit. In these situations we have therefore reported the UWWTD BOD limit as we believe this is more appropriate to use for comparative efficiency purposes. This approach is consistent with that taken when the data used to be provided as part of the June Return.

Direct expenditure (4O.11)

3 Direct expenditure costs are captured by individual cost centres for WRCs where possible using our general ledger costing system (SAP) for the band 6 treatment sites. Allocations are employed to split power costs between sludge and sewage treatment activities and allocate service charges and direct non site-specific costs to water recycling centres. The direct costs exclude business rates but includes service charges and onsite terminal pumping expenditure.

4 The total direct costs reconciles to Table 4N Line 7 (direct costs of WRCs in size bands 6).

General and support expenditure (4O.12)

5 General and support expenditure is allocated to individual WRCs based on the direct expenditure. General and support expenditure includes all support function costs (Finance, Human Resources, Regulation, Legal and IT etc.) as well as the Directors and senior management teams. General and support costs exclude business rates.

6 The total general and support costs reconciles to Table 4N Line 8 (general & support costs of WRCs in size band 6 works).

Estimated terminal pumping expenditure (4O.15)

7 This line records the estimated onsite direct terminal pumping costs by WRC. These are captured at site level for our band 6 WRCs, with allocations employed for power costs and non site-specific direct costs.

8 The total estimated terminal pumping expenditure agrees to Table 4N Line 10 (estimated terminal pumping costs in size band 6 WRCs).

Table 4P - Non-Financial Data for Water Resources, Water Treatment and Water Distribution

	Line description	Units	Current year
A	**Water resources**		
1	Proportion of distribution input derived from impounding reservoirs	Propn 0 to 1	0.024
2	Proportion of distribution input derived from pumped storage reservoirs	Propn 0 to 1	0.412
3	Proportion of distribution input derived from river abstractions	Propn 0 to 1	0.067
4	Proportion of distribution input derived from groundwater works,excluding managed aquifer recharge (MAR) water supply schemes	Propn 0 to 1	0.497
5	Proportion of distribution input derived from artificial recharge (AR) water supply schemes	Propn 0 to 1	0.000
6	Proportion of distribution input derived from aquifer storage and recovery (ASR) water supply schemes	Propn 0 to 1	0.000
7	Number of impounding reservoirs	nr	2
8	Number of pumped storage reservoirs	nr	8
9	Number of river abstractions	nr	17
10	Number of groundwater works excluding managed aquifer recharge (MAR) water supply schemes	nr	208
11	Number of artificial recharge (AR) water supply schemes	nr	0
12	Number of aquifer storage and recovery (ASR) water supply schemes	nr	0
13	Total number of sources	nr	235
14	Total number of water reservoirs	nr	13
15	Total capacity of water reservoirs	Ml	227,643
16	Total number of intake and source pumping stations	nr	228
17	Total number of raw water transfer stations	nr	9
18	Total capacity of intake and source pumping stations	kW	42,995
19	Total capacity of raw water transfer pumping stations	kW	13,534
20	Total length of raw water mains and conveyors	km	736.84
21	Average pumping head – resources	m.hd	41.40
22	Average pumping head – raw water transport	m.hd	39.51

	Line description	Units	Current year
B	**Water treatment**		
23	Total water treated at all SW simple disinfection works	Ml/d	0.00
24	Total water treated at all SW1 works	Ml/d	0.00
25	Total water treated at all SW2 works	Ml/d	0.00
26	Total water treated at all SW3 works	Ml/d	0.00
27	Total water treated at all SW4 works	Ml/d	5.42
28	Total water treated at all SW5 works	Ml/d	529.41
29	Total water treated at all SW6 works	Ml/d	7.38
30	Total water treated at all GW simple disinfection works	Ml/d	14.69
31	Total water treated at all GW1 works	Ml/d	5.81
32	Total water treated at all GW2 works	Ml/d	203.83
33	Total water treated at all GW3 works	Ml/d	93.92
34	Total water treated at all GW4 works	Ml/d	193.99
35	Total water treated at all GW5 works	Ml/d	57.89
36	Total water treated at all GW6 works	Ml/d	0.00
37	Total water treated at more than one type of works	Ml/d	0.00
38	Total number of SW simple disinfection works	nr	0
39	Total number of SW1 works	nr	0
40	Total number of SW2 works	nr	0
41	Total number of SW3 works	nr	0
42	Total number of SW4 works	nr	1
43	Total number of SW5 works	nr	13
44	Total number of SW6 works	nr	1
45	Total number of GW simple disinfection works	nr	4
46	Total number of GW1 works	nr	1
47	Total number of GW2 works	nr	44
48	Total number of GW3 works	nr	30
49	Total number of GW4 works	nr	32
50	Total number of GW5 works	nr	6
51	Total number of GW6 works	nr	0
52	Number of treatment works requiring remedial action because of raw water deterioration	nr	3
53	Zonal population receiving water treated with orthophosphate	000	4,528.860
54	Average pumping head – treatment	m.hd	9.45

	Line description	Units	Current year
C	**Water distribution**		
55	Total length of potable mains as at 31 March	km	38,419.7
56	Total length of mains relined	km	0.0
57	Total length of mains renewed	km	89.1
58	Total length of new mains	km	176.2
59	Potable water mains (<320mm)	km	35,484.5
60	Potable water mains 320mm - 450mm	km	1,698.2
61	Potable water mains 450mm - 610mm	km	639.5
62	Potable water mains > 610mm	km	597.5
63	Total length of non-potable and partially treated main for supplying customers	km	59.1
64	Total length of non-potable and partially treated main for treatment	km	26.9
65	Capacity of booster pumping stations	kW	78,152
66	Capacity of service reservoirs	Ml	1,813
67	Capacity of water towers	Ml	123
68	Distribution input	Ml/d	1,112.34
69	Water delivered (non-potable)	Ml/d	45.74
70	Water delivered (potable)	Ml/d	964.95
71	Water delivered (billed measured residential)	Ml/d	474.01
72	Water delivered (billed measured business)	Ml/d	275.03
73	Total leakage	Ml/d	182.66
74	Distribution losses	Ml/d	138.19
75	Water taken unbilled	Ml/d	28.12
76	Number of lead communication pipes	nr	516,924
77	Number of galvanised iron communication pipes	nr	184,577
78	Number of other communication pipes	nr	1,494,218
79	Number of booster pumping stations	nr	464
80	Total number of service reservoirs	nr	250
81	Number of water towers	nr	131
82	Total length of mains laid or structurally refurbished pre-1880	km	5.7
83	Total length of mains laid or structurally refurbished between 1881 and 1900	km	5,937.5
84	Total length of mains laid or structurally refurbished between 1901 and 1920	km	3,612.3
85	Total length of mains laid or structurally refurbished between 1921 and 1940	km	1,102.2
86	Total length of mains laid or structurally refurbished between 1941 and 1960	km	6,747.2
87	Total length of mains laid or structurally refurbished between 1961 and 1980	km	5,155.3
88	Total length of mains laid or structurally refurbished between 1981 and 2000	km	12,472.7
89	Total length of mains laid or structurally refurbished post 2001	km	3,386.4
90	Average pumping head – distribution	m.hd	72.66

	Line description	Units	Current year
D	**Band Disclosure (nr)**		
91	WTWs in size band 1	Nr	41
92	WTWs in size band 2	Nr	31
93	WTWs in size band 3	Nr	31
94	WTWs in size band 4	Nr	16
95	WTWs in size band 5	Nr	10
96	WTWs in size band 6	Nr	0
97	WTWs in size band 7	Nr	2
98	WTWs in size band 8	Nr	1
E	**Band Disclosure (%)**		
99	Proportion of Total DI band 1	%	3.6%
100	Proportion of Total DI band 2	%	8.2%
101	Proportion of Total DI band 3	%	15.8%
102	Proportion of Total DI band 4	%	16.9%
103	Proportion of Total DI band 5	%	21.3%
104	Proportion of Total DI band 6	%	0.0%
105	Proportion of Total DI band 7	%	16.2%
106	Proportion of Total DI band 8	%	18.0%

Proportion Of distribution input from different sources (4P.1-6)

1 The data includes imports and water for non-potable use but excludes exports.

Proportion of distribution input from impounding reservoirs (4P.1)

2 The reported estimates are based on distribution input (DI) from the following reservoir sources.

- Ravensthorpe WTW (Ruthamford North RZ): 100 per cent yield from natural inflow ("natural"). WTW supplied from both Ravensthorpe and Hollowell Reservoirs
- Alton WTW (East Suffolk RZ): 31 per cent natural yield from Alton Water
- Pitsford WTW (Ruthamford North RZ): 44 per cent natural yield from Pitsford Reservoir.

Proportion of distribution input from pumped storage reservoirs (4P.2)

3 The reported estimates are based on distribution input (DI) from the following reservoir sources.

- Alton WTW (East Suffolk RZ): 69 per cent pumped yield from Alton Water
- Ardleigh WTW (South Essex RZ): 82 per cent pumped yield from Ardleigh Reservoir
- Covenham WTW (East Lincolnshire RZ): 100 per cent pumped yield from Covenham Reservoir

- Grafham WTW (Ruthamford South RZ): 99 per cent pumped yield from Grafham Reservoir
- Pitsford WTW (Ruthamford North RZ): 56 per cent pumped yield from Pitsford Reservoir
- Wing WTW and Morcott WTW (Ruthamford North RZ): 88 per cent pumped yield from Rutland Water.

4 For Ardleigh WTW, Grafham WTW and Wing/Morcott WTW it is assumed that the reservoir yield is 100 per cent from pumped inflow sources. This is in accordance with the line definition.

Proportion of distribution input from river abstractions (4P.3)

5 The reported estimates are based on DI from the following river abstraction sources.

- Bedford WTW (River Ouse)
- Elsham WTW (River Ancholme)
- Hall WTW (River Trent)
- Heigham WTW (River Wensum)
- Marham WTW (River Nar)
- Saltersford WTW (River Witham)
- Stoke Ferry WTW (River Wissey).

Proportion of distribution input from boreholes, excluding managed aquifer recharge water supply schemes (4P.4)

6 The reported estimates are based on the borehole sources reported in line 4P.10.

Proportion of distribution input from artificial recharge and aquifer storage and recovery water supply schemes (4P.5-6)

7 No such schemes are operated by the company.

Lines 7-19

8 The data for lines 7-19 are an update for 2017-18 of the audited data provided for the 2017 Information Request. They also reflect a change in the classification of reservoirs and intakes, in line with Ofwat RAG 4.07 guidance.

Number of impounding reservoirs and pumped storage reservoirs (4P.7-8)

9 The reported numbers reflect the number of reservoirs classified as raw water abstraction based on the flow chart on page 113 of RAG 4.07.

Impounding reservoirs (2 no.)

- Ravensthorpe (Ruthamford North RZ): 100 per cent inflow
- Hollowell (Ruthamford North RZ): 100 per cent inflow.

Pumped storage reservoirs (8 no.)

- Alton (East Suffolk RZ): 69 per cent pumped

- Ardleigh (South Essex RZ): 82 per cent pumped
- Covenham (East Lincolnshire RZ): 100 per cent pumped
- Grafham (Ruthamford South RZ): 99 per cent pumped
- Pitsford (Ruthamford North RZ): 56 per cent pumped
- Rutland Water (Ruthamford North RZ): 88 per cent pumped
- Cadney Carrs (East Lincolnshire RZ): 100% pumped
- Costessey Pits (Norwich & the Broads RZ): 100% pumped.

10 The definition for Line 8 specifies that the reservoirs should be classified as either pumped or impounding, on the basis of the majority of the type of flow that they receive. In addition to our 8 previously reported reservoirs, the RAG 4.07 guidance means we now also class Cadney Carrs and Costessey Pits as raw water reservoirs. Cadney has storage of more than 15 days and Costessey Pits has an abstraction licence.

Number of river abstractions (4P.9)

11 We are reporting seventeen river abstraction for the period 2017/18 - 2024/25. This consists of both direct river intakes (as reported in the Yearbook count) and also ten indirect supporting river abstractions. This reflects the full complement of our surface water intake assets.

12 Direct river intakes (7 no.)

- Cadney (River Ancholme)
- Clapham (Bedford Ouse)
- Hall (River Trent)
- Heigham (River Wensum)
- Costessey (River Wensum)
- Marham (River Nar)
- Stoke Ferry (River Wissey).

Indirect supporting river abstractions (10 no.)

- Tinwell (River Welland for Rutland Water)
- Wansford (River Nene for Rutland Water)
- Offord (River Great Ouse for Grafham Water)
- Duston Mill (River Nene for Pitsford reservoir)
- Sroughton (River Guipping for Alton Water)
- Bucklesham (Mill River for Alton Water)
- East Mills (River Colne for Ardleigh)
- Covenham intake (Louth Canal for Covenham reservoir)

- Cloves Bridge (River Great Eau for support to Covenham)
- Cut-off-Channel (for support to Stoke Ferry)

13 Bath Springs and Cringle Brook intakes do not enter supply so are not included in the reported list.

Number of groundwater works, excluding managed aquifer recharge (MAR) water supply schemes (4P.10)

14 We report 208 groundwater sources for 2017/18 which is one less than previously reported in the 2017 Information Request. This is due to one source no longer being used. Of these, 198 are in the Anglian region and 10 are in the Hartlepool region.

Number of artificial recharge and aquifer storage and recovery schemes (4P.11-12)

15 No such schemes are operated by the company.

Total number of sources (4P.13)

16 The reported number is summed from lines 4P.7-12.

Total number of water reservoirs (4P.14)

17 The reported number (13 no.) includes the impounding and pumped storage reservoirs reported in Lines 7 (2 no.) and 8 (8 no.) as well as three bank-side storage reservoirs at the following locations:

- Heigham Large Deposit Reservoir – for Heigham WTW
- Bedford – for Clapham WTW
- South Clifton – for Hall WTW

18 Although raw water is pumped into these reservoirs, RAG 4.07 guidance (Figure 1) classes them as Network Plus raw water storage rather than raw water abstraction, and therefore these have not been included in Lines 7 and 8. The purpose of these reservoirs is to provide resilience rather than storage and as such they do not have an abstraction licence or a natural catchment. On review of the guidance, the Heigham Large Deposit Reservoir is now also included, increasing the total count from 12 to 13.

Total capacity of water reservoirs (4P.15)

19 The capacity of all water has been revised in line with guidance to reflect the design/construction capacity of the reservoir where possible. Previously this capacity was reported based on data from bathymetric surveys completed in 1999. This is an increase from 213893 Ml to 227643 Ml.

Number and capacity of transfer and source pumping stations (4P.16-19)

20 For the 2017 Information Request reporting, the number and capacity of intake and source pumping stations included both raw water abstraction and transfer pumping together. Raw water transport has now been disaggregated with its own lines (lines 4P.17 and 19) and data entries have been recalculated to reflect this.

21 Following guidance in the RAG 4 and RAG 2 Guidelines & Appendices, we have identified raw water transport pumps within surface water systems and groundwater sources. Surface water transport has been split between abstraction to reservoir and abstraction from reservoir to treatment. Groundwater sources have been split based on the proportion of pumping

head that that goes to treatment (considered to be raw water abstraction) and the proportion that goes to supply (considered to be water distribution). Line 4P.18 reports the pumping capacity that is associated with the raw water abstraction from groundwater sources.

22 We previously reported total number of boreholes (490), but following a review of the guidance and feedback from previous audit, this has been revised to the number of groundwater sources as reported in line 4P.10 (208).

Total number of intake and source pumping stations (4P.16)

23 In 2016/17 we reported:

- 29 intake and source pumping stations including two no. gravity intake systems at Ravensthorpe Reservoir, and
- 490 boreholes.

24 In line with the disaggregation of raw water transport pumps, for 2017/18 onwards we are reporting:

- 20 intake and source pumping stations including one gravity intake system at Ravensthorpe Reservoir, and
- 208 groundwater sources.

Total number of raw water transfer stations (4P.17)

25 This is a new line for 2017/18 as described above. In line with guidance, for 2017/18 onwards we are reporting:

- nine transfer pumping stations including one gravity intake system at Ravensthorpe Reservoir.

Total capacity of intake and source pumping stations (4P.18)

26 The reported capacity has been recalculated from 2017 Information Request data to reflect the disaggregation of raw water transport from total pumping capacity and no longer includes transfer pumping stations.

27 The river abstraction and reservoir intakes and capacities are referenced in a survey of the raw water abstraction assets (Atkins, 2012) and updated by the Energy Team. The number of boreholes and pumps is reported in a borehole database maintained by the Water Resources Management Team. This is cross referenced with data from the Groundwater Engineering Unit and Energy Team for the pump capacities. Both data sets have been updated for the 2017/18 APR.

28 For four boreholes the rated power of individual borehole pumps could not be sourced from the SAP (corporate asset database) or our groundwater team records. For these, energy team site audit data was used to populate the pump capacity.

Total capacity of raw water transfer stations (4P.19)

29 The reported capacity has been recalculated from 2017 Information Request data to reflect the disaggregation of raw water transport from total pumping capacity.

30 As for line 4P.18, the river abstraction and reservoir capacities are referenced in a survey of the raw water abstraction assets (Atkins, 2012) and periodically updated. The most recent update was in 2017.

Total length of raw water mains and conveyors (4P.20)

31 This line has been calculated using the latest raw water mains data out of our corporate mapping system (G/water).

Average pumping head (4P.21-22 / 4P.54)

32 For 2017/18 pumping head is based on telemetry pressure or level sensor data where possible and reported pump head or site data where not. However, there has been some difficulty separating resources and raw water transport for the majority of sites as there is not the resolution on the data required except on the larger treatment works.

33 The sources of data for flow in these calculations are primarily reported abstraction flows or telemetry. Where a site has multiple boreholes and only a single combined flow meter we have assumed an equal flow between the boreholes.

34 We are confident about the combined total average pumping head for water resources and raw water transport. However, for some sites we are unable to split the pumping head between the two categories. In these instances all the pumping head has been assigned to resources as we have been unable to obtain the necessary data to be able to proportionally split the pumping head.

Total water treated by SW-GW code (4P.23-37)

35 Historic volumetric Distribution Input (DI) data (SWORPS) has been used for each of the Water Treatment Works (WTW) in our region, including imports/exports and sites which include combined sources (both boreholes and river abstractions).

36 Data has been analysed to split the proportion of DI between WTW codes.

37 It is noted that this year additional analysis and consideration has been given to the definitions of the WTW coding system and how sites should be consequently attributed. This has been used to attribute the volume of DI to respective WTW codes, based upon our interpretation of works complexity in accordance with Ofwat Guidance (including imports and exports and combined sources).

38 Data includes imports and excludes exports.

39 DI volumes include an allowance MLE (Maximum Likelihood Estimation) in alignment with June Returns reporting. The volume outputs are, therefore, aligned according to their category (borehole, impounding reservoir, river abstraction) to reconcile with reported figures for impounding reservoirs, river abstractions, boreholes and imports.

