Bristol Water Mid-Year Performance Report 2018/19

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Introduction

About Bristol Water

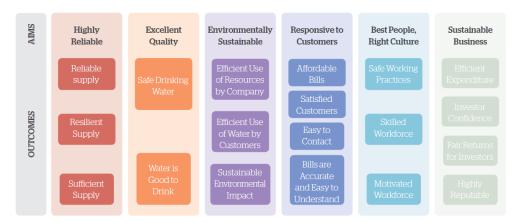


Bristol Water is a water supply company, responsible for the provision of water to 1.2 million customers in the city of Bristol and surrounding area.

We are one of 17 companies in England and Wales who distribute water and Bristol Water is one of six that focuses exclusively on water, not waste water. In our supply area, waste water services are provided by Wessex Water.

Our vision is to achieve Trust beyond water – providing excellent customer experiences. Our mission is to be a company which our communities trust and are proud of. In doing so, we will deliver excellent experiences and create social and economic value.

In 2014 we published a business plan setting out our priorities for 2015-20. This included a number of key aims and the outcomes that we want to deliver for our customers and stakeholders.



Our PR19 business for 2020-25 sets out a new set of outcomes and stretching targets based around ten customer promises. These will build further on the outcomes that we have delivered in this period and report on in this document.



About this Document



This document is both an update on Bristol Water's performance against our aims and outcomes, as well as a forward-looking assessment of whether we are on track to meet the targets we have set ourselves for 2018/19.

It is important that customers can find out how we are performing against our targets. We are committed to providing this information on our website and have embraced a more open and accessible approach to customer communications over the last few years. We regularly publish information on our performance to demonstrate to customers, stakeholders and our regulators that we are delivering the services expected of us. This mid-year report is another example of our commitment to being as open and transparent with our customers and stakeholders as is possible. It is based on the performance commitments that will help us deliver our aims and outcomes. Some of these performance commitments are common to all other water supply companies (in England and Wales) and some are bespoke to Bristol Water. Where comparisons exist, provided through the Discover Water¹ website and in company Annual Performance Reports, we have framed our performance in the context of the rest of the industry. Comparative performance is considered using the latest set of data

available (2017/18). It is not possible to consider our comparative performance against 2018/19 data because this data has not been published. Our ranking against these indicators is also included. The key confirms how our RAG rating for the ranking has been determined.

Key - Bristol Water's Ranking						
Lower Quartile						
Average						
Upper Quartile						
Frontier						

In our 2014 Business Plan, we stated we would publish an update on outcome performance every six months (including at a mid-year review) and present this to the Bristol Water Challenge Panel. To ensure the accuracy of the reported data we have had our performance information assured by our third party technical reporter, Atkins.

Transparency is important to us, and together with the Bristol Water's Challenge Panel², we constantly try to improve our approach to the presentation of our performance. We think indicating our relative position to other companies using colour-coding helps to provide customers and stakeholders with more context than just whether we are meeting our targets.

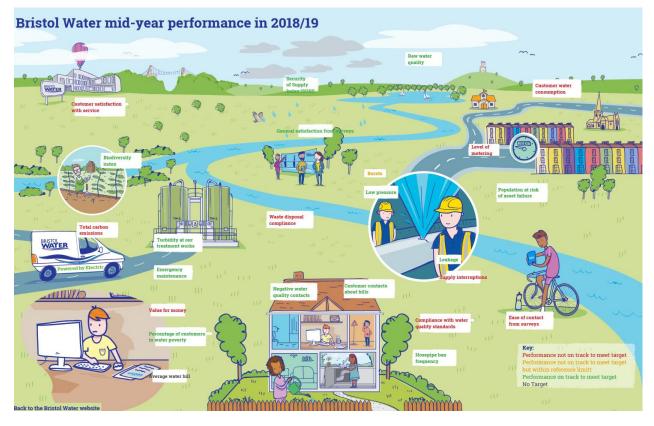
Our reporting is based on year-to-date performance to the end of September 2018, and we include a forecast of whether we will meet our 2018/19 targets for the full year. We have provided a short explanation for our performance against each performance commitment. As noted above, where comparisons exist, we framed our performance in the context of the rest of the industry.

In addition, this year we have for the first time included information on average bill levels.

