

Service and delivery report

Ofwat

January 2019



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At the 2014 price review (PR14) we required water and wastewater companies ('companies') to engage with their customers about:

- the services customers wanted their company to deliver over the long term ('outcomes');
- the specific levels of service they expected companies to deliver ('performance commitments'); and
- the value of any outperformance payments and underperformance payments ('outcome delivery incentives' or 'ODIs') companies would incur for exceeding or failing them

We then set the price, investment (expenditure) and service package that customers receive within the 2015-20 price control period. Each company must report annually on their expenditure and outcome delivery in an annual performance report (APR).

This report provides comparative information on expenditure (totex) and outcomes delivered to customers reported by the 17 largest companies within England and Wales prior to December 2018 and considers performance against the commitments each agreed at PR14. The comparisons within this report are intended to supplement the information in companies' APRs to highlight areas of good and poor performance. This information will help us - and stakeholders such as customer groups, environmental groups and investors - to hold companies and the sector to account.

In addition to the information reported by companies in the financial years in the 2015-20 period to date, this report also uses publically available information published by Water UK on the Discover Water website¹.

¹ Discover Water - <https://discoverwater.co.uk/>

2. Key Points

Overall sectoral performance

We monitor the sector's performance across a number of areas within our regulatory oversight, including achievement of performance commitments; expenditure efficiency; and customer satisfaction.

Overall performance against commitments – In 2017-18, in comparison to 2016-17 there was a 1% reduction in the number of performance commitments achieved across the sector. The reduction in performance reflects the issues that some companies experienced managing the effects of the severe, but not unprecedented, freeze-thaw event in late February and early March 2017-18. Additionally, performance commitment targets were more stretching in 2017-18 than in previous years. Consequently, companies have more to do to ensure they meet their performance commitments.

Total expenditure – The totex and outcomes framework incentivises companies to deliver outcomes efficiently and flexibly. We expect all companies to demonstrate to stakeholders how they are targeting improvements in service while providing planned and efficient expenditure to lower cost and deliver long-term resilience. During 2017-18 the sector out-performed - although by less than 1% - on the allowances determined at PR14. This is a reduction in outperformance compared to 2015-16 and 2016-17, when the majority of companies reported cost savings beyond those anticipated at PR14 and the sector outperformed by 6% and 5% on average in each year respectively. The reported Return on Regulated Equity (RORE) figures show that most companies continuing to report outperformance on expenditure have also reported outperformance of performance commitments with financial incentives, although this is not universal.

Customer service and satisfaction – Customer service and satisfaction - as measured by the Service Incentive Mechanism – has increased year-on-year within the current price control period to date, including 2017-18. This is a positive sign given the importance of good customer service alongside efficiency savings and delivery of performance commitments.

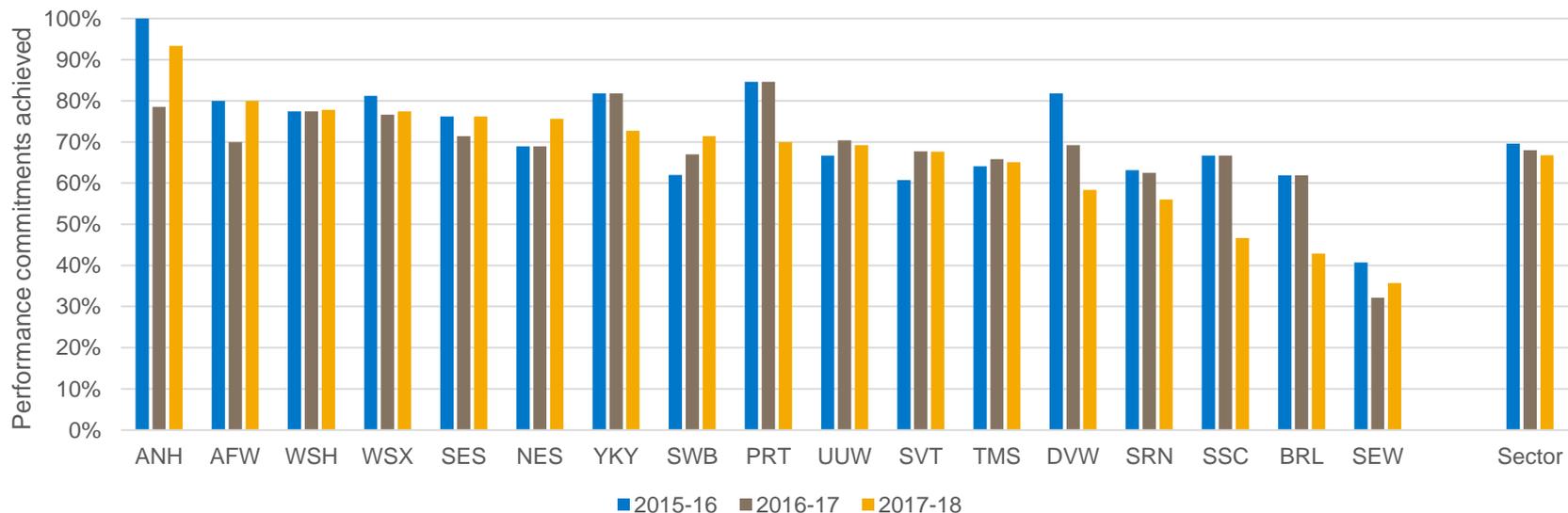
3. Achievement of Performance Commitments – Company Performance

In 2017-18, 67% of performance commitments were achieved across the sector – a small deterioration in comparison to 68% in 2016-17 and 70% in 2015-16. Some, but not all, companies experienced issues managing the impact of the rapid thaw that followed the 'Beast from the East' in late February and early March 2018, which resulted in an increase in burst pipes, with knock-on impacts on leakage and supply interruptions for all companies and over 200,000 customers experienced supply interruptions of more than four hours.