40 Note has been made of combined sources (Elsham, Heigham, Marham and Stoke Ferry) with DI being proportionally split in line with the base-year data between groundwater and surface water sources.

Total number of sites by SW–GW code (4P.38-51)

41 Water Treatment Works (WTW) numbers are aligned with the information submitted annually in the detailed tables to the Drinking Water Inspectorate (DWI) in accordance with the Information Direction. WTW numbers may vary year on year due to changes in the configuration of the supply system, and specifically, the location of the final water monitoring points.

42 In 2017 and 2018 changes were made to ensure alignment with the revised Water Supply (Water Quality) Regulations 2016 and 2017 respectively.

Number of treatment works requiring remedial action because of raw water deterioration (4P.52)

43 Against this line we have recorded the following sites:

- Twelve Acre Wood (Eriswell) - Nitrate Removal
- Stanton Ixworth WTW - Nitrate Reduction
- Winterton Holmes WTW - Pesticide Reduction.

Zonal population receiving water treated with orthophosphate (4P.53)

44 The zonal population receiving water treated with orthophosphate is calculated from the information reported to the DWI in the Details Tables provided annually in accordance with the Information Direction. All Public Water Supply Zones (PWSZ) receiving orthophosphate dosed water are identified in the Details Tables which also document the population of each PWSZ.

45 There has been a steady increase in the population receiving orthophosphate dosed water, which is partly due to the increase in the number of WTW with orthophosphate dosing plant in operation, as well as the general increase in total population of the Anglian and Hartlepool regions.

Total length of potable mains as at 31 March (4P.55)

46 This is consistent with data provided to Ofwat in the 2017 Information Request submission.

Mains relined, mains renewed and new mains (4P.56-58)

47 The data for length of mains relined and renewed is reported together under line 4P.57 as we do not capture the data separately. Lengths are included from the mains replacement programme and from short lengths inserted during burst repair work.

48 The length of new mains added through investment schemes is 176.237km. This is mostly from new housing mains adoptions and reinforcements with additional lengths from resilience, leakage and low pressure resolution schemes. Mains that have been abandoned are not netted off against the total.

Total length of non-potable and partially treated main for supplying customers (4P.63)

49 The classification for non-potable liquid types is now in our corporate mapping system (G/water) and the data has been reviewed and refined. We have recognised the change in the PR19 reporting requirements but have not reflected it in the APR.

Total length of non-potable and partially treated main for treatment (4P.64)

50 Due to limited data in the corporate database for this particular classification, the number for this is quite low. Projects are underway to better understand, classify and capture these types of pipes. We have recognised the change in the PR19 reporting requirements but have not reflected it in the APR.

Capacity of booster pumping stations (4P.65)

51 The number of pumps, rated power for each pump, location and asset status have been used where this information was held in corporate databases. The rated power of the remaining pumps, where data was not currently centrally held, were given the mode (most common) rated power. The number of sites was calculated based on this more granular asset data. The uplift in the 2017/18 figures compared to 2016/17 is in part due to improved data on previously estimated boosters and due to the inclusion of the percentage pumped to distribution from boreholes, which is a clarification of the reporting requirements since last year. Note the inclusion of the borehole percentage only impacts the rated capacity line 4P.65.

Capacity of service reservoirs and water towers (4P.66-67)

52 The total capacity of water towers and service reservoirs has been calculated using the number of storage points reported in lines 4P.80-81 and the storage reservoir capacity information held on MISER, our strategic supply schematic.

53 The decrease in the total capacity of the treated water service reservoirs reported for 2017/18 is due to an improvement of the data regarding tank classification. An extensive review of the source data revealed that a small number of contact tanks and non-potable reservoirs had previously been included in the calculation of this figure. These have now been excluded in accordance with Ofwats guidance. Similarly, a further 2.42Ml was removed from the total capacity of water towers following confirmation that a contact tank at Saltersford WTW had been incorrectly identified as a water tower.

Water delivered (4P.71 - 72)

54 Water delivered to measured residential properties continues to rise as customers switch from non-measured to measured billing.

Leakage (4P.73)

55 We continue to have success in bringing down leakage through implementation of our AMP6 leakage strategy.

- Network/pump optimisation schemes - There have been 22 optimisation schemes implemented in 2017/18, delivering 3.13 Ml/d of leakage reduction.

- Intensive Leakage Programme (the "172 process") - This process has now reviewed 663 District Meter Areas, resulting in leakage reduction of 3.75 Ml/d.

- Detection resources - We have continued to maintain an elevated level of detection technicians since 2015/16 in order to mitigate against the risk of summer/winter breakout of leaks. An average of 125 technicians were employed over the whole of 2017/18 to search for leaks, an increase on prior years.

56 Work on development of our Integrated Leakage and Pressure Management system (ILPM) has carried on in 2017/18. The changes in 2017/18 include improvements around data validation and correction of data when there has been a loss of data due to instrumentation failure, visualisation improvements and changes to allow Hartlepool Water assets to be incorporated within the software.

57 In 2017/18 we saw two cold spells that impacted the network and caused leakage to increase. The first was in mid December and the second, more significant, event lasted from 22 February to 5 March 2018. Despite the inevitable short-term spike in leakage caused by these events, we recovered quickly and the events have not caused us to deviate from our downward glide path.

Number of communication pipes (4P.76-78)

58 We modelled our communication pipe stock in 2012 for the 2014 Price Review. We use this work as the starting point for calculating these lines and then subtract the number of replaced lead and galvanised iron communication pipes from the 2012 modelled totals.

Numbers of service reservoirs and water towers (4P.80-81)

59 Lines 4P.80-81 include the total number of all treated water service reservoirs and water towers respectively. In accordance with the guidance, the figures include those reservoirs in distribution and those located in the perimeter of a water treatment works (WTW), but exclude reservoirs for raw or partially treated water such as contact tanks. These figures differ from the number of service reservoirs and water towers reported to

the Drinking Water Inspectorate (DWI) annually as part of the Information Direction. The DWI guidance was explicit that storage reservoirs within the perimeter of a WTW were not included within their definition of a service reservoir.

60 The increase in the number of treated water service reservoirs reported for 2017/18 can be attributed to improved data regarding the classification of these structures. We have reviewed and cleansed the data and we now have a process in place for identifying and standardising treated water storage structures and compartments.

Total length of mains laid or structurally refurbished (4P.82-89)

61 All infrastructure relating to the water service that is potable, in-service and owned by the company has been included in lines 4P.82-89. Changes to these age bands are due to constant improvement to positional accuracy of the mains.

Average pumping head - distribution (4P.90)

62 We have kept a very similar method to previous years' submissions, splitting the company into 52 discrete systems covering 92 per cent of our Distribution Input (DI). These were investigated, updated, data cleansed and used to calculate the average pumping head.

WTWs by category (4P.91-98)

63 The number of sites in each specified WTW category (based upon Ml/d DI) is defined, based upon our source works output reporting system data.

Proportion of distribution input by band (4P.99-106)

64 The proportions of DI in each WTW category (based upon pre-MLE SWORPS - Ml/d DI) are derived from the same data system as Lines 4P.91-98.

Table 4Q - Non-Financial Data - Properties, Population and Other - Wholesale Water

	Line description	Units	Current year
A	**Properties and population**		
1	Residential properties billed for measured water (external meter)	000	1,317.904
2	Residential properties billed for measured water (not external meter)	000	272.425
3	Business properties billed measured water	000	112.646
4	Residential properties billed for unmeasured water	000	369.149
5	Business properties billed unmeasured water	000	1.455
6	Total business connected properties at year end	000s	122.882
7	Total residential connected properties at year end	000s	2,072.837
8	Total connected properties at year end	000	2,195.719
9	Number of residential meters renewed	000	91.518
10	Number of business meters renewed	000s	4.637
11	Number of meters installed at request of optants	000	8.569
12	Number of selective meters installed	000	15.289
13	Total number of new business connections	000	0.780
14	Total number of new residential connections	000	20.799
15	Total population served	000	4,615.018
16	Number of business meters (billed properties)	000	113.465
17	Number of residential meters (billed properties)	000	1,608.045
18	Company area	km2	22,646
B	**Other**		
19	Number of lead communication pipes replaced for water quality	nr	702
20	Total supply side enhancements to the supply demand balance (dry year critical / peak conditions)	Ml/d	0.00
21	Total supply side enhancements to the supply demand balance (dry year annual average conditions)	Ml/d	0.00
22	Total demand side enhancements to the supply demand balance (dry year critical / peak conditions)	Ml/d	6.25
23	Total demand side enhancements to the supply demand balance (dry year annual average conditions)	Ml/d	5.85
24	Energy consumption - network plus	MWh	279
25	Energy consumption - water resources	MWh	80
26	Energy consumption - wholesale	MWh	359
27	Peak factor	%	118.73%
28	Mean Zonal Compliance	%	99.96%
29	Volume of Leakage above or below the sustainable economic Level	Ml	-28.338

Business properties billed (4Q.3 / 4Q.5)

1 In these lines we report the number of business properties for which we have reported revenue. They were not billed by Anglian Water. We exited the non-household retail market at the start of 2017/18 so all our connected non-household properties are now billed by other retailers.

Total connected properties at year-end (4Q.6 - 8 / 4Q.13 - 14)

2 The table below gives a year-on-year comparison of connected property numbers (excluding waste water only connections) for Anglian Water and Hartlepool Water combined (ANH). The report year 2017/18 saw the highest annual increase (1.64 per cent) of total connected property figures since 2011/12. This year also saw the highest increase (6.49 per cent) for non household connections.

3 These figures do not include properties connected to Anglian Water sewerage systems which receive water services from other companies.

	Business (Non-Household)			Residential (Household)			Total Connected Properties		
Year	ANH Connected Properties	Increase on Previous Year	% Increase on Previous Year	ANH Connected Properties	Increase on Previous Year	% Increase on Previous Year	ANH Connected Properties	Increase on Previous Year	% Increase on Previous Year
2017/18	122,882	7,490	6.49%	2,072,837	27,952	1.37%	2,195,719	35,442	1.64%
2016/17	115,392	5,841	5.06%	2,044,885	-145	-0.01%	2,160,277	5,696	0.26%
2015/16	109,551	1,750	1.60%	2,045,030	14,914	0.73%	2,154,581	16,664	0.78%
2014/16	107,801	-91	-0.08%	2,030,116	17,783	0.88%	2,137,917	17,692	0.83%
2013/14	107,892	-964	-0.89%	2,012,333	16,567	0.82%	2,120,225	15,603	0.74%
2012/13	108,856	-692	-0.89%	1,995,766	15,666	0.78%	2,104,622	14,974	0.72%
2011/12	109,548			1,980,100			2,089,648		

Number of meters (4Q.9 - 12)

4 For the number of renewed meters during the reported year, we have combined both proactive meter exchange and reactive meter exchange programme numbers to obtain a total figure. The split between residential meters and business meters was calculated by using all properties identified as business eligible since market opened in April 2017.

5 The number of customers opting for a meter continues to fall as we get closer to full meter penetration and as a result of our meter enhancement programme. Customers for whom we have already fitted a meter under our enhancement programme and who wish to pay measured charges will be recorded as switchers.

6 Selective meters include 660 compulsory meters plus meters fitted under our enhanced metering programme as both are carried out at our behest. Under our enhanced metering programme we fit a meter to a customer's house but they continue to pay by rateable value until they ask to switch or the property changes hands.

Total population served (4Q.15)

7 Population is calculated based upon our SAP customer property information, Office of National Statistics (ONS) and population and local authority household data. Population is derived using the estimation of households served by Anglian Water, as a percentage of the ONS/DCLG (Department for Communities and Local Government) totals, applied to the ONS LAUA population assessments. Additional account is taken of communal population, which is derived using census data.

8 The estimate of household population is based on the 2012 (2016 update) sub-national population and local authority property totals from the ONS and DCLG. Additionally, the population figures have been amended to reflect the current ONS 2017 mid year estimates revision.

9 Consistent with prior submissions, we apportion the data for the local authority districts we serve to derive an estimate of the water population in the Anglian Water region.

10 The overall total population figure shows an increase of approximately 19,000 compared to the prior year. This reflects the additional properties within the water region and a decrease of 0.2 per cent in gross regional occupancy rates.

Numbers of meters (billed properties) (4Q.16 - 17)

11 In accordance with Ofwat's revised guidance, provided via query ANH-APR-CE-013, these numbers exclude meters in void properties.

12 We have excluded enhanced meters at properties where the customer has not switched and continues to be charged on an unmeasured basis.

Company area (4Q.18)

13 The area shown is the sum of the water appointed areas for Anglian Water and Hartlepool Water, less the net aggregate areas of water insets.

Number of lead communication pipes replaced for water quality (4Q.19)

14 The 2017/18 figure of 702 includes communication pipes replaced under both the planned replacement programme and reactive work.

15 The number replaced in 2017/18 has reduced significantly on 2016/17. This is because the planned programme of replacements came to an end in the summer of 2017. We will continue to replace lead pipework in reactive circumstances. However, we are now focusing on our higher impact, seasonal orthophosphoric acid dosing strategy which positively impacts on a much greater number of our customers.

Total demand side enhancements to the supply demand balance (dry year critical peak conditions) (4Q.22)

16 Demand side enhancement savings have been derived using meter optant data in conjunction with assessed savings from water efficiency measures (these have been based upon per property assumptions).

17 Savings have been assessed for the following programmes.

- 'Bits and Bobs' Service Programme - Assumed savings 50 l/property/day.
- Drop 20 Programme - Assumed savings 25 l/property/day.
- Leakage - Assumed as the difference between present and previous year.
- Enhanced Metering (Optant Metering, Selective Metering) Programme - Assumed savings 50 l/property/day on switching.

18 For the Dry Year Critical Peak conditions, demand management options impacting measured and unmeasured demand have been modified by the following average regional factors (from the Water Resources Management Plan).

- Average Measured Household Critical Peaking Factor (regional average for all Water Resource Zones - WRZs) 1.313.
- Average Unmeasured Household Critical Peaking Factor (regional average for all Water Resource Zones - WRZs) 1.390.

19 These factors have produced the demand management option savings uplifted to reflect critical peak conditions. Note that only measured and unmeasured effects have been factored.

Total demand side enhancements to the supply demand balance (dry year annual average conditions) (4Q.23)

20 Demand side enhancement savings have been derived using optant data provided by the metering team in conjunction with assessed savings from measured water efficiency (these have been based upon per property saving assumptions provided by the metering team).

21 Savings have been assessed for the same programmes as the previous line and at the same assumed saving rates.

22 For the Dry Year Annual Average conditions, demand management options impacting measured and unmeasured consumption have been modified by the following average regional factors (from the WRMP).

- Average Measured Household Dry Year Annual Average Factor (regions average for all Water Resource Zones - WRZs) 1.027.
- Average Unmeasured Household Dry Year Annual Average Factor (regional average for all Water Resource Zones - WRZs) 1.34.

Energy consumption - Network Plus, Water Resources and Wholesale (4Q.24 - 26)

23 Since 2006 our energy initiative has continued to deliver benefits, recognising that renewables and energy efficiency help make our business more sustainable and deliver considerable savings across our organisation.

24 Following the Ofwat guidance, energy consumption for water has reduced by 11,398 MWh (3 per cent) in 2017/18 from a 2011/12 baseline.

25 A number of assumptions have been made in calculating the water data.

- For water we have applied a financial split from regulatory accounts between water resources and network plus for grid electricity consumption.
- The data for all periods has been updated in line with the methodology used in the August 2017 submission. This reflected the change in Ofwat guidance and a methodology that used the financial split for electricity consumption.
- We have included energy from renewable sources generated and used on site, including CHP (combined heat & power), wind and solar.
- Grid electricity and fuel oil used in offices has been included and split equally between water and wastewater.
- Fuel oils and transport are not recorded in the categories required. We have therefore assumed a split for fuel oil and transport energy consumption which matches the split for grid electricity. The exception is RTS fleet sludge tankering which has been applied to the sludge line.
- For transport (fleet fuel) the split between water and water recycling is not measured and therefore we have assumed a 50/50 split.
- Sub contracted transport (sludge and cake) has not been included, only fleet (directly operated) vehicles.
- We have assumed a 35 per cent thermal efficiency for natural gas consumption in converting to energy output (boilers and Combined Heat and Power - CHP).

- There is no guidance on which emission factors to use to convert from litres to kWh for fuel consumption. We have used the energy consumption calculator spreadsheet SEAI PS (Sustainable Energy Authority of Ireland Public Sector).

- Transport for company cars is collected as mileage. We have converted mileage into kWh using the UKWIR carbon accounting workbook 10.1 through calculating miles to carbon dioxide equivalent to litres.

Peak factor (4Q.27)

26 The peak factor is calculated using data from our Sourceworks Output Reporting System (SWORPS) before adjustment for Maximum Likelihood Estimation (MLE), which is totalled for the Anglian Water region. Average daily demand during the peak demand week (average day, peak week) has been used to calculate the peaking factor.

Mean zonal compliance (4Q.28)

27 Overall Mean Zonal Compliance (MZC) for 2017 was 99.96 per cent. This index was impacted by 55 exceedances in the Anglian region, comprising 24 odour, nine metaldehyde, five iron, five nickel, four lead, three taste, two *E.coli*, one trihalomethane, one nitrite and one nitrite-nitrate formula exceedance.

