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About us

We are one of the largest of the 10 regulated water and sewerage companies in England and Wales. We provide high quality services to around 4.3 million households and businesses in the Midlands and mid-Wales. Our region stretches across the heart of the UK, from the Bristol Channel to the Humber, and from mid-Wales to the East Midlands.



About this report

The Annual Performance Report (APR) provides a clear and assured account of our:

- financial performance for each price control, based on Ofwat's regulatory accounts framework to enable stakeholders to consistently assess our relative and absolute performance; and
- a clear, detailed and assured account of our performance across our 45 performance commitments for 2015-20.

Our commitments are based on the areas of service that are most important to our customers, and the improvements they want to see. Before we agreed them, they were rigorously scrutinised by Ofwat, our economic regulator, to ensure that they were sufficiently challenging, in customers' interests and what they were willing to pay for.

There are four main sections in the annual performance report:

Section	Content
1. Regulatory financial reporting	A baseline level of historical cost financial information aligned to the way in which price controls (and associated regulatory performance commitments and incentives) have been set.
Price control and additional segmental reporting	Further disaggregation of revenue and costs, to allow stakeholders to review our performance against the final determination.
3. Performance summary	A detailed report of our performance, looking at progress on the 45 performance commitments used to measure delivery of our 2015-20 plan.
4. Additional regulatory information	Additional financial and non-financial information, including (but not limited to), additional accounting policies, financeability statement, current cost reporting, totex analysis.

We are also publishing:

- A compliance statement which confirms that we have complied with all our relevant statutory, licence and regulatory obligations and are taking appropriate steps to manage and mitigate any risks identified.
- A data assurance summary of the results of the data assurance activities we have carried out to demonstrate that the information we have provided our customers is accurate.

In addition Severn Trent Water has published its Annual Report and Accounts for the year ended 31 March 2017, which is available on our website (severntrent.com). Where disclosures in the Annual Report fulfil requirements for the APR we have provided a cross reference in this document rather than duplicating the information.

Foreword

In 2014 Ofwat introduced a new way of regulating the sector to give companies more flexibility in deciding how to deliver service and improvements for customers and the environment. We moved from measuring detailed outputs to looking at longer term outcomes, with performance commitments introduced for areas of service that are most important to customers and the improvements they want to see. The framework also includes financial outcome delivery incentives (ODIs) to ensure companies benefit if they deliver their commitments to customers or are penalised if they don't.

We supported the changes and embraced the new approach. Our 2015-20 plan requires us to deliver a suite of 45 challenging performance commitments, and we're also one of only three companies to adopt in-year ODIs which means that the timing of our financial incentives is more closely linked to when we deliver service changes for customers.

We know that to achieve our aim of being the most trusted water company by 2020, we need to deliver an outstanding customer experience with the best value service and show true environmental leadership. We knew that many of our commitments required us to deliver an immediate and sustained improvement, so, to give us a vital early start, we made sure all 5,500 colleagues knew about the importance of delivering on our commitments for customers before the new framework came into effect. We also empowered our colleagues to drive improvements and share in our successes through a new bonus scheme.

Our performance this year reflects the great progress we have made. We've continued to reduce supply interruptions (17% better than target), external sewer flooding (23% better) and category 3 pollution events (25% better). On coliform detections, a significant problem area for us in the past, we are now 29% ahead of target, and our leakage performance is 2%

better than target. We've also helped almost 51,000 vulnerable customers and are now ahead of target, a major turnaround from last year when we were 31% below our target. Whilst the relatively benign weather has benefited our performance, our achievements this year are largely due a combination of our continued investment in maintaining and improving services; embracing innovation; and cultural change. Overall, we've delivered at, or better than committed levels on 20 of the 30 performance commitments which have targets this year - and have earned a net ODI reward of £47.4m (including tax).

But we know there is more for us to do. There are areas where, despite our continued effort and focus, we have not delivered the levels we want for our customers including on drinking water complaints which are 32% above target, customer experience which has remained around the 2015/16 level and speed of response to visible leaks which has fallen. We have also experienced five more serious pollutions than last year, and while we remain among the best in the sector, it goes against the improved trend we had achieved over recent years. We will continue to work hard to get these, and other areas where improvement is required, back on track. There are already early signs of recovery in some areas and we are working closely with our new colleagues in Dee Valley Water to see where we can mutually benefit from sharing learning and best practice.

In the coming year we have much to look forward to as we continue to strive to put customers at the heart of everything we do, and build trust with all of our stakeholders.

Andrew Duff

Liv Garfield

Chairman

Chief Executive



Executive Summary

Our Annual Performance Report provides a clear, detailed and assured account of our performance, both in terms of financial performance for each price control, and across our 45 performance commitments for the 2015-20 period. Our commitments are based on the areas of service that are most important to our customers, and the improvements they want to see. Before we agreed them, they were rigorously scrutinised by Ofwat to ensure that they were sufficiently challenging, in customers' interests and aligned to the value they were willing to pay to improve services.

Embedding customers at the heart of all we do

We have delivered a strong performance across many commitments this year, the second year of the 2015-20 period. Our performance has been driven by the way we've embraced the new regulatory framework from its inception, firmly embedding customers at the heart of what we do. We developed new performance commitments with challenging targets and were one of only three companies to adopt in-period ODIs as part of our 2015-20 plan. This means that the timing of our financial incentives is more closely linked to when we deliver service changes for customers.

Over the last two years we've invested to improve the services we deliver, developed new systems and processes and empowered our colleagues to drive the improvements and share in the success through a new bonus scheme. Whilst the relatively benign weather has benefitted our performance, our achievements this year are largely due a combination of our continued investment in maintaining and improving services, embedding innovation and cultural change. Overall, this has driven good performance in most areas. We have delivered at or better than committed levels on 20 of the 30 performance commitments which have targets this year, which has resulted in ODI rewards of £47.4m (including tax).

Our performance this year reflects the great progress we have made across many service areas including supply interruptions, leakage, category 3 pollutions and sewer flooding. We've also maintained our coliforms performance and significantly increased the number of vulnerable customers we've helped, both problem areas for us in the past. But we know there is more for us to do. There are areas where, despite our continued effort and focus, we have not delivered on our commitments, including on the number of drinking water complaints, customer experience and speed of response to visible leaks. We will continue to work hard to get these, and other areas where improvement is required, back on track.

Driving operational excellence and continuous innovation

A key enabler for our success has been the way in which we have been able to target our investment by the process improvements we have undertaken (e.g. to zones with high blockage rates). We have undertaken major systems and process improvements in a large number of areas including:

- the implementation of reactive loggers to provide better real time information on how the network is performing - and how best to calm the network through valve operations to reduce bursts and prevent incidents;
- · developing and enhancing digital systems;
- more systematic analysis of waste network e.g. with monitors on Combined Sewer Overflows to anticipate blockages and pollution risk - to proactively prevent issues; and
- end to end process reviews at our water treatment works in order to strengthen our processes and invest where required, supporting our coliforms performance.

We have worked in partnership with others to prevent issues before they arise, from targeting the causes of sewer flooding at the source, getting assistance to our vulnerable customers, to preventing deterioration of our raw water sources through our extended catchment management programme.

Investing responsibly for sustainable growth

We have efficiently spent over £1.1 billion this year, much of which has been dedicated to our asset base to ensure we can continue serving our customers in the future. Our assets are valued at over £90 billion (replacement cost), and we have a responsibility for ensuring we make the right cost-effective choices when deciding when and how to invest (our decisions range from operational changes and improvements to major repair or replace options). In February 2017, we shared our approach to managing service delivery and monitoring our asset base with Ofwat as part of the sector-wide Asset Health and Resilience review, where we were able to highlight continuing improvements to our data, systems, processes and use of evolving technology across the asset base.

During the year we have seen great progress on the Birmingham Resilience Scheme, our largest ever assetcreation programme. Critical milestones such as the Bleddfa bypass have now been completed and we have also embarked on a large programme of customer engagement to support the next stage of the programme. We have also successfully met all Drinking Water Inspectorate and Environment Agency obligation dates and replaced Ambergate reservoir with a new and extended reservoir to provide long term water supply resilience to our customers in Derbyshire.

We believe good businesses are socially responsible businesses and supporting our local community is central to our values. Highlights include the delivery of 12,000 water efficiency home checks to help customers save money, educating over 167,000 people on sewer misuse and water efficiency and being recognised by the Drinking Water Inspectorate as industry leaders for our innovative approach to catchment management.

We have worked hard to ensure that we invest efficiently and have delivered exceptional totex (total expenditure) outperformance this year, equivalent to 2.2% Return on Regulated Equity (1.5% over two years). Our achievements have been driven by several contributing factors, notably benefits of an early organisational restructuring (complete by March 2015), renegotiated contracts and developing smarter, totex solutions. Our totex outperformance is largely driven by our Wholesale Wastewater activities where we had consistently delivered outperformance throughout the 2010-15 period, secured frontier efficiency in 2014 (for which we were rewarded as part of the Final Determination) and have kept the momentum going. On Wholesale Water, we are finding it more challenging to deliver our performance commitments so, whilst we have delivered efficiencies, we have also invested in more activities and earlier than envisaged in our 2015-20 plan.

Creating an 'awesome' place to work

We knew that many of our commitments required us to deliver an immediate and sustained improvement, so, to give us a vital early start, we made sure all 5,500 colleagues knew about the importance of delivering on our commitments for customers before the new framework came into effect.

We have driven a cultural change in Severn Trent by involving colleagues in delivery of the performance commitments. We use tools such as 'petrol gauge' dials through our extensive network of 'comm cells' to ensure there is a clear and consistent focus through the company and across our supply chain partners. Our streamlined organisational structure delivers empowerment and more agile decision making processes enabling issues to be identified and solutions implemented quickly. Our annual bonus scheme, unique to the sector, incentivises colleagues for delivering good performance (a significant proportion relates to our performance commitments).

Moving forwards

Looking forward, we will continue to work hard to deliver the performance levels we have committed to customers. We know there is more to do in some areas to get back on track, and in many of the areas where we have performed well this year, we know the target for 2017/18 is set at a higher level. We will continue to emphasise the importance of delivering the things our customers want throughout the company and, together with targeted investment, process areas and partnership working, we aim to continue the strong delivery into next year.

Information you can trust

Our vision is to be the country's most trusted water company by 2020, which means being trusted by both our customers and external stakeholders alike. To achieve this, it was important for us to have been awarded Ofwat's 'self-assured' status in 2016, as it shows our commitment to providing meaningful information to customers that they could trust, as well as highlighting the work we had undertaken to reach that level.

Our approach to information, both externally and internally, has led to us developing an assurance and reporting framework based around four key principles:

- Robust assurance by targeting areas of greatest risk;
- Ownership and accountability where we have clear lines of ownership for both delivery and accuracy of data;
- Effective governance provided by our Board, Audit and Disclosure committees, with additional challenge provided by the Water Forum; and
- Transparency and public accountability where we publicly report on our performance and hold ourselves to account where we don't meet our commitments.

To help us maintain our self-assured status, we consulted on our assurance plan for this year with our customers and stakeholders. This plan confirmed that for 2016/17 we would continue to operate our three lines of defence model to ensure our data is robust, accurate and assured in a transparent manner. Full details of our assurance processes undertaken in this reporting year are included in our accompanying 'Assurance summary'.

Ensuring transparency

Last year, we identified a number of performance commitments where the measure agreed with Ofwat in its 2014 Final Determination could be open to interpretation, particularly where the incentive rate was stated as 'per-year' but was

intended to be determined at the end of the 2015-20 period. To ensure transparency about the basis on which we had reported, we clearly set out our understanding of the issue and detailed how we intended to report on performance in our 2016 APR. This approach was discussed with the Water Forum and Ofwat.

This year we have not identified any further areas where clarification has been required, although we have made progress in agreeing the detailed measurement methodology with our stakeholders on the successful catchment management and biodiversity improvements commitments. For clarity, Section 3 sets out the basis of measurement for each performance commitment.

ODIs and customer charges

Whether we under or outperform against our ODIs will ultimately impact on average household and wholesale charges as we are one of three water and waste water companies who are also able to apply for financial rewards earned during any year to be applied to bills during the 2015-20 period. Our performance will also be taken into account by Ofwat as we develop our business plan and charges for 2020-25.

For 2016/17, we have earned a total net reward of £38.4m (after tax, £47.4m before tax) from the 13 of our PCs, which qualify for 'in period' rewards. These are comprised of two elements:

Net rewards for our 2016/17 performance £40.3r

Adjustments -£1.9m

Total (after tax) £38.4m (£47.4m* before tax)

*In our Annual Report and Accounts 2017 we reported £47.6m, which excludes a subsequent adjustment on the carbon performance commitment explained below.

The net rewards for 2016/17 performance are explained in Section 3 and summarised below:

Performance commitment	Reward or penalty	Incentive value (£m)
W-A1: Number of complaints about drinking water quality	Penalty	-£2.4m
W-A2: Compliance with drinking water quality standards	Penalty	-£0.2m
W-B2: Leakage levels	Reward	£0.9m
W-B3: Speed of response in repairing leaks	Penalty	-£0.9m
W-B4: Number of minutes customers go without supply each year	Reward	£2.1m
W-B7: Customers at risk of low pressure	Reward	£0.0m
W-C1: Customers rating our services as good value for money	Reward	£0.1m
W-E1: Size of our carbon footprint	Penalty	-£0.4m
S-A1: Number of internal sewer flooding incidents	Reward	£3.8m
S-A2: Number of external sewer flooding incidents	Reward	£32.7m
S-B1: Customers rating our services as good value for money	Reward	£0.1m
S-C2: The number of category 3 pollution incidents	Reward	£3.9m
S-D1: Size of our carbon footprint	Reward	£0.6m
Net rewards		£40.3m

For complete transparency, we have separately identified a small number of adjustments arising from retrospective amendments to 2015/16 reported data or where we have not claimed the full reward for 2016/17 for other reasons. These are detailed in Section 3 and summarised below:

Performance commitment	Incentive value (£m)
2016/17 Leakage	-£0.9m
2016/17 Carbon (Waste)	-£0.4m
Flooding 2015/16 Adjustment	-£0.6m
Carbon (Waste) 2015/16 Adjustment (£0.04m)	£0.0m
Adjustments	-£1.9m

SIM

An amendment has been made to our SIM score subsequent to the publication of the Annual Report and Accounts 2017, where we reported the SIM score as 83.61. This should be 83.51. There is no change to the net reward position.

Impact on customer bills in 2018/19

The net rewards for 2016/17 performance will have an impact on customer bills in 2018/19, and it is important that we are transparent with customers about this. We will be discussing the impact as part of our engagement with the Water Forum before we put our formal submission to Ofwat in September 2017.

Comparing our performance to others in the sector

We have designed our report to be accessible to all stakeholders so that they show how we are delivering for our customers, our stakeholders and the environment. In addition to this report, we will be producing a summary report for our customers in early August to provide an overview of our performance. This document will be transparent about areas where we have exceeded our commitments, measures that require improvement and what we will be doing to address this.

We are also working with Ofwat and other water companies to improve consistency of how we measure and report performance, particularly on leakage, supply interruptions and sewer flooding. This work will be used in our next business plan to Ofwat (this will cover 2020-25). We will provide an update in our Annual Performance Report for 2018.

To find out more about Severn Trent's service performance in comparison to other water companies please go to discoverwater.co.uk. This 'dashboard' brings together key information about water companies in England and Wales in one place in a clear and simple way for customers. All data is provided by the water companies with oversight from our water regulators, the UK and Welsh Governments and the Consumer Council for Water.

Reporting our performance

Every year we publish a wide range of information about our services and our performance. This information is used in a variety of ways; not least it may shape the choices our customers and stakeholders make. We therefore want to make sure that it can be relied on.

We publish a series of documents to provide our customers with transparency on our performance both financial and operational.

- The annual performance report (the 'APR' this document)
 which provides specific information on progress on delivery
 of customer outcomes, service levels, transparent cost
 information and financial performance.
- A compliance statement which confirms that we have complied with all our relevant statutory, licence and regulatory obligations and are taking appropriate steps to manage and mitigate any risks identified.
- A data assurance summary of the results of the data assurance activities we have carried out to demonstrate that the information we have provided our customers is accurate.

In addition Severn Trent Water has published its Annual Report and Accounts for the Year ended 31 March 2017, which is available on our website (severntrent.com). Where disclosures in the Annual Report fulfil requirements for the APR we have provided a cross reference in this document rather than duplicating the information.

When we developed our business plan for the period 2015-20, we recognised that the introduction of performance commitments with associated Outcome Delivery Incentives (ODIs) would create a new focus for our customers and play an important part in building this trust and confidence. Section 3 of this report provides details of our operational performance.

This report is set out in four sections:

1 Regulatory financial reporting

A baseline level of historical cost financial information aligned to the way in which price controls (and associated regulatory performance commitments and incentives) have been set.

2 Price review and additional segmental reporting

Further disaggregation of revenue and costs, to allow stakeholders to review the company's performance against its final determination.

3 Performance summary

A high-level report of the progress we have made on our plan and against our 45 performance commitments.

4 Additional regulatory information

Additional financial and non-financial information including totex analyses, current cost reporting and financial metrics.

Disclosure required by RAG 3

In addition to the disclosures that are set out in the tables in Sections 1 - 4, RAG 3 sets out requirements for narrative disclosures in the Annual Performance Report. The statements set out below address those requirements.

Governance and dividend policy

Severn Trent Water has chosen to apply the principles of the September 2014 version of the UK Corporate Governance Code (the 'Code') to its governance arrangements where appropriate and reasonably practicable. Details of how the company has applied the Code during the year are set out in the company's Annual Report and Accounts, which is available on the company's website (severntrent.com).

The company's Annual Report and Accounts includes a long term viability statement in the Strategic Report on page 40.

The company's dividend policy is to declare dividends which are consistent with the company's regulatory obligations and at a level which is decided each year after consideration of a number of factors, including regulatory uncertainty, market expectations, actual and potential efficiencies, future cash flow requirements and balance sheet considerations.

The amount declared is expected to vary each year as the impact of factors changes. The ordinary dividend declared and paid by the company in 2016/17 amounted to £195.5 million (2016: £310.0 million), being 19.55p per share (2016: 31.0p per share).

Disclosure of information to auditor

The Companies Act requires directors to make a statement in the company's Annual Report and Accounts regarding the provision of information to the auditor. RAG 3 requires an equivalent statement to also be made in the Annual Performance Report. This statement is set out below.

In the case of each of the persons who are directors of the company at the date when this report was approved so far as each of the directors are aware, there is no relevant audit information of which the company's auditor is unaware; and each of the directors has taken all the steps that he/she ought to have taken as a director in order to make himself/herself aware of any relevant audit information and to establish that the company's auditor is aware of that information.

Risk and compliance

Our compliance statement is published on our website. In summary the statement confirms that Severn Trent Water:

- a) Considers it has a full understanding of, and is meeting, its obligations and has taken steps to understand and meet customer expectations;
- b) Has satisfied itself that it has sufficient processes and internal systems of control to fully meet its obligations and has appropriate systems and processes in place to allow it to identify, manage and review its risks; and
- c) Sets out the steps the company is taking or will take to manage and/or mitigate any material or potential material risk which is identified and defines materiality for the purposes of this.

Statement of Directors' responsibilities

The directors are responsible for the preparation of the Annual Performance Report and for its fair presentation in accordance with the basis of preparation and accounting policies.

Further to the requirements of company law, the directors are required to prepare financial statements which comply with the requirements of Condition F Instrument of Appointment of the company as a water and sewerage undertaker under the Water Industry Act 1991 and Regulatory Accounting Guidelines issued by the Water Services Regulation Authority. This additionally requires the directors to:

- a) Confirm that, in their opinion, the company has sufficient financial and management resources for the next twelve months;
- b) 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;
- c) Report to the Water Services Regulation Authority changes in the company's activities which may be material in relation to the company's ability to finance its regulated activities;
- d) Undertake transactions entered into by the appointed business, with or for the benefit of associated companies or other businesses or activities of the appointed business, at arm's length; and
- e) Keep proper accounting records which comply with Condition F.

Diversification and the protection of the core business

The ring fencing provisions in the company's licence (Condition F6a) require it to make certain statements in relation to its ability to continue to carry out its regulated activities for at least a year after the date of the report. This statement is set out below.

Severn Trent Water hereby advises:

- a) That in the opinion of the directors, the Appointee will have available to it sufficient financial resources and facilities to enable it to carry out, for at least the next 12 months, the Regulated Activity (including the investment programme necessary to fulfil the Appointee's obligations under the Appointment); and
- b) That in the opinion of the directors, the Appointee will for at least the next 12 months, have available to it management resources which are sufficient to enable it to carry out those functions.

Ring fencing

Paragraph 3.1 of Condition K requires that, at all times, to ensure that if a special administrator were appointed to manage the regulated activities, that administrator would have sufficient control over the regulated business and assets to be able to do so. In addition to the statement set out above under Condition F6a, the company is required to confirm that it is in compliance with Condition K3.1. This statement is set out below.

In accordance with the requirements of the Water Services Regulation Authority, the board confirmed that, as at 31 March 2017, it had available to it sufficient rights and assets, not including financial resources, which would enable a special administrator to manage the affairs, business and property of the company in order that the purposes of a special administration order could be achieved if such an order were made.

Liv Garfield

Chief Executive

For and on behalf of the board.

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14 July 2017

Independent Auditors' report to the Water Services Regulation Authority (the WSRA) and the Directors of Severn Trent Water Limited

Opinion on Annual Performance Report

In our opinion, Severn Trent Water Limited's Regulatory Accounting Statements within the Annual Performance Report:

 have been properly prepared in accordance with Condition F, the Regulatory Accounting Guidelines issued by the WSRA (RAG 1.07, RAG 2.06, RAG 3.09, RAG 4.06 and RAG 5.06) and the accounting policies (including the company's published accounting methodology statement as defined in RAG 3.09, Appendix 3) set out in note 1.

Emphasis of matter - basis of preparation

Without modifying our opinion on the Regulatory Accounting Statements within the Annual Performance Report, we draw attention to the fact that the Annual Performance Report has been prepared in accordance with Condition F, the Regulatory Accounting Guidelines, the accounting policies (including the company's published accounting methodology statement, as defined in RAG 3.09, Appendix 3) 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 Annual Performance Report is separate from the statutory financial statements of the Company and has not been prepared under the basis of International Financial Reporting Standards as adopted by the European Union ("IFRSs"). Financial information other than that prepared on the basis of IFRSs does not necessarily represent a true and fair view of the financial performance or financial position of a company as shown in statutory financial statements prepared in accordance with the Companies Act 2006.

The Regulatory Accounting Statements on pages 17 to 39 have been drawn up in accordance with Regulatory Accounting Guidelines with a number of departures from IFRSs. A summary of the effect of these departures from Generally Accepted Accounting Practice in the Company's statutory financial statements is included in the tables within section 1.

What we have audited

The tables within Severn Trent Water Limited's Annual Performance Report that we have audited ("the Regulatory Accounting Statements") 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 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) and the revenue analysis by customer type (table 2I) and the related notes.

The financial reporting framework that has been applied in their preparation comprises Condition F, the Regulatory Accounting Guidelines issued by the WSRA and the accounting policies (including the accounting separation methodology) set out in note 1 to the Annual Performance Report.

In applying the financial reporting framework, the directors have made a number of subjective judgements, for example in respect of significant accounting estimates. In making such estimates, they have made assumptions and considered future events.

We have not audited the Outcome performance tables (tables 3A to 3C) and the additional regulatory information in tables 4A to 4I.

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 WRSA, for our audit work, for this report or for the opinions we have formed.

An overview of the scope of our audit

Our audit was scoped by obtaining an understanding of the entity and its environment, including internal control, and assessing the risks of material misstatement. Audit work to respond to the risks of material misstatement was performed directly by the audit engagement team.

Our assessment of risks of material misstatement

The assessed risks of material misstatement described below are those that had the greatest effect on our audit strategy, the allocation of resources in the audit and directing the efforts of the engagement team:

Risk

Determination of the provision for impairment of trade receivables (£125.4 million)

A proportion of Severn Trent Water Limited's customers do not or cannot pay their bills which results in the need for provisions to be made for non-payment of the customer balance. Management makes estimates regarding future cash collection when calculating the bad debt provision.

Provisions are made against Severn Trent Water Limited's trade receivables based on historical experience of levels of recovery from accounts in particular ageing categories. The risk has been focussed on the determination of the ageing of the trade receivables balance as this determines the level of provisioning to be recorded.

Revenue recognition risk in relation to the estimation of unbilled metered revenue (£113.4 million of the £143.0 million in Severn Trent Water Limited)

For water and waste water customers with water meters, the amount of unbilled revenue recognised depends upon the volume supplied, including an estimate of the sales value of units supplied between the date of the last meter reading and the year end. There is a risk that these estimates are incorrect.

The risk has been focussed on the usage estimate, because this is based on historical data and assumptions around consumption patterns upon which management then recognises unbilled revenue.

Determining the classification of costs between operating expenditure and capital expenditure

Severn Trent Water Limited has a substantial capital programme (property, plant and equipment additions in the year were £466.4 million) which has been agreed with the regulator ('Ofwat') and therefore incurs significant expenditure in relation to the development and maintenance of both infrastructure and non-infrastructure assets.

Expenditure in relation to increasing the capacity or enhancing the network is treated as capital expenditure. Expenditure incurred in maintaining the operating capability of the network is expensed in the year (£136.2 million) in which it is incurred. Capital projects often contain a combination of enhancement and maintenance activity which are not distinct and therefore the risk has been focused on the allocation of costs between capital and operating expenditure as this process is inherently judgemental.

Whilst under AMP 6, total expenditure, or "Totex", is a key driver of regulatory performance rather than capital expenditure which was monitored under AMP 5, the accounting distinction between operating and capital expenditure remains, and therefore it is important that capital project expenditure is accounted for correctly in accordance with International Financial Reporting Standards.

Determining the amount of the group's retirement benefit obligations (£533.4 million)

This is an area involving significant estimation because the process is complex and requires management (after taking advice from their actuarial advisers) to make a number of assumptions concerning the discount rate, inflation and pension increases, along with investment returns and the longevity of current pensioners in order to determine the value of the scheme's liabilities.

Determination of current and deferred tax balances (£6.1 million charge)

The group has entered into a number of one-off transactions during the year, which involve complex tax accounting considerations. The risk has been focused on the tax accounting consequences for these one-off transactions, specifically in relation to the asset-backed funding structure for the group's pension scheme.

How the scope of our audit responded to the risk

We reviewed and challenged the information used to determine the bad debt provision by considering cash collection performance against historical trends and the level of bad debt charges over time.

Specifically, we reviewed the actual history of slow paying customers in Severn Trent Water Limited in the year using data analytics to understand the collection of previously aged trade receivables and to recompute the ageing analysis.

We evaluated the design and implementation of key management review controls and those relating to the production of the data used in the bad debt model.

We used data analytics to recompute the total level of unbilled revenue for the current year in Severn Trent Water Limited as well as evaluating the design and implementation of key management review controls and those relating to the key data inputs to the model.

In addition, we challenged the validity of management's estimate of current year accrued revenue by comparing actual amounts billed to the estimate made in the prior year to determine the accuracy of the estimation techniques.

We assessed the group's capitalisation policy to determine compliance with relevant accounting standards and evaluated the design and implementation and tested the operating effectiveness of controls over the application of the policy to expenditure incurred on projects within the group's capital programme during the year. This includes consideration of the allocation of costs between capital and operating expenditure.

In addition, for a sample of capital projects, we assessed the application of the capitalisation policy to the costs incurred by understanding the initial business case for the project and ensuring that it had been approved by the relevant capital programme board. We also agreed a sample of costs to third party invoices and assessed whether the split between capital and operating expenditure split is aligned to the original approved business plan.

We evaluated the design and implementation of key controls and with support from the pension specialists within our audit team, we challenged the assumptions used in the calculation of the pension scheme deficit, specifically challenging the change in methodology in calculating the discount rate, inflation rate and mortality assumptions with reference to comparable market and other third party data.