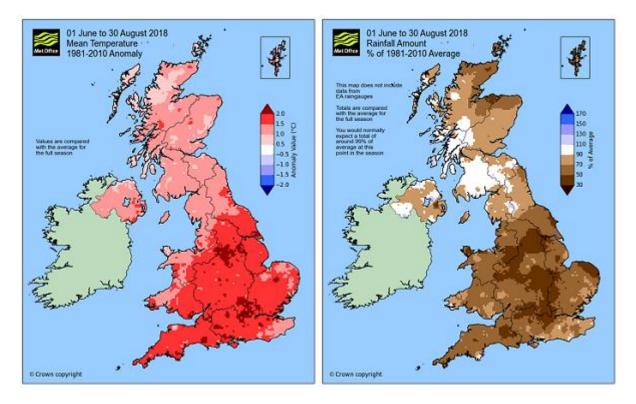
Our performance information can be found at https://www.bristolwater.co.uk/aboutus/performance/. Customers can also find further information on our mid-year interactive graphic at http://bristolwater.co.uk/midyear-performance-2018-19/.

¹ An online dashboard designed to provide clear and trustworthy information for customers about water companies in England and Wales – <u>www.discoverwater.co.uk</u>² An independent group of representatives who ensure Bristol Water continues to be held to account for

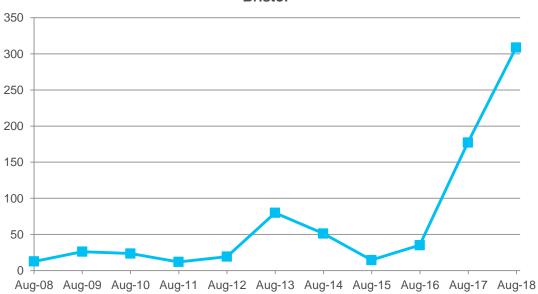
delivering our performance commitments and meeting the promises we make to our customers.



Our performance has been significantly impacted by the weather. 2018 was the hottest summer ever recorded in England and was hotter than the famous heatwave conditions of 1976. Conditions were also significantly drier than normal.



In fact, the prolonged and severe hot weather of summer 2018 was measurably worse than any experienced for over ten years.



Summer cooling days (standard measure of hot weather) in Bristol

Chief Executive Officer's Update



I am pleased to present Bristol Water's mid-year performance for 2018/19; we are committed to being as open and transparent as possible and providing and update on our operational performance during the year. Maintaining the trust of our customers and stakeholders is an important part of everything we do.

The first half of the year has been marked by the impact of the warmest and one of the driest summers on record. Exceptionally high demand for water created challenges to water supplies nationally, with drought orders and permits applied for and the potential for hosepipe bans in some other regions. Despite these challenging conditions, we maintained our reservoir water resources at "normal operation" throughout the summer, and we enter the winter

season in a healthy position. One of the critical contributing factors to our success was the completion on time of the Southern Resilience Scheme in March 2018 enabling us to move water supplies from one area of the network to another. We were able to ensure that no water use restrictions were needed in our supply area. There have not been any restrictions since 1990!

Exceptional dry weather also contributed to high volumes of water mains bursts, increased leaks from the network, and a number of short duration interruptions to customer supplies. In response to these difficult conditions, we increased our operational and support resources, employed 50% more leakage staff and contractors and repaired record number of mains burst and leaks. I am pleased to report at mid-year that we have succeeded in reducing leakage from our network to a position below our annual target, and at a level which is comparable with the industry upper quartile performance. We did however fall behind the mid-year target with short duration interruptions to supply, again as a result of the peak number of large mains bursts experienced in our network. We know our customers expect much better service from us and have already reviewed our operational response and emergency practices in order to substantially improve our performance in the second half of the year.

The quality of the water we supply is another success story this year. From the 1st of January to the end of September 2018 we maintained 100% compliance with our water quality measure, a record for the company.

We take our social responsibility seriously. This year we have continued our support for those customers who find themselves in difficulty with paying their water bills, by offering a range of social tariff assistance. In particular, I am pleased to report that there has been an increased take-up of our Pension Credit tariff, which we introduced last year and have worked hard to promote.