28 There were no exceedances impacting MZC in the Hartlepool Water region.

Volume of leakage above or below the Sustainable Economic Level (4Q.29)

29 For the purposes of this table we have assumed a Sustainable Economic Level of Leakage of 211 Ml/d.

Table 4R - Non-Financial Data - Wastewater Network and Sludge

	Item description	Unit	Current year
A	**Wastewater network**		
1	Connectable properties served by s101A schemes completed in the report year	nr	130
2	Number of s101A schemes completed in the report year	Nr	2
3	Total pumping station capacity	kW	121,168
4	Number of network pumping stations	nr	6,221
5	Total number of sewer blockages	nr	40,371
6	Total number of gravity sewer collapses	nr	345
7	Total number of sewer rising main bursts / collapses	nr	150
8	Number of combined sewer overflows	nr	1,428
9	Number of emergency overflows	nr	839
10	Number of settled storm overflows	nr	372
11	Sewer age profile (constructed post 2001)	km	1,894
12	Volume of trade effluent	Ml/d	21,180.95
13	Volume of wastewater receiving treatment at sewage treatment works	Ml/yr	582,806.15
14	Length of gravity sewers rehabilitated	km	45
15	Length of rising mains replaced or structurally refurbished	km	12
16	Length of foul (only) public sewers	km	18,954
17	Length of surface water (only) public sewers	km	11,465
18	Length of combined public sewers	km	10,316
19	Length of rising mains	km	4,495
20	Length of other wastewater network pipework	Km	6
21	Total length of "legacy" public sewers as at 31 March	Km	45,237
22	Length of formerly private sewers and lateral drains (s105A sewers)	km	31,200
B	**Sludge**		
23	Total sewage sludge produced, treated by incumbents	ttds/ year	142.4
24	Total sewage sludge produced, treated by 3rd party sludge service provider	ttds/ year	0.0
25	Total sewage sludge produced	ttds/ year	142.4
26	Percentage of sludge produced and treated at a site of STW and STC co-location	%	29.18
27	Total sewage sludge disposed by incumbents	ttds/ year	99.2
28	Total sewage sludge disposed by 3rd party sludge service provider	ttds/ year	0.0
29	Total sewage sludge disposed	ttds/ year	99.2

	Item description	Unit	Current year
30	Total measure of intersiting 'work' done by pipeline	ttds*km/year	40
31	Total measure of intersiting 'work' done by tanker	ttds*km/year	1,996
32	Total measure of intersiting 'work' done by truck	ttds*km/year	4,432
33	Total measure of intersiting 'work' done (all forms of transportation)	ttds*km/year	6,468
34	Total measure of intersiting 'work' done by tanker (by volume transported)	m3*km/year	82,479,832
35	Total measure of 'work' done in sludge disposal operations by pipeline	ttds*km/year	0
36	Total measure of 'work' done in sludge disposal operations by tanker	ttds*km/year	0
37	Total measure of 'work' done in sludge disposal operations by truck	ttds*km/year	4,851
38	Total measure of 'work' done in sludge disposal operations (all forms of transportation)	ttds*km/year	4,851
39	Total measure of 'work' done by tanker in sludge disposal operations (by volume transported)	ttds*km/year	0
40	Chemical P sludge as percentage of sludge produced at STWs	%	48.22

s101A Schemes Completed In The Report Year (4R.1 - 2)

1 In 2017/18 we completed two Section 101a schemes, enabling connection to main sewerage services to a total of 130 properties for the first time. These schemes are shown in the table below.

Scheme Location	No. connectable properties
Repps with Bastwick	115
Worstead	15

Network pumping stations (4R.3 - 4)

2 The number of pumps, rated power for each pump, location and asset status have been used where this information was held in corporate databases. The rated power of the remaining pumps, where data was not currently centrally held, was estimated through extrapolation. The number of sites was calculated based on this more granular asset data. The increase in site numbers through to 2017/18 is attributable to the private pumping station adoptions. The relative lack of change in rated capacity, despite the increase in numbers, is attributable to improved data on those pumping stations previously with over-estimated rated capacities.

Total number of sewer rising main bursts / collapses (4R.7)

3 There has been an increase in the number of rising mains bursts in 2017/18 compared to previous years. This is mainly due to the full year effect of the adoption of private pumping stations and the associated rising mains in October 2016.

4 The total of lines 4R.6 and 4R.7 differ from the total number of collapses reported in table 3B because 3B data excludes collapses and bursts on sewers that transferred under the 2011 regulations.

Numbers of overflows (4R.8 - 10)

5 Figures for 2017/18 are taken from source databases at the end of the reporting year. The increase in the number of Combined Sewer Overflows (CSOs), and reduction in the number of Emergency Overflows, has occurred as a result of a reassessment of whether a number of temporary schedule permits relating to pumping stations that were issued at privatisation cover a discharge under both storm and emergency conditions. It has been determined that a number do cover a discharge under storm conditions and therefore they have been counted as such.

6 There are a number of potentially unpermitted CSOs. We are currently investigating whether these actually exist, or whether they are definitely unpermitted. As of the end of 2017/18 449 potentially unpermitted CSOs had been identified. So far we have confirmed that 44 of these exist and need to be permitted, and 86 require further investigation. We have therefore added 130 to the number of CSOs for each of the reporting years. (This represents a restatement of the figures quoted in the 2017 Cost Assessment Information Request. At that time we estimated the number of unpermitted CSOs to be 150.)

Sewer age profile (constructed post 2001) (4R.11)

7 The best estimated year laid of every mapped sewer has been maintained. Our approach is iterative based on our corporate systems, historical development polygons, deed dates (for non-infra sites to sub-catchments) and the length weighted median year for each material.

8 We have assumed that the age profile of modelled lengths of section 24 and transferred sewers is spread across the age bands and have used a weighted average method.

Volume of wastewater receiving treatment at sewage treatment works (4R.13)

9 For smaller WRCs (serving less that 250 population equivalent) an estimate has been made of the flow discharged per year. The numbers for this line were then produced by combining the separate values for the measured flows from larger WRCs with the estimated flow from the smaller WRCs.

Length of wastewater network pipework (4R.16 - 21)

10 We have used a new and improved process that ensures that we do not double-count any transferred sewers. We have assumed that any sewers identified other than foul, surface or combined can be attributed to the combined sewer lengths line. This is consistent with the approach taken in previous years.

11 Our modelled estimate of ex-Section 24 sewer lengths have been included in our reported sewer lengths since 2002/03; therefore these have been included in these lines. Our modelled length includes an assessment of the surface water sewers and we have assumed, given the typical sewer practice at the time, the remainder are combined sewers.

12 Rising mains include both pumped and vacuum movement methods.

13 In line 4R.20 we have included a length of 6.325km which is for a sludge main.

Length of formerly private sewers and lateral drains (s.105A sewers) (4R.22)

14 We are reporting our total estimated length of modelled transferred sewers. These are 26,700km of laterals and 4,500km of private drains. This estimate is based on the findings of a number of studies we undertook prior to 2011.

Total sludge produced, treated by incumbents (4R.23)

15 The number reported was calculated in the same way as in APR 2017. At present this is at the point of treatment (for example thickened blended sludge entering the Sludge Treatment Centers - STCs), rather than the boundary of Network Plus and Bioresources.

Cross boundary raw cake imports from Yorkshire Water Services (2.602 ttds) have been excluded in line with the line definition. Sludge derived from tankered cess pit and septic tank waste (approximately 2.3 ttds) has been included. All of the sludge produced in our area in 2017/18 was treated in-house.

Percentage of sludge produced and treated at a site of STW and STC co-location (4R.26)

16 We have deemed sludge to be treated at a site of WRC and STC co-location only when full sludge treatment is present. That is, we have not counted raw dewatering sites. We have therefore counted our nine advanced AD sites, one conventional AD site and two lime plants.

Total sewage sludge, disposed by incumbents (4R.27)

17 The number reported was calculated in the same way as in APR 2017 in line with the definition on the basis of treated material hauled to agricultural land (but not necessarily spread), into composting and into land reclamation (zero this year). We have excluded the treated equivalent (advanced digested at Pyewipe and Great Billing) of the raw sludge received from Yorkshire Water Services to be consistent with only including in-area sludge.

Total measure of intersiting 'work' done by pipeline (4R.30)

18 We transfer sludge by underground pipeline a measured distance of 6.325 km from sludge holding tanks at Southend WRC to centrifuge feed tanks at Rochford WRC. This is the only pumped transfer. We have not included this in line 4R.26 as it is a raw sludge transfer which goes elsewhere for treatment.

Total measure of intersiting 'work' done by tanker (4R.31)

19 We measure tankering work volumetrically; therefore to convert cubic meters to tonnes of dry solids (tds) we have used an average dry solids content of 2.42 per cent. This is the average of measured data for the reporting period.

Total measure of intersiting 'work' done by truck (4R.32)

20 We have included all raw cake transfers between dewatering centres and STCs in this line.

Total measure of intersiting 'work' done by tanker (by volume transported) (4R.34)

21 We have reported this information from the same base information as reported in line 4R.9. The reported volumes are taken from routine records of tankered movements.

Total measure of 'work' done in sludge disposal operations by tanker and by volume transported (4R.36 / 4R.39)

22 We have not passed any liquid sludge to third parties in the reporting year. As our entire disposal to agricultural land, land reclamation (when applicable) and composting is completed as cake, these are zero entries.

Total measure of 'work' done in sludge disposal operations by truck (4R.37)

23 Treated cake that is transferred to intermediate storage, as well as from STCs direct to the landbank, has been included. For haulage from STCs to landbank, estimated road distances (km) have been calculated on straight line distance x 1.35, which we have assessed as the relationship between straight line and road distance between STCs and its landbank. All other reported lines use measured road distance.

24 In compiling the numbers for APR 2018, it has become apparent that the conversion of straight line distance to an estimate of road distance was not applied on this line entry correctly in 2016/17. The corrected figure in our 2017 Information Request (table 15 line 15 and the total value on line 16 which has the same value) is 4224.650 ttds*km/year.

Chemical P sludge as percentage of sludge produced at STWs (4R.40)

25 In line with the clarification received from Ofwat by email we have changed the way we have reported this number to match the PR19 (Bio 1 line 19) definition: 'the total quantity of sludge produced at wastewater treatment works which use chemical dosing for phosphorus removal expressed as a percentage of total sludge produced at all in-area wastewater treatment works'. For comparative purposes the number stated according to the revised definition would have been 47.490 per cent in 2016/17 and 46.321 per cent in 2015/16.

26 The increase over these years is mainly due to overall increased population at the larger works removing phosphorus chemically.

27 We have not included sludge arising from phosphorus removal at Whitlingham WRC (Norwich), either now or previously, as this site has a Biological Nutrient Removal plant removing phosphorus biologically and we do not dose chemicals there. Similarly, we do not include iron salt dosing at Clacton WRC which is for enhanced settlement.

Table 4S - Non-Financial Data - Sewage Treatment

	Line description	Unit	Treatment categories							
			Primary	Secondary		Tertiary				Total
				Activated Sludge	Biological	A1	A2	B1	B2	
A	**Load received at sewage treatment works in 2017-18**									
1	Load received by STWs in size band 1	kg BOD5/day	15	405	1,483	242	8	423	0	2,576
2	Load received by STWs in size band 2	kg BOD5/day	0	445	1,454	259	20	837	48	3,063
3	Load received by STWs in size band 3	kg BOD5/day	0	1,996	6,527	1,368	242	6,629	574	17,336
4	Load received by STWs in size band 4	kg BOD5/day	0	9,731	18,123	4,963	3,282	14,005	10,807	60,911
5	Load received by STWs in size band 5	kg BOD5/day	0	9,866	6,301	4,786	13,927	3,195	24,653	62,728
6	Load received by STWs above size band 5	kg BOD5/day	0	102,348	8,410	17,209	119,083	-	25,274	272,324
7	**Total load received**	kg BOD5/day	15	124,791	42,298	28,827	136,562	25,089	61,356	418,938
8	Load received from trade effluent customers at treatment works	kg BOD5/day								42,524
B	**Number of sewage treatment works at 31 March 2018**									
9	STWs in size band 1	nr	6	55	304	29	1	50	-	445
10	STWs in size band 2	nr	0	18	61	11	1	35	2	128
11	STWs in size band 3	nr	0	26	94	22	3	99	7	251
12	STWs in size band 4	nr	0	28	68	16	8	54	32	206
13	STWs in size band 5	nr	0	8	7	4	13	3	24	59
14	STWs above size band 5	nr	0	16	3	3	20	-	7	49
15	**Total number of works**	nr	6	151	537	85	46	241	72	1,138

C	**Population equivalent**		
16	Current population equivalent served by STWs	000	6,763.614
17	Current population equivalent served by discharge relocation schemes	000s	5.959
18	Current population equivalent served by filter bed STWs with tightened/new P consents	000s	39.089
19	Current population equivalent served by activated sludge STWs with tightened/new P consents	000s	86.062
20	Current population equivalent served by groundwater protection schemes	000s	0.000
21	Current population equivalent served by STWs with a Flow1 driver scheme	000s	0.000
22	Current population equivalent served by STWs with tightened/new N consents	000s	0.000
23	Current population equivalent served by STWs with tightened/new sanitary parameter consents	000s	200.969
24	Current population equivalent served by STWs with tightened/new UV consents	000s	0.000
25	Population equivalent treatment capacity enhancement	000s	9.046

	Line description	Unit	Treatment works consents															
			Phosphorus					BOD5						Ammonia					
			<=0.5mg/l	>0.5 to <=1mg/l	>1mg/l	No permit	Total	<=7mg/l	>7 to <=10mg/l	>10 to <=20mg/l	>20mg/l	No permit	Total	<=1mg/l	>1 to <=3mg/l	>3 to <=10mg/l	>10mg/l	No permit	**Total**
A	**Load received at sewage treatment works in 2017-18**																		
1	Load received by STWs in size band 1	kg BOD5/day	0	0	0	2,537	2,537	4	0	282	223	2,028	2,537	0	0	149	229	2,159	2,537
2	Load received by STWs in size band 2	kg BOD5/day	0	0	84	2,906	2,990	30	60	939	1,690	271	2,990	0	20	321	699	1,950	2,990
3	Load received by STWs in size band 3	kg BOD5/day	0	0	1,887	15,210	17,097	322	557	8,294	7,732	192	17,097	0	481	4,950	4,734	6,932	17,097
4	Load received by STWs in size band 4	kg BOD5/day	0	664	16,136	43,435	60,235	1,556	8,494	28,779	21,117	289	60,235	1,851	5,838	28,042	12,902	11,602	60,235
5	Load received by STWs in size band 5	kg BOD5/day	0	3,015	37,117	22,654	62,786	1,029	10,665	26,908	24,184	0	62,786	1,117	6,905	33,327	9,234	12,203	62,786
6	Load received by STWs above size band 5	kg BOD5/day	0	2,659	144,200	125,442	272,301	6,980	44,649	121,336	99,336	0	272,301	6,978	59,613	109,494	37,599	58,617	272,301
7	**Total load received**	kg BOD5/day	0	6,338	199,424	212,184	417,946	9,921	64,425	186,538	154,282	2,780	417,946	9,946	72,857	176,283	65,397	93,463	417,946
8	Load received from trade effluent customers at treatment works	kg BOD5/day																	
B	**Number of sewage treatment works at 31 March 2018**																		
9	STWs in size band 1	nr	0	0	0	444	444	1	0	21	23	399	444	0	0	10	23	411	444
10	STWs in size band 2	nr	0	0	4	121	125	1	2	38	70	14	125	0	1	13	30	81	125
11	STWs in size band 3	nr	0	0	24	225	249	5	7	120	115	2	249	0	7	62	73	107	249
12	STWs in size band 4	nr	0	2	44	157	203	5	27	102	68	1	203	4	20	93	44	42	203
13	STWs in size band 5	nr	0	3	37	19	59	1	10	26	22	0	59	1	7	32	9	10	59
14	STWs above size band 5	nr	0	1	25	23	49	1	8	18	22	0	49	1	12	16	7	13	49
15	**Total number of works**	nr	0	6	134	989	1,129	14	54	325	320	416	1,129	6	47	226	186	664	1,129

Loads received (4S.1 - 8)

1 We have calculated the loads using a process consistent with how we historically reported tables 17c and 17d in the June Return.

2 The size banding of the individual WRCs has been determined using the total resident population, which is comprised of domestic population, tankered waste (from septic tanks and cesspools) and trade effluent loads. Non-resident population has not been included when determining the size banding of the works, in line with the guidance.

3 The treatment types at our WRCs is assumed to be the same as prior years, unless evidence from operations has been provided. There has been one change in treatment type in 2017/18. This is summarised in the table below.

Changes to treatment types since 2016-17

WRC	2016/17 treatment type	2017/18 treatment type	PE	Size Band	Load kg BOD/Day	Justification
Cambridge WRC	TB2	SAS	161,905	6	9714.3	Was a split process works but now all flows go through the AS lanes.

4 The loads received numbers in lines 4S.1-7 include non-resident population, but exclude the tankered imports from septic tanks and cesspools. This is consistent with our approach to reporting historically and in line with previous Ofwat guidance JR08/004 and RAG 4.06.

5 The numbers in these lines include loads from nine additional WRCs, which belong to other water companies but to which our customers drain and we receive a charge for the treatment of this load. These works are summarised below.

List of Works Owned by other Companies

WRC Name	2017/18 PE	2017/18 Load	Size Band	Treatment Type
Alkborough STW	502	30.11	2	SCB
Brentwood Nag Head Ln STW Tham	6057	363.40	4	TB1
Cheveley Park STW	19	1.13	1	PRM
Stansted Mountfichet STW	2127	127.60	4	TB1
Stevenage STW	1432	85.91	3	TA2
Gt Whelnetham-Stanfld Rd STW	6	0.39	1	SCB
Halse STW	1156	69.35	3	SCB
Severn Trent STW	247	14.85	1	SCB
Wingrave STW	4966	297.98	3	SCB

6 In our last submission we reported 10 WRCs that fell into this category but, following investigations, we have removed one WRC, Kersey (The Tye), from the list and added it to the list of WRCs which we own and operate.

7 Consent information is provided by an extract from our CHRIS database, which is a live document and holds all of the consent limits for the works the company operate. Because we do not have the consent information for the works which are not in our control, we have not assigned these loads to any consent banding, and so they are excluded from the consents tables.

Number of works (4S.9 - 15)

8 The number of WRCs includes nine additional WRCs which belong to other water companies, but to which our customers drain. Details of these WRCs can be found in the table above.

9 As with lines 4S.1-7, we have omitted these nine WRCs from the consents table.

Current population equivalent served by discharge relocation schemes (4S.17)

10 This line represents a scheme for Poringland WRC which is now pumped away to Whitlingham WRC.

Current population equivalent served by filter bed STWs with tightened/new P consents (4S.18)

11 Schemes that count for this year are at Grimston, Ingoldisthorpe, Lavenham, Tuddenham and Wymondham WRCs; all gained EA sign off in 2017/18. The Grimston and Lavenham schemes were completed in 2016/17 but only achieved sign off subsequently when the permit conditions started to apply.

Current population equivalent served by activated sludge STWs with tightened/new P consents (4S.19)

12 Schemes that count for this year are at Lakenheath, Letchworth, Newnham (Northamptonshire), Soham, Southminster and Upminster WRCs; all gained EA sign off in 2017/18. The Southminster and Upminster schemes were both completed in 2016/17 but only achieved sign off subsequently when the permit conditions started to apply.

Current population equivalent served by groundwater protection schemes (4S.20)

13 No schemes under this driver were expected or delivered this year.

Current population equivalent served by STWs with a Flow1 driver scheme (4S.21)

14 No schemes under this driver were expected or delivered this year.

Current population equivalent served by STWs with tightened/new N consents (4S.22)

15 No schemes under this driver were expected or delivered this year.

Current population equivalent served by STWs with tightened/new sanitary parameter consents (4S.23)

16 Schemes at Corby, Dunstable, Long Stratton, North Hykeham and Stanbridgeford WRCs were completed in 2017/18. An associated population equivalent of 200,969 has been reported in this line for that year.

17 A number of other schemes were signed off as complete by the EA in 2017/18 and permit conditions consequently started to apply, however these have not been reported for the following reasons:

- Six schemes have their outputs and expenditure reported under other lines (Ingoldisthorpe, Lakenheath, Letchworth, Poringland, Tuddenham and Wymonham) - population equivalent for these STWs is 88,034.
- Three schemes were already delivered in 2015-16 (Ditchingham, Stanningfield and Watton) - population equivalent for these STWs is 17,435.
- Four schemes were already delivered in 2016-17 (Deepings, Great Welnetham, Grimston and Hundon) - population equivalent for these STWs is 23,780.