We evaluated the design and implementation of key controls and with support from the tax specialists within our audit team, using our technical expertise, we have assessed the tax accounting consequences for the one-off transactions in order to test whether the tax outcome is appropriate.

Our audit procedures relating to these matters were designed in the context of our audit of the annual performance report as a whole, and not to express an opinion on individual accounts or disclosures. Our opinion on the annual performance report is not modified with respect to any of the risks described above, and we do not express an opinion on these individual matters.

Our application of materiality

We define materiality as the magnitude of misstatement in the financial statements that makes it probable that the economic decisions of a reasonably knowledgeable person would be changed or influenced. We use materiality both in planning the scope of our audit work and in evaluating the results of our work.

We determined materiality for the company to be £16 million (2016: £16 million), which is approximately 5% (2016: approximately 5%) of profit before tax, losses/gains on financial instruments and exceptional items.

We agreed with the Audit Committee that we would report to the Committee all audit differences in excess of £750,000 [2016: £750,000], as well as differences below that threshold that, in our view, warranted reporting on qualitative grounds. We also report to the Audit Committee on disclosure matters that we identified when assessing the overall presentation of the financial statements.

Respective responsibilities of the WSRA, the Directors and Auditors

As explained more fully in the Statement of Directors' Responsibilities set out on page 11, the directors are responsible for the preparation of the Annual Performance Report in accordance with Condition F, the Regulatory Accounting Guidelines issued by the Regulator and the Company's accounting policies (including the accounting separation methodology).

Our responsibility is to audit and express an opinion on the Regulatory Accounting Statements within the Annual Performance Report in accordance with International Standards on Auditing (UK and Ireland) ("ISAs (UK & Ireland)"), except as stated in the section on 'What an audit of the Annual Performance report involves' below, and having regard to the guidance contained in ICAEW Technical Release Tech 02/16 AAF 'Reporting to Regulators on Regulatory Accounts' issued by the Institute of Chartered Accountants in England & Wales. Those standards require us to comply with the Auditing Practices Board's Ethical Standards for Auditors.

What an audit of the Annual Performance Report involves

An audit involves obtaining evidence about the amounts and disclosures in the Regulatory Accounting Statements sufficient to give reasonable assurance that the Regulatory Accounting Statements within the Annual Performance Report are free from material misstatement, whether caused by fraud or error. This includes an assessment of: whether the accounting policies are appropriate to the company's circumstances and have been consistently applied and adequately disclosed; and the reasonableness of significant accounting estimates made by the directors. In addition, we read all the financial and nonfinancial information in the Annual Performance Report to identify material inconsistencies with the audited tables within the Annual Performance Report and to identify any information that is apparently materially incorrect based on, or materially inconsistent with, the knowledge acquired by us in the course of performing the audit. If we become aware of any apparent material misstatements or inconsistencies we consider the implications for our report.

We have not assessed whether the accounting policies are appropriate to the circumstances of the Company where these are laid down by Condition F. Where Condition F does not give specific guidance on the accounting policies to be followed, our audit includes an assessment of whether the accounting policies adopted in respect of the transactions and balances required to be included in the Annual Performance Report are consistent with those used in the preparation of the statutory financial statements of the company. Furthermore, as the nature, form and content of Annual Performance Report is determined by the WSRA, we did not evaluate the overall adequacy of the presentation of the information, which would have been required if we were to express an audit opinion under International Standards on Auditing (UK & Ireland).

The Company has presented the allocation of operating costs and assets in accordance with the accounting separation policy set out in note 1 and its Accounting Methodology Statement published on the Company's website on 14 July 2017. We are not required to assess whether the methods of cost allocation set out in the Methodology Statement are appropriate to the circumstances of the Company or whether they meet the requirements of the WSRA, which would have been required if we were to express an audit opinion under International Standards on Auditing (UK & Ireland).

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.

Matters on which we are required to report by exception

We have nothing to report in respect of the following matters where under International Standards on Auditing (UK and Ireland), we are required to report to you if, in our opinion, information in the Annual Performance Report is:

- materially inconsistent with the information in the audited Regulatory Accounting Statements; or
- apparently materially incorrect based on, or materially inconsistent with, our knowledge of the Company acquired in the course of performing our audit; or
- otherwise misleading.

In particular, we are required to consider whether we have identified any inconsistencies between our knowledge acquired during the audit and the directors' statement that they consider the Annual Performance Report is fair, balanced and understandable and whether the Annual Performance Report appropriately discloses those matters that we communicated to the Audit Committee which we consider should be disclosed.

Other matters

The nature, form and content of the Annual Performance Report is 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 WRSA's purposes. Accordingly we make no such assessment.

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 2017 on which we reported on 22 May 2017, 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

Statutory Auditor Birmingham, United Kingdom 14 July 2017

Regulatory financial reporting

This section details a baseline level of historical cost financial information between 1 April 2016 and 31 March 2017. This information is aligned to the way in which our price controls and associated regulatory performance commitments and incentives have been set by Ofwat.

The tables have been compiled in line with the requirements of Regulatory Accounting Guidelines 1.07, 2.06, 3.09, 4.06 and 5.06 issued by Ofwat. Cost information has been split between statutory/non-appointed activity (i.e. activity that is not defined as a legal duty under the Water Act). Any differences between the RAG guidelines and our accounting are set out in an additional table under each corresponding table. Additional accounting notes are included at the end of this section.



1A - Income statement

rear ended 31 March 2017	Statutory	Differences between statutory and RAG	Non- appointed	Total adjustments	Total
	£m	definitions £m	£m	£m	£m
Revenue	1,556.1	(13.2)	(14.7)	(27.9)	1,528.2
Operating costs	(1,015.7)	(11.0)	4.8	[6.2]	(1,021.9)
Other operating income	-	10.2	-	10.2	10.2
Operating profit	540.4	(14.0)	(9.9)	[23.9]	516.5
Other income	-	16.6	2.0	18.6	18.6
Interest income	73.6	(71.8)	-	(71.8)	1.8
Interest expense	(273.2)	65.9	2.3	68.2	(205.0)
Other interest expense	-	(10.3)	-	(10.3)	(10.3)
Profit before tax and fair value movements	340.8	(13.6)	(5.6)	(19.2)	321.6
Fair value losses on financial instruments	(6.6)	-	-	_	(6.6)
Profit before tax	334.2	(13.6)	(5.6)	[19.2]	315.0
UK corporation tax	(24.8)	0.4	1.1	1.5	(23.3)
Deferred tax	15.4	1.8	-	1.8	17.2
Profit for the year	324.8	(11.4)	(4.5)	(15.9)	308.9
Dividends	(195.5)	0.6	4.5	5.1	(190.4)

The differences between statutory and RAG definitions are outlined in the following table:

			Adju	stments	Reclassifications			ifications	
	Include discontinued operations	Exclude Dee Valley	Capitalisation of interest and related depreciation	Share of group pension scheme	ROCs & LECs income	Developer services and repair of damages recharges	Profit on fixed asset disposals, non- operating income and deferred credits	Pension scheme net interest costs	Total differences
	£m	£m	£m	£m	£m	£m	£m	£m	£m
Revenue	3.9	(2.2)	-	-	(17.8)	2.9	-	-	(13.2)
Operating costs	(4.2)	2.4	3.7	(1.0)	17.8	(2.9)	(26.8)	-	(11.0)
Other operating income	-	_	_	_	_	-	10.2	_	10.2
Operating profit	(0.3)	0.2	3.7	(1.0)	-	-	[16.6]	-	(14.0)
Other income	-	-	-	-	_	-	16.6	-	16.6
Interest income	-	-	_	-	_	-	-	(71.8)	(71.8)
Interest expense	-	0.6	(17.4)	_	_	-	-	82.7	65.9
Other interest expense	-	-	_	0.6	_	-	-	(10.9)	(10.3)
Profit before tax	(0.3)	0.8	(13.7)	(0.4)	-	-	-	-	(13.6)
UK corporation tax	0.1	0.3	-	-	-	-	-	_	0.4
Deferred tax	-	-	1.5	0.3	_	-	-	_	1.8
Profit for the year	(0.2)	1.1	(12.2)	(0.1)	-	-	_	-	(11.4)

1B - Statement of comprehensive income

Year ended 31 March 2017	Statutory	Differences between statutory and RAG	Non-appointed	Total adjustments	Total
	£m	definitions £m	£m	£m	£m
Profit for the year	324.8	(11.4)	(4.5)	(15.9)	308.9
Actuarial losses on post employment plans	(254.7)	29.3	-	29.3	(225.4)
Other comprehensive income	(6.6)	-	-	-	(6.6)
Total comprehensive income for the year	63.5	17.9	(4.5)	13.4	76.9

The differences between statutory and RAG definitions are outlined in the following table:

	Per Income Statement £m	Net actuarial difference on pensions £m	Deferred tax on movement on retirement benefit obligations £m	Deferred tax rate change £m	Total differences £m
Profit for the year	(11.4)	-	-	-	(11.4)
Actuarial losses on post employment plans	-	33.8	(4.6)	0.1	29.3
Total	(11.4)	33.8	(4.6)	0.1	17.9

1C - Statement of financial position

As at 31 March 2017	Statutory	Differences between statutory and	Non-appointed	Total adjustments	Total
	£m	RAG definitions £m	£m	£m	£m
Non-current assets					
Fixed assets	8,003.6	(216.6)	-	(216.6)	7,787.0
Intangible assets	143.0	(66.0)	-	(66.0)	77.0
Investments - loans to group companies	-	55.2	-	55.2	55.2
Investments - other	1,470.0	84.2	_	84.2	1,554.2
Financial instruments	67.0	_	_	_	67.0
Retirement benefit assets	9.8	(9.8)	_	(9.8)	_
Total non-current assets	9,693.4	(153.0)	_	(153.0)	9,540.4
Current assets					
Inventories	6.6	(0.4)	-	(0.4)	6.2
Trade and other receivables	497.1	(108.6)	_	(108.6)	388.5
Financial instruments	_	_	_	_	-
Cash and cash equivalents	0.2	99.5	_	99.5	99.7
Total current assets	503.9	(9.5)	_	(9.5)	494.4
Current liabilities					
Trade and other payables	(420.1)	88.5	_	88.5	(331.6)
Capex creditor	_	(60.8)	_	(60.8)	(60.8)
Borrowings	(565.3)	_	_	_	(565.3)
Financial instruments	(0.5)	_	_	_	(0.5)
Current tax liabilities	(0.3)	_	_	_	(0.3)
Provisions	(8.0)	_	_	_	(8.0)
Total current liabilities	(994.2)	27.7	_	27.7	(966.5)
Net current liabilities	(490.3)	18.2	-	18.2	(472.1)
Non-current liabilities					
Trade and other payables	(954.3)	672.6	_	672.6	(281.7)
Borrowings	(4,605.1)	35.4	_	35.4	(4,569.7)
Financial instruments	(174.2)	-	_	-	(174.2)
Retirement benefit obligations	(584.4)	51.0	_	51.0	(533.4)
Provisions	(6.8)	_	_	_	(6.8)
Deferred income - grants and contributions	_	(674.4)	-	(674.4)	(674.4)
Deferred tax	(626.6)	20.4	-	20.4	(606.2)
Total non-current liabilities	(6,951.4)	105.0	-	105.0	(6,846.4)
Net assets	2,251.7	(29.8)	-	(29.8)	2,221.9
Equity					
Called up share capital	1.0	_	_	_	1.0
Retained earnings and other reserves	2,250.7	(29.8)	_	(29.8)	2,220.9
Total equity	2,251.7	(29.8)	_	(29.8)	2,221.9

1C - Statement of financial position

As at 31 March 2017

The differences between statutory and RAG definitions are outlined in the following table: Capitalisation Exclude Share Capex Water Plus Deferred Total of group pension creditor of interest Dee Valley revolving differences income reclass credit reclass scheme facility £m £m £m £m Non-current assets (89.4)[127.2](216.6)Fixed assets (66.0)(66.0)Intangible assets 55.2 55.2 Investments - loans to group companies 84.2 84.2 Investments - other Financial instruments

i manerat moti amento							
Retirement benefit assets	_	(9.8)	_	_	_	_	(9.8)
Total non-current assets	(89.4)	(63.6)	-	-	-	-	(153.0)
Current assets							
Inventories	-	(0.4)	_	-	_	_	(0.4)
Trade and other receivables	-	(9.0)	-	-	(99.6)	-	(108.6)
Financial instruments	_	_	-	-	_	_	-
Cash and cash equivalents	_	(0.1)	-	-	99.6	_	99.5
Total current assets	_	(9.5)	-	-	-	-	(9.5)
Current liabilities							
Trade and other payables	_	15.5	-	60.8	_	12.2	88.5
Capex creditor	_	_	_	(8.08)	_	_	(8.08)
Borrowings	-	-	-	-	-	-	-
Financial instruments	-	-	-	-	-	-	-
Current tax liabilities	-	_	_	_	_	_	_
Provisions	_	_	_	_	_	_	_
Total current liabilities	_	15.5	-	-	_	12.2	27.7
Net current assets / (liabilities)	-	6.0	-	-	-	12.2	18.2
Non-current liabilities							
Trade and other payables	-	10.4	-	-	-	662.2	672.6
Borrowings	-	35.4	-	-	-	-	35.4
Financial instruments	_	_	_	-	-	_	-
Retirement benefit obligations	_	_	51.0	-	_	_	51.0
Provisions	_	_	-	-	_	_	_
Deferred income - grants and contributions	-	_	_	_	_	(674.4)	(674.4)
Deferred tax	15.1	12.7	(7.4)	_	_	_	20.4
Total non-current liabilities	15.1	58.5	43.6	-	-	[12.2]	105.0
Net assets	(74.3)	0.9	43.6	-	-	-	(29.8)
Equity							
Called up share capital	_	_	_	_	_	_	_
Retained earnings and other reserves	(74.3)	0.9	43.6	_	_	- -	(29.8)
Total equity	(74.3)	0.9	43.6	-	-	-	(29.8)

1D - Statement of cash flows

Year ended 31 March 2017	Statutory	Differences between statutory and RAG definitions	Non- appointed	Total adjustments	Total
	€m	£m	£m	£m	£m
Statement of cash flows					
Operating profit - continuing operations	540.4	(14.0)	(9.9)	(23.9)	516.5
Operating profit - discontinued operations	(0.3)	0.3	_	0.3	-
Other income	-	16.6	2.0	18.6	18.6
Depreciation	320.1	(3.8)	-	(3.8)	316.3
Amortisation - grants and contributions	(13.9)	-	-	-	(13.9)
Changes in working capital	49.3	(0.9)	-	(0.9)	48.4
Pension contributions	(33.2)	-	-	-	(33.2)
Movement in provisions	(0.3)	1.0	-	1.0	0.7
Profit on sale of fixed assets	(10.2)	-	-	-	(10.2)
Cash generated from operations	851.9	(0.8)	(7.9)	(8.7)	843.2
Net interest paid	(175.5)	-	2.3	2.3	(173.2)
Tax paid	(37.9)	0.3	1.1	1.4	(36.5)
Net cash generated from operating activities	638.5	(0.5)	(4.5)	(5.0)	633.5
Investing activities					
Capital expenditure	(493.1)	0.6	-	0.6	(492.5)
Grants and contributions	39.5	0.8	-	0.8	40.3
Disposal of fixed assets	12.5	-	-	-	12.5
Other	(177.4)	-	-	-	(177.4)
Net cash used in investing activities	(618.5)	1.4	-	1.4	(617.1)
Net cash generated before financing activities	20.0	0.9	(4.5)	(3.6)	16.4
Cash flows from financing activities					
Equity dividends paid	(195.5)	0.6	4.5	5.1	(190.4)
Net loans received	174.9	-	-	-	174.9
Cash outflow from equity financing	-	-	-	-	-
Net cash used in financing activities	(20.6)	0.6	4.5	5.1	(15.5)
(Decrease)/increase in net cash	(0.6)	1.5	-	1.5	0.9

1D - Statement of cash flows

Year ended 31 March 2017

The differences between statutory and RAG definitions are outlined in the following table:	Depreciation on capitalised interest	Exclude Dee Valley	Share of group pension scheme	Non-operating income reclass	Total differences	
	£m	£m	£m	£m	£m	
Statement of cash flows						
Operating profit	3.7	0.2	(1.0)	[16.6]	(13.7)	
Other income	-	-	-	16.6	16.6	
Depreciation	(3.7)	(0.1)	-	-	(3.8)	
Amortisation - grants and contributions	-	-	-	-	-	
Changes in working capital	-	(0.9)	-	-	(0.9)	
Pension contributions	-	-	-	-	-	
Movement in provisions	-	-	1.0	-	1.0	
Profit on sale of fixed assets	-	-	-	-	-	
Cash generated from operations	-	(0.8)	-	-	(8.0)	
Net interest paid	-	-	-	-	-	
Tax paid	-	0.3	-	-	0.3	
Net cash generated from operating activities	-	(0.5)	-	-	(0.5)	
Investing activities						
Capital expenditure	-	0.6	-	-	0.6	
Grants and contributions	-	0.8	-	-	0.8	
Disposal of fixed assets	-	-	-	-	-	
Other	-	-	-	-	-	
Net cash used in investing activities	-	1.4	-	-	1.4	
Net cash generated before financing activities	-	0.9	-	-	0.9	
Cash flows from financing activities						
Equity dividends paid	-	0.6	-	-	0.6	
Net loans received	-	-	-	-	-	
Cash outflow from equity financing	-	-	-	-	-	
Net cash used in financing activities	-	0.6	-	-	0.6	
Increase in net cash	-	1.5	-	-	1.5	

1E - Net debt analysis

As at 31 March 2017		rate risk profile		
	Fixed rate £m	Floating rate £m	Index linked £m	£m /%
Borrowings (excluding preference shares)	2,666.8	1,159.2	1,277.5	5,103.5
Preference share capital				-
Total borrowings	2,666.8	1,159.2	1,277.5	5,103.5
Cash				(0.1)
Short term deposits				(99.6)
Net debt				5,003.8
Gearing				60.7%
Full year equivalent nominal interest cost	138.7	19.9	66.2	224.8
Full year equivalent cash interest payment	138.7	19.9	25.3	183.9
Indicative interest rates				
Indicative weighted average nominal interest rate	5.2%	1.7%	5.2%	4.4%
Indicative weighted average cash interest rate	5.2%	1.7%	2.0%	3.6%
Weighted average years to maturity	10.3	6.5	31.7	15.3

The differences between statutory and RAG definitions are outlined in the following table:

	Total
	£m
Current borrowings	565.3
Non-current borrowings	4,605.1
Severn Trent Water Group borrowings	5,170.4
Less: fair value adjustment on acquisition of Dee Valley debt	(35.4)
Less: fair value hedge accounting adjustments	(31.5)
Adjusted borrowings	5,103.5
Cash and cash equivalents	(99.7)
Net debt	5,003.8

Current tax reconciliation

Year ended 31 March 2017

A reduction in the UK corporation tax rate from 20% to 17% (effective from 1 April 2020) was substantively enacted on 6 September 2016. The deferred tax liability at 31 March 2017 was calculated based on the rate of 17% substantively enacted at the balance sheet date. This has resulted in an overall deferred tax credit in the income statement.

The tax charge for the year ended 31 March 2017 is lower than the standard rate of corporation tax in the UK.

The differences to the standard rate of corporation tax and the reconciliation to the current tax charge allowed in price limits are outlined in the below table:

	Actual £m	FD £m	Variance £m
Profit on ordinary activities before tax	315.0	206.2	108.8
Tax at the standard rate of corporation tax in the UK 20%	63.0	41.2	21.8
Tax effect of expenditure not deductible in determining taxable profits	1.0	0.8	0.2
Capital allowances in excess of depreciation	(10.3)	(6.2)	(4.1)
Other temporary differences	(5.3)	(0.6)	(4.7)
Current tax charge before prior year adjustments	48.4	35.2	13.2
Prior year adjustment	(25.1)	_	(25.1)
Current tax charge after prior year adjustments	23.3	35.2	(11.9)

The appointed current tax charge for the appointed business is lower than the total tax charge allowed in price limits due to the net impact of the following:

- Profit before tax has increased primarily due to operating expenditure efficiencies and a lower effective interest rate on financing.
- Expenditure that is not deductible for tax purposes has increased from the level assumed within the FD tax charge.
- Capital allowances within the appointed business are higher than the level forecast within the FD following a review of the expenditure as it has actually been incurred.
- The taxation of fair value movements on financial instruments that are not otherwise included in the assessment of temporary differences within the FD tax charge.
- The prior year adjustment within the appointed business of £25.1m reflects the agreement of prior years tax matters with HMRC.

Factors that will impact future tax charges will include:

- Planned reductions in corporation tax rates;
- Fair value movements on derivative financial instruments; and
- Any changes in tax legislation or practice not reflected in the FD.

Tax strategy for the appointed business

Year ended 31 March 2017

Background

Finance Act 2016 introduced a requirement for certain businesses in the UK to publish their approach to the management of UK taxes. The requirement applies to periods beginning on or after 15th September 2016. The required publication date for Severn Trent Plc is 31 March 2018.

This is an interim statement on behalf of the Appointed Business. Although it reflects the requirements of the publication standard, it is not a substitute for the Group's forthcoming statutory publication.

Our approach to Tax

We are committed to managing our tax affairs in a responsible manner. This means paying the right amount of tax at the right time in compliance with UK tax rules and acting in accordance with the values set out in our corporate responsibility framework.

Our approach to tax is overseen by the Severn Trent Plc board and is governed by the following principles:

- We will manage our tax affairs responsibly, in a manner consistent with our objective of being the most trusted water company;
- · We will not undertake aggressive tax planning or any planning not otherwise in support of business requirements;
- · We will make use of widely claimed incentives that Government has chosen to make available to encourage investment; and
- We will maintain an open, transparent and collaborative relationship with HMRC consistent with our objective of being a low risk and responsible taxpayer and maintaining our good working relationship.

In accordance with Plc group risk management procedures, tax risks are monitored throughout the year. If a material uncertainty is identified, external advice may be sought to ensure that our interpretation of the relevant UK tax rules is appropriate. Alternatively, we may seek to resolve an uncertain tax position directly with HMRC at the time of filing. Any significant tax risk is overseen by the Group's Audit Committee.

In maintaining a good working relationship with HMRC, we seek to ensure that HMRC are kept up to date with business developments, including any transactions with potentially significant tax implications. When queries arise, these are managed on the basis of full disclosure.

Notes to the Annual Performance Report

Year ended 31 March 2017

1 Regulatory reporting

The regulatory accounts as reported on pages 16 to 27 should be read in conjunction with the financial review set out on pages 30 to 36 of the consolidated Severn Trent Water Limited Annual Report and Accounts 2017 to aid understanding of the performance of the business.

Differences in recognition and measurement between statutory and regulatory financial accounts

Borrowing costs

Borrowing costs where directly related to the construction of an asset are capitalised in the statutory accounts. These amounts are not capitalised in the regulatory financial reporting statements in accordance with the RAGs.

Treatment of the defined pension benefit costs

The statutory accounts include the full cost and net deficit of the Severn Trent group's defined benefit pension schemes, whereas the regulatory accounts include only Severn Trent Water's share of the costs and net deficit. This creates a difference in operating costs and net finance costs in the income statement, actuarial gains and losses in other comprehensive income, and the retirement benefit obligation on the balance sheet. A difference in deferred tax has also arisen as a result of this accounting treatment.

Dee Valley Limited results

The acquisition of Dee Valley Water was completed in February 2017 and included in the Severn Trent Water Group results. The Dee Valley Water entity results and related consolidation entries are excluded from the regulatory accounts.

Discontinued operations

The disposal of our Non-Household Retail activities to Water Plus, our joint venture with United Utilities was completed on 1 June 2016. These activities have been reported as discontinued operations in the statutory accounts. These have been reflected in the differences between statutory and RAG definitions adjustment as the regulatory income statement does not have a line item to record discontinued operations.

Differences in presentation between statutory and regulatory financial accounts

Revenue and cost classification

Certain items which are netted off against operating costs within the statutory accounts are grossed up and shown as revenue for regulatory reporting. This includes developer contributions for administration costs incurred in relation to new connections and recharges for costs of repair from damages. Other items such as income from renewable energy incentives are shown as revenue in the statutory accounts and negative operating costs for regulatory reporting.

Difference in presentation of specific items required to be separately disclosed in the regulatory financial statements

Profit or loss on disposal of fixed assets and non-operating income are included in operating costs in the statutory accounts but are shown as separate line items in the regulatory financial statements. In addition, interest income and costs relating to defined benefit pension schemes are included in finance income or cost respectively in the statutory accounts but are shown as other interest expense in the regulatory accounts.

The capex creditor and deferred income from grants and contributions included within trade and other payables in the statutory accounts are shown as separate items in the regulatory accounts.

Loans to group companies that are eliminated on consolidation in the statutory accounts are shown as a separate item in the regulatory accounts.

The revolving credit facility with Water Plus is included within trade and other receivables in the statutory accounts and is reclassified to short term deposits within cash and cash equivalents for the purposes of the net debt analysis. The facility is repayable on a monthly basis.

Price control segments

The regulatory accounts have been prepared in accordance with RAG 2.06 'Guideline for classification of costs across the price controls'.

The tables presented in section 2 and 4 of the Annual Performance Report have been prepared in accordance with our Accounting Separation Methodology Statement which can be found at stwater.co.uk. The methodology statement explains the bases for allocation of operating and capital expenditure and has been updated for changes to the requirements in the year. Wherever possible, direct costs and assets have been directly attributed to price controls. Where this is not possible, appropriate cost allocations have been applied as described in the methodology. Material changes to the allocation approach compared to the previous year are documented in the methodology statement.

2 Accounting policies

Basis of preparation

The regulatory financial statements are separate from the statutory financial statements of the company. They have been prepared on a going concern basis as set out in the Strategic Report of the consolidated Severn Trent Water Limited Annual Report and Accounts 2017 on page 40.

The regulatory financial statements have been prepared in accordance with Condition F of the Instruments of Appointment of the Water and Sewerage Undertakers and the Regulatory Accounting Guidelines as issued by the WSRA.

Revenue recognition

Turnover represents income receivable from regulated water and waste water activities, excluding value added tax.

Turnover includes an estimate of the amount of mains water and waste water charges unbilled at the year end. The accrual is estimated using a defined methodology based upon a measure of unbilled water consumed by tariff, which is calculated from historical billing information. There have been no changes in methodology in the year.

The Water Industry Act 2014, Chapter 1 A 'Licensing of Water Suppliers' describes the duties imposed on a water and sewerage undertaker and the licence conditions involved. Regulated activities are consequently those activities that are necessary in order for the appointee to fulfil the functions and duties of a water and sewerage undertaker.

Non-appointed income primarily consists of tankered trade waste income, car park income and marketing income.

Turnover is not recognised in respect of unoccupied properties. Properties are classified as unoccupied when:

- The company is informed that a customer has left a property and it is not expected to be reoccupied immediately;
- New properties are connected but are not occupied;
- Properties are disconnected following a customer's request;
 or
- The identity of the customer is unknown.

The following activities are undertaken to ensure properties classified as unoccupied are in fact not occupied:

- Where the company is informed that the customer has left a property and the property is expected to be occupied by someone else, a welcome letter is sent to the property encouraging the occupier to contact the company.
- If there is no response to the welcome letter within two
 months a void letter is sent to the property explaining that we
 have classified the property as empty and may schedule the
 property for disconnection.
- Meter readings are taken for metered unoccupied properties; where consumption is recorded, a letter is sent to the property.
- Inspections are organised throughout the year by geographical area.

Bad debts

Provisions are charged to operating costs to reflect the company's assessment of the risk of non-recoverability of debtors. Provisions are calculated based on the age of the debtor balance and the company's previous collection experience for balances of that age. The bad debt provisioning rates are updated annually to reflect the latest collection performance data from the company's billing system.

The company's bad debt write off policy has remained unchanged and has been consistently applied in the current and the prior years.