Five companies advised in their APRs that they were on-track to meet either their supply interruptions or leakage performance commitments prior to the freeze-thaw event, but failed as a result of the event. In response to the disruption customers experienced we conducted a review to identify lessons learned and actions recommended for each company, the sector and Ofwat. We expected companies to consider this in their PR19 business plans and make ambitious and innovative proposals to improve resilience and/or customer service.

Performance commitment levels were more stretching in 2017-18. For example, most companies have a number of broadly comparable performance commitments with similar, but not identical, definitions- i.e. drinking water quality compliance; drinking water quality contacts; supply interruptions; leakage; and internal sewer flooding. To meet their targets companies had to improve their performance on these measures by, on average, more than 5% in comparison to 2016-17.

We will use the performance of the best companies in 2015-20 to inform the setting of stretching performance commitment levels for 2020-25.



Out in the cold: Water companies' response to the 'Beast from the East' - <https://www.ofwat.gov.uk/out-in-the-cold-next-steps/>

3 i. Achievement of Performance Commitments – Sector Performance

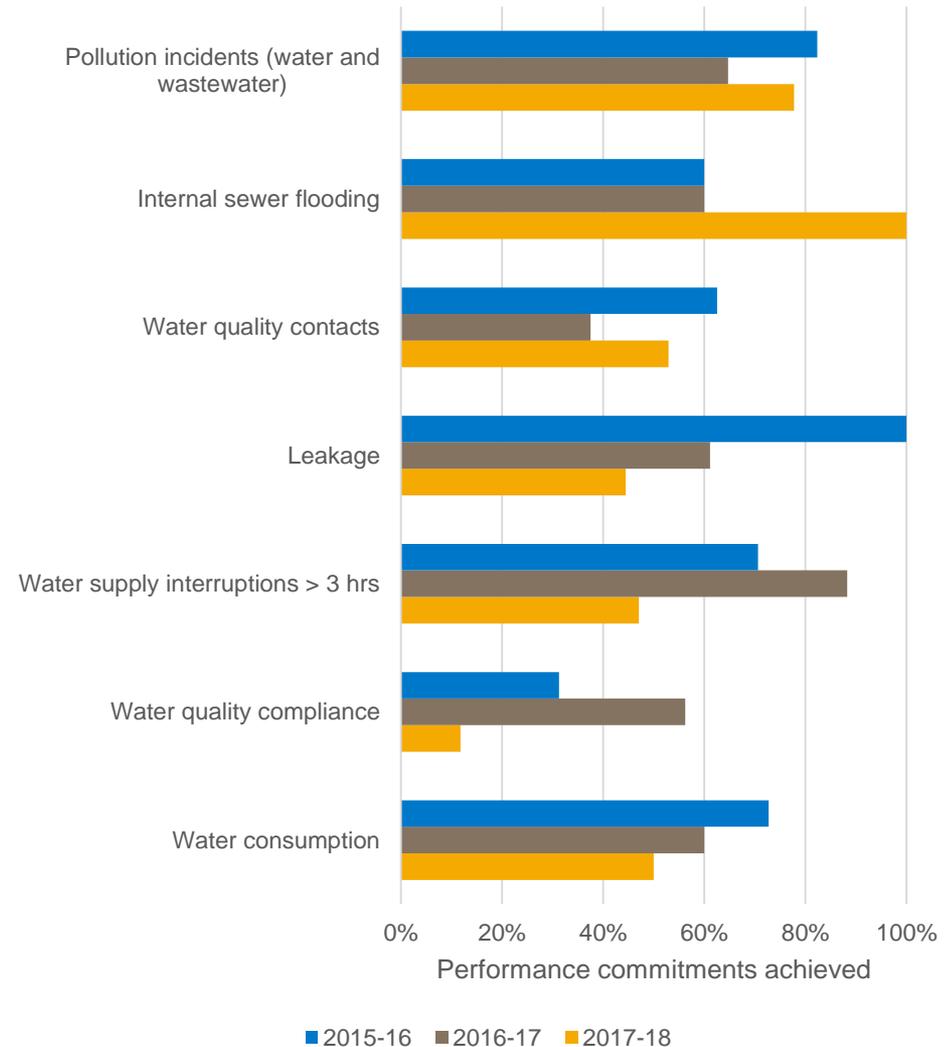
There are a number of performance commitments which are of high value to customers and stakeholders, and which are representative of companies' everyday operations.