- One scheme at Attleborough was delivered using an operational solution and did not require any capital investment to achieve the obligation - population equivalent for this STW is 13,147.

Current population equivalent served by STWs with tightened/new UV consents (4S.24)

18 There were no schemes delivered during the reporting year which involved the tightening, or introduction, of new or tightened consent conditions for microbiological parameters to meet the requirements of the EU Shellfish Waters or revised Bathing Water Directives.

Population equivalent treatment capacity enhancement (4S.25)

19 In 2017/18 the population equivalent capacity added was 9,046. The enhanced WRCs were Soham, North Hykeham and Wymondham.

Table 4T - Non-Financial Data - Sludge Treatment

	Item description	by Incumbent %	by 3rd party sludge service providers %
A	**Sludge treatment process**		
1	% Sludge - untreated	0.0	0.0
2	% Sludge treatment process - raw sludge liming	16.1	0.0
3	% Sludge treatment process - conventional AD	1.7	0.0
4	% Sludge treatment process- advanced AD	82.2	0.0
5	% Sludge treatment process - incineration of raw sludge	0.0	0.0
6	% Sludge treatment process - incineration of digested sludge	0.0	0.0
7	% Sludge treatment process - phyto-conditioning/composting	0.0	0.0
8	% Sludge treatment process - other (specify)	0.0	0.0
9	**% Sludge treatment process - Total**	**100.0**	**0.0**
B	**(Un-incinerated) sludge disposal route**		
10	% Sludge disposal route - landfill, raw	0.0	0.0
11	% Sludge disposal route - landfill, partly treated	0.0	0.0
12	% Sludge disposal route - land restoration / reclamation	0.0	0.0
13	% Sludge disposal route - sludge recycled to farmland	99.8	0.0
14	% Sludge disposal route - other (specify)	0.2	0.0
15	**% Sludge disposal route - Total**	**100.0**	**0.0**

1 The sludge produced to which the percentages reported in lines 4T.1 to 4T.9 relate are the same as those reported in table 4R line 25. Likewise, the sludge produced to which the percentages reported in lines 4T.10 to 4T.15 relate are the same as those reported in 4R line 29.

2 In 2017/18 we received 2.60 raw ttds of cake imports from Yorkshire Water Services, this was split between Pyewipe and Great Billing Advanced Digestion STCs. In order to report consistently with the requirements of table 4R (to only include the treatment of sludge produced in-area), we have excluded this part of the raw load treated from the calculations. In a similar way we have excluded a total of 1.77 treated ttds (0.90 ttds from Pyewipe STC and 0.87 ttds from Great Billing STC) from the sludge recycled to farmland in the calculations for Block B, after adjusting for solids reduction through digestion at each STC.

% Sludge -untreated (4T.1)

3 We would normally include here raw sludge that was disposed to land reclamation without treatment. However, in 2017/18 there was no such activity carried out.

% Sludge treatment process - phyto-conditioning/composting (4T.7)

4 We co-compost some sludge after digested sludge treatment. It has not been included here to avoid double counting as it has already undergone treatment, but has been included in lines 4T.3 and 4T.4 as appropriate.

% Sludge disposal route - other (4T.14)

5 We include here digested cake disposals into co-compost, sludge that went to other companies for digester seeding and sludge donated for research projects.

Table 4U - Non-Financial Data - Properties, Population and Other - Wholesale Wastewater

	Item description	Unit	Current year
A	**Properties and population**		
1	Residential properties connected during the year	000	26.712
2	Business properties connected during the year	000	0.831
3	Residential properties billed unmeasured sewage	000	528.137
4	Residential properties billed measured sewage	000	2,012.044
5	Residential properties billed for sewage	000	2,540.181
6	Business properties billed unmeasured sewage	000	2.087
7	Business properties billed measured sewage	000	110.796
8	Business properties billed for sewage	000	112.883
9	Void properties	000	103.208
10	Total number of properties	000s	2,756.272
11	Resident population	000	6,007.840
12	Non-resident population	000	265.729
B	**Other**		
13	Energy consumption - network plus	MWh	343,941.901
14	Energy consumption - sludge	MWh	140,220.061
15	Energy consumption - wholesale	MWh	484,161.962
16	Population resident in National Parks, SSSIs and Areas of Outstanding Natural Beauty (AONBs)	000s	72.000
17	Total sewerage catchment area	km2	4,129
18	Designated bathing waters	nr	49
19	Number of intermittent discharge sites with event duration monitoring	nr	177
20	Number of monitors for flow monitoring at STWs	Nr	0
21	Number of odour related complaints	nr	3,014
22	Volume of storage provided at CSOs, storm tanks, etc to meet spill frequency objectives	m3	0
23	Total volume of network storage	m3	10,242,342

Business properties billed (4U.6 - 8)

1 In these lines we report the number of business properties for which we have reported revenue. They were not billed by Anglian Water. We exited the non-household retail market at the start of 2017/18 so all our connected non-household properties are now billed by other retailers.

Resident population (4U.11)

2 Population is calculated, based upon Anglian Water SAP customer information, and ONS, population and local authority household data. Population is derived using the estimation of households served by Anglian Water, as a percentage of the DCLG totals, applied to the ONS LAUA population assessments. Additional account is taken of the communal population, which is derived using census data.

3 The estimate of household population is based on the 2012 (2016 update) sub-national population and property projections from the ONS and the DCLG. Population projections have been amended to reflect the current ONS 2017 mid year estimates revision.

4 We apportion the data for the districts we serve to derive an estimate of the wastewater population in the Anglian Water region.

5 The estimate of non-household population is based on the latest census data published by the ONS. This 'communal' population covers prisons, care homes and military bases. These projections have been revised in line with the paper *'Updating the Department for Communities and Local Government's Household Projections'*, specifically annex 2 *'Improving Institutional Population Estimates and Projections'*.

6 In addition we have added an estimate of people resident in mixed properties.

7 It is noted that the overall total population figure shows an increase of approximately 34,000, which reflects ONS data, occupancy rates and additional housing connections during the year. There has been a slight decrease in the overall official occupancy rate, by 0.2 per cent to 2.365. This is based upon the gross regional combined local authority projections and ONS population projections.

Energy consumption - Network Plus, Sludge and Wholesale (4U.13 - 15)

8 Since 2006 our energy initiative has continued to deliver benefits, recognising that renewables and energy efficiency help us make our business more sustainable and deliver considerable savings across our organisation.

9 Following the Ofwat guidance energy consumption for water recycling has reduced by 35,328 MWh (6.8 per cent) in 2017/18 from a 2011/12 baseline.

10 A number of assumptions have been made in calculating the water recycling energy consumption data.

11 For water recycling we have applied a financial split from regulatory accounts between sludge and network plus for grid electricity consumption.

12 The data for all periods has been updated in line with the methodology used in the August 2017 submission. This reflected the change in Ofwat guidance and a methodology that used the financial split for electricity consumption.

13 We have included energy from renewable sources generated and used on site, including CHP (combined heat & power), wind and solar.

14 Grid electricity and fuel oil used in offices has been included and split equally between water and wastewater.

15 Fuel oils and transport are not recorded in the categories required. We have therefore assumed a split for fuel oil and transport energy consumption which matches the split for grid electricity. The exception is RTS fleet sludge tankering which has been applied to the sludge line.

16 For transport (fleet fuel) the split between water and water recycling is not measured and therefore we have assumed a 50/50 split.

17 Sub contracted transport (sludge and cake) has not been included, only fleet (directly operated) vehicles.

18 We have assumed a 35 per cent thermal efficiency for natural gas consumption in converting to energy output (boilers and CHP).

19 There is no guidance on which emission factors to use to convert from litres to kWh for fuel consumption. We have used the energy consumption calculator spreadsheet (SEAI PS).

20 Transport for company cars is collected as mileage. We have converted mileage into kWh using the UKWIR carbon accounting workbook 10.1 through calculating miles to carbon dioxide equivalent to litres.

Population resident in National Parks, SSSIs and Areas of Outstanding Natural Beauty (AONBs) (4U.16)

21 The population resident in Areas of Outstanding Natural Beauty (AONB), Sites of Special Scientific Interest (SSSI), and National Parks was estimated using the following approach.

AONB

22 There are four AONBs within Anglian Water's Water Recycling area. These are Lincolnshire Wolds, Norfolk Coastal, Suffolk Coastal and Heath and Dedham Vale. Each AONB publishes an estimate of population within its area. We quote the figures below, along with the URL of the source data (URLs last accessed May 2018).

Lincolnshire Wolds	10,701	http://www.lincswolds.org.uk/library/annual_review1_16.17.pdf
Norfolk Coastal	13,235	http://www.norfolkcoastaonb.org.uk/mediaps/pdfuploads/pd003722.pdf
Suffolk Coastal	26,191	http://www.suffolkcoastandheaths.org/assets/AONB-Management-Plan-20132018.pdf
Dedham Vale	15,000	http://www.dedhamvalestourvalley.org/assets/About-Us/DV-AONB-infographic.pdf
Total	**65,127**	

23 The Norfolk Coastal figure is conservative as it covers only parishes purely within the AONB. The Suffolk Coastal figure is computed using an average household size of 2.4, as the Suffolk Coastal report contains household numbers rather than population numbers for two Local Authority areas.

SSSI

24 SSSIs overlap extensively with AONBs. Hence there is considerable potential for double counting of the population. As SSSIs tend to be carefully defined to exclude domestic property, the incremental population in SSSIs is small. We have made an assumption that it represents 1 per cent of the total AONB population. This is likely to be generous.

National Park

25 The only National Park in Anglian Water's area is the Broads. The Broads Authority estimates the population within the National Park at 6,300. (http://www.broads-authority.gov.uk/learning/facts-and-figures).

Total sewerage catchment area (4U.17)

26 The figure quoted for the sewered area covers the aggregate area of all our sewered areas.

Number of intermittent discharge sites with event duration monitoring (EDM) (4U.19)

27 In AMP6 we are required to install EDM equipment at a number of sites under the drivers EDM1, s8, rB5 or EDM2. The output dates for these obligations are 177 by 31 March 2018, 336 by 31 March 2019 and 336 by 31 March 2020.

28 The original EDM1, rB5, s8 obligation required 177 EDMs in 2017/18 in agreement with the EA. The number of EDMs we have actually installed or upgraded to meet the EDM permit standards has reduced to 158 as 19 of them have been blocked off or the network

has been redesigned so that they no longer spill to the environment. However, all 177 obligations will be signed off as outputs by the EA as each site will have capital spend associated with surveying/investigating them. 177 sites have therefore been included in the line.

Total volume of network storage (4U.23)

29 This line has been calculated assuming that each length of sewer and rising main is an enclosed volume, using an average of known diameters to calculate the volume for different shaped sewers. We have used a new and improved process that ensures that we do not double-count any transferred sewer volumes.

30 There is insufficient data to make an assessment on all offline and online network storage. However many storage facilities have already been captured in our corporate systems as large diameter pipes, which are accounted for in the calculations.

Table 4V - Operating Costs - Water Resources

Item description	Unit	Impounding Reservoir	Pumped Storage	River Abstractions	Ground - water, excluding MAR water supply schemes	Artificial Recharge (AR) water supply schemes	Aquifer Storage and Recovery (ASR) water supply schemes	Total
Water resources								
A Opex analysis								
1 Power	£m	0.005	0.089	4.098	3.407	-	-	7.599
2 Income Treated as negative expenditure	£m	-	-	(0.046)	(0.115)	-	-	(0.161)
3 Local authority and Cumulo rates	£m	0.042	0.168	0.379	2.523	-	-	3.112
4 Other direct operating expenditure	£m	0.497	4.106	3.756	7.579	-	-	15.938
5 Other indirect operating expenditure	£m	0.118	0.454	3.232	4.095	-	-	7.899
6 Total operating expenditure (excluding 3rd party)	£m	0.662	4.817	11.419	17.489	-	-	34.387
7 Depreciation	£m	0.191	3.249	1.950	3.206	-	-	8.596
8 Total operating costs (excluding 3rd party)	£m	0.853	8.066	13.369	20.695	-	-	42.983

Item description	Unit	Water resources	Raw water distribution	Water treatment	Treated water distribution	Total
B Other expenditure - wholesale water						
9 Employment costs - directly allocated	£m	3.056	0.470	8.600	20.300	32.426
10 Employment costs - indirectly allocated	£m	3.716	0.709	10.273	22.396	37.094
11 Number FTEs consistent with 4V.9 above	Nr	67	10	189	445	711
12 Number FTEs consistent with 4V.10 above	Nr	82	16	225	491	814
13 Costs associated with Traffic Management Act	£m	-	-	-	1.061	1.061
C Service charges						
14 Canal & River Trust service charges and discharge consents	£m	-	-	-	-	-
15 Environment Agency service charges/ discharge consents	£m	10.035	-	0.474	-	10.509
16 Other service charges / permits	£m	-	-	-	-	-
17 Statutory water softening	£m	-	-	-	-	-

Operating costs analysis - water resources (4V.1-4V.5)

1 With the exception of local authority rates which are apportioned based on direct costs. the allocation to activity is based on management assessment carried out at an individual site level.

Employment costs and FTEs - directly allocated (4V.9 and 4V.11)

2 Although some direct opex employment costs can be allocated to service, many front line employees work across operational boundaries and therefore, where not directly allocated, we have used a management assessment of time spent by service. We have nevertheless classed all employees within this category as direct.

3 The number of direct FTEs is assessed from the total employment costs using an average cost per employee.

Employment costs and FTEs - indirectly allocated (4V.10 and 4V.12)

4 Indirectly attributed employment costs are made up of indirect operational employees, employees engaged on capital schemes and general and support employees.

5 General and support employment costs are allocated by an appropriate cost driver as part of our regulatory accounts process.

6 Indirect operational employment costs and employment costs in relation to capex activity are allocated as a proportion of direct employment costs.

7 The number of indirect FTEs is assessed from the total employment costs using an average cost per employee.

Costs associated with Traffic Management Act (4V.13)

8 Reported costs reflect costs directly charged to treated water distribution jobs, including permits and fixed penalty notices.

Service Charges

Environment Agency service charges/ discharge consents (4V.15)

9 Water resources reflects abstraction charges reported under 'Other direct operating expenditure' (4V.4).

10 The costs reported under Water Treatment reflect discharges made from water treatment works.

Table 4W - Operating Costs - Sludge Treatment

Operating cost analysis - sludge treatment

	Item description	Unit	Untreated sludge	Raw sludge liming	Conventional AD	Advanced AD	Incineration of raw sludge	Incineration of digested Sludge	Photo - conditioning / composting	Other	Total
	Sludge treatment opex by treatment type										
A	**Sludge treatment type**										
1	Power	£m	-	0.372	0.014	0.164	-	-	-	-	**0.550**
2	Income treated as negative expenditure	£m	-	-	(0.012)	(5.403)	-	-	-	-	**(5.415)**
3	Local authority and Cumulo rates	£m	-	0.458	0.033	2.648	-	-	-	-	**3.139**
4	Other direct operating expenditure	£m	-	2.627	0.277	19.745	-	-	-	-	**22.649**
5	Other indirect operating expenditure	£m	-	0.847	0.061	4.889	-	-	-	-	**5.797**
6	Total operating expenditure (excluding 3rd party)	£m	-	4.304	0.373	22.043	-	-	-	-	**26.720**
7	Depreciation	£m	-	0.636	8.548	19.599	-	-	-	5.754	**34.537**
8	Total operating costs (excluding 3rd party)	£m	-	4.940	8.921	41.642	-	-	-	5.754	**61.257**
B	**Sludge disposal route**										
9	Power	£m	-	-	-	-	-	-	-	-	**-**
10	Income treated as negative expenditure	£m	-	(0.184)	(0.042)	(1.769)	-	-	-	-	**(1.995)**
11	Local authority and Cumulo rates	£m	-	0.005	0.001	0.025	-	-	-	-	**0.031**
12	Other direct operating expenditure	£m	-	1.178	0.146	6.032	-	-	-	-	**7.356**
13	Other indirect operating expenditure	£m	-	0.485	0.060	2.486	-	-	-	-	**3.031**
14	Total operating expenditure (excluding 3rd party)	£m	-	1.484	0.165	6.774	-	-	-	-	**8.423**
15	Depreciation	£m	-	0.091	0.010	0.466	-	-	-	-	**0.567**
16	Total operating costs (excluding 3rd party)	£m	-	1.575	0.175	7.240	-	-	-	-	**8.990**

Other expenditure - Wholesale wastewater

	Item description	Unit	DPs	Network plus sewage collection	Network plus sewage treatment	Sludge	Total
C	**Opex analysis**						
17	Employment costs - directly allocated	£m	3	19.783	23.504	16.780	**60.067**
18	Employment costs - indirectly allocated	£m	3	19.113	23.251	16.732	**59.095**
19	Number FTEs consistent with line 4W.17	Nr	0	433	515	368	**1,316**
20	Number FTEs consistent with line 4W.18 above	Nr	0	419	509	367	**1,295**
21	Costs asscociated with Traffic Management Act	£m	3	0.159	0.001	-	**0.160**
22	Costs associated with Industrial Emissions Directive	£m	3	-	-	-	**-**
D	**Service charges**						
23	Canal & River Trust service charges and discharge consents	£m	3	0.140	-	-	**0.140**
24	Environment Agency service charges / discharge consents	£m	3	1.096	5.151	0.080	**6.327**
25	Other service charges / permits	£m	3	-	-	-	**-**

Power (sludge treatment) (4W.1)

1 Power costs are captured by our general ledger costing system (SAP) at site level with allocations employed to allocated costs between sewage treatment assets and sludge treatment assets for combined sites. These allocations are based on a combination of site energy monitoring data and historical energy audits. 100 per cent of all CHP generated power is credited to sludge assets regardless if it was consumed by sludge or sewage treatment assets. Power costs exclude power export credits and ROCS credits from CHP energy generation.

2 Sludge treatments assets are predominantly advanced AD sites with only one site (Chelmsford) treating conventional AD and some emergency liming sites at critical periods. Site power costs are allocated to their respective sludge treatment types.

3 The total power costs reconciles to table 4E column sludge treatment Line 1.

Income treated as a negative expenditure (sludge treatment) (4W.2)

4 Costs relate to ROCS and power external export income from CHP energy generation. Credits for power consumed within the business (by sewage treatment assets) are recorded under Line 1 (power). Income predominantly related to Advanced AD treatment with a small amount (part year effect) of income from Chelmsford CHP (conventional AD).

5 The total income reconciles to table 4E sludge treatment column Line 2.

Local authority rates (sludge treatment) (4W.3)

6 Rates costs are allocated to sludge assets based on GMEAV values (16/17) and subsequently allocated to sites and treatment types based on gross direct costs excluding Power and Income.