Debt can only be written off if it is a legitimate charge against the debtor (if it is considered that part or all of the debt is incorrect or unsubstantiated, then such elements are dealt with through the issue of a credit note) and if one of the following criteria is met:

- The customer does not have any assets or has insufficient assets on which to levy execution;
- The customer is bankrupt or has gone into liquidation and no dividend has been, or is likely to be, received;
- The customer has died without leaving an estate or has left an insufficient estate on which to levy execution and the company has been unable to prove its case in court; or
- All available economic options for collection of the debt have been pursued or that debt recovery procedures have proved to be ineffective or uneconomic to continue. Uneconomic circumstances are those where, following the application of debt recovery procedures:

- the customer could not be traced without incurring an unreasonable degree of expenditure; or
- the company has an insufficiently sound case to justify further expenditure on debt recovery procedures; or
- the likelihood of recovering the debt is so small in particular circumstances that further expenses on debt recovery cannot be justified.

The above write-off rules apply primarily to customers to whom the company has ceased to provide a service. Only in exceptional circumstances is debt relating to continuing customers considered for write-off.

Other accounting policies

All other accounting policies applied to the regulatory financial reporting accounts are set out in pages 102 to 108 of the consolidated Severn Trent Water Limited Annual Report and Accounts 2017, including the capitalisation policy which is outlined within the property, plant and equipment accounting policy note. Full details of the capitalisation policy are outlined in the Accounting Separation Methodology Statement.

Current cost accounting

Although there is no longer a requirement to produce full current cost financial statements, the requirement to disclose summary current cost financial results has been retained in the Wholesale current cost financial performance table.

The capital maintenance charge has been calculated using the infrastructure renewals charge for below ground assets and current cost depreciation for above ground assets. For current cost depreciation the 2015-16 values have been indexed and adjusted for additions. For the infrastructure renewals charge, actual/forecast infrastructure renewals expenditure has been averaged over AMP6, to give an indicative calculation for a medium term cost

3 Statement of directors' remuneration and standards of performance

Information regarding Directors' Remuneration can be found on pages 77 to 81 of the Severn Trent Water Limited Annual Report and Accounts 2017, including details of the link to performance, how remuneration was calculated and details of amounts paid. Further details in relation to outcomes against performance commitments are detailed in Section 3.

Price review & other segmental reporting

This section provides a further detailed breakdowns of revenue and costs including but not limited to; billed revenue from customers, operating expenditure and totex analysis. This allows our stakeholders to review our performance against our final determination as set by Ofwat at PR14



2A - Segmental income statement

Year ended 31 March 2017		Retail						Wholesale	Total
	Household			Water Network +	Water Total	Waste Water network +		Waste Water Total	
	£m	£m	£m	£m	£m	£m	£m	£m	£m
Revenue - price control	122.4	5.6	-	661.9	661.9	720.4	-	720.4	1,510.3
Revenue - non price control	0.2	-	-	14.1	14.1	3.6	-	3.6	17.9
Operating expenditure	(80.9)	(7.7)	(48.3)	(305.3)	(353.6)	(239.4)	(24.0)	(263.4)	(705.6)
Depreciation	(2.4)	_	(7.8)	(113.3)	(121.1)	[144.4]	(31.0)	(175.4)	(298.9)
Amortisation	(1.3)	_	(0.2)	(15.5)	(15.7)	(0.2)	(0.2)	(0.4)	(17.4)
Other operating income	_	_	4.5	0.2	4.7	5.5	_	5.5	10.2
Operating profit before recharges	38.0	(2.1)			190.3			290.3	516.5
Recharges from other segments	(7.9)	(0.7)	(1.5)	(0.6)	(2.1)	(8.1)	[4.6]	(12.7)	(23.4)
Recharges to other segments	0.7	_	0.6	21.8	22.4	0.3	_	0.3	23.4
Operating profit	30.8	(2.8)			210.6			277.9	516.5
Surface water drainage rebates									0.2

2B - Totex analysis (wholesale)

Year ended 31 March 2017	Water Resources	Water Network +	Waste Water Network +	Sludge	Total
	£m	£m	£m	£m	£m
Operating expenditure					
Power	9.1	37.6	40.6	(12.0)	75.3
Income treated as negative expenditure	(0.2)	_	_	(17.6)	(17.8)
Service charges / discharge consents	11.4	_	9.5	_	20.9
Bulk supply / bulk discharge	8.0	3.9	_	_	11.9
Other operating expenditure ¹	14.4	217.6	164.2	49.1	445.3
Local authority rates	3.3	43.1	24.3	4.5	75.2
Total operating expenditure excluding third party services	46.0	302.2	238.6	24.0	610.8
Third party services	2.3	3.1	0.8	_	6.2
Total operating expenditure	48.3	305.3	239.4	24.0	617.0
Capital expenditure					
Maintaining the long term capability of the assets - infra	_	_	_	_	_
Maintaining the long term capability of the assets - non- infra	8.0	105.0	101.3	43.1	257.4
Other capital expenditure - infra	0.2	105.3	31.7	0.4	137.6
Other capital expenditure - non-infra	7.5	26.3	53.2	1.2	88.2
Total gross capital expenditure excluding third party services	15.7	236.6	186.2	44.7	483.2
Third party services	_	_	_	_	_
Total gross capital expenditure	15.7	236.6	186.2	44.7	483.2
Grants and contributions (price control)	_	(24.4)	(15.4)	_	(39.8)
Totex	64.0	517.5	410.2	68.7	1,060.4
Cash expenditure					
Pension deficit recovery payments	1.8	10.8	9.4	5.6	27.6
Other cash items	_	_	_	_	-
Total cash expenditure	1.8	10.8	9.4	5.6	27.6
Totex including cash items	65.8	528.3	419.6	74.3	1,088.0

¹ Other operating expenditure includes net infrastructure renewals expenditure of £85.2m and £51.0m for Water Network + and Waste Water Network + respectively.

The Wholesale share of an exceptional pension gain relating to a Pension Increase Exchange arrangement of £5.8m and £7.0m for Water Network + and Wastewater Network + respectively is also included in other operating expenditure. This is subsequently excluded in the Wholesale totex analysis (Table 4B).

2C - Operating costs analysis (retail)

Year ended 31 March 2017	Household £m	Non-household £m	Total £m
Operating expenditure			
Customer services	31.0	0.6	31.6
Debt management	7.3	0.3	7.6
Doubtful debts	20.6	3.6	24.2
Meter reading	5.4	-	5.4
Services to developers	-	1.9	1.9
Other operating expenditure	16.6	1.3	17.9
Total operating expenditure excluding third party services	80.9	7.7	88.6
Third party services	-	-	-
Total operating expenditure	80.9	7.7	88.6
Depreciation - tangible fixed assets	2.4	-	2.4
Amortisation - intangible fixed assets	1.3	-	1.3
Total operating costs	84.6	7.7	92.3
Debt written off	20.9	4.2	25.1

2C - Operating costs analysis (retail)

Year ended 31 March 2017

Differences between total operating costs and retail costs allowed in price limits

Household

Retail household total operating costs of £84.6m are £20.7m (19.7%) lower than the Final Determination (FD). Please note we have allocated the FD overall costs based on our planned spend areas where this was not specifically done in the FD.

On 1 June 2016 we completed the disposal of our Non-Household Retail activities to Water Plus, our joint venture with United Utilities in advance of the opening of the non-household retail market on 1 April 2017. This has resulted in a stranded cost impact within Household which would not have been incorporated in the original FD.

Customer services

Customer services costs of £31.0m are £1.7m (5.8%) adverse to the FD.

There has been a £1.4m shift from Debt management to Customer service as a result of our focus on vulnerable customers

A further refinement to allocation of specific costs previously recognised within Debt management has caused a shift of £1.1m into Customer service. These are costs for commissions on collection of income billed by other water companies.

A change in organisational structure which led to costs of handling network enquiries and complaints being directly recorded in Retail rather than an allocation from Wholesale and stranded costs to the business following the split between household and non-household during the financial year, has led to an adverse variance of £1.6m, however efficiencies of £0.6m in payment handling and customer enquiries and complaints have mitigated the impact of these costs.

A change in company policy in June 2015 on customer side leaks, whereby the company no longer repairs leaks without charge, has reduced the level of investigatory/first visits to the customer where the cause of investigation is not a network issue. This has resulted in a favourable variance of £1.8m against the FD.

Debt management

Debt management costs of £7.3m are £2.5m (25.5%) favourable to the FD.

As noted above, there has been an additional increase in Customer service costs compared to the prior year as a result of the continued focus on vulnerable customers and has led to a total favourable variance of £1.4m against the FD.

The refinement in allocation described above has resulted in a reduced amount allocated to Debt management, as certain costs have been allocated to Customer service, resulting in a favourable variance of £1.1m to the FD.

Debt management activities for Household and Non-household were split into separate teams. Previously these costs had been allocated based on the net value of debtors. The switch from allocation to direct costs has resulted in a favourable variance for household compared to FD of £1.1m. However, in 2016/17, additional costs for debt management incurred to drive bad debt performance has offset this variance (£1.1m).

Doubtful debts

Doubtful debts costs of £20.6m are £10.4m (33.5%) favourable to the FD.

The FD assumes bad debt costs of 2.7% of revenue compared to actual bad debt costs of 1.8% of revenue. The improvement was driven by better collection performance on amounts billed in year, consistent with the previous year's performance.

Meter reading

Meter reading costs of £5.4m are £0.2m (3.6%) favourable to the FD.

This favourable variance has been driven by reduction in cost within the function compared to FD.

Other operating expenditure

Other operating expenditure of £16.6m is £10.7m (39.2%) favourable to the FD.

A change in company policy in June 2015 on customer side leaks, whereby the company no longer repairs leaks without charge, has resulted in costs £3.4m lower than the FD. Business improvement and transformation activities included within other operating activities in the FD have been allocated to the relevant activity in 2015/16. This has resulted in a favourable variance of £1.7m compared to the FD which is offset in the other expense categories.

General and support costs are £3.0m favourable compared to the FD. This is partly attributable to lower General and support costs for the company arising from an organisational restructuring in 2015 partly offset by an increase in the bonus provision, additional training schemes and higher property costs driven by increased rates charges. In addition, the retail household share of general and support costs has decreased due to a change in allocation methodology. PR14 allocates general and support expenditure between retail household and retail non-household based on customer numbers. For 2016/17 actuals, the updated guidance in RAG 2.05 has been applied, which indicates that allocation based on FTEs is preferable to customer numbers for specific general and support items.

An additional favourable variance of £2.6m has arisen from the retail share of an exceptional gain of a Pension Increase Exchange arrangement under which pensioners of the defined benefit schemes were offered the opportunity to exchange future non-statutory inflationary increases in a portion of their pensions earned prior to 1997 for a higher pension payment now. Whilst the table above includes the gain, we have adjusted the retail operating costs in the RoRE calculation so that the variance to FD excludes the impact of the gain.

Depreciation

Depreciation charges of £3.7m is £1.4m (60.9%) adverse to the FN

This is partly due to a difference in the FD methodology which only included depreciation on new assets (including use of asset recharges). The depreciation in the year includes charges on existing and new assets (excluding use of asset recharges). Use of asset recharges are included in table 2A.

Non-Household

On 1 June 2016 we completed the disposal of our Non-Household Retail activities to Water Plus, our joint venture with United Utilities in advance of the opening of the Non-Household retail market on 1 April 2017. As a result of the disposal, retail non-household total operating costs of £7.7m are £8.5m [52.5%] lower than the Final Determination (FD).

Whilst specific operational activities have been recharged to Water Plus during the year under the transitional service agreement in place until Water Plus are able to procure their own services, certain activities have remained in Severn Trent Water for the full year.

These activities are performed by Wholesale and are recharged to Retail under the requirements of RAG 2.06. These have been recorded in the Severn Trent Water retail non-household price control and have not been subsequently recharged to Water Plus.

Developer services costs in relation to providing information and administration for new connections.

Investigatory visits / first visit to the customer where the cause of investigation is not a network issue.

Customer side leaks expenditure (excluding costs to meet wholesale outcomes).

General and support expenditure in relation to the above activities are also charged to the non-household price control.

The disposal has also increased household costs as noted above, due to management costs previously shared between household and non-household being fully borne by household for 10 months of the year.

2D - Historic cost analysis of fixed assets

As at 31 March 2017				Wholesale		Retail	Total
	Water Resources	Water Network +	Waste Water Network +				
•	£m	£m	£m	£m	£m	£m	£m
Cost							
At 1 April 2016	304.4	4,838.7	6,238.7	547.2	425.5	-	12,354.5
Disposals	-	[18.2]	(11.6)	(1.5)	-	-	(31.3)
Additions	7.8	222.1	178.4	53.0	11.4	-	472.7
Assets adopted at nil cost	-	-	51.4	-	-	-	51.4
At 31 March 2017	312.2	5,042.6	6,456.9	598.7	436.9	-	12,847.3
Depreciation							
At 1 April 2016	(169.8)	(1,641.3)	(2,273.4)	(392.7)	(311.3)	-	(4,788.5)
Disposals	0.1	17.9	8.0	1.1	-	-	27.1
Charge for the year	(7.8)	(113.3)	(144.4)	(31.0)	(2.4)	-	(298.9)
At 31 March 2017	(177.5)	(1,736.7)	(2,409.8)	(422.6)	(313.7)	-	(5,060.3)
Net book amount at 31 March 2017	134.7	3,305.9	4,047.1	176.1	123.2	-	7,787.0
Net book amount at 1 April 2016	134.6	3,197.4	3,965.3	154.5	114.2	-	7,566.0
Depreciation charge for the year							
Principal services	(7.8)	(113.3)	(144.4)	(31.0)	(2.4)	-	(298.9)
Third party services	-	-	-	-	-	-	-
Total	(7.8)	(113.3)	(144.4)	(31.0)	(2.4)	-	(298.9)

2E - Analysis of capital contributions and land sales (wholesale)

Year ended 31 March 2017	Fully recognised in income statement	Capitalised and amortised against depreciation	Total
Constant and analytication and a	£m	£m	£m
Grants and contributions - water			
Connection charges (s45)		11.0	11.0
Infrastructure charge receipts (s146)	-	10.8	10.8
Requisitioned mains (s43, s55 & s56)	-	0.9	0.9
Diversions (s185)	11.5	-	11.5
Other contributions	(1.2)	1.7	0.5
Total	10.3	24.4	34.7
Value of adopted assets	-	-	-
Grants and contributions - wastewater			
Infrastructure charge receipts (s146)	-	11.4	11.4
Requisitioned sewers (s100)	-	(3.3)	(3.3)
Diversions (s185)	2.6	-	2.6
Other contributions	0.3	7.3	7.6
Total	2.9	15.4	18.3
Value of adopted assets	-	51.4	51.4

	Water £m	Wastewater £m	Total £m
Movements in capitalised grants and contributions			
Brought forward as at 1 April 2016	402.5	240.8	643.3
Capitalised in year	24.4	15.4	39.8
Amortisation (in income statement)	[6.0]	(2.7)	(8.7)
Carried forward as at 31 March 2017	420.9	253.5	674.4
Land sales			
Proceeds from disposals of protected land	2.9	7.1	10.0

2F - Household revenues by customer type

Year ended 31 March 2017	Wholesale charges revenue	Retail revenue	Total revenue	Number of customers	Average household retail revenue per
	£m	£m	£m		customer¹ £
Unmeasured water only customer	24.350	2.354	26.704	142.604	16.51
Unmeasured wastewater only customer	87.211	9.494	96.705	517.925	18.33
Unmeasured water and wastewater customer	512.701	52.490	565.191	1,655.242	31.71
Measured water only customer	20.100	2.708	22.808	114.067	23.74
Measured wastewater only customer	54.346	8.791	63.137	270.223	32.53
Measured water and wastewater customer	317.298	46.552	363.850	1,279.751	36.38
Total	1,016.006	122.389	1,138.395	3,979.812	30.75

2G - Non-household water revenues by customer type

Year ended 31 March 2017	Wholesale charges revenue	Retail revenue	Total revenue¹	Number of connections	Average non- household retail revenue per
	£m £n		£m		connection £
Non-default tariffs					
Non-default tariffs	-	-	-	-	-
Total non-default tariffs	-	-	-	-	-
Default tariffs					
Band 1 - Water: unmetered	1.491	0.056	1.547	10.010	5.59
Band 2 - Water: 0-10 ml/a metered	21.692	1.596	23.288	168.468	9.47
Band 3 - Water: 10-50 ml/a metered	4.815	0.068	4.883	1.067	63.73
Band 4 - Water: 50+ ml/a metered	5.792	0.065	5.857	0.198	328.28
Band 5 - Water: Special Agreements - metered	0.010	0.002	0.012	0.124	16.13
Total default tariffs	33.800	1.787	35.587	179.867	9.94
Total	33.800	1.787	35.587	179.867	9.94

	Number of customers (number)	Average non- household retail revenue per customer¹ £
Revenue per customer		
Total	179.867	9.94

¹ Total revenue is for the two month period 1 April 2017 to 31 May 2017

2H - Non-household wastewater revenues by customer type

Year ended 31 March 2017	Wholesale charges revenue	Retail revenue	Total revenue¹	Number of connections	Average non- household retail revenue per
	£m	£m	£m		connection £
Non-default tariffs					
Non-default tariffs	-	-	-	-	-
Total non-default tariffs	-	-	-	-	-
Default tariffs					
Band 6 - Sewerage: unmetered	1.658	0.045	1.703	8.118	5.54
Band 7 - Sewerage: 0-50 ml/a - metered	6.626	0.813	7.439	155.030	5.24
Band 8 - Sewerage: 50-250 ml/a - metered	0.504	0.012	0.516	0.340	35.29
Band 9 - Sewerage: 250+ ml/a - metered	0.415	0.009	0.424	0.165	54.55
Band 10 - Sewerage: Special Agreements - metered*	-	-	-	0.003	-
Band 11 - Surface Water Drainage: unmetered	2.199	0.213	2.412	8.325	25.59
Band 12 - Surface Water Drainage: 0-50 ml/a - metered	10.771	0.850	11.621	156.710	5.42
Band 13 - Surface Water Drainage: 50-250 ml/a - metered	0.360	0.008	0.368	0.098	81.63
Band 14 - Surface Water Drainage: 250+ ml/a - metered	0.225	0.003	0.228	0.037	81.08
Band 15 - Trade Effluent: 0-50 ml/a - metered	0.946	0.046	0.992	2.168	21.22
Band 16 - Trade Effluent: 50-250 ml/a - metered	1.360	0.019	1.379	0.094	202.13
Band 17 - Trade Effluent: 250+ ml/a - metered	1.495	0.019	1.514	0.021	904.76
Band 18 - Trade Effluent: Special Agreements - metered	0.105	0.002	0.107	0.002	1,000.00
Total default tariffs	26.664	2.039	28.703	331.111	6.16
Total	26.664	2.039	28.703	331.111	6.16

	Number of customers (000s)	Average non- household retail revenue per customer¹ £
Revenue per customer		
Total	331.111	6.16

 $^{^{*}}$ Wholesale charges and Retail revenue for Band 10 tariff is £0.00004m and £0.00003m respectively.

 $^{^{\}rm 1}\,\text{Total}$ revenue is for the two month period 1 April 2017 to 31 May 2017

2I - Revenue analysis and wholesale control reconciliation

Year ended 31 March 2017	Household £m	Non-household £m	Total £m
Wholesale charge - water			
Unmeasured	298.5	3.6	302.1
Measured	196.6	163.2	359.8
Third party revenue	-	-	-
Total	495.1	166.8	661.9
Wholesale charge - wastewater			
Unmeasured	325.8	5.7	331.5
Measured	195.1	193.8	388.9
Third party revenue	-	-	-
Total	520.9	199.5	720.4
Wholesale total	1,016.0	366.3	1,382.3
Unmeasured Measured	64.3 58.1	0.4 3.5	64.7 61.6
Retail third party revenue	-	1.7	1.7
Retail total	122.4	5.6	128.0
Third party revenue - non-price control			
Bulk Supplies - water			5.4
Bulk Supplies - wastewater			-
Other third party revenue			10.2
Principal services - non-price control			
Other appointed revenue			2.3
Total appointed revenue			1,528.2

	Water £m	Wastewater £m	Total £m
Wholesale revenue governed by price control	661.9	720.4	1,382.3
Grants & contributions	22.7	8.1	30.8
Total revenue governed by wholesale price control	684.6	728.5	1,413.1
Amount assumed in wholesale determination	678.4	724.8	1,403.2
Adjustment for in-period ODI revenue	-	-	-
Adjustment for WRFIM	-	-	-
Total assumed revenue	678.4	724.8	1,403.2
Difference	6.2	3.7	9.9

21 - Revenue analysis and wholesale control reconciliation

Year ended 31 March 2017

Difference between allowed and actual revenue under the wholesale control

Wholesale revenue for 2016/17 of £1,413.1m is £9.9m (0.7%) higher than the amount assumed in the Wholesale Final Determination (FD).

Wholesale Water

Wholesale Water revenue of £684.6m is £6.2m (0.9%) higher than the FD. The main variances are as follows:

- Core tariff revenue is in line at £1.0m (0.1%) favourable.
- Net Wholesale Water capital revenue is £5.3m higher than the FD. This is due to requisition income of £1.0m omitted from the FD, s146 infrastructure charges £5.5m higher than FD and new connections revenue £1.2m lower.

Wholesale Waste Water

Wholesale Waste Water revenue of £728.5m is £3.7m [0.5%] higher than the FD. The main variances are as follows:

- Core tariff revenue is in line at £0.7m (0.1%) favourable.
- Net wholesale waste capital revenue is £3.0m higher than FD. £6.3m is due to higher than expected infra charges, this has been partly offset by a £3.2m adjustment arising from sewer requisition income being incorrectly classified as other contributions in the prior year.

Performance summary

This section is a detailed report of our performance against our 45 customer outcome delivery incentives (ODIs) as set out in our final determination. It includes:

- Performance tables:
 - 3A Outcome performance table
 - 3B Sub-measure performance table
 - 3C AIM Table (please note this table is not applicable to Severn Trent as we have no abstraction sites)
 - 3D SIM Table
- Detailed performance commentary and analysis for each customer ODI. The ODIs have been grouped against our ten long term outcomes.

The level of future performance is uncertain and may depend on factors outside of our control. For this reason, it is not possible to make reasonably reliable estimates of performance against our commitments for future years. Therefore there is no forecast information has been included in this report.



Operational Summary

We are proud of the strong performance we have delivered across many areas this year, the second year of the 2015-20 period. Our success has not been easy and nor is it complete; we recognise we need to do more in the coming year to achieve success in all areas for our customers and we will continue to push for frontier performance and beyond. We also recognise that we will need to do more in areas where we have been successful to date as the targets become progressively tougher. We believe we can meet these challenges; we were faced with a similar challenge two years ago when we needed to deliver an immediate and sustained improvement to achieve the commitments we had made. We are constantly seeking out new and innovative ways to deliver for our customers so they see improved performance at the right price and our digital strategy is a core part of that approach. Digital technology is allowing us to rethink how we operate and by embedding innovation we are creating flexibility and agility for the future to allow us to embrace new opportunities as they arrive.

Operational performance highlights for the year include the continued progress on driving water supply interruptions down [9% year-on-year improvement and 17% ahead of target]; external sewer flooding incidents (incidents improved by 19% and 23% ahead of target); carbon emissions on our wastewater operations [4% ahead of target]; and leakage [2% ahead of target]. We've also helped almost 51,000 vulnerable customers. This is a major turnaround from last year when we were 31% below our target. We are now 2% ahead of target. We have extended our education programme which is designed to upskill customers about our services [42% improvement, 4% ahead of target). Our customers also increased their support for our services offering value for money [23% ahead of target).

There are other areas where our performance has remained ahead of target; customer properties at risk of low water pressure (25% ahead of target); internal sewer flooding incidents (9% ahead of target); and the percentage of household customers not paying their water bills (33% ahead of target). Category three pollutions is 25% ahead of target and by using sensors and analytics we have improved our predictive capability by 33%; allowing us to avoid 50 pollutions every year. Three of the four asset stewardship commitments, measures designed to ensure we are maintaining our assets so they can continue to serve customers in the future, were also achieved; on coliform detections, a significant problem area for us in the past, we maintained the good level of performance seen last year (and now 29% ahead of target); mains bursts (25% ahead of target); and sewer blockages (10% ahead of target).

Our customer satisfaction also remained stable (and in line with target). Our digital strategy means over 1.3m customers are now using our digital self service capabilities with web chat and social media and we are using improved data and intelligent scorecards to manage our customers more effectively. We also have just under a million customers choosing online billing, which reduced postage costs last year by over £300,000, while collecting over £50m in online payments.

We have efficiently spent over £1 billion in Wholesale services this year, much of which has been dedicated to our asset base to ensure we can continue serving our customers in the future. Our assets are valued at over £90 billion, and we have a responsibility for ensuring we make the right cost-effective choices when deciding when and how to invest (our decisions range from operational changes and improvements to major repair or replace options). In February 2017, we shared our approach to managing service delivery and monitoring our asset base with Ofwat as part of the sector-wide Asset Health and Resilience review. As part of this we were able to highlight continuing improvements to our data, systems, processes and use of evolving technology across the asset base to increase our visibility on the condition of our assets so that we can proactively intervene where needed.

We are continuing to drive improvements in the productivity of our workforce, through better devices, connectivity and apps. As a result of the new devices and our new field worker app (Site Mate), each of our technicians are saving half an hour a day - which means a saving of over half a million pounds each year. We are using digital technology to reduce risks by realtime water quality measurement and insight to strengthen process control at our key treatment works. Our proactive network modelling helps us spot short spikes in pressure on our network which means we can act quickly and reduce the number of bursts and premature asset deterioration. We are also using more tools which use historic data and network modelling to analyse and identify areas that are at high risk of Water Quality events. This is creating a culture across the business where we embrace new technologies like satellite imaging to continually reduce costs and risks and we are developing opportunities for further efficiency by automating activity through technologies such as drone inspection.

During the year we saw great progress on the Birmingham Resilience Scheme, our largest ever asset-creation programme. Critical milestones on the Bleddfa bypass are complete and we have now embarked on a significant programme of customer engagement to support the next stage of the project. We have also successfully met all DWI and EA obligation dates and replaced the 100 year old Ambergate reservoir with a new and extended reservoir to provide long term water supply resilience to our customers in Derbyshire.

Operational Summary (cont.)

But we know there is more for us to do. There are areas where, despite our continued effort and focus, we have not delivered the levels we wanted for our customers including on drinking water complaints which are 32% above target; speed of response to leaks (at 33% against a target of 80%); and environmental compliance (2% behind target). Some improvements in customer experience were achieved, but we are not consistent enough yet, whilst the leading companies in the sector continued to perform well. We have also experienced five more serious pollutions than last year, a performance which goes against the improved trend we had achieved over recent years. Performance on compliance with drinking water standards declined marginally from last year (from 99.96% to 99.94%) and resource efficiency remains 6% behind target. We will continue to work hard to get these, and other areas where improvement is required, back on track and there are already some early signs of recovery in some areas. We are also looking at best practice within the sector and are working closely with our new colleagues in Dee Valley Water to understand how we could learn from their success. We've described the specific improvement activities for each area later in this section.

Operating performance is always influenced by the external environment. The weather has helped, as 2016/17 featured relatively few storms and a mild winter. But there were some challenges; the relatively dry winter coupled with higher than expected demand for water required us to consciously prioritise maintaining water supplies which compromised our ability to deliver our water service carbon target. We are pleased to report that we did not impose any restrictions on water use.

Overall, we have delivered 20 of the 30 commitments with a performance target this year, which has resulted in a reward of £38.4m (excluding tax). We have invested to improve the services we deliver, developed new systems and processes and empowered our colleagues to drive the improvements and share in the success through a new bonus scheme.

Our performance on external sewer flooding illustrates our overall approach:

Performance: There were 5,801 external sewer flooding incidents against a target of 7,548 for 2016/17, compared to an outturn of 7,163 incidents last year. This performance has generated a reward of £32.7m driven by:

Investment: We have invested £14m in a significant number of areas to proactively inspect sewers that we identified were at high risk. We have used 'big data' using 10 year modelling of meteorological data to better predict weather patterns. We have had a programme of proactively lifting manhole covers and jetting sewers in advance of adverse weather. In doing so we have applied a new zonal approach to inspections where we examine all pipes in the locations we deem to be geographical hotspots, whereas in previous years we may only have addressed specific pipes. The benefit of this approach is that it.