Of these high value performance commitments, between 2016-17 and 2017-18 the sector improved performance for:

- **Pollution incidents** – 13% more performance commitments achieved
- **Internal sewer flooding** – 40% more performance commitments achieved
- **Water quality contacts** – 15% more performance commitments achieved

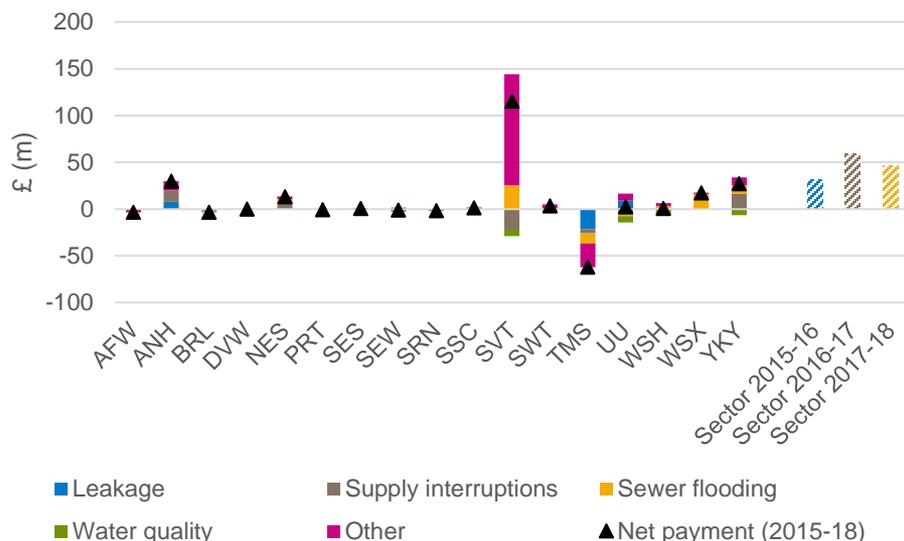
However, sector performance deteriorated for:

- **Leakage** – 17% fewer performance commitments achieved
- **Water supply interruptions > 3 hours** – 41% fewer performance commitments achieved
- **Water quality compliance** – 44% fewer performance commitments achieved
- **Water consumption** – 10% fewer performance commitments achieved



3 i. Achievement of Performance Commitments – Financial Incentives

Cumulative (2015-18) financial performance on outcomes



Some performance commitments have associated financial ODIs. Companies that deliver above and beyond for customers can earn outperformance payments while companies that do not meet their commitments can incur underperformance payments; the latter is returned to customers. The level of service customers receive and the rates of outperformance and underperformance payments are based on companies' customer engagement at PR14.

During 2017-18 the sector incurred £105 million of underperformance payments, of which £80 million was incurred for underperformance on leakage; supply interruptions; and water quality performance commitments. This money will be returned to customers as they are not receiving the service promised. The sector earned £151 million in outperformance payments. These payments are only made when customers receive a higher level of service than promised.

During the 2015-20 price control period the return on regulated equity (RoRE) a company can earn as a result of ODI payments is capped at +/- 2%. RoRE is the financial return achieved by shareholders during a price control period from the company's performance under the price control. The graph demonstrates the average return achieved by companies in the price control to date as a result of performance on performance commitments with financial ODIs.

Average (2015-18) RoRE performance on outcomes



Severn Trent Water is close to exceeding its wastewater outperformance cap as it has outperformed on all of its in-period wastewater ODIs. We recently determined an increase in the cap from 2.0% to 2.6% of RoRE¹. Additionally with effect from January 2019 we are increasing Severn Trent's levels of service for internal and external sewer flooding and category 3 pollution incidents performance commitments and reducing the outperformance payment incentive rate for external sewer flooding. We will also require Severn Trent to share best practice to allow other companies to replicate the improvement the company has made on reducing external sewer flooding.

Figures are presented in 2012-13 prices net of tax

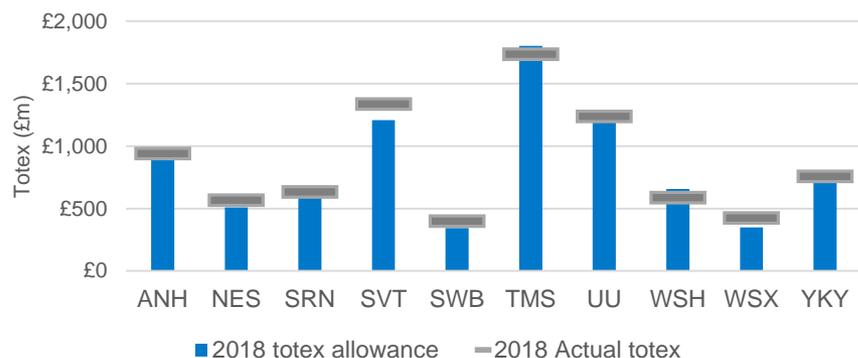
3 ii. Total Expenditure Performance – Total Expenditure 2017/18

During 2017-18 expenditure across the sector was very similar to the allowances determined at PR14. This is in contrast to 2016-17 and 2015-16 when the sector largely outperformed (see slide 9). In 2017-18 water and sewerage companies outperformed totex allowances by 1% on average while water only companies underperformed by 1%.

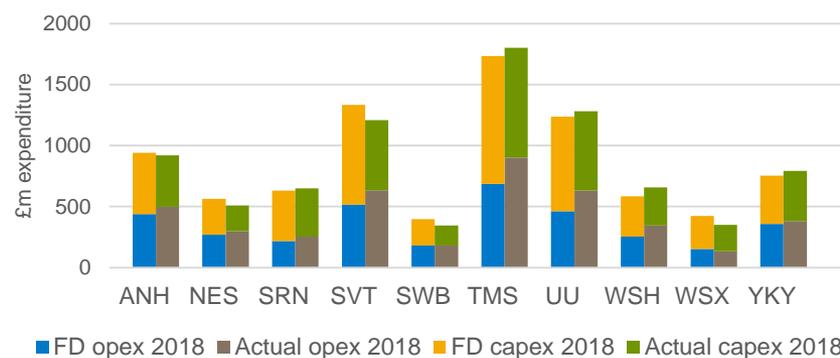
The totex and outcomes framework we introduced at PR14 provides companies with more flexibility to ensure they deliver the right investments to innovate and meet customer needs efficiently.