7 The total local authority rates reconciles to table 4E sludge treatment column Line 8.

Other direct & indirect operating expenditure (sludge treatment) (4W.4 / 4W.5)

8 Direct other expenditure is captured on our general ledger costing system (SAP) and recorded by site. Allocations are adopted for non site specific direct expenditure. Indirect expenditure is allocated to sites based on the gross direct expenditure excluding power and income. Site costs are subsequently allocated and summed by treatment types.

9 Other direct expenditure includes the costs of operating the dewatering assets to achieve greater than 10 per cent dry solids and the subsequent ongoing haulage of raw cake for final treatment where applicable.

10 The total direct and indirect expenditure reconciles to table 4E sludge treatment column Lines 3 to 7.

Total operating expenditure excluding 3rd party (sludge treatment) (4W.6)

11 The total reconciles to table 4E sludge treatment column Line 9.

Power (sludge disposal route) (4W.9)

12 We have no power costs relating to sludge disposal activities.

13 The total reconciles to table 4E sludge disposal column Line 1.

Income treated as a negative expenditure (sludge disposal route) (4W.10)

14 Includes all income from farm sales for treated final cake. The income is allocated back to sites based on the recorded haulage volumes of final cake to land. The sites are subsequently allocated and summed by treatment types.

15 The total reconciles to table 4E sludge treatment column Line 2.

Local authority rates (sludge disposal route) (4W.11)

16 Includes a small allocation of business rates for central offices allocated to treatment types based on direct expenditure.

17 The total reconciles to table 4E sludge treatment column Line 8.

Other direct & indirect operating expenditure (sludge disposal route) (4W.12 / 4W.13)

18 Direct other operating expenditure is captured on our general ledger costing system (SAP) by sites with other direct costs (spreading and farm sales advisers etc) allocated to sites based on farm sales income. Indirect management and support expenditure is allocated to sites based on direct expenditure. The sites are subsequently allocated and summed by treatment types.

19 The total reconciles to table 4E sludge treatment column Lines 3 to 7.

Total operating expenditure excluding 3rd party (sludge disposal route) (4W.14)

20 The total reconciles to table 4E sludge disposal column Line 9.

Historical cost depreciation (4W.7 / 4W.15)

21 The total depreciation charge for sludge treatment and disposal assets for each year has been shared across the column headings based on the principal sludge treatment technology in use at each sludge treatment centre (STC) in each year and 2017/18 depreciation charges applicable to each STC.

Block C Other expenditure

Employment costs and FTEs - directly allocated (4W.17 and 4W.19)

22 Although some direct operating employment costs can be allocated to service, many front line employees work across operational boundaries and therefore, where not directly allocated, we have used a management assessment of time spent by service. We have nevertheless classed all employees within this category as direct.

23 The number of direct FTEs is assessed from the total employment costs using an average cost per employee.

Employment costs and FTEs - indirectly allocated (4W.18 and 4W.20)

24 Indirectly attributed employment costs are made up of indirect operational employees, employees engaged on capital schemes and general and support employees.

25 General and support employment costs are allocated by an appropriate cost driver as part of our regulatory accounts process.

26 Indirect operational employment costs and employment costs in relation to capex activity are allocated as a proportion of direct employment costs.

27 The number of indirect FTEs is assessed from the total employment costs using an average cost per employee.

Costs associated with Traffic Management Act (TMA) (4W.21)

28 Reported costs reflect TMA costs principally charged to sewerage , including permits and fixed penalty notices.

Costs associated with Industrial Emissions Directive (4W.22)

29 We have no costs relating to the Industrial Emissions Directive.

Canal & River Trust service charges and discharge consents (4W.23)

30 We have included here payments we make to British Waterways.

Environment agency service charges/discharge consents (4W.24)

31 We have included here payments to the Environment Agency for discharge consents for Water Recycling Centres and pumping stations and waste permits for sludge treatment.

Other discharge charges/permits (4W.25)

32 We have no other discharge charges/permits.

33 The totals of lines 23 to 24 reconciles to table 4E Line 3 (discharge consents).

Notes to the Annual Performance Report

The following notes set out additional policies and disclosures required by the Regulatory Accounting Guidelines (RAGs) which have not already been covered by the preceding tables and associated commentaries.

(1) General

The Company's activities are regulated by the conditions of a Licence granted to the Company by the Secretary of State for the Environment. With certain exceptions, the regulatory provisions do not apply to business activities which are not connected with the carrying out of the water and sewerage function; these business activities are referred to as non-appointed business (see note 3).

Under the RAGs the classification of certain balances within the regulatory accounts differs from that disclosed in the statutory financial statements. A reconciliation of the differences is provided in Tables 1A to 1D.

The narrative disclosures required by RAG 3.10, section 4 are provided with the relevant tables, with the exception of the tax reconciliations which are provided in note 9.

(2) Accounting policies

(a) Revenue recognition

The following detailed policy on revenue recognition supplements the turnover accounting policy within the statutory financial statements.

i. Occupied properties are chargeable for water and sewerage, and revenue is recognised based on services supplied. The identity of the occupier is ascertained by either contact initiated from the occupier, completion of a questionnaire sent out by the Company to the premises, a visit by a customer services representative or searches of publicly available property data. Unoccupied and unfurnished properties are vacant properties and deemed void, and therefore no billing is raised and no turnover recognised. The status of a property as vacant/void is confirmed by reading of the meter to ascertain changes in consumption, or in relation to unmeasured properties through providing a questionnaire for completion and return by any occupier, plus an inspection where considered necessary.

ii. Household and non-household charges apply to unoccupied premises in certain circumstances as set out in our Legal Charges Scheme, and revenue is recognised on these properties consistent with occupied properties. Unoccupied premises which attract charges include:

- premises which are left unoccupied for periods of time but are left with bedding, a desk or other furniture so that they may be used as a dwelling or as office or commercial premises.
- premises where renovation or building work is being undertaken.
- premises which are not normally regarded as being occupied such as cattle troughs and car parks.
- all metered premises (furnished and unfurnished) where water is being consumed.

Further, the following provisions are applied in respect of disconnections:

- Premises listed in Schedule 4A of the Water Industry Act 1991 (e.g. any dwelling occupied by a person as his or her only or principal home) cannot be disconnected for non-payment of charges.

- If the water supply to any premises is disconnected for any reason but we continue to provide sewerage services to those premises, the customer will be charged the appropriate sewerage unmeasured tariff unless it can be demonstrated that the premises will be unoccupied for the period that the premises are disconnected, in which case there is no charge. Revenue is recognised for sewerage services up to the point we are aware the property becomes unoccupied.

- If it is subsequently found that the premises were occupied for any period when we were advised that the premises would be unoccupied, we will apply the appropriate sewerage unmeasured tariff to that period, raise appropriate retrospective bills and recognise revenue at that point.

- In the event that we suspect that a property is occupied but we have no record of the occupier, we take steps to establish the identity of the occupier in order that billing can commence and revenue be recognised. 'Occupier' is defined to include any person who owns premises as set out in part (i) above, and also any person who has agreed with us to pay water supply and/or sewerage charges in respect of any premises (e.g. a Bulk Meter Agreement).

iii. Charges on income relating to debt recovery costs, which are chargeable to customers, are credited to operating costs and charged to the relevant customer account. Turnover is unaffected by these debt recovery costs. Historically, we have only sought to recover court and solicitors' fees where we have issued a court summons. From 2009/10 the Legal Charges Scheme was amended to allow debt recovery agency fees to be recharged to customers.

iv. As soon as new properties are occupied and furnished or consumption is recorded, liability for water and sewerage charges commences, and revenue starts to accrue.

(b) Bad debt

The underlying customer bad debt provision is calculated based on applying expected recovery rates, using actual historical cash collection performance, for an aged debt profile. Our approach to providing for bad debt has not changed in the last year.

Debt is written off when it falls into one of the following categories.

- The debt is the subject of insolvency proceedings and a claim has been submitted.

- The customer has absconded and subsequent trace activities have proven unsuccessful.

- County Court proceedings and attempts to recover the debt by a collection agency have been unsuccessful.

- The age and value of debt make it uneconomic to pursue.

The debt written off in the current year was £27.4 million (2017: £37.1 million). There have been no changes to our debt write-off policy during the year.

(c) Capitalisation policy

The capitalisation policy applied to the APR is consistent with that used in the statutory accounts (accounting policy 1(k) of the Annual Integrated Report), with the exception of the capitalisation of interest. This has been excluded from the APR as per the guidance in RAG 1.08, section 1.6.

(3) Information relating to allocations and apportionments between the appointed and any other business or activity of the appointee or associated company

Non-appointed business activities include legal searches to locate utility infrastructure, domestic emergency and personal accident insurance cover, recreation services, leisure services and the provision of consultancy services. The North Tees water supply agreement to the Huntsman Petrochemical site, which is not in the Anglian Water area, has also been treated as non-appointed business.

Approximately 95 per cent of the operating costs relating to these activities is directly incurred and does not require allocation. Other relevant costs have been allocated according to time spent on these activities, volume of water supplied to customers, or in proportion to direct costs.

We also charge costs to other parts of the organisation that sit outside the regulated business. In these cases, the guidance provided by RAG5 is followed, with costs charged on an arms-length basis, either as a cost pass through or via an hourly rate.

(4) Price control segments

In order to produce the APR and in addition to the accounting structure used for internal management reporting, we have created a separate regulatory cost structure in our financial system. This means that operating costs relating to water, wastewater and household retail price controls can largely be directly assigned. Where costs are not directly allocated to a specific price control, management has assessed an appropriate allocation in accordance with the regulatory accounting guideliness.

Capital expenditure is also largely directly attributable to price control. Where this is not possible, capital expenditure is assigned to the business unit of principal use with an appropriate recharge of depreciation charges for these shared assets made between price control segments in table 2A.

All cost allocations have been carried out in line with the guidance in RAG 2.07, with no material impact on the allocation of costs between price controls when compared to the previous year. More detail on our cost allocation processes can be found in our accounting methodology statement on our company website: www.anglianwater.co.uk

(5) Link between Directors' pay and standards of performance

Directors' pay comprises a package of base salary together with an annual performance-related bonus and eligibility for an award under a long-term incentive plan which is also Company performance related. Directors' bonuses paid by the Company are linked to the standards of performance of the Company and, therefore, in accordance with RAG 3.10. Details of Directors' pay can be found in the Remuneration Report within the Annual Integrated Report.

(6) Measured income accrual

In accordance with RAG 3.10 we highlight the following comments in respect of turnover for the year:

Appointed turnover for the year ended 31 March 2017 included a measured income accrual of £243.4 million (year ended 31 March 2016: £266.5 million). The value of billing recognised in the year ended 31 March 2018 for the prior year was £253.4 million. This has resulted in the recognition in the current year's turnover of an estimation difference for the prior year of £10.0 million (2017: £10.6 million), representing 1.1 per cent of current year measured turnover (2017: 1.2 per cent) and within acceptable tolerances for accounting estimates.

There have been no changes to the methodology used in calculating the measured income accrual from the prior year.

(7) Information in respect of transactions with any other business or activity of the appointee or any associated company

To the best of the Directors' knowledge, all appropriate transactions with associated companies have been disclosed in notes (a) to (j) below.

(a) Receivables

Receivables totalling £0.4 million were outstanding from other Group companies at 31 March 2018 (2017: £1.7 million).

(b) Payables

An amount payable of £46.4 million was owed to Anglian Water Services Financing Plc at 31 March 2018 (2017: £46.0 million).

(c) Borrowings

Sums borrowed, including accrued indexation by the appointee from Anglian Water Services Financing Plc at 31 March 2018, were:

Type of loan	Principal amount (v) £m	Repayment date	Interest rate %
Fixed rate	200.000	2023	6.875
Fixed rate	200.000	2029	6.625
Fixed rate	246.000	2030	6.293
Fixed rate	250.000	2022	5.837
Fixed rate	25.000	2034	6.875
Fixed rate	63.597	2021	5.372
Fixed rate	197.151	2021	5.942
Fixed rate	250.000	2027	4.500
Fixed rate	31.884	2022	3.983
Fixed rate	73.332	2028	4.394
Fixed rate	22.319	2022	3.983
Fixed rate	29.973	2022	5.378
Fixed rate	100.000	2026	4.500
Fixed rate	7.021	2023	3.605
Fixed rate	93.000	2023	3.537
Fixed rate	100.240	2023	5.013
Fixed rate	25.000	2026	3.000
Fixed rate	55.000	2026	2.930
Fixed rate	20.000	2026	2.930
Fixed rate	118.800	2027	4.490
Fixed rate	74.013	2057	2.660
Index-linked (i)	247.547	2020	4.125
Index-linked (i)	314.611	2032	3.070
Index-linked (i)	94.856	2032	3.070
Index-linked (i)	117.979	2024	3.666

Type of loan	Principal amount (v) £m	Repayment date	Interest rate %
Index-linked (i)	585.712	2035	2.400
Index-linked (i)	70.539	2046	1.700
Index-linked (i)	70.354	2046	1.700
Index-linked (i)	56.548	2056	1.715
Index-linked (i)	70.685	2056	1.678
Index-linked (i)	84.759	2049	1.790
Index-linked (i)	140.870	2057	1.378
Index-linked (i)	70.435	2056	1.383
Index-linked (i)	99.839	2062	1.449
Index-linked (i)	66.643	2055	1.520
Index-linked (i)	65.267	2019	1.626
Index-linked (i)	64.093	2020	1.300
Index-linked (i)	164.086	2045	2.262
Index-linked (i)	25.000	2021	1.270
Index-linked (i)	78.580	2027	0.530
Index-linked (i)	78.580	2027	0.790
Index-linked (i)	17.181	2022	1.370
Index-linked (i)	57.272	2033	2.050
Index-linked (i)	169.575	2028	0.000
Index-linked (i)	39.305	2042	1.141
Index-linked (i)	71.500	2029	0.410
Index-linked (i)	135.785	2029	0.100
Index-linked (i)	64.867	2030	0.010
Floating rate	100.000	2057	LIBOR + 0.340
Floating rate (iv)	65.931	2018/2037	LIBOR + 0.530
Floating rate	110.000	2043	LIBOR + 0.850
Floating rate	25.081	2019	LIBOR + 1.130
Floating rate	74.101	2021	LIBOR + 0.888
Floating rate	100.000	2026	LIBOR + 2.163
Floating rate	103.509	2023	LIBOR + 1.007
Floating rate	25.009	2026	LIBOR + 1.420
Floating rate	35.002	2031	LIBOR + 1.350
Floating rate	54.244	2026	LIBOR + 1.400
Floating rate	81.200	2027	LIBOR + 1.512
Floating rate	175.987	2025	LIBOR + 0.570
Index-linked swaps (iii)	13.549	2024	-
Index-linked swaps (iii)	15.665	2030	-
Index-linked swaps (ii)	2.325	2057	-
Index-linked swaps (ii)	0.832	2059	-
Index-linked swaps (ii)	0.218	2043	-

Type of loan	Principal amount (v) £m	Repayment date	Interest rate %
Index-linked swaps (iii)	2.531	2061	-
Total	**6,289.982**		

1 LIBOR is the London Inter-Bank Offer Rate.

i. The value of the capital and interest elements of the index-linked debt is linked to movements in the Retail Price Index (RPI).

ii. The value of the notional capital on these index-linked swaps is linked to movements in RPI. The increase in the notional capital value is payable at the final maturity date of the swaps.

iii. The value of the notional capital on these index-linked swaps is linked to movements in RPI. The increase in the notional capital value is paid-down at pre-determined dates during the lifetime of the index-linked swaps.

iv. Legal maturity of these instruments is the second of the years quoted. Coupon 'step-up' is in the first of the years quoted.

v. All loans are presented on a post-hedge basis to reflect the effect of the related swaps.

(d) Dividend policy

On the 15 March 2018 Anglian Water announced it plans to reduce dividends to its ultimate shareholders and borrowings through to 2025, resulting in a significant reduction in the Company's level of debt and gearing, while continuing to meet its investment commitments. Gearing is targeted to reduce to less than 80 per cent by 2020, with further material reductions in AMP7.

The Company's dividend policy is to identify the cash available for distribution, allowing for the business' liquidity requirements in respect of funding its operations, the capital programme and servicing its debt for the remainder of the current regulatory period. The dividend policy is also based on ensuring that there is adequate headroom in relation to all of its financial covenants. In assessing the dividend payment, the Directors review the business performance forecasts (currently to the end of the Asset Management Plan (AMP) period 31 March 2020) and give consideration to the potential impact of external factors in the economy and regulatory environment on the Company's forecast cash flows. The Directors consider this cash-based approach provides an acceptable return to the equity investors while ensuring the liquidity requirements of the business are fully met. The overall amount of the Company's ordinary dividends will not exceed the free cash flow (defined as operating cash flow less interest and capital maintenance payments) generated by Anglian Water Services Limited and in practice will be limited by its financial covenants. Special dividends may also be paid in addition to ordinary dividends, but these are also limited by financial covenant constraint. The Company's business plan for AMP6 is to target gearing below 80 per cent by 2020. This policy is consistent with Condition F of the Licence. Notwithstanding dividend capacity available under this policy, as noted above, the Company plans to significantly reduce dividends to the ultimate shareholders, invest more in resilience and reduce borrowing through to 2025.

A dividend, available to investors in the ultimate parent company, of £79.3 million was paid for the year ended 31 March 2018 (2017: £121.6 million) in respect of the appointed business.

In addition, dividends not available for distribution to investors in the ultimate parent company, which primarily refer to a one-off dividend of £1,602.6m used to enable a group restructuring to simplify and enhance the transparency of the corporate structure, and 'round trip' trip dividends to service inter-company loan interest which will cease with effect from 31 March 2018, are as follows:

- Dividends of £192.3 million (2017: £192.3 million) were paid to AWSH, in order for AWSH to service the interest payable to the Company on the inter-company loan of £1,602.6 million (2017: £1,602.6 million) mentioned above. In addition to amounts included within the income statement (table 1A) of £191.8 million, a prior year committed dividend of £0.5 million was paid in April 2017. This dividend did not leave the Anglian Water Services regulatory ring fenced group.

- On 29 March 2018, following our commitment to simplify our corporate structure, a restructuring dividend of £1,602.6 million (2017: £nil) was paid by Anglian Water Services Limited which flowed up to AWSH, in order for AWSH to repay the inter-company loan. The funds flowed back to Anglian Water Services Limited on the same day when AWSH settled the loan.

- From 1 April 2018, following the settlement of the £1.602.6 million inter-company loan, these 'round trip' interest and dividend payments will no longer be necessary.

On 3 April 2017 the Company paid a special dividend of £62.2 million to help fund the statutory transfer of the non-household retail business from Anglian Water Services Limited to Anglian Water Business (National) Limited. These funds were not available for distribution to investors in the ultimate parent company.