- gives us a sustained presence in a location which helps promote greater access to properties and assets, as our customers can see what we are doing day in, day out; and
- means more pipes in a zone are surveyed and assessed where in previous years we may have missed problematic sewers because our data was not perfect in predicting the exact sewer causing a problem.

Systems and process improvements: we have reduced the amount of 'unable to gain access' properties on our proactive programmes to around 5% compared with 20% last year and up to 30% years prior. This improved access rate has enabled us to carry out work on notoriously difficult to access assets that are likely to have had limited, if any, interventions despite these being in locations where we have significant incidents of flooding.

Partnership working: we are working hard to target the cause of sewer flooding at the source. We have led the sector in working with companies who are now adopting programmes that will be rolled out to the whole sector. More generally we have:

- Built relationships with range of organisations that
 historically have caused sewer blockages through misuse
 of fats and greases. For example we engaged with over 900
 food service establishments which resulted in grease traps
 being installed in just over 40% of cases. We have also worked
 closely with retailers and restaurants to develop strategies
 for reducing Fats, Oils and Grease (FOG) issues from their
 Midlands outlets through the fitting of grease traps. In light
 of this work a major fast food chain have also committed to
 invest £25m across their European business to replicate the
 approach.
- Taken stronger action against companies that refused to act - we successfully completed our first legal prosecution case in October 2016 delivering a strong message to the food service establishment that we are serious about tackling FOG misuse.

Empowering our people: We have worked hard to empower the Severn Trent work force to deliver solid ODI performance through significant cultural change. We have introduced a forum for our people to share and implement best practice through what we call a 'community of practice' (CoP) in our wastewater team. Performance is regularly discussed and we encourage experiences to be shared so that teams can identify new opportunities for improvement. Once identified operational teams take accountability for the improvement work streams generated and they focus on ensuring that practical changes are implemented with pace.

Summary

Looking forward, we will continue to relentlessly improve our performance and exceed the service levels we have committed to our customers. We know there is more to do in some areas to get back on track, and in many of the areas where we have performed well this year, we know the target for 2017/18 is set at a higher level so we must make further breakthroughs in driving improvements. We will continue to emphasise the importance of delivering the things our customers want and together with targeted investment, partnership working, innovation and digital technology we are committed to continue the strong delivery into next year and to the end of the AMP.

The remainder of this section provides a performance review and improvement plans for each commitment.

Performance Summary

Performance commitment	Units	
W-A1: Number of complaints about drinking water quality	nr	
W-A2: Compliance with drinking water quality standards	%	
W-A3: Asset stewardship - number of sites with coliform failures (WTWs)	nr	No. of site
W-A4: Number of successful catchment management schemes	nr	No. ca
W-B1: Resource efficiency (distribution input per customer) - amount of water taken out of the environment	nr	
W-B2: Leakage levels	nr	
W-B3: Speed of response in repairing leaks (% fixed within 24 hours)	%	% vi
W-B4: Number of minutes customers go without supply each year (interruptions to supply > 3 hours)	time	
N-B5: % of customers with resilient supplies (those that benefit from a second source of supply)	%	% CU
W-B6: Asset stewardship - mains bursts	nr	
N-B7: Customers at risk of low pressure	nr	
V-B8: Restrictions on water use		
	nr	No. wate
N-B9: Timing delays on Birmingham resilience scheme	text	
W-B10: Non-delivery of the outcome of the Birmingham resilience scheme	text	
N-B11: Timing delays on community risk schemes	text	
N-B12: Non-delivery of the community risk schemes	text	
N-B13: Timing delays on Elan Valley Aqueduct (EVA) maintenance	text	
V-B14: Non-delivery of the Elan Valley Aqueduct (EVA) maintenance	text	
N-C1: Customers rating our services as good value for money (based on tracker survey)	%	
N-D1: Improvements in river water quality against WFD criteria	nr	No. \
N-D2: Asset stewardship - environmental compliance	%	
N-D3: Biodiversity	nr	
N-D4: Sites with eel protection at intakes	nr	No. si
N-E1: Size of our carbon footprint	nr	
N-F1: Improved understanding of our services through education	nr	No. c
S-A1: Number of internal sewer flooding incidents***	nr	No. of
6-A2: Number of external sewer flooding incidents***	nr	No. of
6-A3: Partnership working	nr	No
5-A4: Asset stewardship - blockages	nr	
S-A5: Statutory obligations (Section 101A schemes)	nr	No. of connectable pro likely to pollute, associated
S-B1: Customers rating our services as good value for money (based on tracker survey)	%	
S-C1: Improvements in river water quality against WFD criteria	nr	No. of V
6-C2: The number of category 3 pollution incidents	nr	
6-C3: Asset stewardship - environmental compliance (basket of measures)		% co
6-C4: Biodiversity	nr	
5-C5: Sustainable sewage treatment	nr	N
S-C6: Serious pollution incidents	nr	No. of
S-C7: Overall environmental performance (basket of environmental measures)	nr	INO. UI
S-C8: The number of category 4 pollution incidents	nr	
S-D1: Size of our carbon footprint****	nr	
S-E1: Improved understanding of our services through education	nr	No.
R-A1: Customer satisfaction with their service (based on a survey)	text	
R-A2: Customer's experience of dealing with us (based on Ofwat's SIM)		Sarvica incontiv
	text	Service incentiv
R-B1: Customers helped by a review of their tariff & water usage &/or supported by SVT social fund	nr	No. of
R-B2: Percentage of customers who do not pay (household bad debt divided by total household revenue)	%	

^{*} In line with our approach confirmed in APR16, we do not propose to take a reward for leakage this year. See page 58-60 for further details.

^{**} We have imposed a shadow performance commitment for our wastewater carbon PC. Therefore we are adjusting our reward accordingly. See page 77-78 for further details.

Unit description	Decimal places	2015-16 performance level - actual	2016-17 performance level - actual	2016-17 CPL met?	2016-17 reward or penalty (in-period ODIs)	2016-17 reward or penalty (in-period ODIs) £m (4dms)absolute value
lo. of water quality complaints	0	13941	14461	No	Penalty	-2.3949
Mean zonal compliance (%)	3	99.962	99.944	No	Penalty	-0.1717
with coliform failures per year	0	5	5	Yes		
hment management schemes	0	0	0	-		
tres per person per day (l/p/d)	0	237	236	No		
Megalitres per day (Ml/d)	0	434	432	Yes	Reward	0.8610*
ble leaks fixed within 24 hours	0	53	33	No	Penalty	-0.9125
Minutes / property / year	2	11.17	10.13	Yes	Reward	2.057
tomers with 2nd supply source	1	77.0	77.0	-		
No. of burst mains per year	0	4784	5173	Yes		
tomers at risk of low pressure	0	162	187	Yes	Reward	0.0498
restrictions in five-year period	0	0	0	Yes		
heme delivery (3 components)	na	NA	On Track	-		
heme delivery (3 components)	na	NA	On Track	-		
heme delivery (3 components)	na	NA	On Track	-		
heme delivery (3 components)	na	NA	On Track	-		
Scheme delivery	na	NA	Milestone complete	Yes		
Scheme delivery	na	NA	Milestone complete	Yes		
% customer satisfaction	0	57.5	58	Yes	Reward	0.125
D classification improvements	0	0	7	-		
% environmental compliance	2	97.51	97.99	No		
No. of hectares improved	0	323	293	-		
s with eel protection at intakes	0	0	0	-		
ktCO2e	0	247	250	No	Penalty	-0.3804
people - education programme	0	117728	167024	Yes	,	
ernal sewer flooding incidents	0	809	901	Yes	Reward	3.7682
ernal sewer flooding incidents	0	7163	5801	Yes	Reward	32.6551
f partnership working projects	0	0	0	-	·····	02.0001
o. of sewer blockages per year	0	44107	45240	Yes		
rties, identified as polluting or ith new Section 101A schemes	0	35	14	-		
% customer satisfaction	0	57.5	58	Yes	Reward	0.125
D classification improvements	0	0	8	-		
o. of pollution incidents (cat 3)	0	293	301	Yes	Reward	3.9347
liance with WwTW regulations	2	97.51	97.99	No	Penalty deadband	
No. of hectares improved	0	323	293	-		
of WwTWs avoiding investment	0	0	0	Yes		
ollution incidents (cats 1 and 2)	0	2	7	No		
. of environmental targets met	0	Calculated in 2018/19	Cannot be calculated until APR19	-		
o. of pollution incidents (cat 4)	0	186	239	No		
ktC02e	0	204	207	Yes	Reward	0.5559**
people - education programme	0	117728	167024	Yes		
Customer satisfaction ranking	na	Median	Median	Yes		
nechanism (SIM) score ranking	na	83.70	83.51	No		
stomers engaged with on debt	0	24110	50903	Yes		
6 of customers who do not pay	2	1.8	1.8	Yes		

^{*** 2015/16} performance has been updated. See page 64-65 for further details.

Please note, we have not provided a forecast for future rewards due at the end of amp/future years.

^{**** 2015/16} performance has been updated. See page 77-78 for further details.

3B - Sub-measure performance table

Year ended 31 March 2017

Performance commitment /Sub-measure	Units	2015-16 performance level - actual	2016-17 performance level - actual	2016- 17 CLP met?
S-C3: Asset stewardship - environmental compliance (basket of measures)	%	97.51	97.99	No
% of sewage treatment works passing their numeric consents	%	99.01	99.86	Yes
% of actions raised from EA regulatory site audits (actions raised as a % of total site visits)	%	97.88	97.87	Yes
% of sites that do not exceed their 90%ile flow on sewage treatment works or maximum daily flow on water treatment works	%	93.18	94.23	Yes
% of sites compliant with their abstraction permits	%	99.96	99.99	Yes
S-C7: Overall environmental performance (basket of environmental measures)	nr	Calculated in 2018-19	Cannot be calculated until APR19	-
Improvements in river water quality against WFD criteria	nr	N/A	Cannot be calculated until APR19	Yes
Asset stewardship - environmental compliance	nr	N/A	Cannot be calculated until APR19	Yes
Total number of category 1, 2, and 3 pollution incidents	nr	N/A	Cannot be calculated until APR19	Yes
Biodiversity improvements	nr	N/A	Cannot be calculated until APR19	Yes

3C - AIM table

Abstraction site	2016-17 AIM performance Ml	2016-17 normalised AIM performance	Cumulative AIM performance 2016-17 Ml	Cumulative normalised AIM performance 2016-17	Contextual info relating to AIM performance

'We have zero sites first sentence from page 73. This table is deliberately blank please see page 72-73. We have summarised our approach to abstraction in our response to OFWAT's consultation published on stwater.co.uk

3D - SIM table

Year ended 31 March 2017	Units	Score
Qualitative performance		
1st survey score	score	4.29
2nd survey score	score	4.31
3rd survey score	score	4.33
4th survey score	score	4.41
Qualitative SIM score (out of 75)	score	62.44
Quantitative performance		
Quantitative composite score	score	78.49
Quantitative SIM score (out of 25)	calc	21.08
SIM score		
Total annual SIM score (out of 100)	calc	84

Case Study Birmingham resilience scheme - EVA enhancements



The work on our Elan Valley Aqueduct (EVA) is part of our flagship Birmingham Resilience Project which is the biggest engineering project that we've ever embarked on. The EVA has been bringing water to the homes and businesses of Birmingham and the surrounding area for over 100 years. As part of our vision to build a lasting water legacy, it is the right time to invest further in the EVA to make sure that it can continue to provide service for another 100 years.

At the moment, the EVA is the sole source of supply for 1 million customers in Birmingham, and the level of storage at our treatment works at Frankley means we can only turn it off for a few days at a time for maintenance. To allow us to turn it off for longer periods, an alternative water supply for the city is being built

This year work began on a new 25km pipeline from Lickhill, near Stourport-on-Severn, into the existing water treatment works in Birmingham. This will provide an alternative supply from the River Severn which will allow us to turn off the EVA for up to 50 days without affecting the water supply for our customers

However, our checks on the existing aqueduct show that in three places, there is work that we would rather do before the new pipeline is completed. As we can't shut down the aqueduct, we have come up with alternative solutions.

Three new tunnels are being built at Bleddfa, Nantmel and Knighton, in order to bypass sections of the existing aqueduct. Each of the multi-million pound projects is significant in its own right. For example, the machine used to bore the new tunnels is over 3 metres in diameter.

The first of these, a 1.8km bypass at Bleddfa, broke through on schedule in December 2016. The new tunnel was commissioned by removing the barriers from each end, resulting in the flow being shared between the old aqueduct and the new tunnel. The water was diverted into the new tunnel by placing a series of specially shaped concrete blocks into the aqueduct gradually turning the flows from the old to the new. The transfer of flows was completed in just three days, bringing water into supply ahead of the target delivery date of 31st March 2017.

Together with our supply chain partners, Barhale and North Midland Construction, we have worked tirelessly to ensure that the local community are kept informed of the works throughout by building positive relationships and communicating updates as the project progressed. Feedback from residents on our presentations was very positive as we aimed to keep them informed every step of the way.

This is a fantastic achievement and meets our first major commitment to our customers as part of the Birmingham Resilience Project. The tunnel boring machine has now been relocated to the second site at Nantmel where it was relaunched in April 2017 to start work on tunnel number two.

Case Study STEPS (Severn Trent Environmental Protection scheme) success

STEPS grants are offered to farmers to provide local water quality improvement works through upgrades to infrastructure or support water friendly practices on farms. This has the potential to reduce the amount of treatment which is required at our water treatment works.

In our latest application window, from January to March 2017, we have received 339 STEPS applications from farmers in priority catchments, which is nearly double previous years.

As part of their applications, farmers have applied for over 800 individual items of support. Those proving most popular this year have been watercourse fencing, livestock drinking water provisions, pesticide handling areas, rainwater harvesting facilities and grass margins.

There has also been a notable increase in the number of 'farmer innovation' applications in which farmers are able to propose their own, more original and farm specific options

to manage agricultural runoff. Suggestions have included farmyard improvement work, wetland creation and trials of GPS equipment.

The large number of applications has been the result of over 600 farm visits or events by our team of agricultural advisors. The relationships they build are crucial to our ongoing commitment to improve water quality and to generate wider environmental improvements.

This has also enabled us to get 26,000 hectares of farmland signed up to Farmers as Producers of Clean Water scheme to reduce metaldehyde levels in the catchment.

As part of our catchment management performance commitment, the STEPS grant window has allowed us to log engagement with 215 new farmers, and build on existing relationships with many others.



Case Study Ambergate reservoir replacement

Our vision is to serve our communities and build a lasting water legacy. A key part of this is updating and replacing those assets that have served us well for generations, but are in need of replacement or modernisation. Our work in Ambergate is a great example of how we are meeting our vision.

Ambergate Service Reservoir plays an essential role in the water supply to hundreds of thousands of customers in Derbyshire, Nottinghamshire and Leicestershire. It was first commissioned over 100 years ago and during this time it has provided a reliable service. It is now nearing the end of its life in its current condition and we need to secure supplies for the future.

We established that the best solution is to replace the current service reservoir with two brand new reservoirs on the same site. This will increase overall capacity at the site to 107 million litres as well as improving the resilience of our supplies to the area.

There is limited space on the site so we are constructing the new reservoirs in two phases:

Phase one will build two, brand new 43.5 million litre reservoirs adjacent to the existing site while in phase two will demolish the existing reservoir and build a new single reservoir of 50 million litres in its place.

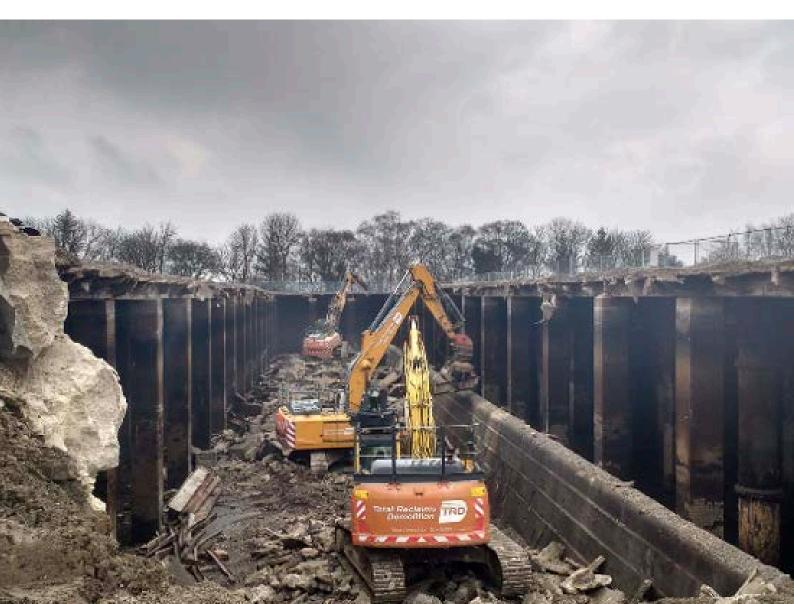
In January of this year, phase one of the scheme was completed ahead of schedule, bringing capacity for 87 million litres of potable water storage in the new reservoir. This allowed us to successfully take the old distribution service reservoir out of supply after 100 years of faithful service.

A key focus for us throughout this project has been minimising the impact on the local community. We have held site open days, engaged local residents through community groups and schools as well as proactive messaging to the local community.

In December the Chair of the local Community Liaison Group contacted us to, "thank Severn Trent and North Midland Construction for being good neighbours on a project that could have been very disruptive to our community".

Phase two of the project is now well underway as we demolish the existing service reservoir and clear the site in preparation for the new 50 million litre reservoir that will take its place.

Once complete, this project will leave a lasting legacy at Ambergate with assets fit to serve future generations for many years to come.



Case Study Unlocking potential through digital innovation



By using cutting-edge digital technology and innovation we are driving improvements in customer experience, developing a more efficient workforce, reducing our risks and driving best value service. We're committed to being at the frontier of adopting digital technology and unlocking the opportunity of new innovations across our business.

Proactive Asset Management

As part of our ambition to take a more proactive approach to managing our network we have developed the use of automated decision making tools to diagnose issues more quickly and effectively in order to prevent flooding and pollution incidents impacting our customers.

In our control centre the 'Operation Decision Management' tool identifies potential problems in our network by linking with 1,000+ loggers deployed across the network, historic network performance, asset data and weather information. The system automatically raises work for our operational teams to decide on the appropriate resolution.

Through the implementation of this technology our predictive capability has been improved by 33%, allowing us to resolve issues before our customers are impacted.

Site Mate

New Toughbook have been rolled out to fieldworks and supply chain partners which provides them with access to new applications, improved connectivity and greater mobility. A new Site Mate application has been designed to reduce the time taken to diagnose problems and deliver an improved customer experience by providing the teams with a real time view of the assets and sites they are working on as well as information about customers and their job history.

Details entered into Site Mate automatically update our records in real time and provides status updates to our customers through the 'Track My Job' app.

Drones & Satellite technology

During the year we've started utilising drone technology to inspect some of our harder to reach assets such as dams and water towers. Not only does the use of drones significantly reduce the costs of our inspections, but more importantly they also minimise the health and safety risks to our staff.

Use of this technology helps to ensure compliance with discharge standards and management of our energy generation plans. We're now exploring other uses for this technology such as inspecting our treatment processes to ensure they are optimised.

We are also exploring options to use satellite technology to enhance asset monitoring and inspection regimes. Our first pilot uses cutting edge imagery to identify potential leaking pipes which are not visible from the ground. The technology works by identifying interactions between the soil chemistry and chlorinated water from our distribution network.

We will continue to explore opportunities to develop and embed innovative solutions and technologies across our assets and workforce to benefit our customers and the environment.

Case Study Customer Management Portal

As part of our ongoing review of the service our customers receive and our aspiration to deliver an excellent customer experience, we identified the need to simplify the system our contact centre advisors use. We understood the need to offer a single view of the customer's data across all channels so that they could provide a seamless service for any operational or billing contacts. Unknown to the customer, the experience they would previously receive was overly reliant on an advisor's capability and knowledge.

We introduced a contemporary look and feel to the interface that is simple and intuitive to use. This provides easy access to previous customer history and contacts, whether they be billing or operational.

Our advisors have access to our brilliant 'Track my Job' and 'In my area' applications to check live progress of works relating to the customer.

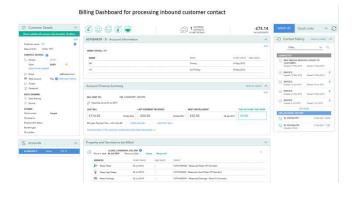


Our contact centre advisors can easily search for customer records using a variety of parameters, which means the customer doesn't have to have all of their information present to be identified.

- Postcode and House number
- Previous contact reference
- Account number
- Phone number
- Email address

When we have identified a customer, empathy indicators at the top of the screen very quickly show the advisor whether there are any previous or outstanding issues that may be impacting the customer. This could be that the customer has had a recent no supply event, or could be that the customer is struggling to pay and is on one of our social tariffs. By flagging this to the advisor immediately, the conversation can be tailored to personalise the service and remove any repetition.

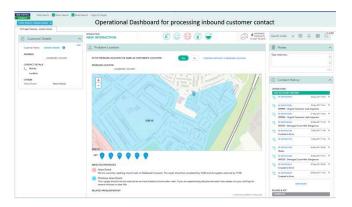
The platform also allows us to navigate between our core operational and billing systems. By having the same front end platform this makes it much easier to train advisors which then allows us to flex our contact centre resource in times of high



volume. This has improved our service levels which means we are answering more contacts and waiting time is reduced.

We have seen significant performance improvements which include:

- Average contact handling has reduced from 8 minutes to 5 minutes reducing customer effort and improving our efficiency.
- A 15% reduction in repeat contacts since implementation as we can answer more customer queries right first time.
- The front end platform supports multi-skilling and reduces training time.
- Easier customer identification, "one click" processes and use
 of empathy indicators enhancing service and tailoring the
 conversation accordingly.



When dealing with operational issues - our advisors can easily and quickly identify if there is an issue in the vicinity of a customer's property. If so, we can inform the customer of the problem identified and planned time for restoration on the call, rather than a second contact. This improves customer experience through first time resolution, removing chase contacts and reducing the need for unwanted visits.

We have also extensively reviewed our issue diagnosis decision trees and call scripts enabling our advisors to make the correct diagnosis whilst reducing customer effort and keeping the language and tone of the conversation tailored to the customer's needs.

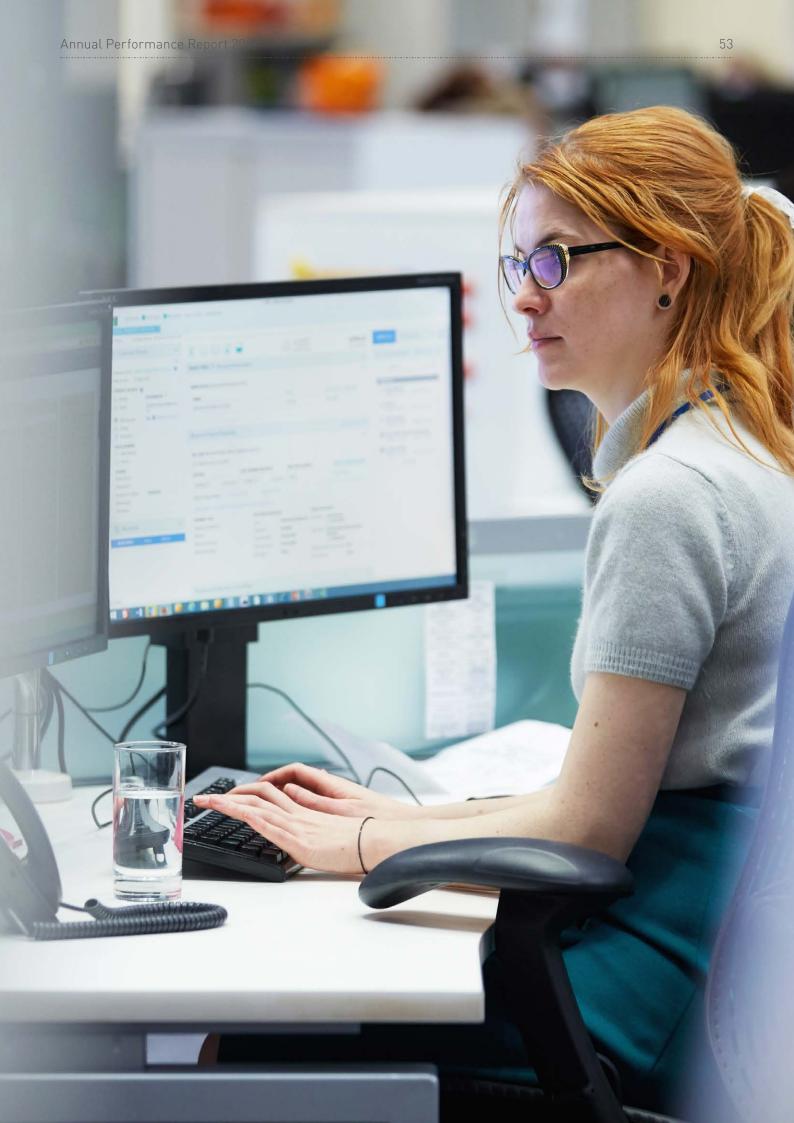
Future phases of CMP will see us improve our web selfserve offering, more closely aligning our online services to those offered across the business, and further enhancing our customer's experience.

A few quotes from our advisors -

"CMP makes it much easier to have a flowing conversation with a customer and makes it much quicker and easier to find the information I need"

"It's much easier with the new system, I don't have to click through lots of screens to identify the customer I'm talking to"

"I really like the way I can find a customer's information just using a telephone number"



Outcome 1: We will provide water that is good to drink

What do our customers want?

Our customers have told us:

- · water quality is consistently their highest priority and they want water that is both safe and pleasant to drink;
- they expect us to maintain our high water quality standards; and
- · they support our partnership approach to managing catchments to protect the quality of our water sources.

How have we done?

This is an area where, despite our continued investment and operational interventions, we need to make more progress in meeting our committed levels of performance. In recent years, we have agreed a detailed action plan with the Drinking Water Inspectorate (DWI) and this has delivered notable improvements on the number of coliform failures. This approach has been extended to the other commitments used to measure delivery of this outcome, particularly on drinking water complaints as can be seen below:

Performance Committee and (DC)	Management by	Actual Performance (with	Actual Performance (with target in brackets)			
Performance Commitment (PC)	Measured by	2015/16	2016/17	Incentive		
Drinking Water Quality Complaints	Number	13,941 (11,900)	14,461 (10,995)	£2.395m Penalty		
Drinking Water Quality Compliance	Percentage	99.96% (99.97%)	99.94% (99.97%)	£0.172m Penalty		
Coliforms failures at water treatment works	Number	5 (Less than 8)	5 (Less than 8)	NIL Penalty Only		
Successful catchment management schemes	Number	N/A (N/A)	N/A (N/A)	NIL		

We will continue to work with the DWI and embed the learnings from our programme to improve our drinking water quality and our customers' satisfaction with it. Below we look in detail at each of the performance commitments:

WA1 - Drinking water quality complaints

This PC measures the total number of customer complaints about discolouration and taste and odour. It has both financial rewards and penalties attached and is reported on a calendar year basis.

Our performance has deteriorated by 4% compared to the previous year, and we need a significant improvement to achieve the level of performance our customers expect, as shown in Figure 1.

Figure 1: WA1 - Drinking Water Quality Complaints



Activities and future focus

We're investing more to achieve a sharp improvement in our performance in this area. A number of the initiatives that were launched during 2016 are delivering improvements, these will be continued into 2017, including:

- using analytics to better understand where failures are occurring and root cause analysis to better target interventions. For example, we implemented a number of improvements in our central area which accounted for just under a third of our total discolouration complaints. We reduced manganese at Frankley water treatment works, removed sediment from our network and introduced network calming initiatives. These interventions led to improved control of our network reducing weekly spikes in the number of discolouration complaints.
- investing in the installation of hydrant locking caps to prevent unauthorised access and use of our network which, if improperly used, can cause discoloration. Over 30,000 caps were installed during 2016 (11% of our hydrants) and we will continue with this initiative installing a further 30,000 during 2017.
- improved standpipe rental control where we have issued new, standardised green stand pipes through our rental contracts. This has enabled us to better identify illegal access to our network which is a key cause of disturbance of flows which leads to discoloured supplies. To date, we have had over 1,200 reports relating to hydrant misuse and this has led to 19 successful prosecutions, nine formal cautions and over 70 formal warnings being issued.