Consistent with our expectations following the introduction of the totex and outcomes framework - and in line with the previous two years in the current price control period - companies have rebalanced spending from capital to operating costs and so outperformed capital expenditure (capex) allowances and underperformed operating expenditure (opex) allowances. However, performance varies significantly between companies with Severn Trent Water and South East Water outperforming against totex allowance and Thames Water, Dŵr Cymru and Affinity Water underperforming against their cost allowance.

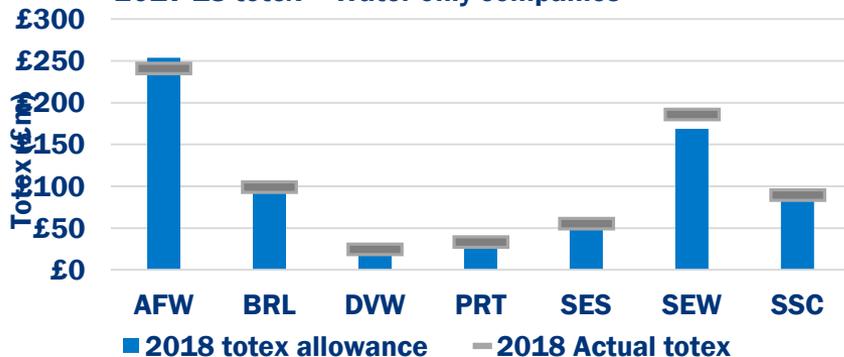
2017-18 totex – Water and Sewerage companies



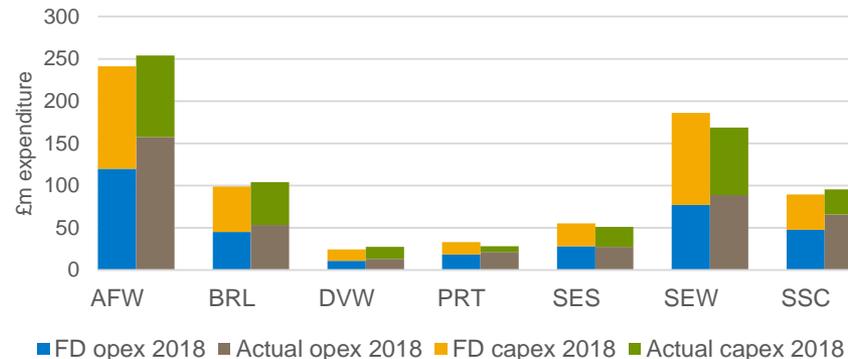
2017-18 opex & capex – Water and Sewerage companies



2017-18 totex – Water only companies

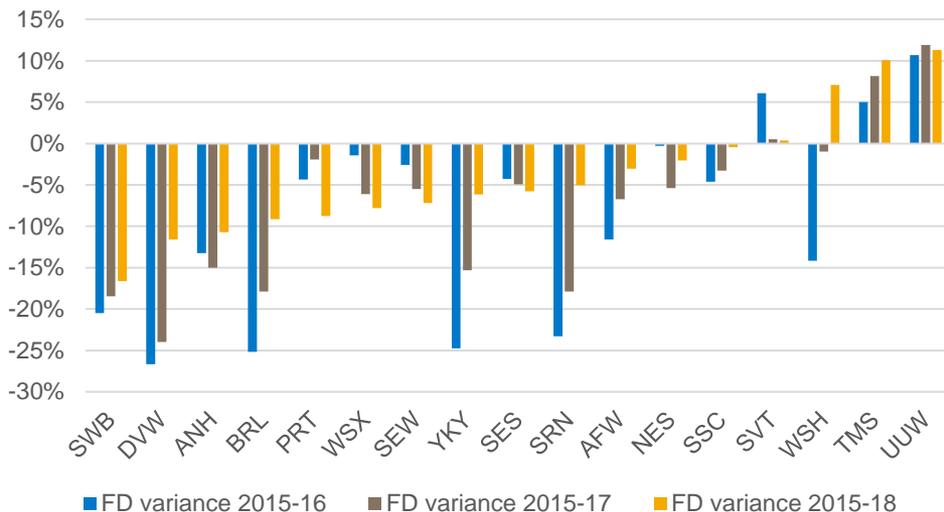


2017-18 opex & capex – Water only companies



3 ii. Total Expenditure Performance – Cumulative expenditure within price control

Cumulative totex variance from allowance (wholesale water)

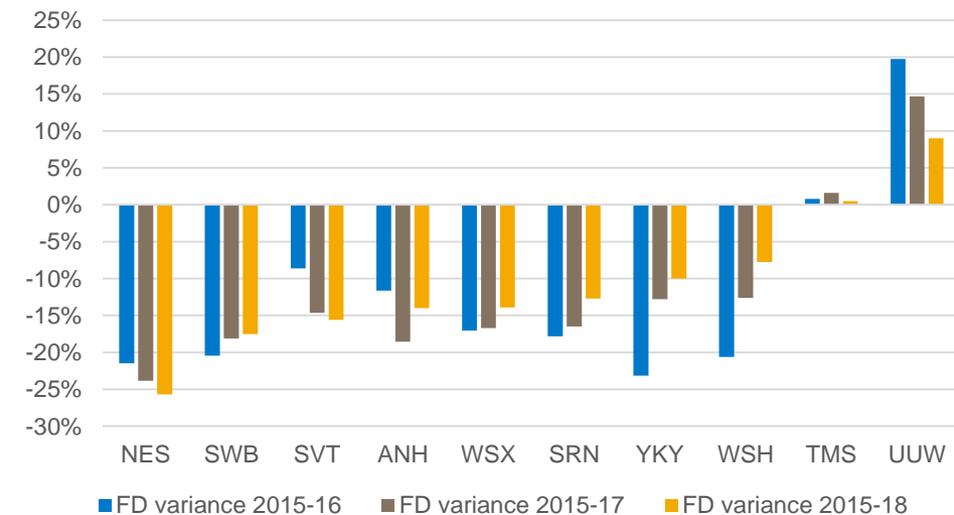


In 2017-18, most companies totex was similar to the allowances determined at PR14. Large outperformances in 2015-16 and 2016-17 have resulted in most companies outperforming their cumulative totex allowances for the wholesale water and wastewater price controls in the current price control period to date.