(e) Guarantees/securities

The Company, as part of the Anglian Water Services Financing Group, guarantees unconditionally and irrevocably all the borrowings and derivatives of Anglian Water Services Financing Plc, which at 31 March 2018 amounted to £7,321.8 million (2017: £7,220.3 million). The borrowings of Anglian Water Services Holdings Limited and Anglian Water Services Overseas Holdings Limited are also guaranteed unconditionally and irrevocably by the Company. In 2017 this included the £1,602.6 million loan made by the Company to Anglian Water Services Holdings Limited, which was repaid on 29 March 2018, Anglian Water Services Holdings Limited and Anglian Water Services Overseas Holdings Limited had no outstanding indebtedness at 31 March 2018.

(f) Supply of services

All appointed employees who also provide services to one or more associated companies transferred to Group employment from 1 April 2016 to ensure the accurate allocation of costs across the business via a time recording system.

Approximately 90 employees whose time is predominantly spent on the appointed business transferred to Group employment.

Recharges by the appointee to associated companies:

Nature of transaction	Company	Turnover of Associate £m	Terms of supply	Value £m
HR, Payroll, OHS, Regulation	AWG Group Limited	-	Actual Costs	0.020
Asset Management	AWG Group Limited	-	Actual Costs	0.337
Corporate Affairs	AWG Group Limited	-	Actual Costs	0.261
Finance	AWG Group Limited	-	Actual Costs	0.146
IT	AWG Group Limited	-	Actual Costs	0.290
Healthcare	AWG Group Limited	-	Actual Costs	0.031
Accommodation	AWG Group Limited	-	Actual Costs	0.482
Laboratory charges	Alpheus Environmental Limited	7.924	Actual Costs	0.076
Land rental	Alpheus Environmental Limited	7.924	Actual Costs	0.169

Nature of transaction	Company	Turnover of Associate £m	Terms of supply	Value £m
Vehicles	AWG Group and Alpheus Environmental Limited	-	Actual Costs	0.183
				1.994
Corporation tax group relief surrendered by the regulated business	-	-	-	Nil

Services supplied to the appointee by associated companies:

Nature of transaction	Company	Turnover of associated company £m	Terms of Supply	Value £m
Directors' costs	AWG Group Limited	-	Time apportionment	0.139
CEO costs	AWG Group Limited	-	Time apportionment	1.087
Finance Director Services	AWG Group Limited	-	Time apportionment	0.838
General Support Costs	AWG Group Limited	-	Time apportionment	0.179
Treasury Services	AWG Group Limited	-	Time apportionment	1.073
Information Services	AWG Group Limited	-	Time apportionment	1.081
Customer Services	AWG Group Limited	-	Time apportionment	0.104
Corporate Affairs	AWG Group Limited	-	Time apportionment	0.699
Occupational Health & Safety	AWG Group Limited	-	Time apportionment	0.341
Legal Services	AWG Group Limited	-	Time apportionment	0.309
Human Resources	AWG Group Limited	-	Time apportionment	2.176
Property Services	AWG Group Limited	-	Time apportionment	0.249
Transport Services	AWG Group Limited	-	Time apportionment	0.152
Business Change	AWG Group Limited	-	Time apportionment	0.360
Procurement	AWG Group Limited	-	Time apportionment	0.221
Internal Audit	AWG Group Limited	-	Tendered	0.452
External Audit	AWG Group Limited	-	Tendered	0.261
Insurance Administration	AWG Group Limited	-	Negotiated	0.704
Income Protection Costs	AWG Group Limited	-	Negotiated	0.162
Taxation Services	AWG Group Limited	-	Negotiated	0.271
Pension Admin, Advice and Audit	AWG Group Limited	-	Pass through	0.475
Miscellaneous Items	AWG Group Limited	-	Pass through	0.071
Building Rental	AWG Group Limited	-	Pass through	0.152
Office Accommodation Lancaster House	Ambury Developments Limited	0.562	Other market testing	0.447
Bulk Purchase of Water	Ardleigh Reservoir Commitee[1]	1.345	Actual costs	0.803
				12.808
Corporation tax group relief received by regulated business	AWS Holdings Limited	-	(Note 1)	Nil
Corporation tax group relief received by regulated business	AWG Parent Co Limited	-	(Note 2)	15.275
Corporation tax group relief received by regulated business	Osprey Acquisitions Limited	-	(Note 2)	5.825

[1] Joint venture between Anglian Water Services Limited and Affinity Water Limited for a single reservoir and treatment works.

(Note 1) AWS Holdco is within the AWS Financing group and there is an agreement that the regulated company does not have to pay for losses surrendered to it from within the Financing group.

(Note 2) The remaining losses from AWG Parent Co and OAL are provided for at a rate of 19 per cent however there is an agreement that AWS will not have to pay for these losses until it receives the benefit of the capital allowances that were disclaimed in order to generate the taxable profits against which the surrendered losses could be utilised.

Services provided by the non-appointed business:

Service provided by the non-appointed business	**Basis of recharge made by the appointed business**	**Value of the recharge made by the appointed business** **£m**
Treatment of imported sludge	During 2017/18 we treated sludge from Yorkshire Water for part on the year on a short-term contract and charged on a marginal cost basis to cover the incremental costs of transport and treatment. In line with RAG5 guidance, the recharge therefore excluded capital costs/depreciation and any financing charges . An small administration overhead was included.	0.501
Treatment of tankered waste	Recharge to non-appointed is based on full cost including fixed and variable cost and depreciation and financing.	1.991
Others	Key activities include mapping and data services, recreation facilities and wind turbines. The recharges made to the non-appointed business have been derived on a bottom-up bases to include recovery of fixed and variable costs along with an appropriate share of depreciation and financing costs. A positive margin is made on this activity. Approximately £0.9 million of the reported costs are in relation to depreciation and financing recharges.	9.794
Total non-appointed operating costs		**12.286**

(g) Charitable and political donations

During the year, the business donated £40,000 (2017: £40,000) to WaterAid, its recognised charity.

No political donations were made (2017: £nil).

The Company made available £1.005 million (2017: £1.191 million) to the Anglian Water Assistance Fund, which paid a total of £0.904 million (2017: £1.051 million) directly to customers who qualified for assistance, and that amount is included as an operating cost in these financial statements.

(h) Omissions of rights

No material omissions took place during the year.

(i) Waivers

There were no material waivers during the year.

(j) Compliance with Condition K

The Company has been compliant with Condition K3.1 of the Licence throughout the year.

(8) Return on regulated equity (RORE)

The table below outlines the main components of RORE:

	2018	AMP6 Cumulative
	%	%
Base RORE	5.6	5.6
Company share of totex out/underperformance	1.0	1.3
The Company share of any out/underperformance on retail costs	0.2	0.1
The impact of any ODI or SIM penalties	0.4	0.3
The difference between the actual interest charge (in real terms) and the allowed interest (real) on notional debt	0.7	0.0
Calculated Annual RORE	**7.9**	**7.3**

The cumulative average RORE for the three years ended 31 March 2018 is 7.3 per cent.

As previously communicated to Ofwat, the retail performance excludes the one-off profit on disposal of the non-household retail business of £4.0 million (2012/13 prices), which, if included, would have the effect of increasing the outperformance by 0.2 per cent.

The main contributor to the RORE performance in 2018 is totex efficiency outperformance of 1.0 per cent, which equates of £86.2 million of efficiency savings in the year. This is set out in the following table:

Base year prices	2017/18	Cumulative
	£m	£m
Allowed totex	830.7	2,561.5
Actual totex	802.0	2,270.1
Difference	**28.6**	**291.3**
Difference due to timing	(57.6)	13.4
Difference due to efficiency	86.2	278.0

Another key component of RORE is the financing outperformance for 2018 of 0.7 per cent. The primary reason for this year-on-year change is the increase in inflation in the current year, as discussed on page 53.

The contribution for ODI outperformance of 0.4 per cent reflects the total ODI reward of £13.4 million for 2018.

We note that the cumulative actual totex for the three years has been updated to remove £4.6 million of capital expenditure relating to third party services over years 1 and 2 of the AMP. The cumulative RORE reflects this change and the tax adjustment to the Totex outperformance as required by Ofwat last year.

(9) Current tax reconciliations

A reconciliation of the appointed corporation tax charge reported in Table 1A to that resulting from applying the standard rate of tax to the profit on ordinary activities before tax as shown in Table 1A is set out below.

	Notes	£m
Profit before tax per the Annual Performance Report		**307.4**
Corporation tax charged at 19%		**58.4**
Depreciation and amortisation		**47.1**
Capital allowances	**(i)**	**-**
Items not taxable	**(ii)**	**(1.6)**
Items not deductible for tax purposes	**(iii)**	**2.1**
Short-term timing differences		**(4.1)**
Fair value losses on financial instruments (not deductible)		**(22.3)**
Group relief utilised	**(iv)**	**(36.4)**
Adjustments in respect of previous years	**(v)**	**(0.8)**
Current tax charge for the year		**42.4**

The table below sets out the reconciliation between the UK corporation tax charge reported in Table 1A to the total current tax charge allowed in price limits.

	Notes	£m
Tax charge allowed in price limits at 20% and in 2012/13 prices		**9.4**
Tax effect at 20% of and in 2012/13 prices:		
Increase in profits before tax		**(7.9)**
Reduction in disallowable depreciation and amortisation		**(8.9)**
Reduction in capital allowances	**(i)**	**46.5**
Reduction in pension deductions		**2.5**
Other		**(0.9)**
Current tax charge before adjustments for previous years at 20%		**40.7**
Effect of the reduction in corporation tax rate to 19%	**(vi)**	**(2.0)**
Adjustments for previous years	**(v)**	**(0.7)**
Current tax charge in APR at 2012/13 prices		**38.0**
Indexation up to outturn prices		**4.4**
Current tax charge in APR		**42.4**

Notes

i. The reduction in capital allowances reflects our current programme of disclaiming all capital allowances in order to utilise Surplus ACT held on the balance sheet. The Surplus ACT is expected to be fully utilised by March 2019.

ii. The items not taxable are a profit arising on the sale of our non-household business to the Wave Joint Venture and profits arising on the sale of land.

iii. Items not deductible for tax purposes mainly consist of depreciation on assets not eligible for capital allowances and compliance fines.

iv. Group relief utilised represents losses surrendered from within the Anglian Water Services Financing Group for which there is an agreement that no payment is required. These losses relate to interest paid by Anglian Water Services Holdings Ltd on a loan from this company. This loan was repaid on 29 March 2018 and so in future, interest will not be receivable by Anglian Water Services Ltd and no group relief will be surrendered to it from Anglian Water Services Holdings Ltd. Losses surrendered from other group companies outside of the Anglian Water Services Finance Group are paid for at the full corporation tax rate.

v. The adjustment for previous years reflects an over-prudent view taken in previous years.

vi. The main rate of corporation tax reduced from 20 per cent to 19 per cent on 1 April 2017. As the corporation tax in the price limits was calculated at a rate of 20 per cent there will be a reconciling item in each of the remaining years of the AMP. The corporation tax rate will reduce further to 17 per cent on 1 April 2020.

Tax and transparency

Included in the 2016 Finance Act was a requirement for large companies to publish their tax strategy on the internet for all years commencing after 15 September 2016. To comply with this we have prepared a statement on tax and transparency which can be found on our website at www.anglianwater.co.uk and is also included within the "an open and constructive approach" section of our Annual Integrated Report.

Data Assurance Summary

Introduction

1 We understand that customers and other stakeholders want information about our performance and that the information needs to be accessible and understandable. We are committed to providing information that is reliable and can be trusted.

2 Our overall approach to assurance is set out in *Our Assurance Framework* which can be viewed on the Anglian Water website. This submission has been completed within that framework.

3 In March 2018 we published our Final Assurance Plan (*Performance Reporting 2017/18*) after consulting with stakeholders on our draft plan. This document outlined the approach that we intended to take to provide assurance for our 2017/18 performance information. In this plan we set out our assessment of the risks to data quality for the non-financial data of the Annual Performance Report (APR), which is our main performance report of the year. We also set out the controls we intended to apply to our APR financial data.

4 Also in the scope of our Final Assurance Plan were our Charges Scheme and Water Resources Market Information.

5 In this Data Assurance Summary we confirm the actions we have taken to provide assurance to stakeholders over our reported information.

General assurance processes

6 We have an enterprise-wide Business Management System (BMS) that is certified to the ISO 9001 quality management systems standard, whose scope includes the processes for ensuring the collection and storage of reliable performance data. We have established processes and procedures that we adopt when compiling performance data for publication into the public domain:

- Roles and responsibilities are established, including the allocation of named data providers for each line of data
- Methodologies for compiling data are documented in procedures if necessary
- Draft data and commentaries are reviewed by individuals (including senior managers), who are independent of the processes being reviewed
- Data may be subject to review by our third party assurance provider, Halcrow, or our independent financial auditors, Deloitte. Our use of third parties as part of the assurance process is informed by our assessment of risks to data quality.

Our response to feedback on our 2016/17 performance reporting

7 Our Outcomes Reporting Policy includes commitments to invite feedback and questions from stakeholders about our reporting policy and performance, to seek to respond positively to feedback and to explain our response.

8 In the Company Monitoring Framework Report for Anglian Water, Ofwat gave the following feedback on our 2016/17 performance reporting. We have indicated how we have responded to each point:

Financial monitoring framework

9 Ofwat said: Our review identified a small number of errors, in relation to disclosure of financial derivatives and presentation of information about dividends. These errors were subsequently corrected by the company. Anglian Water also needed to restate their return on regulated equity (RORE) figures due to an error in their calculation.

10 Our response:

- The error in the derivative disclosures in table 4I was detected by our internal assurance procedures and we promptly notified Ofwat that we had corrected our published APR.

- There was no error in our dividend presentation. We acknowledge our round-trip inter-company dividend to fund the interest on an inter-company loan made our situation unusual. In the 2017/18 APR we have addressed this by including dividend reconciliation schedules in the commentary to tables 1A,1D, 1F and 4H to show which dividends are available to the ultimate investors from those which are not available for distribution. Also, in March 2018 the £1.6 billion inter-company loan between Anglian Water Services Limited and Anglian Water Services Holdings Limited was repaid. This means from 1 April 2018 there will no longer be any inter-company dividend to fund the inter-company interest, greatly simplifying our dividend reporting.

- The RORE measure was restated following Ofwat's clarification of their guidance on tax. This year we shared with Ofwat in advance of the formal APR submission date the assumptions we have made where the guidance is open to interpretation.

Charges engagement

11 Ofwat said: Anglian Water published very good quality information about its charges scheme and wholesale charges. The contents of its Board Assurance Statements included very useful background information. The company provided evidence of bill impact analysis of the bills that were forecast to increase by more than 5 per cent.

12 Our response:

- We are grateful for this feedback. We have sought to retain and build on our previous approach.

Outcomes

13 Ofwat said: There is clear evidence that the company's reporting is transparent and accessible to customers and other stakeholders. The company's website and 'Annual Integrated Report 2017' contain well-presented, clear and easy to understand performance information.

14 Our response:

- We are grateful for this feedback. We have sought to retain and build on our previous approach.

- Our previous practice has been to include our APR alongside all our other reporting, such as our statutory accounts, as part of an Annual Integrated Report. Given the broadened scope of the APR, we have decided to publish this as a separate document this year. We have sought to retain all the transparency and accessibility to performance information from previous years in making this transition.

15 Ofwat said: The company's previous 'Annual Integrated Report 2016' is available on its website, although making it available in the same place as the 2017 report would make the 2016 report more accessible.

16 Our response:

- We have considered this when publishing our 2018 report. Furthermore, we are planning a new website and will consider accessibility to performance reports as a key design principle.

17 Ofwat said: In addition to the 'Annual Integrated Report', there is a new, innovative performance dashboard on the Anglian Water website. This provides customers and other stakeholders with easy to understand performance information, and includes definitions and case studies.

18 Our response:

- We refreshed our dashboard during 2017/18 to provide in-year updates on our performance. We intend to do the same during 2018/19.

19 Ofwat said: The 'Annual Integrated Report' states that assurance is provided by external reviews carried out by Halcrow. An area for further improvement is the publication of an easily accessible statement or report from this external reviewer.

20 Our response:

- We have included Halcrow's statement in this year's APR.

21 Ofwat said: An area for further improvement is the publication of an easily accessible stakeholder feedback report, such as a statement from the independent Customer Engagement Forum, to provide opinion on the company's progress in delivering its performance commitments report from this external reviewer.

22 Our response:

- We have passed this feedback to our CEF. The CEF is an independent body and publishes reports in accordance with its remit.

Compliance with principles of board leadership, transparency and governance

23 Ofwat said: The information provided as part of the company's annual reporting has demonstrated how it is generally meeting our board leadership transparency and governance principles.

24 There was one small area where the company could further improve its reporting. The company's chairman also sits on the board of other companies within the group. This does not raise any particular issues given the nature of the group within which Anglian Water sits. However the company should explain how this does not undermine the chairman's independence.

25 Our response:

- We have addressed this by providing additional text in our Annual Integrated Report.

Risk & compliance statement

26 Ofwat was satisfied with our approach in this area.

Assurance plan

27 Ofwat said: More information on what specific assurance activities are being performed to address the specific risks identified could provide stakeholders with more trust and confidence in the exercise.

28 Our response:

- We sought to address this in the plan we published in March.

Data assurance summary (DAS)

29 Ofwat said: The table indicates which external assurer has looked at what topic area but with the exception of the outcome delivery incentives it does not state the findings. The data assurance summary could be improved by setting out the results from all the assurance reviews carried out.

30 Our response:

- In this Data Assurance Summary we have set out the key findings from all the assurance reviews carried out.

31 Ofwat said: The scope is focussed on the annual performance report and does not cover other information such as charging and the cost assessment information request.

32 Our response:

- The charging information and water resources market information was in the scope of both our assurance plan and this Data Assurance Summary. We have provided a separate Assurance Summary alongside our bioresources market information.

Wider assurance and information

33 Ofwat said: One area we observed Anglian Water exceeding our expectations was our review of cost assessment information submitted in the annual performance reports. The company provided a good level of detail in its commentary, which covered every table of the submission.

34 Our response:

- We are grateful for this feedback. We have extended our approach on the cost information tables to the financial tables of the APR, where stakeholders will find considerably more detail in the commentary we have provided.

Specific assurance processes for 2017/18 performance information

Annual Performance Report (APR) Non-financial data

35 As proposed in our Final Assurance Plan we have carried out the assurance activities in two stages: Stage 1 'in-year' assurance reviews and Stage 2 'year-end' assurance reviews.

36 The assurance reviews were prioritised based on the results of the risk assessment that we carried out. We documented the results of this assessment, in *Performance Reporting 2017/18*. This document includes also our assessment of the strengths and weaknesses of our assurance framework and analysis of stakeholders' information needs relating to reporting of performance.