- increased investment by £2m in our mains cleaning and dead-end flushing programme which concentrates on the lengths of our mains network closest to the point of supply. Undertaking this in a more systematic way is also helping us identify more problematic areas.
- investing more in customer support to resolve escalated complaints which has resulted in an 85% improvement in resolution timescales.
- continuing our Source to Tap programme where we aim to reduce the factors causing discolouration from entering the distribution network - including manganese management - for a more sustainable, longer term reduction of discolouration parameters at source.
- Working with customers to help them understand what action to take if their supply is discoloured. This will allow us to invest in those areas if necessary or to flush the network to remove sediment, which can discolour the water.

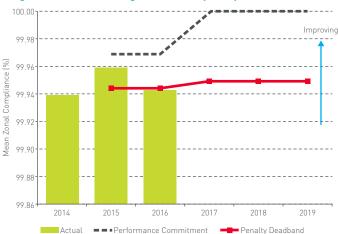
We will continue to work hard to get this measure back on track. As a result of the improvements we have already implemented, we have seen a reduction in complaints and we have also started to share learning with colleagues in Dee Valley as this is an area where we know they have significantly improved performance over recent years.

WA2 - Drinking water quality

This PC is based on the DWI's mean zonal compliance (MZC) measure which calculates the percentage of samples taken from customers' taps (or sampling points) which meet all 40 parameters covered by the Water Supply (Water Quality) Regulations 2000. Our company-wide MZC is the arithmetic mean of every water supply zone's percentage compliance. An improvement in this percentage means that there have been fewer failures (of statistical significance) that have impacted on the quality of water at customers' taps. It is a calendar year measure and has financial penalties only.

Our performance for 2016 showed a 0.02% year-on-year decline, and is below the level of performance our customers expect, as shown in Figure 2.

Figure 2: WA2 - Drinking Water Quality Compliance



The performance decline is largely attributable to one failure in a small water quality zone; failures of this type have a disproportionate impact on overall compliance and this single failure caused a 0.02% reduction in our overall performance. In 2016 we initiated a programme to remove small water quality zones to reduce this disproportionate impact and the first zone has been completed.

Activities and future focus

Many of the activities aimed at improving the number of drinking water quality complaints and improving raw water quality through better catchment management will also contribute to improving our water quality compliance. In addition to these activities, we will continue focusing on our risk areas to ensure we achieve compliance from our improvement activities, which include:

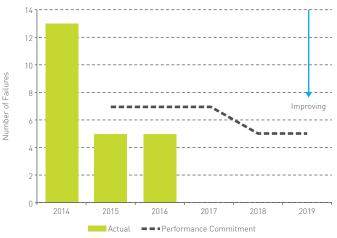
- reducing the risk of lead failures by optimising our orthophosphate dosing performance to ensure effective concentrations reach the distribution network. In 2016, we installed three new first time phosphate dosing schemes. In 2017, we will further improve phosphate dosing control as well as the governance of dosing performance to ensure this is optimised.
- continuing our training programme. In 2016, we trained all our quality inspectors to drive improvements in staff competencies, which has helped reduce the risk of failures by improving the sampling and analysis process as well as our response to failure samples.
- completing the Leicester Lead pipe replacement scheme, and developing our customer protection measures further for the vulnerable customer groups at the most risk from the health impact of lead.

WA3 - Asset stewardship - coliforms

This PC is one of four asset stewardship measures designed to ensure that we are maintaining our assets so they can continue to serve customers in the future. It is defined as the number of treatment works which had coliform detections in regulatory sampling. It has financial penalties only and is a calendar year measure.

During 2016 we detected coliforms at five water treatment works sites. This maintains our great performance from the previous year and remains better than the performance commitment celling level, as illustrated in Figure 3

Figure 3: WA3 - Asset Stewardship - Coliforms



Outcome 1: We will provide water that is good to drink

Activities and future focus

Our performance improvement in this area has been driven by the initiatives we identified in the recent past, including:

- investment in undertaking high volume and intensive sampling regime to provide better data (quantity and quality) for individual assets. One of the key benefits of this has been the identification of potential ingress points at treated water tanks allowing us to undertake maintenance to fix the asset and remove the risk.
- further capital schemes are also now in progress at Strensham and Melbourne treatment works to reduce ingress.
- continued investment in new and upgraded treatment facilities including new Ultraviolet (UV) disinfection schemes (14 scheduled for completion in 2017), clarification and rapid gravity filter refurbishment at sites including Bamford and Campion Hills treatment works.
- improved ways of understanding risks to service from our assets, including adopting flow cytometry diagnostics which will provide us with more data which in turn allows us to better control our processes
- maintaining our drinking water risk register (DWISP) whilst improving operational and maintenance tasks as well as implementing capital solutions to remove the highest risks before 2020.

Our Operational Effectiveness Programme is ensuring that our large water treatment works run predictably and efficiently, so we provide a resilient supply of better quality water to our customers. The programme has shown us how all of our processes at these sites are working. This has allowed us to identify where we might have problems in the future, so we can strengthen our processes and invest where required. As part of this programme, we met our commitment to the DWI to carry out tests at our 16 largest sites.

New technology has an important part to play and we continue to invest where it will improve customer service or reduce costs. For example, we're investing to enable us to monitor coliforms in real time, compared with the current process which takes 24 hours to process a sample.

WA4 - Successful catchment management

This PC is defined as the number of catchment management schemes that succeed in changing farming infrastructure and practices. The successful delivery of these schemes will help provide a sustainable way to protect the quality of our raw water sources. This PC has financial rewards and penalties which will be determined in 2018/19.

In order to ensure there is transparency and a consistent understanding of what 'successful' comprises we have developed a suite of key performance indicators (KPIs). This approach has been discussed with, and supported by, the Environment Agency and Water Forum.

The KPIs focus on the proportion of farmers changing their infrastructure and practices, as changes in raw water quality are not expected to be observed during the reporting period. The application of KPIs varies between catchments, depending on each area's specific circumstances, for example metaldehyde KPIs are not applicable to all catchments.

We continue to promote catchment management and the DWI recognised us as industry leaders for catchment management in its last annual report.

Our engagement activities for 2016/17 were a significant increase from 2015/16 and represented 50% of the overall engagement for the five year period.

During 2016/17, we engaged with 640 new farms, in line with our performance in 2015/16. We have found it challenging to deliver on this multi-faceted commitment and recognise the need to build on the performance this year and increase the pace of delivery in order to successfully deliver the full five-year programme.

Activities and future focus

Our plan for 2017/18 will build on achievements to date, including:

- raising awareness of the issues and support to achieve sustainable improvements through a number of upskilling and awareness events and one-to-one support for farms. This will build on our 2016/17 programme which included a metaldehyde support scheme, pesticide amnesties (13 tonnes of unwanted pesticides were successfully removed from farms in priority catchments), increased public information on BBC radio 4 Farming Today and on BBC Midland Today News and training for our team of advisors to improve their engagement with stakeholders through better event coordination and data validation.
- providing grants to enable farmers in our region to undertake small projects to improve local water quality. In 2016/17, we approved 181 farmer grants and received a further 330 applications for STEPS3 (Severn Trent Environmental Protection Scheme), the third round of our grants for environmental protection. The success rate should help create confidence within the farming community and increase future take up.
- we are continuing to incentivise farmers to drive improvements to raw water quality. 328 farms, covering 26,288 hectares, joined our metaldehyde reduction programme in 2016/17. Financial rewards were awarded to 79% of the contributing farmers reflecting encouraging water quality results in the relevant catchments.
- reviewing successful catchments to ensure learning is captured and included in the development of our future programme.

Outcome 2: We will ensure water is always there when you need it

What do our customers want?

Our customers have told us:

- that our planning should consider a wider range of extreme events that might impact on our ability to keep supplies on;
- they support improvements in our interruptions performance, with particular emphasis on preventing longer duration events;
- leakage is a key priority for customers they simply see it as wastage; and
- there is strong support for demand management and our approach to water efficiency.

How have we done?

We have made some good progress in delivering what our customers want but recognise there are some aspects where we need to improve. This is demonstrated by our performance across the commitments used to measure delivery of this outcome:

p (c ii) (pc)		Actual Performance (wi	th target in brackets)	2016/17	
Performance Commitment (PC)	Measured by	2015/16	2016/17	Incentive	
Resource efficiency	Litres per person per day	237 (225)	236 (222)	NIL Non-financial	
Leakage	Million litres per day (Ml/day)	434 (444)	432 (439)	£0.861m Reward*	
Speed of response to visible leaks	Percentage	53 (70)	33 (80)	£0.913m Penalty	
Minutes lost (Supply Interruptions)	Minutes	11.17 (13.60)	10.13 (12.20)	£2.057m Reward	
Resilient supplies	%	77.0 (n/a)	77.0 (n/a)	NIL	
Mains bursts	Number of burst repairs	4,784 (6,905**)	5,173 (6,905**)	NIL Penalty Only	
Customers at risk of low pressure	Number of homes	162 (250)	187 (250)	£0.050m Reward	
Temporary use bans	Number	0 (0)	0 (0)	NIL	
Birmingham Resilience Scheme	Milestones achieved	NA (on track)	NA (on track)	NIL	
Community Risk Schemes	Milestones achieved	NA (on track)	NA (on track)	NIL	
Elan Valley Aqueduct Maintenance Schemes	Milestones achieved	NA (on track)	2 (2)	NIL	

st In line with our approach at APR16, we propose to take no reward for leakage in 2016/17.

To help reduce demand on our raw water sources and to ensure we use water responsibly, the resource efficiency PC measures the amount of water we take from the environment and put in to our network (per person served) and a further two measures target a priority area for our customers, leakage - both the total level of leakage and our speed of response to fix visible leaks.

Four PCs relate to the ability of our network to deliver water. These are:

- the average time customers are without supply in a year,
- the percentage of customers who can be supplied from an alternative source,
- the number of bursts on the network, and
- the number of customers at risk of receiving water at low pressure.

To measure our overall ability to supply sufficient water, one PC relates to the number of temporary use bans we have to enforce.

In addition, we have six PCs relating to longer term resilience and our maintenance schemes for the Elan Valley Aqueduct.

^{**}Shadow performance commitment set by Severn Trent Water. See section WB6 for details

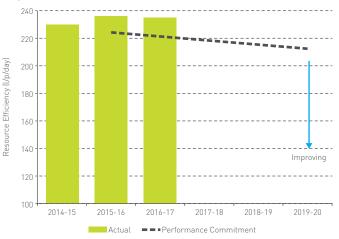
Outcome 2: We will ensure water is always there when you need it

WB1 - Resource efficiency

This PC addresses the need to use the water we take from the environment responsibly. It is defined as the total volume of water put into distribution, divided by household population. It is measured as the number of litres per person per day put in to supply (distribution input). This is a reputational PC.

For 2016, we achieved 236 litres per person per day which although is an improvement from 2015/16, falls short the level of performance our customers expect, as shown in Figure 4.

Figure 4: WB1 - Resource Efficiency



Our resource efficiency PC is impacted by a number of factors which drive the total amount of water we have to put in to our network (distribution input). Key factors driving the increase seen this year were:

- A higher than forecast consumption from our commercial customers at over 30Ml/d; and
- whilst our total leakage has reduced year on year, the unaccounted for water element of leakage has increased. This has an impact on total water in to supply (distribution input). Leakage is a separate PC and is covered in more detail below.

Activities and future focus

Our improvement initiatives will continue to target both leakage on our network and promoting water efficiency with our customers, these being our main drivers for improving resource efficiency. A number of the improvements we initiated during 2016 will be continued into 2017, including:

- Promoting water efficiency with our customers. In 2016/17 we delivered 4.91 Ml/d household water efficiency savings, exceeding our internal target of 3.6 Ml/d. We have continued to develop our Home Water Efficiency Check programme, completing 12,000 home audits in 2016/17. This programme involves a free water efficiency check for household customers offering advice, an audit of water using fittings and, where appropriate, the installation of water saving devices.
- Further driving down leakage through a reduction in the unaccounted for water from our distribution network and customers' supply pipes.

WB2 - Leakage levels

This PC is defined as the total level of leakage, including customer supply pipe leakage, expressed in million litres per day (Ml/d). It has both financial rewards and penalties attached.

Our commitment continues to further reduce leakage levels through the AMP and we are on track to deliver one of the most ambitious target reductions across the industry. In 2015/16 we delivered against the accelerated improvement built in to our targets and this performance has continued in 2016/17 with a leakage performance of 432 Ml/day, a 2 Ml/d (0.5%) year-on-year improvement.

Understanding leakage

We have a network of over 42,000km of pipes and water mains. We cannot record leakage from every part of our infrastructure directly. Instead, to calculate the level of leakage we need to understand how the water we put into our network is used. This is known as the water balance and it has multiple components.

Some components of the water balance we can directly measure, like the volume used by metered households. Others are less certain, like the volume used by the Fire Service in emergencies or water taken illegally from the network, and we need to make reasoned and evidenced assumptions about them.

Once we understand all of these components and deduct them from the volume of water we put in our network, the volume that is left unaccounted for is considered to be leakage.

We continually review these components to ensure we are using the most accurate data or assumptions in our calculation. The better we understand leakage, the more effectively we can target it. As we improve our understanding, the amount of leakage can change in the water balance. We categorise changes in the level of leakage in two ways:

- Methodological and data changes this is where we have updated our data accuracy or new evidence causes us to change some of our assumptions about how water is used. These changes affect components of the water balance and ultimately can move the level of water that we cannot account for both up and down. They do not result in real changes in the level of leakage - as no physical activity has taken place on our network - but does mean our measure is more
- Unaccounted for water this is either; unmeasured consumption or leakage from our network. We can reduce these by, better understanding unmeasured usage, for example, fire service or standpipe use. Or reduce the volume of water leaking from pipes, for example, fixing bursts and managing pressures in the network.

In 2016/17 leakage reduced to 432 Ml/d which is 2% better than the level of performance expected by our customers, as shown in Figure 5.

Figure 5: WB2 - Leakage



The 2MI/d improvement is the net effect of data, minor methodological and unaccounted for water changes. These are shown in the table below.

2016/17 target		439 Ml/d
2015/16 outturn		434 Ml/d
Unaccounted For Water change	+7 Ml/d	
Data improvements	-6 Ml/d	
Methodological change	-3 Ml/d	
Reportable position		432 Ml/d

Our network deteriorates at a rate of approximately 300Ml/ year and so we need to invest to maintain and reduce leakage. £13m per year is invested to offset this deterioration through proactive detection of finding leaks and identifying unknown consumptions.

As we seek to continually improve, we have trialled a number of initiatives across the year including faster response times to burst detection and repair, through an initiative called 'Right First Time'. This approach ensures no hold ups in process so our detection and repair teams can respond in the right way, with the right equipment to get a first time resolution. There was also a review of working patterns for operational staff which meant having the right skilled resource available throughout the day. A new leak detection contract was also implemented mid-year which provided more effective performance metrics for detection staff.

During the autumn of 2016 performance was challenging, so we implemented a number of further improvements to address this including increased gang numbers and ensuring more repairs were put into the daily work schedule. We also implemented a 'Race to the Line' initiative, which provided operational teams with visibility of dynamic targets and drove a really strong performance trajectory to year end and into 2017/18.

Despite the improvement activity, and relatively mild climatic operating conditions, it was not in time to offset the network deterioration during the year. However, teams were highly engaged with 'Race To The Line', which resulted in one of the best ever performances over the last quarter of the year.

In 2015 we reviewed our approach to subsidising private side leakage; we wanted to ensure customers were clear about their responsibilities and protect our wider customer base from picking up the cost of repairs that were not on our network. To this end we stopped subsidising repairs to customers' supply pipes. This change did have an adverse impact as we saw the average leak run time increase whilst customers arranged for private repairs to take place; we estimate that this change has led to an increase in customer supply pipe leakage of 1.3Ml/d. In an attempt to reverse this trend we have brought in additional resources to step-in and repair the burst when the customer does not fix the problem within the required timescales. The cost of this work is covered by the individual customer, protecting our other customers from increased bills, and also helps to reduce the overall leakage level.

We have invested in updates and improvements to both data and methodology assumptions to further increase the accuracy of our leakage calculation. During the year we have learnt more about the Water Balance assumptions and estimation, and have contributed to an industry wide initiative through Water UK that is agreeing a standard of best practice for leakage measurement and calculation. We are investing in new IT systems, equipment and process in order to implement this consistent reporting.

We recognise both the importance customers place on leakage reductions, and that the calculation of leakage is complicated, relying on many datasets and methodological assumptions. We want to make sure that our customers and stakeholders have a clearer understanding of how leakage is calculated; what methodological assumptions are made, and how these can change in any year as we get better information. We have therefore laid out clearly the changes made this year which have been validated by our technical external assurers.

We will continue to report our leakage figure based on data, minor methodology changes and unaccounted for water. As our year 2 target was 439Ml/d, this would equate to a reward of £861k. However, we do not consider that it is appropriate to claim this reward when we have seen a deterioration in unaccounted for water.

Activities and future focus

We will continue to improve leakage performance through better targeting of our find and fix activity, particularly minimising the leakage impact of bursts. We will also continue our programme of pressure management and improving data quality around consumption. Many of our 2017/18 initiatives build on successes to date, including:

- Installing more pressure control devices. Which has proven to be highly successful and continues to be the most cost beneficial approach available. In 2016/17, we installed 166 devices resulting in a saving of 2.5Ml/d.
- Continuing to invest in our network to deliver lower levels of leakage through proactive detection and mains renewal.
- In 2016/17, we initiated a programme to install 500 permanent flow loggers on our largest commercial customers to better understand their consumption. This takes the total number of loggers to 1,800 and covers 50% of total commercial consumption. We also installed a further 1,043 flow loggers on smaller users to establish a new

Outcome 2: We will ensure water is always there when you need it

estimation of commercial night use; we've now installed over 2,000 loggers since 2015 and have another 500 planned for this year.

- We have maintained our rates of mains renewal and relining, as a result mains bursts levels remain stable.
- We have also invested heavily in pressure management, this reduces pressure variations in the network which causes bursts, and in network metering, to increase monitoring points and allow for better measurement.
- Using new technology to refine the estimates of usage and leakage. We are currently trialling new monitoring equipment in two distribution zones to better understand and target leakage.
- Trialling a new Smart Networks model area, giving us more visibility of the network with more monitoring points in real time to in order to allow us to react to issues quicker.
- Investing in active leakage detection and reviewing our operations model to improve the effectiveness of finding and fixing leaks and repair prioritisation.
- Testing the application of satellite technology in order to help us identify leakage locations more efficiently.

We are absolutely committed to finding new ways to improve our leakage performance through the remainder of the AMP and will continue to explore more innovative approaches to monitoring the network and understanding consumption trends as well as identifying ways of driving further efficiencies to finding and fixing leaks. This will also help to inform our approach to leakage management into the next AMP.

WB3 - Speed of response in repairing leaks

This PC is defined as the percentage of visible leaks, reported by customers or detected by our teams, on our network that we repair within 24 hours (where we can do so safely and without unduly disrupting customers). It has both financial rewards and penalties associated with it.

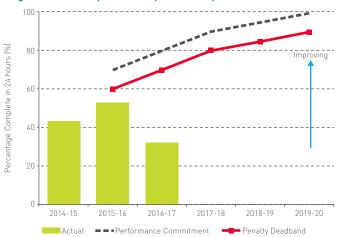
During 2015/16 we defined our list of exclusion criteria where it was illegal for us to undertake the work within 24 hours (when a permit to work in the highway was required) or it was unsafe to do so (work on or near a railway for example). There have been no additional exclusion criteria introduced in 2016/17.

We included this commitment in our 2015-20 plan in response to our customers' desire for us to do more on visible leaks given their strong association between leakage and wastage. Despite our relatively low experience of the measure and being at an early stage of identifying and costing potential improvement activities, we set ourselves an ambitious challenge by targeting 100% compliance by 2020. We were one of only three companies targeting speed of response to leaks and the only company to set such an ambitious goal:

- Sembcorp Bournemouth: Their 2020 aim is to repair 85% of visible leaks within seven calendar days of becoming aware;
- South West Water: Their 2020 aim is to reduce the average time taken to fix significant customer reported leaks to less than 2 days; and
- Wessex Water: Their 2020 aim is to fix 90% of significant customer reported leaks within a day.

As can been seen in Figure 6 below, our performance has fallen in 2016/17 from 53% of visible leaks on our network fixed within 24 hours to 33%, below our commitment to repair 80% this year. Financial penalties apply for any performance at or worse than 70%, and therefore we have incurred a penalty of £0.9m.

Figure 6: WB3 - Speed of response to repair visible leaks



Despite the fact that we delivered a significant (23%) year-on-year improvement in 2015/16, we did not see a corresponding increase in customer experience as measured through SIM or direct customer feedback. We've worked hard to better understand why this is the case and what really matters to our customers. Based on trials to date, we now believe that focussing on the average time it takes to fix visible leaks and improving how we keep customers informed of progress will be more strongly correlated to customer experience compared to a simple time-based measure. As such, we will focus our efforts on these two areas because we want to respond to visible leaks in a way that most matters to our customers.

The following section explores some of the insights from our trials to date and how we are using these insights to focus our activities going forward. We are absolutely committed to further improving our performance in this area.

Activities and future focus

Since the introduction of this measure as part of our 2015/16 plan, we have explored and innovated new approaches to find ways to deliver the commitment to customers. Our early results were mixed; whilst we were able to respond to more visible leaks within 24 hours than before, our 2015/16 performance did not improve customer experience, did not effectively utilise our front-line resources and had a negative impact on other performance commitments e.g. supply interruptions.

In order to respond to these challenges our focus in 2016/17 has been on improving upfront diagnosis of the reported customer issue to ensure we are responding as effectively as we can. As part of this we have upskilled our contact centre colleagues to help them diagnose issues more accurately upfront by talking in more detail with customers who report leaks. This has enabled them to better understand the issues and assets involved, and empowered them to decide the right course of action. The approach has made a significant difference. We found that 56% of all customer issues were screened out at this first stage as either not requiring a repair gang or needing an Inspector to ascertain what the problem was more accurately. The use of

inspectors has allowed us to be clear what is required to fix the issue and therefore reduce resolution time. However it has also had an adverse impact on the number of leaks resolved within 24 hours

We will continue our trials to respond to visible leaks in a way that most matters to our customers. Our improvement activities for 2017/18 include:

- focusing on reducing the average time it takes to resolve customer reported leaks. In 2016/17, this was 6.78 days which is clearly too long. Having tightened our upfront diagnostics, we are now looking to improve resolution times by investing to upskill our inspectors to enable them to resolve the issue first time during their initial visit;
- improving our own ability to detect failures rather than relying on customers to do so. We will look at ways to improve our own systems, telemetry and processes so we don't have to rely on our customers to alert us to leaks on our network enabling us to more effectively prioritise resources;
- taking a more holistic view to delivering the overall outcome.
 Our priority focus is to ensure water is always there when you
 need it. In order to achieve this, we are being more conscious
 about balancing this commitment with other commitments
 including leakage, mains bursts and interruptions to
 supply which typically impact many more customers. We
 are improving our prioritisation approach to make sure we
 can make the right decisions and explain the cost benefit
 rationale to our customers and stakeholders;
- continuing to learn from other sectors to better understand how to deliver a balanced improvement to response times and customer experience. Whilst customers do want to see the visible leak they reported resolved quickly, they also understand that there are some circumstances where we cannot or that it would be uneconomical for us to do so in 24 hours. When this happens, we need to do more to keep customers informed of our progress to resolving their reported issues. The implementation of our customer communications team will help us achieve this. Also, we need to inspect more leaks within 24 hours. In 2016/17 we managed to inspect 77% of customer reported leaks within this timeframe and we want to improve this first level of response which will enable us to more effectively prioritise resources; and
- working with others in the sector to share learning and experiences (other companies are looking to introduce a similar measure as part of their 2020-15 plans and want to better understand the costs and benefits to build appropriate targets). By working with others we may be able to identify better ways of achieving this commitment.

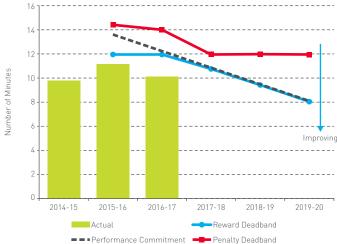
Whilst these activities may not significantly increase performance on this commitment in the short term, we believe they will continue to improve our customers' experience when dealing with us. We will continue to trial new ways of meeting our customers' desire for us to do more on visible leaks in a way that most matters to them. We will also ensure that our ongoing learning of the best way to deliver this commitment will help to frame our AMP 7 performance commitments as part of our PR19 submission.

WB4 - Number of minutes customers go without supply each year

This PC is defined as the average number of minutes that customers are without water supply each year, due to planned and unplanned interruptions to supply of over three hours. It has both financial rewards and penalties associated with it.

Interruptions to supply fell to an average of 10.13 minutes (10m 8s) in 2016/17, a 9% year-on-year improvement and 17% better than the level of performance expected by customers, as illustrated in Figure 7. This performance earns a reward of £2.1m.

Figure 7: Minutes customers go without supply



Activities and future focus

We are seeing the benefit of our consistent investment in the network including £1.1m in 16/17 and aim to continue improving our performance in this area. A number of the improvements we initiated during 2016/17 will be continued into 2017/18, including:

Investment

- improved our ability to respond when bursts do happen, for example using technology to provide real-time information to our control rooms. This helps us to quickly understand the scale of the problem and which customers are affected so we can restore their supplies as soon as possible. We installed nearly 400 permanent pressure loggers throughout the distribution network and over 150 frontline inspectors were provided with a designated pressure logger. We will be installing a further 100 loggers at critical points throughout our area during 2017.
- invested in a state of the art network control centre with a dedicated team to ensure that we have the equipment available and ready to use during events in recognition that response and recovery was an essential backstop to providing a resilient service. We also purchased the UK's largest water tanker to manage larger incidents better.
- improved visibility and communication during interruptions by installing event monitoring screens in our operational depots throughout the region.

Outcome 2: We will ensure water is always there when you need it

 continued investment in network calming techniques including installation of additional pressure reducing valves and controllers. We are also increasing identification and resolution of transient pressure waves by undertaking high speed logging activity and reducing pump stop/starts

Process changes

 creation of a dedicated water performance team who have implemented a more efficient and intelligent approach which has provided improved visibility of our network to allow us to react quicker to prevent customers being affected.

Cultural changes

- delivery of a comprehensive training programme for all technicians on the use of reactive loggers to ensure we can improve the customer experience during an event.
- creation of a dedicated and passionate community of practice where members take full accountability for performance.

WB5 - Percentage of customers with resilient supplies

This PC is defined as the percentage of customers for whom there is more than one source of water which can be used to provide supplies. It has both financial rewards and penalties attached (to be calculated in 2018/19). There are no annual committed performance levels.

In order to ensure we can demonstrate real improvements we will calculate performance using the same population, demand and capacity values that were used in our PR14 business plan. This proposal has been discussed with our third party assurance providers and with the Water Forum.

Our performance for 2016/17 remains at 77.0%.

Activities and future focus

We continue making progress with our resilience schemes in line with our delivery plan, with a number scheduled for completion in 2017/18. Our initial programme included five specific schemes which, in total, would deliver a resilience improvement greater than the target of 77.7%.

We are still on track to meet our commitment through delivery of a programme of investment. These projects are at Stroud, to link the Chalford Springs supply to our Strategic Grid, developing a resilience agreement with United Utilities at Llanforda, adding resilience to our Edgbaston borehole and providing a pumped supply from Nedge Hill to Redhill. Whilst there have been some minor delays to individual projects there is not currently a risk to the delivery dates. Combined, these schemes will support over 87,000 customers and help us meet our target by 2020.