Each company explains its totex performance in its APR. Outperformance is typically attributed to one or multiple cost efficiencies, including efficiencies delivered by capital delivery alliances; innovation; early delivery of investments; or fewer than anticipated asset failures.

Typical drivers of underperformance have been increased and accelerated investment in resilience schemes; investment to meet environmental requirements; and additional expenditure to reduce leakage.

Cumulative totex variance from allowance (wholesale wastewater)



We note the strong cumulative outperformance against PR14 wholesale water totex allowance by South West Water, Anglian Water and Dee Valley Water and the underperformance by Thames Water and United Utilities. Similarly, we note the outperformance of the PR14 wholesale wastewater control totex allowance by Northumbrian Water and South West Bournemouth and the underperformance by United Utilities Water.

3 iii. Customer Service and Satisfaction

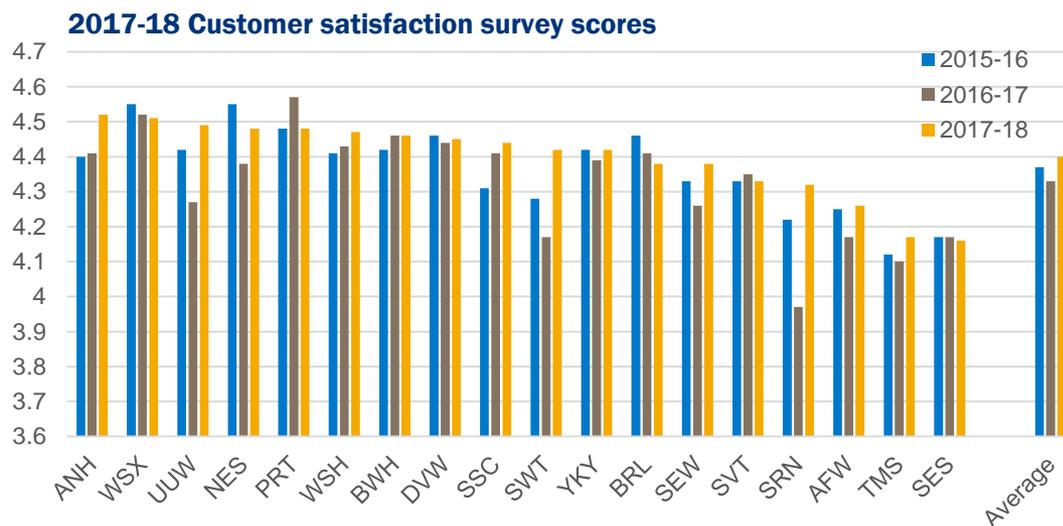
2017-18 Company SIM scores

Company Name	SIM score in 2017-18
Anglian Water	88.3
Portsmouth Water	87.8
Bournemouth Water	87.5
South Staffs Water	86.9
Wessex Water	86.9
United Utilities	86.9
Dee Valley Water	86.6
Northumbrian Water	86.4
South East Water	85.5
South West Water	84.7
Dŵr Cymru	84.6
Yorkshire Water	84.2
Bristol Water	83.3
Severn Trent Water	83.2
Affinity Water	80.9
Southern Water	79.3
SES Water	78.7
Thames Water	78.4
Average 2017-18	84.5
Average 2016-17	83.7
Average 2015-16	82.5

Customer service, as measured by the Service Incentive Mechanism (SIM)¹, is an important measure of how customers feel about the services companies provide. Customer Satisfaction Survey results (below) make up just one component of the overall SIM scores. For 2017-18 we saw increases in both Customer Service SIM scores (see table) and Customer Satisfaction Scores (see figure below) across the industry. We expect companies to continue to work hard to provide good service and identify ways of improving customer satisfaction.

When we set price controls for 2020-25, we will use the customer measure of experience (C-MeX) to provide greater incentives for companies to provide an excellent customer experience for residential customers. We will also introduce the developer services measure of experience (D-MeX) to incentivise water companies to provide an excellent customer experience for developer services (new connections) customers.

We note the strong performance by Anglian Water and Portsmouth Water and disappointing performance by Thames Water and SES Water.



¹The SIM measures overall levels of customer service and provides a comparable indicator of customer service between water companies. It is calculated by an independent provider who conducts a large national customer satisfaction survey each year, which provides 75% of the total SIM score, with the other 25% based on the number of complaints a company has received.

4 i. Key Performance Commitments - Leakage

Since 1994, the amount of water lost through leakage has been reduced by around a third, but has remained relatively static since 2000.

In the first year of the 2015-20 price control period no companies failed their leakage performance commitment but achievement of performance commitments in 2016-17 and 2017-18 has deteriorated.