Stage 1 'in-year' assurance reviews

37 For this stage of the assurance programme we selected for review a number of APR data lines that were rated as higher risk in our risk assessment process. These reviews were all conducted by employees of Anglian Water (who are independent of the processes being reviewed) The terms of reference of these reviews were to:

- Confirm whether the identified risks to data quality appear to be reasonable and that the controls, if implemented, should mitigate them

- Examine in detail the risk assessments, including how controls are implemented and checked

- Validate calculations carried out by the company to provide information related to data which are publicly available via a regulator
- Identify areas for improvement
- Verification to check the completion of actions resulting from previous audits.

38 In addition, our Internal Audit provider, Pricewaterhouse Coopers, carried out two ODI reviews during the course of the report year. These reviews focused on the overall governance arrangements for the ODIs and the controls applied to ensure the completeness, accuracy and validity of associated data.

Stage 2 'year-end' assurance reviews

39 This stage of the assurance programme focussed on the data we intended to report against our 32 Outcome Delivery Incentives (ODIs), though it also included a number of further data lines from the APR. These reviews were all conducted by Halcrow. The terms of reference of these reviews were to:

- Review the company's methodologies and procedures for identifying, analysing and recording data and, on a sample basis, test the application of those methodologies and procedures.
- Provide an opinion on the adequacy of the methodologies and procedures adopted by the company to provide reliable information.
- Alert the company to any material areas of concern or weakness observed.
- Review progress against issues raised in the last audit.
- Review whether the APR procedures and any associated local procedures / work instructions are current, accurate and appropriate.
- Check that data stated in the tables is supported by audit trails which are reliable, accurate and complete.
- Check that suitable commentary is provided which explains performance.
- Confirm that changes from previous submissions have been adequately explained.
- Seek understanding of the upstream processes which generate data and the controls in place for ensuring the reliability of those data. Test where possible.

40 The reviews were carried out in April and June 2018. The results of each review were documented in summary audit reports, including information about the tests applied and the results, along with details of recommendations for longer term improvements. Any outstanding data issues were addressed prior to finalising the data.

41 Halcrow's Technical Assurance Executive Summary is reproduced in our APR.

42 A summary of all the in-year and year-end assurance reviews and their key findings is listed in the Appendix.

Director sign-off

43 As set out in *Performance Reporting 2017/18*, the sign-off protocols which form part of our assurance process are based on our data quality risk assessment. All APR data lines are approved by the nominated 'line approver', who is a different individual from the one

who provided the data. Further sign-off is required for higher risk data lines: by the Head of Business Unit (for lines rated as Medium risk) or Management Board Director (where the rating is High or Critical). These protocols were all applied to the APR.

44 Drafts of the APR were provided to the AWS Board on 21 May 2018, when the Risk and Compliance Statement and Annual Integrated Report and Accounts were approved. Final drafts of the APR were reviewed by the company's Executive Directors subsequent to this Board meeting.

APR Financial data

45 Our Regulatory Accounts have been prepared in accordance with the Regulatory Accounting Guidelines issued by Ofwat. In accordance with our plan, they were subject to review by the company's independent financial auditors, Deloitte, to ensure compliance with Condition F of the Instrument of Appointment as a water and sewerage undertaker under the Water Industry Act 1991.

46 The review took the following forms:

- Audit of APR Tables 1A-1E and 2A-2J and the related notes and commentaries. Deloitte's audits were conducted in accordance with International Standards on Auditing (UK) issued by the Financial Reporting Council and included such tests of transactions and of the existence, ownership and valuation of assets and liabilities as they considered necessary. Deloitte planned and performed their audit to be able to provide reasonable assurance that the financial statements are free from material mis-statement and are properly prepared in accordance with Regulatory Licence Condition F.

- Agreed upon procedures of Tables 1F, 4B-4O and 4V-4W. Procedures varied between tables but typically they included confirming that the information contained in the Table has been calculated in a consistent manner with the Regulatory Accounting Guidelines; agreeing information contained in the Table back to one preceding level of supporting documentation; recalculating 'total' lines or ratios contained in the Table; and agreeing the arithmetical accuracy of the Table.

47 Our auditor has provided its audit opinion that our Regulatory Accounting Statements fairly present the state of our affairs for the year ending 31 March 2018 and that they have been properly prepared in accordance with requirements. The full audit opinion is included in our APR.

48 The first line of defence against data error lies in the processes that we follow to prepare our regulatory accounts tables. The following table reports the risks we have identified around our processes that could, without controls, result in mis-statement in our APR. It also shows the controls we have implemented for 2017/18 reporting.

Issue	Risk	Controls applied for 2017/18
Spreadsheet based consolidation process	Errors may arise from input errors, formula errors and maintaining version control	• Additional validation tests built into APR spreadsheets • Collective reviews of all tables held with table and line owners and Financial Control teams
Internal process has no direct link to Ofwat tables	Ofwat tables and company spreadsheets are both standalone with the risk that data may be copied incorrectly	• Detailed review at line item detail and sign off with table/line owners to ensure consistency between spreadsheets and Ofwat return
Comprehensive audit trail required for manual adjustments	Post close adjustments and other adjustments to reported figures have the potential to be done in isolation with the result that the impact may not be correctly reflected in other areas of the return	• Spreadsheet tracker of changes made to APR table to be kept for all changes following specified cut-off date.

Issue	Risk	Controls applied for 2017/18
		• Password protection in place on master APR table to ensure all changes are made vial Financial Controls team after specified cut-off date • Defined version control for all key APR tables
Shared spreadsheets	Risk of data corruption and/or data loss due to more fragile nature of shared files	• Back up of spreadsheets taken on a daily basis at key times during the APR process
Continuity of Personnel	Some knowledge centered around a few key individuals with the risk that unplanned absence will lead to lower knowledge base and more risk of error	• Detailed procedure notes updated for all APR tables
Security of access to data and tables	The need to strike a balance between access for all key individuals whilst maintaining security of data and the likelihood of unauthorised changes	• Password protection and restricted access in place for key APR spreadsheets
Robust change management process	The need to ensure that all changes are logged with version control fully functional and a detailed reconciliation between versions	• Password protection in place on master APR table and commentaries to ensure all changes are made via Financial Controls team after specified cut-off date • Defined version control for all key APR tables
Potential uncertainty or ambiguity in Ofwat APR guidance	Potential ambiguity around some of the Ofwat guidance leading to inconsistencies in the way in which the RAGs are applied, both internally and between other companies.	• Comprehensive commentaries on all the APR tables have been included this year. By setting out our key assumptions and year-on-year variances, we expect stakeholders will gain a better understanding of our financial and operational performance. There is also an improvement in internal control that comes from the review and explanation of variances. • We contacted Ofwat prior to APR submission to confirm the approach we intended to make in our RORE calculation on corporation tax and the transfer of our non-household retail business
Consistency between submitted tables and APR	Risk that due to manual completion processes, final tables may not be 100 per cent consistent	• Full consistency checks between statutory accounts and APR tables prior to final sign-off of APR, followed by subsequent lock-down of APR table master spreadsheets
Intra-table consistency	Potential lack of consistency between tables showing different versions of the "same" number (e.g. Total operating costs may be shown including or excluding depreciation).	• Separate, off-line tables to reconcile different versions of APR tables that show the 'same thing'.

Water Resources market information

49 In accordance with our assurance plan, we invited Halcrow to perform assurance procedures on those lines of Table 1 of the market information that we rated as high risk. These procedures led us to provide some additional explanation and to correct some minor omissions and errors.

50 We also asked Halcrow to confirm that data for Tables 2-8 had been accurately transposed from the Water Resources Management Plan (which had been subject to separate assurance). This was duly done.

Charges Scheme

51 In accordance with our assurance plan, we invited Deloitte to perform agreed upon procedures relating to charges for 2018/19 for Wholesale and Household Retail customers, to assist the Directors of the Company in determining the accuracy of proposed charges in recovering allowed revenue.

52 Deloitte issued its report on 18 December 2017. All procedures were completed with no exceptions noted.

Feedback

53 We welcome feedback from stakeholders on all aspects of our performance reporting. You can contact us in any of the following ways:

- email: Stakeholderfeedback@anglianwater.co.uk
- call: 03457 91 91 55

54 We undertake to share the feedback we receive and explain how we have responded to it.

Appendix: Summary of assurance reviews carried out in 2017/18

The tables below shows the assurance activities carried out during 2017/18, firstly 'in-year' then at 'year-end'.

In-year audit programme

Topic	Auditor	Material findings
Water Quality Contacts	PwC	A reconciliation should be carried out on a monthly basis to confirm the completeness of the manual update of SAP (from which reports are generated) for records that have failed to transfer automatically from Gallery, where contacts are managed.
Bathing Water Quality	PwC	No material issues.
SIM	AWS	Procedure documents for Yearbook/APR to be updated to include, *inter alia*, reference to the relevant new APR lines and local work instructions used for calculation.
Sewer Flooding	AWS	No material issues.
Sludge Production and Disposal	AWS	Minor amendments needed to procedures.
Water Properties Billed & Sewage Collected	AWS	Existing Yearbook procedures should be reviewed to incorporate the new APR requirements.
Water Quality Contacts	AWS	Procedures are currently in draft, pending further changes to incorporate the new APR lines; these are being followed and accurately reflect the method being used.
Treated Water	AWS	In the past we have aligned the definition of WTWs to that of the DWI. It was agreed that going forward we would discontinue the link with the DWI definition. This applies to lines 23-51 and 91-106 of table 4P. A revised procedure is needed to cover these lines alongside amendments to the Yearbook table A reporting requirements.
Area Served	AWS	Procedure needs to be updated to reflect the new APR lines.
Interruption to Supply	AWS	No procedure document written at time of audit for the Yearbook or APR; this was planned to be completed prior to the external audit.
Length of Mains	AWS	An APR procedure needs to be written; PR19 documentation to be converted into an APR procedure.
Outputs – Water & Wastewater	AWS	1) An investment project (ref. TIF A00176) appeared to be missing an update as it had stopped at Delivery Milestone 2, pending funding. 2) Procedures are in place for all lines apart from APR table 3A line 12 and table 4Q line 19. The existing procedures require review and updating.
Security of Supply	AWS	Several updates to the procedures were required to reflect new regulatory reporting requirements and changes in personnel.
Supply and Demand	AWS	Updates to procedures were required.
Employees	AWS	Procedures to be updated to reflect methodology. A more detailed methodology would also be beneficial.
Water Sources	AWS	A procedure for the new APR lines is to be written.

Year-end audit programme

Topic	Auditor	Material challenges (plus AW response where applicable)
SIM	Halcrow	No material issues.
Sewer flooding	Halcrow	Considered that the RAG assessment for table 3S lines 10 and 11 column 2d should be red rather than amber. (We disagree on the grounds that the impact on our reported number is immaterial).
Interruptions to supply	Halcrow	No material issues.
Water quality contacts	Halcrow	No material issues.
Energy Consumption	Halcrow	No material issues.

Sewer Activity	Halcrow	1) Change in outcome of RAG assessment from green to amber for 'number of collapses', as data is based on previous definitions. We agree with this and have changed our assessment to amber. 2) 'Third-party damage' was incorrectly classified as reportable.
Burst Mains	Halcrow	1) More detail should be added to the methodology regarding: •the process for obtaining the length of mains •which SAP runs are required to obtain burst mains numbers •the process to derive burst numbers by type, and •the bursts per km line items. 2) There is the potential for double counting of burst mains as the manual exclusion process leaves margin for error. 3) The authorising process of signing off could be more robust. 4) Recommends that bursts which are deemed to have no material impact on customers should still be included in the reporting of total bursts, whereas they are currently excluded. (We have included them in 3S).
Serviceability	Halcrow	No material issues.
Customer Perception (including Community Perception)	Halcrow	A written statement of the data manipulation for 3A reporting would ensure there is a written record, allow audit to review the process in advance and reduce reliance on verbal information.
Water Balance and Leakage	Halcrow	1) It would help to complete some surveys to gather information on how households use water to avoid frozen pipes and prepare themselves during winter storms. These surveys may help identify increased demand in areas that also have leakage repairs after colds spells of more than a few days. 2) Completing a more in-depth assessment of when multiple dwellings are counted as one property is recommended. 3) The results of the in-depth investigations that identify unbilled use show that meter readers need better training on a regular basis.
Pumping Head	Halcrow	No material issues
Water Quality Indicators	Halcrow	There is no specific record that table 3b line 5 reports percentage non-compliance rather than percentage compliance; it would be sensible to add this to the text.
Carbon	Halcrow	No material issues.
Pollution Incidents	Halcrow	No material issues
Consents	Halcrow	Definitions of format could be clearer. Figures were reported as percentages in line with the values from previous years, but this is not specified in the procedure documents or the line definition.
SSSI's & Bathing Waters	Halcrow	1) Version control of spreadsheet for SSSI monitoring and metric calculation - changes are currently noted in embedded comments and would benefit from being recorded in a dedicated control and change log worksheet. This would help ensure control of the spreadsheet and facilitate end of year commentary preparation. 2) The SSSI calculation worksheet does not currently report results for sites that are part destroyed or destroyed, as no sites have yet had this status assigned by Natural England. For completeness, these could be included now in the calculation worksheet.
Environmental Compliance	Halcrow	The definition of what is a 'sustainable solution' with regards to line 21 ('percentage of sewer capacity schemes including sustainable solutions') is not clear from the ODI as presented in the final determination. The procedure would benefit from including the definition.
Security of Supply Index (SOSI)	Halcrow	Over time the SOSI calculation procedures should be updated to reflect improvements to the demand forecasting model and outage assessments.
Sewer Blockages	Halcrow	Six points of weakness were observed in the process, each of which was shown to exclude reportable sewer blockages from reporting. The points of weakness observed are: •aggregation of problem codes

		•exclusion of attendance less than five minutes •exclusion of certain last action codes •exclusion of third-party activity •division between public and transferred sewers, and •blockages coded as 'blockage highway' because highway drainage is not the responsibility of Anglian Water. The lower-bound estimate of excluded legitimate blockage events is approximately 470. (We responded to these challenges in our final reported figure).
Low Pressure	Halcrow	No material issues.
Unplanned Outage	Halcrow	The company has devised a methodology to report historic unplanned outages as best they can and have developed an approach to improve reporting in the future. They should include a work flow in the methodology that summarises a description of the data for technicians to collect on site (e.g. Start time criticality of asset and any impact on capacity); confirm their definition of peak week production capacity; and ensure mothballed works and works that are used temporarily are identified so as not ti interfere with an accurate measure of unplanned outage. (We will address these recommendations as we refine our ability to report against this new measure).
Drought Resilience	Halcrow	The Ofwat guidance is unclear as to whether the in-year value or the pseudo 25-year performance commitment is to be reported. Anglian Water needs to decide on what value to submit and clarify so there is no ambiguity in the value reported. (We have reported the 25 year performance).
Flooding Resilience	Halcrow	1) Some deviations from the methodology provided by Ofwat were identified. These are: •the vulnerability grading stage was not completed, and •extrapolation was used to approximate the results for the smaller catchments rather than modelling results. However, the approaches used in each instance are considered appropriate. 2) The population figures for the top 40 catchments differ between tables in the two files used for the calculations.
Per Capita Consumption	Halcrow	No material issues.

Independent Auditors' Report

Independent Auditors' report to the Water Services Regulation Authority (the WSRA) and the Directors of Anglian Water Services Limited

Report on the audit of the Regulatory Accounting Statements

Opinion

We have audited the tables within Anglian Water Services Limited's ("the Company") Annual Performance Report for the year ended 31 March 2018 ("the Regulatory Accounting Statements") which comprise:

- the regulatory financial reporting tables comprising the income statement (table 1A), the statement of comprehensive income (table 1B), the statement of financial position (table 1C), the statement of cash flows (table 1D) and the net debt analysis (table 1E) and the related notes; and
- the regulatory price review and other segmental reporting tables comprising the segmental income statement (table 2A), the totex analysis for wholesale water and wastewater (table 2B), the operating cost analysis for retail (table 2C), the historical cost analysis of fixed assets for wholesale and retail (table 2D), the analysis of capital contributions and land sales for wholesale (table 2E), the household water revenues by customer type (table 2F), the non-household water revenues by customer type (table 2G), the non-household wastewater revenues by customer type (table 2H), the revenue analysis & wholesale control reconciliation (table 2I), the infrastructure network reinforcement costs (table 2J) and the related notes.

We have not audited the financial flows table (table 1F), the outcome performance tables (tables 3A to 3D) and the additional regulatory information in tables 4A to 4W.

In our opinion, Anglian Water Services's Regulatory Accounting Statements have been properly prepared in accordance with financial reporting provisions of Condition F, the Regulatory Accounting Guidelines issued by the WSRA (RAG 1.08, RAG 2.07, RAG 3.10, RAG 4.07 and RAG 5.07) and the accounting policies (including the Company's published accounting methodology statement(s), as defined in RAG 3.10, appendix 2), set out within the Notes to the Annual Performance Report.

Basis for opinion

We conducted our audit in accordance with International Standards on Auditing (UK) ("ISAs (UK)"), including ISA (UK) 800, and applicable law, 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 Auditor's responsibilities for the audit of the Regulatory Accounting Statements section of our report. We are independent of the Company in accordance with the ethical requirements that are relevant to our audit of the Regulatory Accounting Statements in the UK, including the Financial Reporting Council's Ethical Standard, and we have fulfilled our ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Emphasis of matter – special purpose basis of preparation

We draw attention to the fact that the Regulatory Accounting Statements have been prepared in accordance with Condition F, the Regulatory Accounting Guidelines, the accounting policies (including the Company's published accounting methodology statement(s), as defined in RAG 3.10, appendix 2) set out in the statement of accounting policies and under the historical cost convention. The nature, form and content of the Regulatory Accounting statements

are determined by the WSRA. 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 Accounting Statements are separate from the statutory financial statements of the Company and have not been prepared under the basis of United Kingdom Generally Accepted Accounting Practice ("UK GAAP") / International Financial Reporting Standards as adopted by the European Union ("IFRSs"). Financial information other than that prepared on the basis of UK GAAP/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 Accounting Statements on pages 19 to 183 have been drawn up in accordance with Regulatory Accounting Guidelines with a number of departures from UK GAAP/IFRSs. A summary of the effect of these departures from Generally Accepted Accounting Practice in the Company's statutory financial statements is included in the tables within section 1.

The Regulatory Accounting Statements are prepared in accordance with a special purpose framework for the specific purpose as described in the respective directors' and auditor's responsibilities sections below. As a result, the Regulatory Accounting Statements may not be suitable for another purpose.

Our opinion is not modified in this respect.

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 when:

- the directors' use of the going concern basis of accounting in the preparation of the Regulatory Accounting Statements is not appropriate; or
- the directors have not disclosed in the Regulatory Accounting Statements 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 Accounting Statements are authorised for issue.

However, because not all future events or conditions can be predicted, this statement is not a guarantee as to the Company's ability to continue as a going concern.

Other information

The other information comprises all of the information in the Annual Performance Report other than the Regulatory Accounting Statements and our auditor's report thereon. The directors are responsible for the other information. Our opinion on the Regulatory Accounting Statements does not cover the other information and, accordingly, we do not express an audit opinion or any form of assurance thereon.