WB6 - Asset stewardship - mains bursts

This PC is one of four asset stewardship measures designed to ensure that we are maintaining our assets so they can continue to serve customers in the future. It is defined as the total number of mains bursts in a financial year, measured by the number of repairs to water mains. It has a financial penalty only.

We confirmed, as part of the Annual Performance Report for 2016, that we would self-impose a shadow performance commitment to take account of a duplication error identified in our data used to set our committed performance levels. We continue to operate as though this shadow commitment is binding.

For 2016/17, we recorded 5,173 bursts main repairs which maintains our good performance and remains better than our self-imposed shadow committed performance level, as illustrated in Figure 8. Our maintenance programme is designed to provide a stable performance and whilst we recognise there is a small year-on-year deterioration, this is well within the expected natural variation for our asset stewardship measures.

Through the use of our system of loggers, which provide real-time information to our control rooms, we can understand how healthy our network is, identifying increases in water pressure which can lead to pipe bursts and enabling us to fix assets before they deteriorate and fail.

Figure 8: Asset stewardship - Mains burst repairs



Activities and future focus

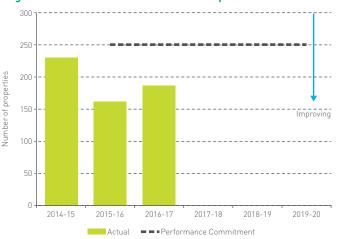
We will continue to deliver our maintenance programme in line with our business plan proposals by renewing the mains network on a risk-based approach. Activities we are implementing to reduce the risk and impact of supply interruptions, such as reviewing our pressure management technologies, will also reduce the risk of burst mains.

WB7 - Customers at risk of low pressure

This PC is defined as the number of connected properties that have received, and are likely to continue to receive, pressure below the reference level when demand for water is at a normal level. It has both financial penalties and rewards associated with it.

Our performance for 2016/17 was 187 properties at risk of low pressure. This maintains our good performance and remains better than the level of performance expected by customers, as illustrated in Figure 9 below. Our performance equates to a reward of £50k.

Figure 9 - WB7 - Customers at risk of low pressure



We have moved from responding reactively to failures to being more proactive and resolving network issues before they cause low pressure issues for customers. Whilst we still added 630 properties to our register during the year, our proactive approach meant this was around 30% fewer than previous years. The majority of these additional properties have also been removed during the year where activity had been undertaken and the risk of low pressure has been removed.

Activities and future focus

We will continue to resolve low pressure problems through a cost-effective mix of operational and investment interventions including utilising pressure controllers, identifying and removing issues on our network that are restricting flows, rezoning of the network as well as provision of new assets.

We have been investigating the use of new technology that will help alleviate low pressure issues at properties where it has previously been difficult to find a suitable solution. Our programme of installing small property number pumps (SPNPs) has now been approved and will be implemented during 2017/18 to benefit around 40 properties.

WB8 - Restrictions on use

This PC is defined as the number of water restrictions in place on customers in a five year period. It has both financial rewards and penalties associated with it. Water restrictions are formally known as temporary use bans.

We did not impose restrictions on use on any of our customers in 2016/17. We met our committed performance level of zero for the year and no penalties are incurred.

It has been over 20 years since we last imposed a restriction on our customers during the 1995/96 drought. The winter of 2016 has been particularly dry and we will continue to monitor our boreholes and reservoirs closely.

Activities and future focus

We have refreshed and updated our drought management processes. We continue to track rainfall and our drought indicators such as reservoir and groundwater levels and will escalate our drought planning options if required.

WB9-14 - Progress with strategic resilience schemes

We have six PCs relating to delivery and timing of the Birmingham Resilience Scheme, and associated Bleddfa and community risk schemes. There are multiple financial delivery incentives based around delivery of specific elements or milestones being reached.

During the year we have seen great progress on the Birmingham Resilience Scheme, our largest ever asset creation project. This year we achieved our first major milestone in with the breakthrough of our tunnel boring machine at Bleddfa. The completion of the 1.8km tunnel drive at Bleddfa was followed by successful connection of both the upstream and downstream diversions over a 91 hour period. Diversion blocks were installed to divert flow from the existing aqueduct to the new tunnel allowing the existing aqueduct to be decommissioned. The new tunnel is fully operational meeting the performance commitment, before the 31st of March 2017.

This is discussed in more detail in the case study on page 46.

Activities and future focus

The overall Birmingham Resilience project remains on track to deliver in line with the timescales and budget confirmed in the Final Determination. All projects are being progressed jointly via the same programme team and Programme Management Office, based at our Frankley treatment works. A fully integrated programme exists for all elements of the work to enable the management of interfaces and overall programme delivery.

Our main Birmingham Resilience performance commitment has two main elements:

- raw water programme major construction is now underway and on track for delivery in 2019. Over the next 12 months the pipeline design will be completed, as will the structural designs.
- treated water programme over the next 12 months detailed designs for all structural elements will be completed, together with hydraulic and mass balance elements.

Our three community risk schemes are also progressing well. Tunnel boring is already underway at the first site and preparatory works are underway to allow tunnel boring commencement at the second site later in 2017 and the third site by March 2018.

Outcome 3: We will safely take your waste water away

What do our customers want?

Our customers have told us:

- they are willing to pay to address sewer flooding problems but expect the costs to be proportionate. They want us to adopt a risk based approach to sewer flooding with the severe cases dealt with in the next decade;
- we need to work in partnership with other stakeholders to reduce flooding;
- high risk transferred assets should be replaced; and
- we should invest in customer education to tackle blockages.

How have we done?

We have made excellent progress in delivering what our customers want as shown by our performance across the five commitments used to measure delivery:

Performance Commitment (PC)	Measured by	Actual Performance (with target in brackets)		2016/17
		2015/16	2016/17	Incentive
Internal sewer flooding	Number	809* (1,014)	901 (989)	£3.8m Reward
External sewer flooding	Number	7,163* (7,639)	5,801 (7,548)	£32.7m Reward
Partnership working schemes	Number	0 (NA)	0 (NA)	NIL
Sewer blockages	Number	44,107 (<50,470)	45,240 (<50,078)	NIL Penalty only
First time rural sewerage properties connected	Properties	35 (NA)	14 (NA)	NIL

^{*} We are formally updating the number of reported internal and external sewer flooding incidents for 2015/16

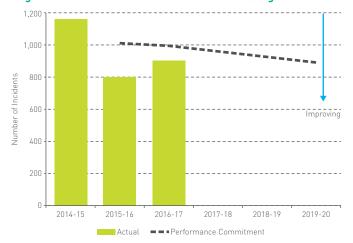
We delivered our best ever performance for external sewer flooding and the second best ever year for internal flooding. This means that the number of customers impacted by sewer flooding has fallen by 40% in just two years. Whilst the relatively benign weather has undoubtedly contributed to the performance, we have strived to improve our operational performance and have invested in our asset base to deliver the service levels expected by our customers.

SA1 - Number of internal sewer flooding incidents / SA2 - Number of external sewer flooding incidents

These PCs are defined as the number of times customer properties are flooded internally/externally due to a failure on our sewer network (including sewers transferred in 2011) in the financial year. This includes both flooding due to capacity issues in our pipes and those due to other causes such as blockages. Both PCs have financial rewards and penalties. We have not changed the measurement approach but have revised the 2015/16 outturn position (the reasons are set out at the end of this section).

As shown in Figures 10 and 11, our performance on both measures continues to be ahead of the level our customers expect. This equates to a total reward of £36.4m.

Figure 10 - SA1 Number of internal sewer flooding events



Numper of locidents

10,000

Improving

Figure 11: SA2 - Number of external sewer flooding incidents

The increase in internal sewer flooding incidents from 2015/16 can wholly be attributed to the severe weather we experienced during a two week period in June 2016. Excluding this period, our performance would have improved which underlines the sustained focus we have made on sewer flooding since the start of the 2015-20 period.

2016-17

2017-18

Reward Deadband Performance Commitment

2018-19

2019-20

We have continued the year on year improvement in external sewer flooding, we have outperformed the target by 23% driven by a combination of new investment, process changes, partnership working and cultural changes.

Activities and future focus

We have developed a wide-ranging and successful improvement programme over the last two years, and many of the initiatives will continue into 2017 including:

Investment

4.000

2014-15

Actual

2015-16

- using predictive tools to identify areas where flooding incidents are likely to occur and proactively cleaning or repairing those hotspots to prevent any future flooding incidents. £14m was invested in 2016/17, with a further £16m expected in 2017/18. As part of this activity we have proactively inspected over 37,000 pipes, cleansed 14,000 pipes and undertaken 3,200 repairs in these high risk areas.
- monitoring changes in sewers where significant blockages had been cleaned in 2015/16. We found that by prioritising sewers based on the results of the initial surveys and then resurveying and cleaning those sewers 12 months later, we have continued to maintain performance in those high risk locations;
- using intelligent data cluster analysis to identify those properties where more than one neighbouring property had experienced internal flooding at least twice in the last twelve years. We visited all of the identified locations, surveyed the sewers and addressed any issues found for 350 customers in order to prevent future incidents;
- continuing to invest in new sewers and storage tanks to
 offer increased levels of protection. Where it is not possible
 to install additional capacity, we will continue to install
 mitigation measures on properties at risk of flooding as well
 as ensuring we address some of the most severe cases where
 our customers are continuing to experience hydraulic sewer
 flooding;

Process change

- implemented a more efficient and intelligent targeting model
 to ensure we are going to the right places to prevent future
 flooding and by using this new approach, we have reduced
 the amount of 'unable to access' properties to around 5%
 compared to 20% last year.
- development of a new process that improves our response service level agreements so that we reduce the risk of a blockage resulting in a flooding incident.
- undertaking in-depth root cause analysis of incidents to reduce the number of flooding repeats.

Cultural change

- facilitating shared learning to refine and improve operational processes and procedures. Lessons learnt are regularly shared and cascaded, performance is discussed regularly and analysed to identify new opportunities, and processes are continually reviewed for improvement.
- creation of a dedicated and passionate community of practice where members take full accountability for flooding performance and operational teams take ownership of ideas generated and ensure that changes are implemented at pace;

Partnership working

- working with our customers and local communities to improve knowledge on preventing blockages, sharing the 'healthy sewers' concept with schools to promote a lasting effect for future generations and working with universities (our data identifies these as known hotspots for sewer misuse):
- partnering with specialists in sustainable FOG (fats, oils and greases) management programmes to deliver high quality engagement with over 900 food service establishments. Over 40% of these customers now have additional grease traps installed, including 90 grease traps being installed throughout the midlands branches of a leading supermarket chain.
- taking legal action where necessary to protect the ability of our network to deliver service to our customers. Our first legal prosecution case under Section 111 of the 1991 Water Industry Act for preventing the discharge of fat to the public sewer was won in October 2016. This landmark case resulted in a fine for a food service establishment and delivers a strong message that we are serious about tackling FOG misuse and so reduce the impact of flooding on our customers.
- increasing liaison with other flood risk management authorities where there are multiple sources of flood risk.
 This will help to align solution development to reduce flood risk to customers from both the sewerage network and overland flood risk.

Outcome 3: We will safely take your waste water away

Impact of improved reporting process on our 2015/16 performance

This year we identified a risk that incidents may not have been reported if jobs raised in our system were subsequently cancelled. Many cancellations are for valid reasons, such as duplicate jobs relating to a single incident or incidents confirmed as being in neighbouring company areas. But to ensure that we had correctly captured all incidents, we reviewed all cancellations relating to internal flooding, external curtilage flooding as well as a sample of blockage and non-curtilage contacts.

The outcome was incorporated into our 2016/17 reporting. We have also reviewed our 2015/16 reported position and we have concluded that 5 internal incidents and 21 external incidents could potentially have been missed from our 2015/16 reported data. As such, we are formally updating our 2015/16 reported number of internal sewer flooding incidents to 809 and 7,163 for external sewer flooding incidents and are returning the £0.6m reward earned to customers.

SA3 - Partnership working

This PC is defined as the number of projects where we work in collaboration with other recognised public and not-for-profit organisations to help drive wider benefits for the community, in terms of reducing flooding. Each project is required to have Environment Agency endorsement.

Our committed performance level is to deliver 21 partnership schemes by 2019/20; there are no annual targets. It has both financial rewards and penalties applied on the basis of the total number of completed projects delivered by 2019/20.

We have delivered benefits at six partnership schemes since 2015/16 and are in the process of securing Environment Agency endorsement as completed projects.

Activities and future focus

Together with our partners, we have invested over £3m to reduce the risk of flooding at 102 properties and delivered highway and fluvial flooding benefits at:

- Newark alongside Nottinghamshire County Council to reduce flood risk to 10 properties from sewer flooding, surface water flooding and flooding from highway drains;
- Kenilworth with Warwickshire Highways and Warwickshire County Council to reduce flood risk to 10 properties from sewer flooding, surface water flooding and flooding from highway drains;
- Hucknall with Nottinghamshire County Council and Ashfield District Council to reduce flood risk to 11 properties from fluvial flooding, surface water flooding and sewer flooding;
- Codsall in partnership with Staffordshire County Council to reduce flood risk to 33 properties from sewer flooding and surface water flooding;
- Normanton with Leicestershire County Highways, Leicestershire County Council and Anglian Water to reduce flood risk to 11 properties from sewer flooding, surface water flooding and flooding from highway drains; and
- Heanor with Derbyshire County Council Highways to reduce flood risk to 27 properties from sewer flooding, surface water flooding and flooding from highway drains.

Looking ahead, we are progressing funding applications for schemes in Hinckley, Coventry and Staffordshire, and have applied for a Flood Defence Grant in Aid from Defra for a joint scheme with Birmingham City Council. Further potential partnership schemes have also been identified, some of which are already at the 'Agreement in Principle' stage.

SA4 - Asset stewardship - Sewer blockages

This PC is one of four asset stewardship measures designed to ensure that we are maintaining our assets so they can continue to serve customers in the future. It is defined as the total number of sewer blockages on our sewer network (including sewers transferred in 2011). This PC has a financial penalty incentive only.

During 2016/17, we recorded 45,240 sewer blockages which is better than the level of performance expected by customers as shown in Figure 12. No penalty has been incurred.

Figure 12: SA4 - Asset stewardship - Sewer blockages



A sewer blockage is the primary cause in approximately 90% of sewers flooding or pollution incident and we have continued with the proactive and reactive programmes of works, as included in the flooding commentary above, as well as educating our customers on sewer misuse.

SA5 - Statutory obligations (s101A schemes)

This PC is defined as the total number of connectable properties, identified as polluting or likely to pollute, associated with the new section 101A schemes over the five years to 2019/20. There are no financial incentives.

Under section 101A of the Water Industry Act 1991 owner/ occupiers can apply to us to provide them with the opportunity to connect to a public sewer. We deliver schemes to provide these public sewers and connect them to our existing network or construct a new treatment works to deal with foul flows.

Activities and future focus

Our commitment is to provide first time sewerage to 312 properties by 2019/20. There are no annual targets for this commitment. In 2016/17 we connected 14 properties at two locations, and are reviewing a further 324 properties that could potentially require connection in future years.

Outcome 4: We will provide you with excellent customer service

What do our customers want?

Our customers have told us they want:

- a trouble free, continuous service so they don't need to contact us;
- issues to be resolved quickly and first time round. Where issues can't be resolved straight away, they want to be kept informed of progress;
- to make contact with us easily, and for us to communicate in a straightforward way;
- help to make choices about water meters; and
- us to show we care and their custom is valued.

How have we done?

We have made strong progress in improving our customer service, including a substantial reduction in both internal and external sewer flooding that affect our customers; reductions in supply interruptions; and low pressure. Levels of overall customer satisfaction are high and our customers are having to contact us less frequently, however when they do need to contact us we know we need to improve their experience.

We have looked at new ways customers can get in touch and tried to make it easier and more convenient. We've continued to improve how we communicate with our customers and keep them informed. This year, we rolled out the new design for our bills, which is clearer, simpler and easier to understand. We've also relaunched our website to improve customer interaction and their ability to carry out some tasks themselves. The table below shows our performance on the two commitments used to measure delivery:

Performance Commitment (PC)	Management	Actual Performance (with target in brackets)		2016/17
	Measured by	2015/16	2016/17	Incentive
Customer satisfaction with their service	External survey	Median (Median)	Median (Median)	NIL Non-financial
Customers' experience of dealing with us	SIM score	83.70 Median ranking (7th) (Upper Quartile)	83.51 Ranking - tbc (Upper Quartile)	Based on Ofwat assessment

^{*}This figure is based on the latest version of the reporting tables issued by Ofwat. The ARA reported 83.61.

Looking at each of the performance commitments:

RA1 - Customers' satisfaction with their service

This is a reputational ODI that is measured by the UK Customer Satisfaction Index (UKCSI) - a survey independently conducted by the Institute of Customer Service (ICS). Our commitment is to achieve median position within the utilities sector until 2017, and then an upper quartile positon from 2017/18 onwards.

For 2016, we achieved median position to meet our performance commitment. We ranked eighth in the utility league table, narrowly missing out on achieving Upper Quartile. Against other companies in the water sector we ranked fourth out of 12.

Activities and future focus

Many of the improvement activities for this measure also impact SIM.

Our new website has made navigation easier and has a better look and feel. Web satisfaction is one of our top performing measures. We also saw strong performance for interactions in writing and phone satisfaction. We continue to reduce customer effort by offering customers new and easy to use channels and increasing proactive communications. Across our teams we have been focussing on taking ownership of the customer's query or issue. We continue to receive feedback from customers that our contact centre and field staff are friendly and helpful.

We have also:

- developed a new customer management portal for our contact centre advisors. This brings together a range of data sources seamlessly allowing our advisors to focus on providing a better customer experience;
- implemented new shift patterns for our water field staff and also within our operational contact centre to ensure we meet the needs of our customers; and
- undertaken a multi-skilling initiative to help us flex staff between our contact centres and across different contact channels to meet changing demand

Outcome 4: We will provide you with excellent customer service

RA2 - Customers' experience of dealing with us (SIM)

The SIM measure is designed to encourage water companies in England and Wales to provide better customer service. It also allows comparison of company performance. SIM relates to household customers only.

There are four quantitative components:

- 1. unwanted telephone complaints
- 2. total written complaints
- 3. escalated written complaints
- 4. CCWater escalated complaints

And one qualitative measure:

Annual Survey Score (provided by BMG Research)

We achieved a company SIM score of 83.51, which represents a broadly stable year-on-year performance but is likely to be below our target of achieving upper quartile performance. The comparative position will be calculated by Ofwat, and this will determine whether we receive a financial reward or penalty. We anticipate that our 2016 SIM score will result in a median outturn (i.e. neither reward nor penalty).

Our quantitative SIM performance has declined this year compared to last year with us seeing an increase in stage 1 written complaints by 20%, a significant proportion of these complaints relate to several large incidents.

Our overall qualitative SIM score was 4.33 out of 5 for 2016/17 compared to 4.35 for 2015/16, within which:

- billing performance improved slightly and is close to achieving our target of Upper Quartile performance. We maintained a stable position across the course of the year through focusing on the delivery of a consistent standard of service to all customers. This was achieved through improving staff performance and levels of quality;
- water performance has been maintained compared to last year through a continued focus on keeping customers informed and maintaining our work in progress volumes at a manageable level to ensure we resolve customer queries/ issues in a timely manner; and
- wastewater performance has declined slightly compared to the previous year, this was largely due to severe levels of wet weather in June 2016 affecting our performance. We have gained some key insights from undertaking a Waste Deep Dive with our service provider (Amey) and further work is being done to uplift our performance

We are disappointed that we have failed to improve our overall SIM position. However, we are now seeing the initial activities we have undertaken to address current levels of performance are starting to take effect. For both Water and Waste our Wave 4 Qualitative SIM survey score of 2016/17 was the best result of the year. Also in billing we have continued to deliver stable and consistent performance across all waves, driven by the front office transformation and improved performance quality management. This gives us confidence that our improvement activities are beginning to take effect.

Activities and future focus

Early signs that show we are focusing on the right actions are the results from our customer communications team. Since January 2017 we have been proactively contacting customers. This has already delivered measurable improvements, such as a reduction in chase calls, as well as prevention of a number of written complaints.

We believe there are two key areas that impact the experience that customers have of Severn Trent. Firstly, the time it takes us to resolve problems that arise and secondly, how we keep our customers informed through the process of resolving problems.

Improving our performance in these two areas will have a tangible impact on customer experience. Therefore, to track progress against our SIM Journey to Upper Quartile we will be focusing on a number of initiatives, these include:

- embedding a customer communication team within wholesale water and waste functions to keep customers informed through their journey;
- completing the alignment of IT systems with Wastewater contract partners to enable better customer experience;
- implementing a new Voice of Customer platform to allow better insight on customer experience and target improvement;
- continuing the next phase of website enhancement to further improve online experience;
- increasing the ability of call advisors to fully resolve the customers issue and remove need to hand off to another team by introducing an up-skilling programme or by changing processes: and
- developing our customer experience benchmarking activity to enable us to learn from others.

Outcome 5: We will have the lowest possible charges

What do our customers want?

Our customers have told us they:

- accept that investors require a fair and reasonable return and that it made sense to finance the business sustainably;
- want us to ensure that customers who can pay do so; and
- that we provided evidence that we were delivering efficiently.

How have we done?

Our customer research has shown that our customers' perceptions of value for money are complicated by the fact that in the absence of direct competitors, they find it difficult to gauge if they are getting a good deal or not and what they are paying for. We also know that our customers are influenced by the level of profits we make, and by what they hear about us and the industry in general in the media.

We have made some good progress in delivering what our customers want, as demonstrated by the level of performance on our value for money PC (split between Water and Wastewater). This PC tracks how customers view us in terms of the value of our services and commits us to drive improvements in this irrespective of external factors.

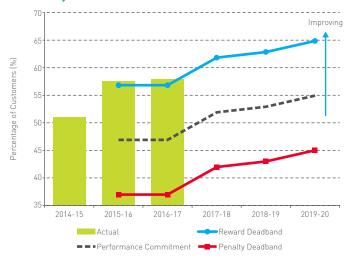
Performance Commitment (PC)	Manageral bas	Actual Performance (with target in brackets)		2016/17
	Measured by	2015/16	2016/17	Incentive
Value for money (Water)	Customer satisfaction survey %	57.5% (47%)	58% (47%)	£0.125m Reward
Value for money (Wastewater)	Customer satisfaction survey %	57.5% (47%)	58% (47%)	£0.125m Reward

WC1 & SB1 - Customers rating our services as good value for money

This PC is defined as the percentage of customers rating our services as good or very good value for money, as measured by our quarterly Customer Satisfaction Survey. This commitment is replicated across both the water and waste price controls with separate reward and penalty incentives applying in each.

Customers' perception of the value for money they receive for their water and sewerage services has shown a small year-on-year improvement to 58%, as shown in Figure 13. Financial rewards apply at 57% and therefore we have earned a reward of 60.25m

Figure 13: WC1/SB1 - Customers rating our service as value for money



The underlying quarterly scores were 61.0%, 54.6%, 56.5% and 59.1% respectively. We believe the dip in the second quarter is attributed to the 'Brexit effect'.

Activities and future focus

A strong performance in value for money is, in part, indicative of a brand that is seen by customers as delivering what matters and being on the side of good corporate citizenship. The biggest influencer on value for money is that customers know that we are using their money wisely in investments.

Our customers' perceptions of value for money are higher than those of customers of other water companies. Across the two nationwide surveys we have undertaken in the last year, 49.6% of customers of other water companies surveyed rated their company's value for money as very good or good.

In terms of demonstrating that we are delivering efficiency, our waste water business has been at the frontier of sector efficiency and we have made strides in aiming for upper quartile performance in water and retail. We continue to review the suppliers we work with to support us in delivery efficiencies and we have created our One Supply Chain to make our capital programme more efficient. By choosing framework partners to work with over the five years of an AMP, we can give them greater certainty of work and achieve more competitive pricing. We can also be more innovative as we work together over time, to deliver even greater efficiencies.

We are confident that, through our brand messaging and our behaviours as a company we will be able to meet our committed performance level for 2017/18 irrespective of the external influences on value for money.

We continue to seek ways to improve the quarterly Customer Satisfaction Survey. In the second half of 2016 we added three questions to better understand customers' use and perception of water. These questions were added onto the introductory demographics section of the survey. A review shows there appears to be no impact on the value for money score.

Outcome 6: We will help you if you struggle

What do our customers want?

Our customers have told us they want us to:

- ensure that customers who can pay do so;
- better promote our existing support schemes ourselves and through partner organisations; and
- tailor our approach to our customers' circumstances there is no 'one size fits all' solution.

How have we done?

We have made good progress in delivering what our customers want, as demonstrated by the level of performance on the two commitments used to measure delivery of this outcome:

Performance Commitment (PC)	Measured by	Actual Performance (with target in brackets)		2016/17
		2015/16	2016/17	Incentive
Number of customers helped by review or Social tariff	Number	24,110 (35,000)	50,903 (50,000)	NIL Non-financial
Percentage of customers who do not pay	%	1.8% (2.7%)	1.8% (2.7%)	NIL Non-financial

These commitments drive our strategies to improve our debt management and extend the scope and reach of our support options. They consider how we can better serve customers that need help in the short term, but also the longer term as well. Looking at each of the performance commitments:

RB1 - Number of struggling customers helped with their bills

This PC is a measure of the number of customers helped by a review of their tariff and water usage, through four key schemes:

- our WaterSure tariff
- Social Tariff
- pro-active metering scheme
- water health checks

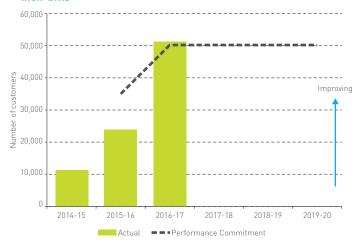
This is a reputational PC; it has no financial rewards or penalties attached.

Helping our vulnerable customers is really important to us. We introduced our Social Tariff, the Big Difference Scheme (BDS) in 2015 and in the past 12 months we're really proud to have more than trebled the numbers of customers on the scheme. We have continued to build on our industry leading performance by beating our target of helping 50,000 customers, as seen in Figure 14, through a reduction in their bill or a review of their circumstances. We will continue to seek new ways to identify customers who will benefit from our assistance schemes whilst also ensuring existing customers are on the right scheme and receive the right level of support.

We have worked with Severn Trent Trust Fund for 20 years, and since 1997, we've donated more than £60 million to the Fund, for the benefit of people across our region. By working alongside external partners we are able to help more customers, and also provide them with a grant towards water arrears if required.

We have also identified a need to introduce a new Assessed Volume tariff for WaterSure. This will ensure that customers who would otherwise qualify, but are unable to have a meter installed are not paying more.

Figure 14: RB1 - Number of struggling customers helped with their bills



Activities and future focus

We recognise that there are customers who need support from STW but not necessarily because they are in arrears or need financial assistance, but because of an unexpected life event or ongoing health concern. We know that sometimes our customers just need more from us. So this year we have created our Care and Assistance Team (CAT), the advisors on this team are specially trained by external partners such as Samaritans, Age UK and Macmillan.

Our advisors are able to manage often very difficult conversations with our customers and help signpost them to other organisations where needed or help them through their concerns themselves. We are proud to have been named the Utilities & Telecoms Best Vulnerable Customer Support Team.

We are continuing to work on our processes to ensure that we treat our customers fairly and appropriately, responding to their needs whether that be financial or across other areas.

R-B2 - Percentage of customers who do not pay

This PC is defined as our household bad debt divided by total household revenue, as reported in our regulatory accounts. This ODI is reputational only - however, if we do not meet our committed performance level, we bear the cost of additional bad debt incurred.

Our 2016 achievement of 1.8% maintained our good performance from the previous year and remains better than the level of performance expected by our customers, as illustrated in Figure 14:

Figure 14: R-B2 - Percentage of customers who do not pay

Activities and future focus

2015-16

2014-15

We constantly review our debt strategy to maintain consistent good performance and continually seek opportunities to improve cash collection, whilst balancing the need to ensure that we treat our customers fairly.