In both 2016-17 and 2017-18 Thames Water was the company with the most significant underperformance compared to its commitments, by 47 and 75 MI/d in each year respectively. This resulted in Thames Water incurring associated underperformance payments. This money will be returned to customers. Given these failures we opened an [investigation into Thames Water](#). In this investigation we concluded that Thames Water had breached two of its legal obligations in relation to its management of leakage reduction. In response, Thames Water has committed to an undertaking which formalises a package of commitments to rectify its failures, including returning an additional £65m to customers. Thames Water has stated that it aims to achieve its leakage performance commitment by 2019-20. However it is forecasting a large underperformance payment for the price control period overall.

While some water companies have made real efforts to reduce leakage, we are encouraging companies to go much further. In our PR19 methodology we set out our expectations for companies to adopt ambitious leakage commitments for 2020-25, which include a 15% reduction by 2025 and forward-looking upper quartile performance on leakage per property per day.

In line with our expectations, companies' business plans all propose at least a 15% reduction in leakage, with reductions of up to 25% over 2020-25 proposed. To achieve these stretching commitments companies will need to find innovative ways of reducing leakage.

Company Name	Commitment (MI / Day)		Performance
	2017-18	2019-20	2017-18 Actual ⁸
Affinity Water	173	162	173
Anglian Water ¹	192	192	183
Bristol Water	45	43	50
Bournemouth Water ²	-	20	19
Dee Valley Water ³	91	91	93
Northumbrian Water	137	137	137 ⁹
Northumbrian Water (E&S) ⁴	66	66	66 ¹⁰
Portsmouth Water	30	30	33
SES Water	24	24	24
South East Water	90	88	88
Southern Water ⁵	-	87	89
South Staffs & Cambridge Water	71	71	72
South Staffs & Cambridge Water ⁶ - Cambridge region	14	14	14
Severn Trent Water	434	424	443
South West Water	84	84	83
Thames Water	620	606	695
United Utilities Water ⁷	-	-	454
Dŵr Cymru	173	169	173
Wessex Water	68	67	68
Yorkshire Water	297	287	300

¹ ANH's commitment is based upon their three year average leakage figure. This is assessed annually.

² BWH's commitment is 20 MI/day by 2019-20

³ Measured on a litres/property/day basis, all other figures are MI/day.

⁴ Essex and Suffolk area reported separately.

⁵ SRN's commitment is to achieve a five-year average of 87MI/d by 2019-20.

⁶ Cambridge area reported separately.

⁷ UUU's commitment is maintaining leakage at or below 462.7 MI/d from 2015-16. Its incentives are linked to the variance against this level. For 2017-18 it reported leakage of 454MI/d, which although was below target was up from 2016-17

⁸ Green cell signifies outperformance against company 2016-17 commitment performance level. Blue cell signifies that a company does not have a specific commitment this year, some companies have commitments that are averages across the period or a level of performance at the period end. Figures shown are rounded.

No shading signifies companies have not achieved performance commitments

^{9,10} Northumbrian region performance was 137.05 MI/d and Essex and Suffolk region performance was 66.17 MI/d

4 ii. Key Performance Commitments – Water Supply Interruptions > 3 hours

Providing continuous access to water is a key element of the service provided by companies and now customers are 5 times less likely to experience supply interruptions than in the 1990s.

For most companies, supply interruptions are measured as the number of minutes of supply lost above three hours, on a per property basis. For most companies this also includes both planned and unplanned supply outages.

The freeze-thaw event in late February and early March 2018 caused a large number of pipe bursts. Some, but not all, companies advised that this was a contributing factor in their failure to meet their supply interruptions commitments. Our review of the event identified four companies as needing detailed scrutiny because of their handling of the incident and because of the volume of customers left without supply for more than four hours during the incident period. Companies that were best able to maintain supply to customers were collecting accurate real time data and using it to prioritise repairs and manage network flows or were able to move water around their networks to where it was most needed.

We expect companies to apply the lessons learned from our review to deliver greater resilience for customers within the current price control and beyond.

Company Name	Measure	Commitment		Performance
		2017-18	2019-20	2017-18 Actual ²
Anglian Water	Water supply interruptions	12.00	12.00	7.40
Bristol Water	Unplanned customer minutes lost	12.80	12.20	73.70
Dee Valley Water	Average duration of interruptions - 3 hours or longer (planned and unplanned interruptions)	0.20	0.20	0.07
Northumbrian Water	Interruptions to water supply for more than 3 hours (average time per property per year)	5:56	5:00	5:23
Portsmouth Water	Interruptions to supply	5:00	5:00	4:17
Bournemouth Water	Decreasing average interruptions >3 hours	4.40	4.40	0.70
SES Water	Supply interruptions >3 hours	0.20	0.20	0.05
South East Water	Average time lost per property (measured in minutes, per property served)	12.00	12.00	44.60
Southern Water	Interruptions to supply	9.00	9.00	16.90
South Staffs & Cambridge Water	Interruptions to supply (combined company)	10.00	10.00	8.53
Severn Trent Water	Number of minutes customers go without supply each year (interruptions to supply > 3 hours)	10.80	8.00	34.29
South West Water	Duration of interruptions in supply (hours/property)	0.23	0.20	0.37
Thames Water ¹	Average hours lost supply per property served, due to interruptions > 4 hours	0.13	0.13	0.21
United Utilities Water	Average minutes supply lost per property (a year)	12:00	12:00	13:09
Dŵr Cymru	Reliability of supply - minutes lost per property per year	12.00	12.00	43.30
Wessex Water	Water supply interruptions (> 3 hours including planned, unplanned and third party interruptions)	12.00	12.00	12.30
Yorkshire Water	Water supply interruptions	12.00	12.00	6.96

¹ Thames Water reports interruptions per property greater than 4 hours rather than three. Bristol Water's measure is based on unplanned interruptions using the total number of minutes lost divided by the total number of properties served. Note: Supply interruptions data from Discover Water calculated by dividing the total length of interruptions lasting for 3 hours or more by the number of properties supplied by the company. This gives an average figure in minutes. While all 17 companies have specific performance commitments on this element of service, there are some small differences in how they report this measure to their customers (e.g. some companies use hours and others minutes).