In connection with our audit of the Regulatory Accounting Statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the Regulatory Accounting Statements or our knowledge obtained in the audit, or otherwise appears to be materially misstated. If we identify an apparent material inconsistency or material misstatement, we are required to perform procedures to conclude whether there is a material misstatement of the Regulatory Accounting Statements or a material misstatement of the other information. If, based on the work we have performed, we conclude that there is a material misstatement 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

As explained more fully in the Statement of Directors' Responsibilities set out on page 12, the directors are responsible for the preparation of the Regulatory Accounting Statements in accordance with Condition F, the Regulatory Accounting Guidelines issued by the WSRA and the Company's accounting policies (including the Company's published accounting methodology statement(s), as defined in RAG 3.10, appendix 2).

The directors are also responsible for such internal control as they determine is necessary to enable the preparation of the Regulatory Accounting Statements that are free from material misstatement, whether due to fraud or error.

In preparing the Regulatory Accounting Statements, 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

Our objectives are to obtain reasonable assurance about whether the Regulatory Accounting Statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's 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 Accounting Statements.

A further description of our responsibilities for the audit of the Regulatory Accounting Statements is located on the FRC's website at: www.frc.org.uk/auditorsresponsibilities. This description forms part of our auditor's report.

Report on other legal and regulatory requirements

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 Annual Performance Report.

Use of this report

This report is made, on terms that have been agreed, solely to the Company and the WSRA in order to meet the requirements of Condition F of the Instrument of Appointment granted by the Secretary of State for the Environment to the Company as a water and sewage undertaker under the Water Industry Act 1991 ("Condition F"). Our audit work has been undertaken so that we might state to the Company and the WSRA those matters that we have agreed to state to them in our report, in order (a) to assist the Company to meet its obligation under Condition F to procure such a report and (b) to facilitate the carrying out by the WSRA of its regulatory functions, and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the Company and the WSRA, for our audit work, for this report or for the opinions we have formed.

Our opinion on the Regulatory Accounting Statements within the Annual Performance Report is separate from our opinion on the statutory financial statements of the Company for the year ended 31 March 2018 on which we reported on 5 June 2018, which are prepared for a different purpose. Our audit report in relation to the statutory financial statements of the Company (our "Statutory audit") was made solely to the Company's members, as a body, in accordance with Chapter 3 of Part 16 of the Companies Act 2006. Our Statutory audit work was undertaken so that we might state to the Company's members those matters we are required to state to them in a statutory audit report and for no other purpose. In these circumstances, to the fullest extent permitted by law, we do not accept or assume responsibility for any other purpose or to any other person to whom our Statutory audit report is shown or into whose hands it may come save where expressly agreed by our prior consent in writing.

Deloitte LLP

Chartered Accountants and Statutory Auditors

London, United Kingdom

29 June 2018

External Assurance Report

Technical Assurance Executive Summary

1 Anglian Water Services Limited commissioned Halcrow Management Sciences Limited to provide independent technical assurance for the Company's Audit Committee and Board on specified data lines to be reported to stakeholders in Anglian's Annual Performance Report. The selected lines covered all 32 of the company's ODIs as well as other APR lines. They also included all lines of Table 3S, which is to be provided to Ofwat but not published. Our audits also covered elements of Anglian Water's internal Yearbook assessed as 'high' or 'critical' risk for collecting performance information, operating the business and making future investment decisions.

Assurance Approach

2 Anglian Water issued Terms of Reference to define the scope of our audit requiring us to:

- Review the company's methodologies and procedures for identifying, analysing and recording data and, on a sample basis, test the application of those methodologies and procedures.
- Provide an opinion on the adequacy of the methodologies and procedures adopted by the company to provide reliable information.
- Alert the company to any material areas of concern or weakness observed.
- Review progress against issues raised in the last audit.
- Review whether the Yearbook/APR procedures and any associated local procedures / work instructions are current, accurate and appropriate.
- Check that data stated in the tables is supported by reliable, accurate and complete audit trails.
- Check that suitable commentary is provided which explains performance.
- Where applicable, confirm that the confidence grades are appropriate and supported by evidence.
- Confirm that changes from previous submissions have been adequately explained.
- Seek understanding of the upstream processes which generate data and the controls in place for ensuring the reliability of those data. Test where possible.

3 APR audits covered Ofwat's Tables 3A, 3B, 3S, and elements of Tables 4R, 4P, 4Q and 4U. Yearbook audits covered elements of Anglian's Tables C (customer perception), F (water balance), H (sewer collapses, mains bursts) and S (length of sewers/rising mains.

4 The technical assurance team comprised technical and operational specialists led by our Assurance Director. We used risk-based samples to trace data to source. Audits are documented in Summary Audit Reports with 'BRAG' (blue, red, amber, green) status which have been shared with Anglian.

Opinion and conclusion

5 Based on sample checks, we are satisfied that there are no material issues with the reported ODI information and other APR data we were asked to assure. For the lines we were asked to review, we confirm the metrics provide a fair and reasonable account of

Anglian Water's performance during 2017/18. In some areas we have recommended procedures are updated to fully document the process to compile the information. Significant challenges resolved post audit review are below:

- Leakage - new assumption based on a small sample of data in Newmarket during the free/thaw event assessed as usage. Post audit analysis identified all distribution zones (DZs) that did not have any leakage repair activity after the March event. The DZs show a similar spike in demand and a sharp decline. Based on the evidence produced, the spike in these DZs is likely to be usage rather than leakage. Resolved - 3 - year rolling average of 183.34 Ml/d is supportable.

- Reactive bust mains - change in reporting where some reactive bursts are categorised as "reactive - no customer impact" and excluded from reactives. Resolved - 146 reactive bursts excluded, but included in total bursts, hence not 'lost'.

- Sewer blockage - recording of some blockages was initially missed. Resolved - 11,936 blockages reports, amended from 11,466. Anglian is investigating the process to make changes as necessary.

Key Findings

6 We identified some issues to which we have alerted the Company at audit and in our Summary Audit Reports. Key items of note, including exemplary performance, are identified below. We did not identify other residual material risks or concerns, about which the Company is not already aware.

No concerns	Minor concerns	Material concerns	Non-material observation or recommendation

ODI	RAG	Summary findings by exception and/or good performance
Leakage		The leakage target has been met even with the challenge of the impact of the freeze/thaw event in March 2018.
		A sharp rise and fall of water demand was observed in the Newmarket smart meters trial area during the March freeze/thaw event. Anglian assumed this is usage which we challenged as potential leakage. Anglian maintained it is demand where some customers may have opened outdoor taps to prevent frozen pipes. Analysis post audit identified all distribution zones that did not have any leakage repair activity after the March event. These DZs showed similar spikes in demand followed by sharp declines. Any repair of customer supply pipes could not have been completed in the time it took for the peak in demand to drop. We support the assessed 0.1 Ml/d as usage not leakage. 3-year rolling average of 183.34 Ml/d is supported (was 183.26 Ml/d prior to further analysis.
Interruptions to Supply (I2S)		The Company performance for I2S has outturned at 7 mins 24 secs outperforming the year 3 ODI target of 12 minutes. This performance represents improved performance to 11 mins 43 secs in Yearbook 2017 which also outperformed the target. I2S events during the winter event in March were managed well by both Anglian and Hartlepool.
SIM		We noted the following outstanding performance: • The Qualitative SIM score of 4.52 ranks Anglian Water in 1st position overall for 2017/18 year end. This is the first time in this AMP that the company has achieved this position (6th for Yearbook 2017). • There have been no investigations into complaints by CCWater for the first time (2 investigations in 2016/17). Despite a significant increase in unwanted calls during the freeze/thaw event in March, Anglian redeployed its billing contact lines to receive operational contacts which helped manage the increase in calls.
Sewer Activity		We have recommended Anglian's sewer collapse definition is strengthened to avoid an ambiguity because our audit sampling found a small number of records which were questionable as to whether they should be included. The numbers were corrected. The new Ofwat shadow reporting definition removes the "within 5-days" from the requirement for action to manage flows, whereas Anglian's definition includes this. It may be a challenge for Anglian to retrospectively account for these outside 5 days.

ODI	RAG	Summary findings by exception and/or good performance
Sewer blockages		Six points of weakness were observed at audit which were shown to exclude some reportable sewer blockages. Anglian was reporting 11,466. Subsequent to the audit, Anglian undertook analysis to determine the materiality of these concerns. 470 legitimate blockage events (approximately 5%) have now been included with the correct figure of 11,936 being reported. It is noted that Anglian Water will strengthen the reporting process to address this in 2019.
Burst mains		Anglian made a decision to exclude reactive bursts that have no impact on customers. We reviewed this process and challenged their exclusion because the process change impacts adversely on the ability to use the historical serviceability trend data and a possible reduction in 'asset health' data. Anglian presented the process for assessing 'impact on service' and although there is risk of subjectivity, it has been deemed as not material because the number of events is relatively small and the uncertainty of categorisation relates to a subset of these events. Anglian also confirmed it records the exclusions and the non-impacting bursts remain visible and are used to inform investment decisions. Anglian is reporting 3,456 reactive burst mains (was 3,591 with the exclusions).
Carbon		Two queries are outstanding – Anglian to confirm what emissions factors are used for India and Sri Lanka, and why Solar & Wind export (kWh) data has not been included within the Carbon Accounting Workbook.

Glossary

Annual Performance Report (APR) – report produced by the Company for regulatory reporting purposes, known previously as the Regulatory Accounts.

Appointed business – the appointed business comprises the regulated activities of the Company which are activities necessary in order for a company to fulfil the function and duties of a water and sewerage undertaker under the Water Industry Act 1991.

Arm's-length trading – arm's-length trading is where the Company treats the associate companies on the same basis as external third parties.

Asset Management Plan (AMP) – a plan agreed with Ofwat on a five-yearly basis for the management of water and wastewater assets. The plan runs for a five-year period. AMP5 covers April 2010 to March 2015 and AMP6 covers April 2015 to March 2020.

Associate company – Condition A of the Licence defines an associate company to be any group or related company. Condition F of the Licence requires all transactions between the Company and its associated companies to be disclosed subject to specified materiality considerations.

Committed Performance Level (CPL) – in consultation with Ofwat and our customers, we have set measurable targets for each ODI that represent the delivery of our outcomes.

Consumer Price Index including owner occupied housing costs (CPIH) - compiled and published monthly by the Office of National Statistics. This is an additional measure of consumer inflation including a measure of the owner occupied housing costs (costs that are associated with owning, maintaining and living in one's home) and council tax.

Final Determination (FD) – this is the conclusion of discussions on the scale and content of the Asset Management Plan for the forthcoming five-year period. It is accompanied by a determination of the allowable 'K' factor for the forthcoming five-year period.

K factor – the annual charge, set by Ofwat, in revenue that companies in the water industry can make. The amount by which a company can increase (or must decrease) its charges is controlled by the price limit formula RPI + or – 'K'. RPI is expressed as the percentage increase in the Retail Price Index in the year to November before the charging year. 'K' is a number determined by Ofwat for each company, usually at a price review, for each year to reflect what it needs above or below inflation in order to finance the provision of services to customers, and is subject to adjustment mechanisms to reflect prior year revenue recovery and in-period performance commitments.

Licence – the Instrument of Appointment dated August 1989 under Sections 11 and 14 of the Water Act 1989 (as in effect on 1 August 1989) under which the Secretary of State for the Environment appointed Anglian Water Services Limited as a water and sewerage undertaker under the Act for the areas described in the Instrument of Appointment, as modified or amended from time to time.

Menus – menu regulation is an innovative system in which companies are presented with a choice of regulatory contracts. Companies are rewarded or penalised based on how well their business plan matches expenditure during the subsequent price control.

Non-appointed business – the non-appointed business activities of the Company are activities for which the Company as a water and sewerage undertaker is not a monopoly supplier (for example, the sale of laboratory services to an external organisation) or involves the optional use of an asset owned by the Company (for example, the use of underground assets for cable television).

Ofwat – the name used to refer to the Water Services Regulation Authority (WSRA). The WSRA acts as the economic regulator of the water industry.

Outcome Delivery Incentives (ODIs) – the rewards earned and penalties incurred by companies according to how well they perform against the Committed Performance Levels.

Periodic Review – the price determination process undertaken by Ofwat every five years. Each water and sewerage undertaker submits an Asset Management Plan covering the five-year period for which Ofwat will determine prices (the 'K' factor – see above).

Price Control Units – at the 2014 price review, Ofwat introduced separate price controls for wholesale water, wholesale wastewater, retail household and retail non-household.

Regulatory Accounting Guidelines (RAGs) – the accounting guidelines for the APR issued, and amended from time to time, by Ofwat.

Regulatory Capital Value (RCV) – the capital base used in setting price limits and the value of the appointed business that earns a return on investment. It represents the initial market value (200-day average), including debt at privatisation, plus subsequent net new capital expenditure including new obligations imposed since 1989. The capital value is calculated using the Ofwat methodology.

Retail Price Index (RPI) – the RPI is compiled and published monthly by the Office for National Statistics. RPI is an average measure of change in the prices of goods and services bought for the purpose of consumption by the vast majority of households in the United Kingdom.

Retail services – the elements of the business responsible for direct contact with customers e.g. the contact centre, billing and reading meters. From April 2017, following the opening of the non-household market, business customers are able to choose their retail supplier. The appointed business exited all non-household market activities.

Service Incentive Mechanism (SIM) – Ofwat's measure of customer satisfaction based on surveys of customers who have contacted the Company and the number of contacts received which express dissatisfaction.

Third-party contributions since 1989/90 – grants and third-party contributions received in respect of infrastructure assets and any deferred income relating to grants and third-party contributions for non-infrastructure assets.

Totex – total expenditure comprising operational expenditure (opex) and capital expenditure (capex).

Water and Sewerage Company (WaSC) – a company responsible for the provision of both water and sewerage services.

Wholesale services – the elements of the business responsible for the abstraction, treatment and distribution of water and the collection, treatment and disposal of sewage and sludge.

Working capital – the aggregate of stocks, trade debtors and trade creditors.

WRFIM – Wholesale revenue forecasting incentive mechanism.

Addendum - Schedule of Changes

The below table shows the lines on which discrete data cells have been updated in our APR. Where relevant, the corresponding commentary has also been amended. Each update has been grouped into one of five categories dependent on its nature.

Table	Table Description	Line	Line Description	Unit	Previous Value	Updated Value	Description of change
Update to figures following Ofwat query process							
4O	Large Sewage Treatment Works	10	Flow passed to full treatment	m3/d	12,422	5,734	Correction of 'Flow passed to full treatment' figure for Flitwick STW.
4U	Non-Financial Data - Properties, Population and Other - Wholesale Wastewater	9	Void properties	000	89.877	103.208	The figure has been updated to include void business properties, as has the associated total in line 10.
Update to figures due to change in reporting requirement following Ofwat query process							
4Q	Non-Financial Data - Properties, Population and Other - Wholesale Water	16	Number of business meters (billed properties)	000	124.027	113.465	Following a change of Ofwat reporting requirements, and as needed for PR19, void properties have been excluded.
4Q	Non-Financial Data - Properties, Population and Other - Wholesale Water	17	Number of residential meters (billed properties)	000	1,716.475	1,608.045	Following a change of Ofwat reporting requirements, and as needed for PR19, void properties have been excluded.
Update to presentation within tables and accompanying commentary							
1E	Net Debt Analysis	4 / 5	Cash / Short term deposits				Update to commentary to clarify the reason for the difference in cash in lines 1E.4 and 1E.5 to 1C.11.
4H	Financial Metrics						Following the request from Ofwat we have re-ordered the presentation of the tables in section 4H of the published APR to present the tables submitted using the Ofwat table template first, with the reconciliation to our underlying metrics presented in the second table.
Update to table 1F 'Financial Flows' reported on a shadow basis							
1F	Financial Flows	15 (2015/16)	Total shareholder return	%	8.24%	9.32%	Update to reflect prior year adjustments in respect of capital allowance disclaimers as part of the corporation tax variance calculation. This did not impact the 2017/18 table.
1F	Financial Flows	15 (2016/17)	Total shareholder return	%	15.22%	9.22%	
1F	Financial Flows	15 (2017/18)	Total shareholder return	%	14.52%	No Change	
1F	Financial Flows	Lines 4 / 5 Lines 6 / 7	Variance in corporation tax / Group relief Cost of debt / Hedging instruments				Update following Ofwat request to reallocate the tax effect of the surrender of the group relief in respect of internal interest income from line 4 to 5 and show interest associated with hedging instruments separately in line 7 rather than line 6.
Update to figures following completion of PR19 tables							
4O	Large Sewage Treatment Works	6 (Broadholme STW)	Ammonia consent	mg/l	5	3	Update to original submission
4O	Large Sewage Treatment Works	6 (Corby STW)	Ammonia consent	mg/l	3	1	Includes revision to permit limit made on 31/3/18
4O	Large Sewage Treatment Works	6 (Dunstable STW)	Ammonia consent	mg/l	4	3	Includes revision to permit limit made on 31/3/18
4O	Large Sewage Treatment Works	6 (Letchworth STW)	Ammonia consent	mg/l	5	3	Includes revision to permit limit made on 31/3/18
4P	Non-Financial Data for Water Resources, Water Treatment and Water Distribution	52	No. of WTWs requiring remedial action because of raw water deterioration	nr	0	3	Reinterpretation of reporting requirements
4P	Non-Financial Data for Water Resources, Water Treatment and Water Distribution	8	Number of pumped storage reservoirs	nr	6	8	Addition of Cadney Carr and Costessy Pits

Table	Table Description	Line	Line Description	Unit	Previous Value	Updated Value	Description of change
4P	Non-Financial Data for Water Resources, Water Treatment and Water Distribution	9	Number of river abstractions	nr	7	17	Addition of ten indirect supporting river abstractions
4P	Non-Financial Data for Water Resources, Water Treatment and Water Distribution	13	Total number of sources	nr	223	235	Revised total following the changes to lines 8 and 9
4P	Non-Financial Data for Water Resources, Water Treatment and Water Distribution	14	Total number of water reservoirs	nr	12	13	Addition of Heigham Large Deposit Reservoir
4P	Non-Financial Data for Water Resources, Water Treatment and Water Distribution	15	Total capacity of water reservoirs	Ml	227584	227643	Revised total following the change to line 8
4S	Non-Financial Data - Sewage Treatment	23	Current population equivalent served by STWs with tightened/new sanitary parameter consents	000s	9.071	200.969	Update to original submission
4U	Non-Financial Data - Properties, Population and Other - Wholesale Wastewater	13	Energy consumption - network plus	MWh	362070.414	343941.901	Revised following reallocation of gas oil for PR19
4U	Non-Financial Data - Properties, Population and Other - Wholesale Wastewater	14	Energy consumption - sludge	MWh	122091.548	140220.061	Revised following reallocation of gas oil for PR19