2016-17

2017-18

■ ■ Performance Commitment

2018-19

Our Credit Management function is continually working to improve insight into where best to target our resources to improve collection performance from customers who won't pay, through developing innovative approaches and ensuring we utilise industry best practice in our techniques and systems. We have achieved this strong bad debt position whilst still managing to help 50,000 of our vulnerable customers who were struggling to pay their bills.

We are constantly improving the accuracy of our data, such as obtaining up to date contact details for all our customers, and using this to improve our ability to contact customers and discuss outstanding charges and agree a payment method. We have worked with credit reference agencies to improve our 'final debt' process (when a customer vacates a property), through better data we are now able to validate an exact vacation date, removing incorrect debt.

Outcome 7: We will protect our local environment

What do our customers want?

Our customers have told us:

- we should do our fair share of making river water quality improvements;
- to be innovative and work in partnership with others;
- plan to deliver environmental improvements only where there is a reasonable certainty of success;
- tackle pollution quickly, but balance this against the effect on bills; and
- clean up local rivers to support wildlife.

How have we done?

We have made some good progress in delivering what our customers want, as demonstrated by our performance across the commitments used to measure delivery:

Performance Commitment (PC)	Measured by	Actual Performance (with target in brackets)		2016/17	
		2015/16	2016/17	Incentive	
Water Framework Directive (water)	Number	0 (NIL)	7 (NIL)	NIL	
Water Framework Directive (waste)	Number	0 (NIL)	8 (NIL)	NIL	
Serious pollution incidents	Number	2 (8)	7 (6)	NIL Non-financial	
Category 3 pollution incidents	Number	293 (429)	301 (402)	£3.935m Reward	
Category 4 pollution incidents	Number	186 (225)	239 (203)	NIL Non-financial	
Asset stewardship - performance	Percentage	97.51% (100%)	97.99% (100%)	NIL Penalty deadband	
Biodiversity	Hectares	323 (N/A)	293 (N/A)	NIL	
Eels Regulations	Number	N/A (N/A)	N/A (N/A)	NIL	
Overall environmental compliance	Number	N/A (N/A)	N/A (N/A)	NIL	

We have summarised progress against each of the PCs below, and also included a section on the Abstraction Incentive Mechanism (included within the first PC):

WD1 - Improvements in river water quality against Water Framework Directive criteria (water)

This PC is defined as the number of Water Framework Directive (WFD) classification improvements we deliver that are attributable to river flow. It principally reflects the impact that our abstraction activities have on water bodies. The scoring system is based on one point per water body benefitting from flow or abstraction changes. An improvement will be claimed if we have delivered the appropriate contribution, as agreed with the Environment Agency, towards an improvement in WFD classification. A point is scored for each classification improvement and the measure has both financial rewards and penalties which will be calculated in 2018/19.

The committed performance level is 31 points by 2019/20. There are no annual targets for this measure although seven classification improvements were delivered in 2016/17.

Activities and future focus

We have made significant progress this year towards this PC, and have delivered seven classification improvements, against our committed performance level of 31 points by 2019/20. There are no annual targets for this measure. Delivery of the WFD (Water) programme, and hence the PC, remains on track

and progress is monitored by the water resources Project Management Office (PMO).

We have secured agreement from the Environment Agency that the project outputs that have been developed during feasibility will deliver the required environmental outcomes.

The seven classification improvements delivered are associated with revocation of abstraction licences, with environmental benefits generated by reduced pressure on groundwater and therefore improved low flow conditions in related watercourses. These classification improvements have been completed ahead of schedule, which were originally planned for completion during 2019/20.

Looking forward, a scheme which secures the delivery of a further seven classification improvements will be awarded early in year 3, with the remaining programme planned for delivery in years 4-5.

Abstraction Incentive Mechanism (AIM)

AIM has been designed to encourage companies to limit their abstraction from water sources where it would have the potential to cause environmental damage. Ofwat have confirmed that, for the 2016/17 report year, companies will be required to report on the number of AIM sites in their area.

We can confirm that we do not have any abstraction sites included in AIM. The nature of our programme means the AIM is not an appropriate incentive and we have developed an alternative measure (WD1 - Improvements in river water quality against Water Framework Directive described above) which incentivises us to do our fair share to improve the WFD ecological status of a number of water bodies in our region. We have summarised the rationale in our consultation response.

SC1 - Improvements in river water quality against Water Framework Directive criteria (waste)

This PC is defined as the number of WFD classification improvements we deliver attributable to improvements in river water quality. It reflects the impact our waste water operations can have on water bodies. A point is scored for each classification improvement, as agreed with the Environment Agency, and the measure has both financial rewards and penalties which will be calculated in 2018/19.

The committed performance level is 202 points by 2019/20. There are no annual targets for this measure although eight classification improvements were delivered in 2016/17.

Activities and future focus

We have made good progress this year by delivering eight classification improvements. Six of the improvements are due to the closure of our Langley Mill treatment works and a further two improvements were secured following the implementation of a new effluent phosphorus limit at our Redmile sewage treatment works.

We have also undertaken improvement activity at a further three treatment works at Dunchurch, Wootton Wawen and Gotham. Dunchurch and Wootton Wawen require a 0.7mg/l phosphorus effluent limit to be met which is amongst the lowest we have ever delivered. These enhancements will result in classification improvements following delivery of further schemes at other sewage treatment works impacting the receiving water bodies.

In line with our delivery profile, we are targeting 33 classification improvements during 2017 by adopting new permit conditions at 12 of our treatment works. Due to the complex nature of the programme, with many classification improvements dependent on multiple schemes being successfully delivered, the majority of the programme will be delivered towards the end of 2015-20.

We're also delivering on all schemes that are part of the National Environment Programme, to improve the quality of the water we return to the environment

SC2/6/8 - Number of pollution incidents

We have three PCs which distinguish between the impacts of pollution incidents (based on Environment Agency categorisations):

- eliminate the most serious (category one and two) pollution incidents by 2020;
- reduce the category three incidents by around 20%; and
- place a new focus on reducing the least serious (category four)

These PCs are defined as the number of pollution incidents attributable to our assets (including sewers transferred in

2011). All are calendar year measures. The category three PC has both financial rewards and penalties, the other two PCs are reputational only. Serious pollutions do not have associated penalties as they are investigated by the Environment Agency and may lead prosecution and fines through the courts.

This year we have had a mixed performance across these measures. We had seven serious pollution incidents which does not meet the level of performance our customers expect and represents a year-on-year deterioration. On Category three pollutions, we remain ahead of the level of performance expected which maintains our long term improvement trajectory. On Category four pollutions, there was a 25% increase which means that we are not meeting the level of performance expected. Our performance is shown in Figures 15 to 17 below.

Figure 15: SC6 - Serious Pollution Incidents

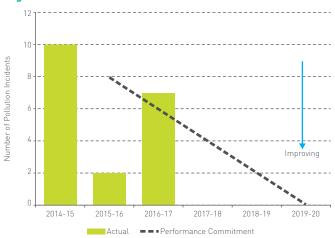
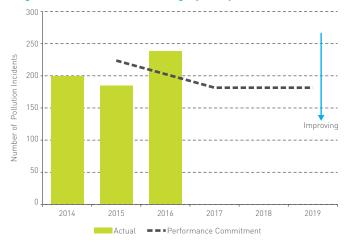


Figure 16: SC2 - Number of category three pollution incidents



Outcome 7: We will protect our local environment

Figure 17: SC8 - Number of category four pollution incidents



Activities and future focus

Many of the activities aimed at improving pollutions performance also contribute to improvements in sewer flooding and sewer blockages and are explored in more detail under Outcome 3: we will safely take your wastewater away.

The primary cause of serious pollutions is due to sewer blockages and while we are tackling sewer blockages through our extensive proactive programmes, for serious pollutions it is typically something very specific to that particular situation. Therefore, In order to achieve our objective of eliminating serious pollution incidents we are improving visibility of how our assets are performing to provide early warning of potential problems. Historically we didn't know there was a problem until after sewage has escaped from a manhole or an overflow and impacted on the environment. During this financial year we have installed 202 new monitors at our Combined Sewer Overflows (CSO's) enabling us to now detect and respond to problems within our sewers before it escalates into a serious incident. Over the next 2 years we are planning an extensive programme of installing further monitors in our sewers and at overflows to give us early warning of potential problems.

In order to drive down the number of pollution of all categories we have been, and will continue to:

- investigate more than 800km of our wastewater network as part of our programme to inspect, clean and repair those sewers with a history of blockages
- proactively intervening to reduce the risk of a bursts on rising mains through maintaining and replacing air valves, monitoring for pressure and altering pump settings to reduce pressure surges. We are also using an ice pigging technique to clean rising mains;
- use analytics to identify pollution 'repeat' grids. We have used GIS (Geographical Information System) software to position all our pollution incidents and then created 1km grid squares across our region. These grid squares have enabled us to see where we have concentrated areas of pollution activity and potentially repeating issues over a much longer time period. It has provided us with some key locations to target and carry out new root cause analysis.
- develop a consequence model and methodology to help us identify the foul and combined sewers at the highest risk of causing pollution incidents. We will be inspecting these pipes

- and will carry out remedial work required to mitigate the likelihood of any future pollution incidents;
- trial new control technology at sewage pumping stations to allow us to optimise operations and provide more warning of potential issues as they arise. We will also improve our ability to control these stations and rectify issues remotely, improving our chances of preventing incidents from occurring.

In addition, we're making clever use of new technology. At some network sewage pumping stations we're testing technology that learns as it goes along, so it can automatically and remotely pump sewage to parts of the network with spare capacity, helping to prevent flooding and serious pollutions.

WD2 & SC3 - Asset stewardship - environmental compliance

This PC is one of four asset stewardship measures designed to ensure that we are maintaining our assets so they can continue to serve customers in the future. It focuses on our compliance with sewage treatment and abstraction permits and includes four elements:

- percentage of sewage treatment works passing their numeric consents:
- percentage of actions raised from Environment Agency regulatory site audits (actions raised as a percentage of total site audits);
- 3. percentage of sites that do not exceed their 90 percentile flow on sewage treatment works or maximum daily flow on water treatment works; and
- 4. percentage of sites compliant with their abstraction permits.

This PC is based on calendar year figures and has financial penalties only.

During 2016 we were compliant with 97.99% of the permits and, although this is a year-on-year improvement, it remains below our target of 100% compliance. Our penalty dead-band is set at >95.3% and, therefore, no penalties are due this year.

Figure 18: WD2&SC3 - Asset stewardship - environmental compliance



This year-on-year improvement reflects an improved performance on three of the four elements:

- compliance with the numeric consent sub-measure improved from 99.01% to 99.86%, matching our best ever outturn of one failing works we had in 2014 and delivering upper quartile performance.
- compliance with the non-numeric sub-measure remained stable changing from 97.88% to 97.87%. Within this, we achieved our best ever year for Operator Self-Monitoring inspection failures (two compared to six in 2015) but this was offset by an increase in contributing pollutions (13 compared to nine in 2015).
- 3. compliance with the dry weather flow measure has increased from 93.18% to 94.23%. 33 sites exceeded the 90th-percentile limit compared to 39 sites in 2015
- 4. abstraction licence compliance improved from 99.96% to 99.99%. There has been a reduction in the number of sites non-compliant for abstraction licences from 30 exceedances in 2015 to only four exceedances' in 2016.

Activities and future focus

We need to keep our waste water assets in top condition, so the water we discharge meets the right standards and we have the best raw material for generating energy. This means we have to regularly inspect our assets. In the past, we often used scaffolding to do so but working at height can be risky for our people. Now we're now using drones to get a clear view, protecting our people and saving time and money. Drones can also help us in other ways and we're exploring new uses, such as checking that our treatment processes are working as they should.

As part of our pollution strategy we are reviewing the root cause of historic incidents at our sewage treatment works to ensure measures are put in place to prevent repeats. We have also improved the process used to investigate dry weather flow exceedances to incorporate more catchment checks, such as trade flows, and to undertake more detailed infiltration assessments.

In addition to the activities above, we have introduced new tracking measures related to flow compliance which will allow performance to be monitored and managed dynamically.

WD3 & SC4 - Biodiversity improvements

These PCs (one each for water and wastewater) are defined as the number of hectares of designated areas improved, measured through improvements made to:

- Sites of Special Scientific Interest (SSSIs) on Severn Trent Water's land; and
- our contribution to improving other designated areas in its region such as Special Areas of Conservation (SACs).

Our committed performance level is a net increase of 75 hectares of improved designated sites by 2019/20; this is a combined total across both the water and waste water price controls. There are no annual targets. The water control has a reputational incentive. The waste water price control has both financial rewards and penalties as the incremental investment for these measures is on waste water assets.

We confirmed in our Annual Performance Report 2016 that we report on the number of hectares of land, both owned and not owned by Severn Trent, that our activities have an impact upon. Improvements are made where our activities are contributing to a designated site failing to achieve 'improving' or 'favourable' (as defined by Natural England).

During 2016 there was a net deterioration in the condition of SSSIs and SACs, that our activities have an impact on, of 30 hectares. This takes the cumulative position to 41 hectares below our position at the start of 2015/16.

Figure 19: WD3 & SC4 - Biodiversity improvements



The decrease this year is attributable to part of the Leek Moors SSSI declining to 'unfavourable - no change' status. We are currently in discussions with Natural England and the Environment Agency regarding the impact of our assets on the Sutton Park SSSI.

We are committed to delivering improvements by 2020 in order to achieve the required performance but recognise we need to make progress in order to secure the confidence of our stakeholders

Activities and future focus

We made progress with Natural England this year by agreeing the approach to be used to calculate the hectares benefited and also the process to agree the required activities at each identified site. We have also confirmed detailed work at 11 sites that, once completed, will contribute towards improving biodiversity.

Outcome 7: We will protect our local environment

Area	Activity
River Clun	Phosphorus removal
River Blythe	Phosphorus removal, installation of a fish pass, farm specific catchment management
Peak District Dales	Phosphorus removal
Hills, Holes and Sookholme Brook	Phosphorus removal
Dimminsdale	Forestry/Woodland management
Dark Peak	Overgrazing action
Buddon Wood and Swithland Reservoir	Water level management, compensation transfers, nutrient management plan, undergrazing action
Bradgate Park and Cropston Reservoir	Increased storage at pumping station, water level management, nutrient management, agreement to site management
Blackbrook Reservoir	Water level management, agreement to site management
River Teme	Farm specific catchment management
River Eye	Phosphorus removal

In addition, we are committed to correcting the issues which have led to a deterioration at Cropston. We're organising a shared conservation session jointly with Natural England and the Environment Agency in order to build relationships. A specific management plan is also being produced which will be used to maintain and improve the site.

We're working on a similar approach at Leek Moors by undertaking the site maintenance works needed to reverse the deterioration. This will help increase the transparency of our performance and enable us to improve the way in which we monitor and track the projects that will contribute to the achievement of this commitment.

WD4 - Sites with eel protection at intakes

This PC is defined as the number of schemes delivered to provide eel protection at intakes. This PC has a reputational incentive only.

Our committed performance level is to deliver 20 improvements at river intakes by 2020/21. We have a progress milestone in 2018/19, however there are no annual committed performance levels. We are reporting zero completed schemes in 2016/17, although we have completed one scheme as part of the Habitats Directive (we anticipate this will be endorsed by the Environment Agency in the coming year).

Activities and future focus

The next twelve months will see contractual commencement at four River Severn sites - detailed feasibility, Environment Agency and planning permissions. Two of these sites have been confirmed as high priority by the Environment Agency and will be progressed as a priority. We also aim to agree solutions for the remaining sites.

We have a progress milestone in 2018/19, however there are no annual committed performance levels. We are reporting zero completed schemes in 2016/17, although we have completed one scheme as part of the Habitats Directive (we anticipate this will be endorsed by the Environment Agency in the coming year).

SC7 - Overall environmental compliance

This PC is designed to ensure that we improve our environmental performance in a balanced way (as opposed to focusing on some measures in isolation). It draws together four of the PCs already detailed under this outcome to create an overall score:

- 1. improvements in river water quality against WFD criteria
- 2. asset stewardship environmental compliance
- 3. total number of category one, two and three pollution incidents and
- 4. biodiversity improvements.

It considers our overall environmental performance, assessed as our average performance across the 2015/16 to 2018/19 period including a forecast of performance in 2019/20.

The Final Determination does not explicitly state how we should determine average performance. As such, we have assumed that:

- for Asset Stewardship Environmental Compliance, the mean performance for 2015-2018 must be greater than the penalty deadband for the measure [95.3%]; and
- for pollution incidents, we will assess the total number
 of incidents against the cumulative targets for the
 corresponding year (20 serious incidents, 1,579 category
 three incidents). In order to achieve the target for pollution
 we must meet the committed performance level for both
 category three incidents (SC2) and serious pollution incidents
 (SC6).

We have discussed the above with our external assurance providers and with the Water Forum.

Our performance against each of the individual commitments is discussed in the relevant sections above.

It is not possible to undertake the full assessment for this PC until year four (2018/19) at which point the total reward or penalty will be determined following the assessment of the Water Framework Directive and Biodiversity PCs. However, our cumulative performance on serious pollutions, category three pollutions and environmental compliance is ahead of the target profile.

Outcome 8: We will protect the wider environment

What do our customers want?

Our customers have told us we should do more to reduce our carbon footprint by:

- seeking lower carbon ways of operating our business;
- · generating renewable energy; and
- · working with others to reduce emissions.

How have we done?

We have made some good progress on delivering the wastewater carbon emissions reduction but recognise there is more to do on our water operations, as reflected below:

n (r c i i i tool		Actual Performance (with target in brackets)		
Performance Commitment (PC)	Measured by	2015/16	2016/17	Incentive	
Carbon emissions - Water	KtCO2e (Kilo tonnes of carbon dioxide or equivalent)	247 (228)	250 (224)	£0.380m Penalty	
Carbon emissions - Wastewater	KtCO2e (Kilo tonnes of carbon dioxide or equivalent)	204*	207	Final Determination £0.555m - Reward	
		(217**)	(215**)	Shadow Commitment £0.117m - Reward	
Sustainable Sewage Treatment Solutions	Schemes	NIL (NIL)	NIL (NIL)	NIL Reward Only	

^{*} We are formally updating our 2015/16 performance for wastewater to 204 ktCO2e (explained later in this section)

Looking at each of the performance commitments:

WE1 & SD1 - Size of our carbon footprint

These PCs are defined as the total net annual greenhouse gas emissions for the regulated water and waste water business. Performance for our water and waste water operations are reported separately. Each has financial rewards and penalties.

Since the publication of the 2014 Final Determination, external data that was used to develop the PCs has been updated. For clarity, we will report using the historic Global Warming Potential Factors for the 2015-20 reporting period. This has been shared with the Water Forum who accepted our proposal.

We have seen a reducing trend in our carbon emissions since 2002 and have held the Carbon Trust Standard since 2009 in recognition of our performance and effective carbon management processes. However, in water operations this year we consciously choose to maintain water supplies over the delivery of the carbon target. With the improvement activities that have been instigated we are confident that we can meet our overall commitments for carbon emissions for 2017/18.

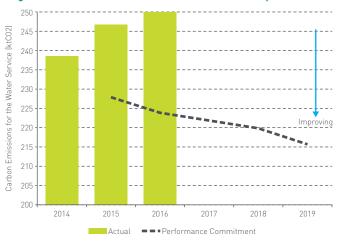
The key upward pressure on our emissions continues to be higher than expected energy use by our water production assets. We have continued to see a higher than forecast volume of water being put into supply; this is now around 4% higher than assumed in our business plan. During the year we have concentrated on energy use and have driven improvements to understand and manage energy use of individual assets. We have also committed expenditure on spend to save programmes by investing in energy saving activities.

This year emissions for our water operations were 250 ktC02e. This represents a small year-on-year increase and is 12% above the levels of performance our customers expect which

will incur a penalty of £0.4m. This performance was driven by the relatively dry winter coupled with higher than expected demand for water which required make some difficult decisions in balancing this PC against the need to ensure supplies to our customers.

However, emissions for our wastewater operations were 207 ktC02e which is better than the expected level of performance. This would generate a reward of £0.6m based on the final determination but through the imposition of a shadow performance commitment we will be revising this reward to £0.1m. The position is shown in Figure 20 and 21 below.

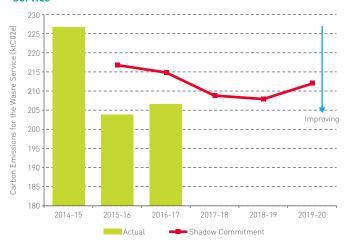
Figure 20: WE1 - Carbon emissions for the water operations



^{**} This is a shadow commitment level for wastewater carbon emissions (explained later in this section)

Outcome 8: We will protect the wider environment

Figure 21: SD1 - Carbon emissions on the waste water service



We are seeing an increased greening of grid electricity compared to our assumptions which has a positive impact on our actual emissions. We committed to maintain a consistent assumption of green grid electricity within our reported carbon emissions so this increased greening is not reflected in our reported figures.

Activities and future focus

Whilst we have demonstrated our ability to outperform on wastewater we are also confident that our improvements in energy management in the water sector will reverse the trend so we can meet our committed performance levels despite the increase in water in to supply. Our improvement activities focus on two areas:

- increasing our renewable energy generation; and
- improving our energy efficiency.

We have increased our use of advanced digestion compared to 2015/16 and remain on target to achieve 50% of our energy requirements through self-generation of renewable energy. Despite a reduction in the overall amount of sludge we have treated, the increase in advanced digestion has increased our ability to self-generate electricity and reduce our net carbon emissions.

During 2016/17 Severn Trent generated 309 GWh of renewable electricity, the equivalent of 34% of Severn Trent Water's electricity needs. In the regulated business, over 2016/17 we have generated 2% more than target from sludge and hydropower.

In August 2016 we began a revised programme of energy management activity across the company in order to help mitigate upward pressures on energy bills and improve performance. That programme has been a success and we expect it to continue through the remainder of the AMP. Overall energy reduction projects are on target to deliver 10 GWh of reductions during the next year.

We are also driving down demand through our water efficiency measures, increase in home water efficiency checks for our customers and a significant increase in the number of our customers educated about water efficiency. As part of this we continue to drive down leakage and to offer the option for customers to have a water meter in an attempt to reduce the overall demand and water in to supply.

Shadow commitment and updated information impacting 2015/16

During our assurance work this year, we identified an error in the Carbon Accounting Workbook relating to the capture of methane during anaerobic digestion. This has resulted in the amount of methane escaping to the environment being overstated and, consequently, our reported position for carbon emissions on wastewater operations being too high. There is no impact on our water service emissions.

We have confirmed that this error was embedded in our carbon emissions for 2011-2014, the years used to calculate our PC levels for 2015-20. On average, the impact during this period was to overstate our carbon emissions by 12.3% for the wastewater service.

For the 2016/17 report year we have corrected this reporting error and, as such, our reported emissions are no longer calculated on a consistent basis as our targets. Therefore, we will implement a shadow PC for our wastewater carbon emissions, calculated using the 12.3% reduction. We commit to act as though this shadow commitment is binding and will calculate all future rewards and penalties from this shadow commitment.

Wastewater carbon emissions	2015/ 2016	2016/ 2017	2017/ 2018	2018/ 2019	2019/ 2020
Final Determination (ktCO2e)	248	245	238	237	242
Shadow commitment (ktCO2e)	217	215	209	208	212

We have also recalculated our actual wastewater carbon emissions and are formally updating our 2014/15 performance to 227 ktC02e and 2015/16 to 204 ktC02e. Due to this, we have recalculated the incentive position for 2015/16 and have determined that an additional £0.044m of reward is due; we intend to include this adjustment within our submission to Ofwat to be reflected in our charges for 2018/19.

SC5 - Sustainable sewage treatment solutions

This PC is designed to incentivise the delivery of different, more sustainable approaches to sewage treatment which would deliver longer term benefits to customers and the environment. It is defined as the number of works where future capital investment is avoided by the development of innovative solutions to reduce capacity pressures at sewage treatment works to accommodate growth. It has a target of zero by 2020 (reflecting that this is an experimental approach) and a financial reward incentive only should any successful schemes be delivered.

In our Final Determination, the incentive rate is expressed per year. However, as indicated in our business plan the intention was that five years' worth of reward would be applicable for any over performance. We have informed our external assurance providers, the Water Forum and Ofwat of our understanding and intention.

There were no schemes delivered in 2016/17. We will continue to look for opportunities including new technologies with our research and development team and identifying areas where trade or domestic growth is forecast.

Outcome 9: We will make a positive difference in the community

What do our customers want?

Our customers have told us:

- we should do more to explain the importance of water efficiency, the environment and responsible sewer use in our local communities:
- they want us to invest in our region's economy and to provide jobs for local people;
- · they want us to communicate clearly with them in our bills and through other channels; and
- they are generally understanding of the need for us to work in the highways, but they want us to do what we can to minimise the length of any disruption, and keep them fully informed about what we're doing.

How have we done?

We have made some good progress in delivering what our customers want but recognise there is more to do as reflected by our commitment to educate our customers which is used to measure delivery of this outcome:

Paufaumana Cammitmant (PC)	Management by	Actual Performance (with target in brackets)		2016/17
Performance Commitment (PC)	Measured by	2015/16	2016/17	Incentive
Improved understanding through education	Number of customers educated	117,728 (155,000)	167,024 (160,000)	NIL Non-financial

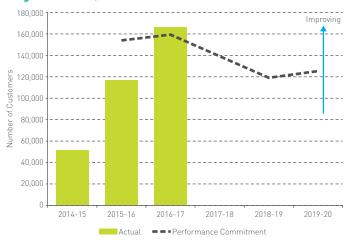
WF1 & SE1 - Improved understanding of our services through education

This PC is defined as the number of people benefitting from our total education programme including workshops, school lessons and site visits. It is a reputational incentive.

In our Final Determination the targets are replicated across both the water and waste water controls. For clarity, our proposal was to educate 700,000 customers across our business; therefore we report a single outturn number for both the water and waste water PCs. We have shared these proposals with the Water Forum who accepted them.

As shown in Figure 22, our 2016/17 performance continues to show a strong improvement. We reached just over 167,000 customers in the year which exceeds the target of 160,000 customers, an impressive 41% improvement on 2015/16. This was an important year for us as we recognised that we had had a slower start to the 2015-20 period than we had planned. As can be seen in figure 22, 2016/17 was our most challenging in terms of the targets we set ourselves and we managed to outperform this. Our commitment to make up the underperformance in 2015/16 remains as we ensure we educate at least 700,000 customers across the five year period.

Figure 22 - WF1/SE1 - Number of customers educated



Activities and future focus

Our performance improvement can be attributed to the improvements we initiated last year. We will build on these in 2017/18 including:

- maintaining increased resourcing levels within our education team. This team delivers high quality, one-toone engagement through our home water efficiency check programme. These in-home audits provide our customers with tailored advice and water saving devices. The increased resource enabled us to more than double the number of audits carried out delivering 12,148 in 2016/17. Feedback from customers is positive; they find the process helpful and informative. Looking forward, we are planning to complete our audit programme in Coventry before moving to another area by autumn 2017.
- continuing educational site visits for local school children and community groups through our Customer Relationships teams. Last year 120,637 students were educated through school visits as well as 3,136 customers at community talks and events.
- at our education centres 1,932 visits were undertaken and we
 will be reviewing options to add a third site in Wolverhampton
 to the sites at Cheltenham and Derby to broaden access to
 the programme.
- providing information to customers where there has been a sewer blockage as the result of the wrong things being poured down the sink or flushed down the toilet.
- reviewing how to improve progress delivered through our Customer Relationship Advisors. We believe we can improve engagement levels in this channel and are looking at ways to do this.

Our progress to date and our future plans provide confidence that we can deliver the target to educate 700,000 customers about water efficiency and sewer misuse by 2020.

Wider positive impact on our community

Alongside delivery performance commitments for our customers, we are also helping the wider community through investing in our employees and, in particular, the next generation. We have an established programme of training and development, nearly trebled our intake of apprentices and doubled our graduate numbers. We were recognised as a top 100 Apprenticeship Employer in 2016 at the National Apprentice Awards.