² Green cell signifies outperformance against company 2016-17 commitment performance level. Blue cell signifies that a company does not have a specific commitment this year, some companies have commitments that are averages across the period or a level of performance at the period end. Figures shown are rounded.

Units: Minutes/ property/ year - Anglian, Bristol, Bournemouth, South East, Southern, South Staffordshire, Severn Trent, Dŵr Cymru, Wessex and Yorkshire. Hours/ property/ year – Dee Valley, Sutton and East Surrey, South West and Thames. Hours: Seconds / property / year – Northumbrian and Portsmouth. Minutes: seconds / property/ year – United Utilities.

4 iii. Key Performance Commitments – Internal Sewer Flooding

Sewer flooding is one of the most unpleasant and distressing service failures for customers, and reducing it is a high customer priority. Customers are eight times less likely to suffer sewer flooding than they were in the early 1990s.

In 2017-18, almost all companies improved upon their performance compared with 2016-17. Without effective management, internal sewer flooding can occur more frequently during wet weather. The 2017-18 reporting year was a slightly wetter year than 2016-17 and on average performance commitment targets were 4% more stretching. Both factors would have made performance commitments more difficult to achieve.

For 2020-25 internal sewer flooding will be a common performance commitment. The definition of this performance commitment will include 'incidents due to severe weather events'. We want to ensure companies are incentivised to mitigate the risk of service failure during severe weather and still deliver resilient services. This, in addition to our expectation that companies will propose at least forecast upper quartile performance commitment targets on sewer flooding in their PR19 business plans, will incentivise further improvements.

Company Name	Measure	Commitment		Performance
		2017-18	2019-20	2017-18 Actual ⁵
Anglian Water ¹	No. of properties flooded internally (3 year average)	-	448	396
Northumbrian Water ²	No. of properties flooded internally per year	186	186	96
Northumbrian Water ²	No. of properties per year – transferred drains and sewers	228	228	199
Southern Water	No. of internal sewer flooding incidents	414	382	401
Severn Trent Water	No. of internal sewer flooding incidents	960	892	662
South West Water	No. of internal sewer flooding incidents	144	135	141
Thames Water	No. of internal sewer flooding (other causes) incidents	1,085	1,085	1,062
United Utilities Water ³	Sewer flooding index (bespoke)	73.9	68.1	70
Dŵr Cymru	No. of properties subjected to internal sewer flooding	292	269	221
Wessex Water ⁴	No. of internal sewer flooding incidents / 10,000 properties	1.70	1.66	1.21
Yorkshire Water	No. of internal sewer flooding incidents	1,919	1,919	1,682

¹ Anglian Water's actual performance commitment is to achieve a reduction in the three-year average number of properties flooded internally from sewers compared to the average reported in 2014-15 of 27. For ease of comparison we have included the three-year average number of properties internally flooded in the table.

² Northumbrian Water has separate commitments for internal sewer flooding for the performance of sewer pipes that transferred into its ownership in 2011 under the transfer of private drains and sewers (TDS network), and for those assets which were already under NES ownership (Public network).

³ This is an index of sewer flooding based on a number of sub-measures including internal and external sewer flooding.

⁴ For Wessex Water: 1.21 incidents per 10,000 properties equates to 151 incidents as per Wessex Water 2017-18 Annual Performance Report (APR) – page 47

⁵ Green cell signifies outperformance against company 2016-17 commitment performance level. Blue cell signifies that a company does not have a specific commitment this year, some companies have commitments that are averages across the period or a level of performance at the period end. Figures shown are rounded.

4 iv. Key Performance Commitments – Water Quality

The [Drinking Water Inspectorate](#) reports performance against the strict standards that apply to drinking water, to protect public health and ensure water quality is acceptable to customers. The table below documents companies' reported performance on their performance commitments that measure customer contacts (complaints) about water quality. Performance improved in 2017-18, with ten companies meeting their performance commitment. However, there is still work for companies to do.

Water quality is a top customer priority. There will be a common performance commitment on water quality compliance within the 2020-25 price control period. The performance commitment measure - called the Compliance Risk Index (CRI) - has been developed by the Drinking Water Inspectorate. We expect companies to achieve water quality compliance and so companies will incur underperformance payments when they fail to achieve their performance commitment targets but will not receive outperformance payments when they achieve them.