We also recognise it's not just what we do but how we do it that makes a difference to our customers and the communities we serve, that is why we are proud to have achieved a gold Considerate Constructors award for our work in Bakewell and a Bronze award for our replacement project in Ambergate. The Local Community Liaison Group in Ambergate were grateful to Severn Trent and our contract partners NMC for being good neighbours on a project that could have been very disruptive to the community. This positive response to large scale engineering projects has been delivered through proactive actions with the public, site open days and engagement with schools and local community groups.

We work with our One Supply Chain partners to do things more effectively. It helps us to deliver our commitments as efficiently as possible, by ensuring we and our partners are incentivised to work towards the same objectives. We've also worked with suppliers to align our approaches to responsible business, as we want our supply chain to both live by and reflect our values. This includes introducing a 'Sustainable Supply Chain charter' which sets out our expectations of our suppliers clearly regarding key sustainability issues, such as modern slavery, carbon and water efficiency.

Outcome 10: We will finance our business sustainably

What do our customers want?

they want to see good governance and fairness for investors and customers (they are concerned about possible excessive returns for shareholders.

- investors believe shareholders will have a continued important role in the future financing of the industry and recognise the risks of high gearing; and
- stakeholders want to see current low costs of finance reflected in our plan.

How have we done?

Investment grade credit rating

Whilst we do not have specific PCs relation to this outcome, we use our credit rating as an indicator of whether we were financing our business sustainably. We remain committed to retaining an investment grade rating through the 2015-20 period as set out in our business plan.

We need to make sensible investment in our infrastructure now in order to protect our future services. We raise money from investors so that we can spread the costs of these improvements across the generations of our customers who will benefit from them. Our investors expect a return that is commensurate to the level of risk they take. In turn, our customers trust that we will not take on unsustainable levels of debt, nor pay our investors unjustified or excessive returns.

Investors typically use a suite of measures and financial ratios to gauge the financial health of companies. Credit ratings are an indicator of our creditworthiness. They have the advantage of being independently assessed measures (assessments are made by credit ratings agencies) which are publicly available.

We have achieved an investment grade rating in both 2015/16 and 2016/17. Sections 1, 2 and 4 provide more information about our financial performance this year.

Additional regulatory information

This section provides additional financial and non-financial information, including (but not limited to), additional accounting policies, financeability statement and current cost reporting.



4A - Non-financial information

Year ended 31 March 2017	Unmeasured 000s	Measured 000s
Retail household		
Number of void households	117.872	83.579
Per capita consumption (excluding supply pipe leakage) l/d	140.12	118.92

	Water (Ml/d)	Wastewater (Ml/d)
Wholesale volume		
Bulk supply export	58.690	0.000
Bulk supply import	5.930	0.000
Distribution input	1,848.075	-

4B - Wholesale totex analysis

ar ended 31 March 2017		Current year	Cumulative 2015-2020		
	Water £m	Wastewater £m	Water £m	Wastewater £m	
Actual totex					
Actual totex	594.1	493.9	1,158.7	959.9	
Items excluded from the menu					
Third party costs	(5.4)	(0.8)	(10.5)	(1.1)	
Pension deficit recovery payments	[12.6]	(15.0)	(19.7)	(21.3)	
Other 'Rule Book' adjustments	5.8	7.0	5.5	6.5	
Total items excluded from the menu	(12.2)	(8.8)	(24.7)	(15.9)	
Transition expenditure	-	-	11.4	-	
Adjusted actual totex	581.9	485.1	1,145.4	944.0	
Adjusted actual totex base year prices	537.5	448.0	1,068.7	880.8	
Allowed totex					
Allowed totex based on final menu choice - base year prices	562.4	558.9	1,064.1	1,039.9	

The PR14 final determination (FD) included total expenditure (totex) assumptions for the wholesale water and waste water services. Unlike previous price reviews, the FD did not include a breakdown by output or investment area. Therefore to understand variances between actual expenditure and our FD we have used a two-stage process:

- First, we have compared our actual expenditure with our 2015-20 plan to better understand programme variances and categorise them as either timing (accelerated or delayed investment) or efficiency (finding better ways of delivering the outcomes our customers want or finding more efficient ways of delivering the same outcome);
- Then, we have calculated a service level adjustment to reconcile actual expenditure to the FD.

We are incentivised to outperform the totex assumptions in order to drive future efficiencies which will help us achieve affordable bills in the future. Total cumulative expenditure restated to 2012/13 price base is £154.5m (7.3%) lower than assumed in the FD menu. We have a responsibility for ensuring that all outperformance is sustainable and represents cost effective choices. Throughout the year, we have challenged ourselves to demonstrate we are on track to deliver all our AMP6 commitments (not just performance commitments and ODIs, but also asset health and other statutory requirements) and that we can robustly demonstrate how we have delivered totex outperformance. This assurance has been driven by our Board and our Executive Team.

We have worked hard to ensure that we are both focused on delivering what our customers expect whilst also striving to deliver sustainable totex outperformance. Our PR14 plan included our most stretching efficiency challenge to date and to meet these targets we have driven efficiencies into the programme from the start of the AMP. We have unlocked the efficiency initiatives over the first two years which is one of the reasons why the outperformance is front end loaded. Some of the ways we have delivered efficiency include:

- Delayering the organisational structure across the whole company, which was in place on day 1 of the 2015-20 regulatory period;
- Driving further contracting efficiencies on our capital programme;
- Making more of the totex framework to identify optimal solutions;
- Removing waste from our processes through the application of lean techniques;
- Becoming more energy efficient and generating more of our own energy; and
- Working with our supply chain partners to identify innovative solutions.

It is important to recognise the differences between service and expenditure performance in our Water service compared with our Wastewater service. At PR14 Ofwat assessed our Wastewater plan as the most efficient in the sector and as a consequence, our FD includes a reward to reflect our frontier position. We have worked hard to achieve service and expenditure outperformance and we are focused on maintaining and increasing this position, which is why we are proud of the cumulative totex outperformance in Wastewater of £159.1m.

On Water, we are finding it more challenging to deliver our performance commitments (as set out in Section 3) so, whilst we have delivered efficiencies, we have also invested earlier and in more activities than envisaged in our 2015-20 plan.

Differences between actual and allowed totex

The following table sets out the cumulative variance position, based on the items included in the menu for both actual and FD (i.e. after removing menu exclusions but including transition expenditure). This varies to the approach used in the 15-16 annual performance report which included menu exclusions. The table below allows reconciliation to the previously reported values. The cumulative and variance totals are stated in 2012/13 prices to allow reconciliation to the FD.

Totex in £m	Service		15/16		16/17	Cumulative
	_	Out-turn prices	2012/13 prices	Out-turn prices	2012/13 prices	2012/13 prices
Adjusted actual	Water	563.5	531.5	581.9	537.2	1,068.7
totex (menu)	Wastewater	459	432.9	485.1	447.9	880.8
Totex for menu	Water	12.2	11.5	12.2	11.3	22.8
exclusions	Wastewater	6.6	6.2	8.8	8.1	14.3
FD menu	Water	_	501.7	-	562.4	1,064.1
assumptions	Wastewater	-	481.0	-	558.9	1,039.9
Total variance	Water		29.8		(25.2)	4.6
	Wastewater		(48.1)		(111.0)	(159.1)
	Total		(18.3)		(136.2)	(154.5)

Water

Total cumulative water expenditure is broadly in line with the FD (£4.6m under-performance). This reflects a combination of £13m overspend to accelerate investment in areas where we need to increase our activities, partially offset by £8m efficiency savings to ensure we deliver service in a cost effective way. They key reasons for both efficient delivery and timing variance include:

Efficiency and scope	Cumulative £m
Contract efficiencies through batching approach to filter upgrades	(8)
Other contract efficiencies	(23)
Energy price increase	9
Energy usage increases	2
Increased investment to improve security of our key sites	11
Increased investment to improve drinking water quality	46
Other efficiencies (scope and opex savings)	(45)
Sub-total	(8)

Timing	Cumulative £m
Accelerated investment to address drinking water quality (treatment works and service reservoirs)	20
Delays in securing efficient contracts associated with Birmingham resilience	(8)
Other accelerated investment	1
Sub-total	13

Table 4B includes cumulative spend of £11.4m on our transition programme, incurred in 15-16 report year but this was not required to be reported in 15-16 table 4B. In base year prices this equates to £5.3m overspend. This is due to more costs being incurred in setting up the contracts and during the outline design phase. We anticipate recovering this position through efficient delivery in future years and have already identified efficiency opportunities.

Wastewater

Total cumulative expenditure is £159.1m lower than the FD (15.3%). As set out in Section 3, we are performing well on wastewater performance commitments and we have achieved these service levels whilst delivering efficiency. Whilst we have already secured significant efficiency savings, there has been a timing delay of £21m of waste investment to allow our teams to optimise delivery of the environmental programme (we have ensured we are still on track to deliver our 2015-20 commitments). The main aspects of our programme that are contributing to the cumulative variance include:

Efficiency and scope	Cumulative £m
Efficiency within FD as result of PR14 frontier position in Ofwat cost models	(28)
Contract efficiencies	(49)
Reduced energy costs due to increased self- generation and biogas generation	(13)
Efficient design and planning of private pumping stations	(17)
Other efficiency (opex and capex)	(31)
Sub-total Sub-total	(138)

Timing	Cumulative £m
Delays to parts of the waste quality programme, specifically WFD	(27)
Accelerated investment to maintain sewage treatment works	6
Sub-total	(21)

4C - Forecast impact of performance on RCV

Year ended 31 March 2017	Water £m	Wastewater £m
RCV determined at FD at 31 March	3,918.3	4,325.4
RCV element of cumulative totex over/(underspend) so far in the price control period	1.9	(78.7)
Adjustment for ODI rewards or penalties	-	-
Projected 'shadow' RCV	3,920.2	4,246.7

4D - Wholesale totex analysis (water)

ear ended 31 March 2017	Wat	er resources			Network +		
	Abstraction licences	Raw water abstraction	Raw water transport	Raw water storage	Water treatment	Treated water	
	£m	£m	£m	£m	£m	£m	£m
Operating expenditure					•		
Power	-	9.1	2.4	-	25.3	9.9	46.7
Income treated as negative expenditure	-	(0.2)	_	_	_	_	(0.2
Abstraction charges	11.4	-	-	-	-	-	11.4
Bulk supply	_	8.0	-	-	3.9	-	11.9
Other operating expenditure ¹	0.1	14.3	6.0	1.6	53.5	156.5	232.0
Local authority and Cumulo rates	_	3.3	1.2	1.7	4.7	35.5	46.4
Total operating expenditure excluding third party services	11.5	34.5	9.6	3.3	87.4	201.9	348.2
Third party services	_	2.3	_	_	1.8	1.3	5.4
Total operating expenditure	11.5	36.8	9.6	3.3	89.2	203.2	353.6
Capital expenditure							
Maintaining the long term capability of the assets - infra	-	-	_	-	-	_	-
Maintaining the long term capability of the assets - non- infra	_	8.0	_	0.3	60.0	44.7	113.0
Other capital expenditure - infra	_	0.2	34.9	_	1.0	69.4	105.5
Other capital expenditure - non-infra	-	7.5	(1.3)	-	11.5	16.1	33.8
Total gross capital expenditure excluding third party services	-	15.7	33.6	0.3	72.5	130.2	252.3
Third party services	-	-	-	-	-	-	-
Total gross capital expenditure	-	15.7	33.6	0.3	72.5	130.2	252.3
Grants and contributions	-	-	-	-	_	(24.4)	(24.4
Totex	11.5	52.5	43.2	3.6	161.7	309.0	581.5
Cash expenditure							
Pension deficit recovery payments	-	1.8	0.5	-	5.0	5.3	12.6
Totex including cash items	11.5	54.3	43.7	3.6	166.7	314.3	594.1
Operating expenditure unit cost	Licenced volume available Ml	Volume abstracted Ml	Volume transported Ml	Average volume stored Ml	Distribution input volume Ml	Distribution input volume Ml	
Volume (MI)	1,609,539	605,415	605,415	221,161	688,407	688,407	
Unit cost (£/MI)	7.14	60.78	15.86	14.92	129.57	295.17	
Population (000s)	7,864	7,864	7,864	7,864	7,864	7,864	
Unit cost (£/pop)	1.46	4.68	1.22	0.42	11.34	25.84	

¹ Other operating expenditure includes net infrastructure renewals expenditure of £85.2m and an exceptional pension gain of £5.8m.

² The unit cost for each upstream service within tables 4D and 4E is calculated by dividing the total operating expenditure by the respective volumes. The calculation uses total operating expenditure values at 3 decimal places therefore the unit cost per service disclosed will differ from the unit cost calculated using the numbers above.

4E - Wholesale totex analysis (waste water)

Year ended 31 March 2017			Network +	Sewa	Network + ge treatment			Sludge	Total
	Foul	Surface water drainage	Highway drainage	Sewage treatment and disposal	Imported sludge liquor treatment	Sludge transport	Sludge treatment	Sludge disposal	
	£m	£m	£m	£m	£m	£m	£m	£m	£m
Operating expenditure	_	•		·				·	
Power	11.7	0.7	0.9	25.6	1.7	-	(12.0)	_	28.6
Income treated as negative expenditure	-	-	-	-	-	-	(15.6)	(2.0)	(17.6)
Discharge consents	3.5	0.2	0.3	5.5	-	-	_	_	9.5
Bulk discharge	-	-	-	-	-	-	-	-	-
Other operating expenditure ¹	74.7	8.8	9.5	70.4	0.8	9.9	26.2	13.0	213.3
Local authority rates	4.2	0.3	0.3	17.5	2.0	0.1	4.3	0.1	28.8
Total operating expenditure excluding third party services	94.1	10.0	11.0	119.0	4.5	10.0	2.9	11.1	262.6
Third party services	0.7	-	0.1	-	-	-	-	-	0.8
Total operating expenditure	94.8	10.0	11.1	119.0	4.5	10.0	2.9	11.1	263.4
Capital expenditure									
Maintaining the long term capability of the assets - infra	-	-	-	-	-	-	-	-	-
Maintaining the long term capability of the assets - non-infra	20.0	1.2	1.2	78.9	-	0.2	42.7	0.2	144.4
Other capital expenditure - infra	8.7	11.3	11.3	0.4	-	-	0.4	_	32.1
Other capital expenditure - non-infra	10.2	5.3	5.3	32.4	-	_	1.2	_	54.4
Total gross capital expenditure excluding third party services	38.9	17.8	17.8	111.7	-	0.2	44.3	0.2	230.9
Third party services	_	_	_	_	-	_	_	_	
Total gross capital expenditure	38.9	17.8	17.8	111.7	-	0.2	44.3	0.2	230.9
Grants and contributions	(11.8)	(1.8)	(1.8)	-	-	_	-	-	(15.4)
Totex	121.9	26.0	27.1	230.7	4.5	10.2	47.2	11.3	478.9
Cash expenditure									
Pension deficit recovery payments	2.9	0.2	0.3	5.9	0.1	1.0	3.5	1.1	15.0
Totex including cash items	124.8	26.2	27.4	236.6	4.6	11.2	50.7	12.4	493.9
	Volume collected	Volume collected	Volume collected	Bio- chemical Oxygen Demand (BOD)	Bio- chemical Oxygen Demand (BOD)	Volume transported	Dried solid mass treated	Dried solid mass disposed	
Units	728,782	55 405	72 398	723 29 /	Tonnes	m3	233,297	152,629	
Unit cost (£/unit)	130.08	55,605 179.84	72,398 153.32	223,294	15,142 297.19	1,586,088	233,297 12.43	72.73	
Population (000s)	8,952	8,952	8,952	8,952	8,952	8,952	8,952	8,952	
Unit cost (£/pop)	10.59	1.12	1.24	13.29	0.50	1.12	0.32	1.24	

 $^{^{1}}$ Other operating expenditure includes net infrastructure renewals expenditure of £51.0m and an exceptional pension gain of £7.0m.

4F - Operating cost analysis (household retail)

Year ended 31 March 2017			Househol	d unmeasured			Househo	ld measured	Total
	Water only	Waste water only	Water and waste water	Total unmeasured	Water only	Waste water only	Water and waste water	Total measured	
	£m	£m	£m	£m	£m	£m	£m	£m	£m
Operating expenditure									
Customer services	0.9	3.4	10.8	15.1	1.1	2.6	12.2	15.9	31.0
Debt management	0.3	1.1	3.4	4.8	0.2	0.4	1.9	2.5	7.3
Doubtful debts	0.7	2.7	8.6	12.0	0.6	1.4	6.6	8.6	20.6
Meter reading	_	_	-	_	0.4	0.9	4.1	5.4	5.4
Other operating expenditure	0.6	2.2	6.9	9.7	0.5	1.1	5.3	6.9	16.6
Total operating expenditure excluding third party services	2.5	9.4	29.7	41.6	2.8	6.4	30.1	39.3	80.9
Third party services	-	-	-	-	-	-	-	-	-
Total operating expenditure	2.5	9.4	29.7	41.6	2.8	6.4	30.1	39.3	80.9
Depreciation	0.3	0.4	0.3	1.0	0.4	0.6	0.4	1.4	2.4
Amortisation	0.2	0.2	0.1	0.5	0.3	0.3	0.2	0.8	1.3
Total operating costs	3.0	10.0	30.1	43.1	3.5	7.3	30.7	41.5	84.6

Other operating expenditure includes the net retail expenditure for the following retail activities which are part funded by wholesale:

	£m
Demand-side water efficiency - gross expenditure	0.9
Demand-side water efficiency - expenditure funded by wholesale	-
Demand-side water efficiency - net retail expenditure	0.9
Customer-side leak repairs - gross expenditure	1.2
Customer-side leak repairs - expenditure funded by wholesale	-
Customer-side leak repairs - net retail expenditure	1.2

4G - Wholesale current cost financial performance

Year ended 31 March 2017	Water £m	Wastewater £m	Total £m
Revenue	676.0	724.0	1,400.0
Operating expenditure	(353.6)	(263.4)	(617.0)
Capital maintenance charges	(124.9)	(202.4)	(327.3)
Other operating income	4.7	5.5	10.2
Current cost operating profit	202.2	263.7	465.9
Other income	7.5	11.1	18.6
Interest income	0.9	0.9	1.8
Interest expense	(97.4)	(107.6)	(205.0)
Other interest expense	[4.9]	(5.4)	(10.3)
Current cost profit before tax and fair value movements	108.3	162.7	271.0
Fair value losses on financial instruments	(3.1)	(3.5)	(6.6)
Current cost profit before tax	105.2	159.2	264.4

4H - Financial metrics

/ear ended 31 March 2017		Metric	
Financial indicators			
Net debt	£m	5,003.8	
Regulated equity	£m	3,239.9	
Regulated gearing	%	60.7%	
Post tax return on regulated equity	%	9.6%	
RORE (return on regulated equity)	%	8.2%	
Dividend yield	%	5.9%	
Retail profit margin - Household	%	3.3%	
Retail profit margin - Non household	%	-0.6%	
Credit rating	n/a	BBB+	
Return on RCV	%	6.4%	
Dividend cover	d.p	1.6	
Funds from operations (FF0)	£m	585.1	
Interest cover (cash)	d.p	4.4	
Adjusted interest cover (cash)	d.p	2.3	
FFO / Debt	d.p	0.1	
Effective tax rate	%	15.4%	
Free cash flow (RCF)	£m	394.8	
RCF / capex	d.p	0.8	
Revenue and earnings			
Revenue (actual)	£m	1,510.3	
EBITDA (actual)	£m	804.8	
Borrowings			
Proportion of borrowings which are fixed rate	%	52.25%	
Proportion of borrowings which are floating rate	%	22.71%	
Proportion of borrowings which are index linked	%	25.03%	
Proportion of borrowings due within 1 year or less	%	11.01%	
Proportion of borrowings due in more than 1 year but no more than 2 years	%	0.0%	
Proportion of borrowings due in more than 2 years but no more than 5 years	%	2.94%	
Proportion of borrowings due in more than 5 years but no more than 20 years	%	63.15%	
Proportion of borrowings due in more than 20 years	%	22.90%	

4H - Additional regulatory information

Movements in RoRE against the price review base RoRE

The return on regulated equity (RoRE) measures the return that a company has earned on regulated equity, where regulated equity is calculated from the FD average RCV and notional gearing of 62.5%. It comprises of the base return that was determined when setting price limits and the returns earned from performance against the FD on totex, retail costs, ODIs and financing.

The RoRE has been calculated in accordance with RAG 3.14 and the recent clarificatory guidance provided by Ofwat to ensure companies are calculating RoRE on a consistent basis. This resulted in the financing performance component of RoRE reported in 2015/16 being restated to -0.8%.

	2016/17 %	AMP6 to Date %
Base return	5.6%	5.6%
Totex performance	1.8%	1.1%
Retail cost performance	0.4%	0.4%
RCV run off performance	0.0%	0.0%
ODI performance	1.4%	1.1%
Financing performance	0.8%	0.0%
Regulatory return for the year	10.0%	8.2%

Base return

For 2016/17, the FD base return of 5.7% has been adjusted to exclude the element of the non-household retail return that is now earned by Water Plus, our retail non-household joint venture with United Utilities. The FD retail non-household return of 0.1% has been prorated to exclude the period from 1st June 2016 when the disposal of non-household retail activities to Water Plus was completed. This resulted in reducing the base return to 5.6%.

Totex performance

Total wholesale totex of £985.5m in 2012/13 prices is £126.0m (11.3%) lower than assumed in the FD. Totex performance has been adjusted for timing differences relating to reported capital expenditure compared to the profile of spend in the FD as explained in table 4B (wholesale totex analysis). After sharing with customers and adjusting for tax, £50.1m of totex performance has been recognised in RoRE.

Retail cost performance

Total retail operating cost performance after adjusting for tax results in outperformance of £11.0m in 2012/13 prices. As adjusted for in the base return, the variance to the FD for non-household retail costs is assessed against the prorated element of the FD costs that was earned by Severn Trent, rather than Water Plus.

ODI performance

A net reward of £38.4m after tax in 2012/13 prices has been recognised in RoRE for the year. The reward relates to 'in AMP' measures and the value of the total reward that will be subject to Ofwat's review process in autumn 2017. The reward also includes an additional adjustment of £0.6m relating to the 2015/16 ODI rewards for sewer flooding incidents and carbon emissions on wastewater as explained further in section 3.1.

Financing performance

Our real cost of debt of 2.0% is 0.6% lower than the cost of debt assumed in the FD. This is due to benefiting from low market interest rates and savings arising from our AMP6 financing activities. Specifically we have taken actions to replace high cost fixed rate debt with low cost floating rate debt. In addition, we have a lower debt requirement than assumed in the FD.

4I - Financial derivatives

Year ended 31 March 2017	Nomir	nal value by m	aturity (net)		Total value	Total accretion	(weig	Interest rate hted average)
	1 to 2 years £m	2 to 5 years £m	Over 5 years £m	Nominal value (net) £m	Mark to Market £m	£m	Payable %	Receivable
Interest rate swap (sterling)						l		
Floating to fixed rate	-	-	916.1	916.1	(173.9)	-	3.67%	0.51%
Floating from fixed rate	-	-	625.0	625.0	23.6	-	1.83%	2.97%
Floating to index linked	-	-	-	-	-	-	-	-
Floating from index linked	-	-	-	-	-	-	-	-
Fixed to index-linked	-	-	-	-	-	-	-	-
Fixed from index-linked	-	-	-	-	-	-	-	-
Total	-	-	1,541.1	1,541.1	(150.3)	-		
Cross currency swaps								
USD	-	-	98.3	98.3	23.6	-	1.87%	3.69%
EUR	-	-	11.4	11.4	10.4	-	0.89%	4.20%
YEN	-	-	8.5	8.5	9.4	-	0.91%	2.61%
Other	-	-	-	-	-	-	-	-
Total	-	-	118.2	118.2	43.4	-		
Other financial derivatives								
Other financial derivatives	-	-	-	-	(0.9)	-	-	-
Total	-	-	-	-	(0.9)	-		
Total financial derivatives	-	-	1,659.3	1,659.3	(107.8)	-		

Details of energy swaps are listed below:

	Average contract price	Notional contracted amount	Fair value
Period to maturity	£/MWh	MWh	£m
Less than 1 year	43.6	66,272	(0.2)
1-2 years	48.5	205,296	(0.5)
2-5 years	48.6	21,955	(0.1)
		293,523	(0.8)

Supplementary disclosures

Year ended 31 March 2017

Information in respect of transactions during the year with any other business or activity of the appointee or any associated company

a) Borrowings and intercompany lending

Sums borrowed and repaid by the appointee during the year from associated companies were as disclosed in the table below:

	Amounts	paid or received £m	Interest rates	Balance as at 31	March 2017 £m
Severn Trent Plc	Paid	237.763	LIBOR + 0.525%	Payable	6.437
Severn Trent Plc	Received	191.200	LIBOR + 0.525%	Receivable	-
Dee Valley Water plc	Paid	55.167	3.635%	Receivable	55.167
Water Plus Ltd	Paid	99.584	LIBOR + 1.600%	Receivable	99.584

b) Transfer of assets/liabilities, omissions, waivers, guarantees

There were no transfers of assets or liabilities to associated companies, no guarantees were issued in favour of associated companies. There were no rights omitted to be exercised resulting in a reduction in the value of net assets of the company and no waivers of any consideration, remuneration, or any other payment receivable by the company.

c) Supply of services

Services supplied by the appointee to associated companies are outlined in the table below.

Service	Company	Turnover of associate in the period	Terms of supply	Value
		£m		£m
Wholesale charge	Water Plus Select Limited	335.340	Tariff	305.860
Transitional service arrangements	Water Plus Select Limited	335.340	Cost	4.636
Records Management	Severn Trent Data Portal Limited	1.357	Cost	0.758
Water supply and waste disposal	Severn Trent Services Defence Limited	44.954	Third party	0.379
Sale of crops	Severn Trent Green Power Limited	8.930	Cost	0.675
Sale of property	Midland Land Portfolio Limited	-	Market tested	5.132
Pass through of management charges	Severn Trent Plc	-	Cost	5.444
Pass through of management charges	Severn Trent Green Power Limited	8.930	Cost	0.396
Pass through of management charges	Severn Trent Wind Power Limited	1.283	Cost	0.063
Pass through of management charges	Etwall Land Limited	-	Cost	0.031
Pass through of management charges	Midland Land Portfolio Limited		Cost	0.104
				323.478

Services supplied to the appointee by associated companies are outlined in the table below.

Service	Company	Turnover of associate in the period	Terms of supply	Value
i i		£m		£m
Insurance services	Derwent Insurance Limited	0.417	Market tested	0.295
Supply of electricity	Severn Trent Green Power Limited	8.930	Market tested	3.499
Supply of electricity	Severn Trent Wind Power Limited	1.283	Market tested	0.611
Pass through of management charges	Severn Trent Plc	-	Costs	1.590
				5.995

d) Group relief charges for tax losses

Charges are made between UK entities for the receipt of tax losses within the Severn Trent Group at the prevailing corporation tax rate in the period (FY17 - 20%).

Company	Turnover of associate in the period	Terms of supply	Value
	£m		£m
Etwall Land Limited	-	Cost	0.011
Charles Haswell and Partners Limited	-	Cost	0.026
Midlands Land Portfolio Limited	-	Cost	0.023
Severn Trent Draycote Limited	-	Cost	0.025
Severn Trent Finance Holdings Limited	-	Cost	3.030
Severn Trent Green Power Limited	8.930	Cost	1.624
Severn Trent Investment Holdings Limited	-	Cost	2.926
Severn Trent Plc	-	Cost	1.962
Severn Trent Services Purification Limited	-	Cost	0.006
Severn Trent Services International (Overseas Holdings) Limited	-	Cost	0.356
Severn Trent Services Operations UK Limited	35.862	Cost	0.132
Severn Trent Services (Water and Sewerage) Limited	0.511	Cost	0.001
Severn Trent Systems Limited	-	Cost	0.017
Severn Trent Utility Services Limited	-	Cost	0.005
Severn Trent Wind Power Limited	1.283	Cost	0.253
Severn Trent (W&S) Limited	-	Cost	5.397
			15.794

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