Company Name	Measure	Commitment		Performance
		2017-18	2019-20	2017-18 Actual ⁴
Affinity Water	Customer contacts for discolouration (No. per 1,000 population)	0.66	0.66	0.27
Anglian Water	Water quality contacts (No. per 1,000 population)	1.23	1.23	1.23
Bristol Water	Negative water quality contacts (No. of contacts per year)	2,322	2,221	1,711
Bournemouth Water	Customer contacts: taste and appearance (No. per 1,000 population)	1.23	1.23	0.82
Dee Valley Water	Discoloured water contacts (No. per 1,000 population)	1.01	1.01	0.91
Northumbrian Water ¹	Satisfaction with taste and odour of tap water (No. of complaints per year)	987	987	978
Northumbrian Water ²	Discoloured water complaints (No. of complaints per year)	3,490	2,908	2,776
Portsmouth Water	Water quality contacts (No. per 1,000 population)	0.42	0.41	0.55
SES Water	Taste, odour and discolouration (number of contacts received)	350	350	365
South East Water	Discolouration contacts (No. per 1,000 population)	0.58	0.58	0.82
Southern Water	Drinking water quality -discolouration contacts (No. per 1,000 population)	0.82	0.82	0.82
South Staffs & Cambridge Water	Acceptability of water to customers (No. per 1,000 population)	1.23	1.23	1.42
Severn Trent Water	Number of complaints about drinking water quality (Number received)	9,992	9,992	12,687
South West Water	Taste, smell and colour contacts (No. per 1,000 population)	3.6	3	2.20
United Utilities Water	Water Quality Service Index (bespoke index)	145.9	145.9	98.65
Dŵr Cymru	Customer acceptability (drinking water) contacts (No. per 1,000 population)	1.23	1.23	3.19
Wessex Water	Customer contacts about drinking water quality (Number received)	1,608	1,608	2,031
Yorkshire Water	Drinking water contacts (Number received)	6,108	6,108	8,100

¹ 2 Northumbrian Water has two performance commitments on water quality. The performance commitment for discoloured water is based on a 3 year average performance at the end of 2017-18, 2018-19 and 2019-20. The company 3 year average performance of 3,227 was for the period 2014/15 to 2016/17. The performance in 2016-17 was 2,874.

³ Thames Water does not have a performance commitment related directly to water quality customer contacts. It reports complaints about discolouration (0.17 complaints per 1000 population in 2017-18 compared to a target of 0.38), chlorine (0.05 per 1000

population in 2017-18 compared to 0.07 target) and hardness (0.01 complaints per 1000 population in 2017-18 -this is only monitored, there is no committed performance level).

⁴ Green cell signifies outperformance against company 2016-17 commitment performance level. Blue cell signifies that a company does not have a specific commitment this year, some companies have commitments that are averages across the period or a level of performance at the period end. Figures shown are rounded.

4 v. Key Performance Commitments – Asset Health

Asset failure can have serious effects on customers and the environment. Asset health performance commitments seek to measure the extent to which assets are being appropriately maintained. The type of data companies use to monitor asset health are set out in the table below:

Water		Wastewater	
Infrastructure	Non-infrastructure	Infrastructure	Non-infrastructure
<ul style="list-style-type: none"> Discoloured water complaints Poor water pressure Mains bursts Drinking water quality compliance 	<ul style="list-style-type: none"> Reactive (as opposed to planned) maintenance Turbidity performance at treatment works Tonnes of chemical per Ml of water 	<ul style="list-style-type: none"> Repeat sewer flooding Sewer collapses (physical condition) Sewer blockages Pollution events Rising mains bursts 	<ul style="list-style-type: none"> Reactive (as opposed to planned) maintenance Effluent quality monitoring

External pressures such as climate change and population growth place additional pressure on existing assets. Consequently companies must understand their assets, how they are performing and plan efficient investment to deliver resilient services in the long term.

Summary of sector performance

Companies with performance commitments on asset health are not reporting deteriorating trends in performance in 2017-18. Companies commonly measure performance using a 'basket' of data indicators for the different types of assets. Examples of companies incurring substantial underperformance payments on their asset health measures this year were:

- Thames Water** - The assessed performance of Thames Water's below ground water infrastructure was downgraded to 'marginal' in 2015-16 and remained at this level in 2016-17 and 2017-18. Its assessment of asset performance considers total bursts, unplanned interruptions to supply > 12 hours, iron mean-zonal compliance, number of properties on the company's low pressure register, the number of planned network rehabilitations and customer complaints about discolouration due to white water. As a result, in 2017-18 the company incurred the same underperformance payment of £4.7m, as in 2015-16 and 2016-17.
- United Utilities Water** - failed to meet their 'reliable water service index' performance commitment, earning an underperformance payment of £8m. The company failed to meet this performance commitment in 2015-16 and 2016-17 and so also incurred payments in those years. The measure considers total bursts, interruptions to supply > 12 hours, number of properties on the company's low pressure register and unwanted customer contacts for water availability.

Meanwhile, Anglian Water's performance on its water infrastructure serviceability performance commitment improved from 'Amber' to 'Green' due to improved performance on mains bursts and supply interruptions over 12 hours.

4vi. Key Performance Commitments – Mains Bursts

Mains bursts can have a major adverse impact on water supply, but also on local communities, such as through damage to properties, disruption to traffic and risks to personal safety. It is important that companies meet their commitments to reduce the number of mains bursts, and work with local communities to reduce their impact.

Performance in 2017-18 was marginally worse than 2016-17. A number of companies state that the freeze-thaw event contributed adversely to their performance – including Yorkshire Water, South Staffs Water, Dŵr Cymru and Dee Valley Water, who all reported notable deteriorations between 2016-17 and 2017-18.

Our review of the freeze-thaw event identified that companies did not anticipate the large number of small, dispersed bursts and so did not have adequate plans in place. We expect companies to apply the lessons learned from our review of the freeze-thaw event to deliver greater resilience for customers now and in the future.

Mains bursts as measured by mains repairs per thousand kilometres of mains length – which is a measure of mains bursts repair work - is one of the common performance commitments that companies will be required to deliver during 2020-25.

Mains bursts per 1000 km of mains