In September, we published "Bristol Water For All", our business plan for the next regulatory price review period that runs from 2020 to 2025. We have promised to improve our customer service to levels amongst the best in the industry for all the areas operational performance that matter most to customers, at the same time as reducing customer bills by 6% before inflation over that period. By focusing our efforts on customer and local community service improvements, the plan will ensure that we lead the water industry, because we believe that the future of excellent customer service lies with being "local" and close to the needs of

customers, putting customers, communities and society at the heart of everything we do. We listened to the views of over 37,000 of our customers in developing this plan.

This is an ambitious plan and we are not achieving our targets in all of our performance areas currently. We know we have to improve our performance and how we run Bristol Water to deliver on our current and future promises. That is why our Transformation Programme has been accelerated to change our ways of working across all areas of our business. As part of this programme we are increasing our internal workforce capability, implementing new systems, and changing the way we work with our supply chain partners. We are on track for the new suppler arrangements to be in place in the first half of next year.

Mel Karam

Chief Executive Officer 13 December 2018

Bristol Water Challenge Panel Statement



Bristol Water Challenge Panel is the independent Customer Challenge Group for Bristol Water. One of the Challenge Panel's roles is to monitor, scrutinise, challenge and report on Bristol Water's performance against the 21 commitments set out in the final report of the Competition and Markets Authority dated 6th October 2015 and the Ofwat Price Review 2014 Final Determination of December 2014.

The Challenge Panel places great importance on the need for Bristol Water to provide its customers with clear, high quality information on its service performance, on billing matters and on operational issues.

Here the Challenge Panel reports on its examination of two aspects of the company's midyear performance. Firstly, it reviewed the mid-year performance and forecasts against its commitments for 2018/19. Secondly it received the company's information assurance regime in place for the year and the mid-year audit findings. The findings of the company's independent technical assurer, Atkins, have reassured the Challenge Panel that the information provided is sufficiently robust to enable us to rely upon the published results. This reassurance addresses both the company's reporting methodologies and the resulting data for all the performance commitments and audit findings.

The Challenge Panel has been reassured also that Bristol Water's 2018/19 Mid-Year Performance Report accurately reflects the company's performance. We note that Bristol Water has produced an easily readable performance summary, complemented by an interactive presentation found on its website that aids the understanding of this information by customers and stakeholders alike.

The Challenge Panel is pleased that the company is on track to achieve or exceed the targets for ten of its commitments. However, we are disappointed that the company forecasts that it will not meet eleven performance commitments. The exceptionally long, hot and dry summer resulted in a high demand for water which led to the likelihood that penalties will be incurred for missing targets on meter penetration, leakage and the time customers were without a water supply as well as for the lack of reliability of some of its infrastructure.

The Challenge Panel continues to challenge Bristol Water to make improvements where it has not met its targets. Some of these changes will be reflected in its improvement plan set out in its five year PR19 business plan. We will continue to monitor progress and challenge the company to make sure it remains on track.

The Challenge Panel thanks the Company for its openness and transparency and looks forward to reviewing the company's end of year performance for 2018/19.

On behalf of the Bristol Water Challenge Panel.

Mrs Peaches Golding OBE Independent Chair 13 December 2018



Technical Assurance Statement

This statement is part of a continuous improvement process that has involved detailed consideration of the methodologies and their applications by which Bristol Water reports on its performance at financial year-end and at the mid-year point. We have been providing this service since 2015.

For the areas we cover and from the information we have been provided with, we conclude that the Company has a full understanding of and has sufficient processes and internal systems of control to meet its reporting obligations. We also conclude that the Company has appropriate systems and processes in place to allow it to manage its reporting risks.

Our approach to technical assurance is to draw upon our experiences at previous rounds of audit and to plan in detail who should be present, what information will be covered, where and when. We issue a notification, carry out the audit, provide immediate verbal feedback, provide key issue feedback within 24 hours and a formal feedback summary including requests for further information or clarification with a table of issues raised. The issues across all of the audits are gathered into an Issues Log, which is used to manage the resolution of reporting issues before the finalisation of the technical assurance process. This statement reflects the technical assurance position after the iterative process of resolving outstanding issues has concluded.

Bristol Water has 21 Performance Commitments (PCs), ten of which have associated financial penalties and rewards. We note that since last year's report, Bristol Water has reached agreement with Ofwat for corrigenda to the company specific appendix that accompanied its final determination for AMP6.

As part of our independent assurance of Bristol Water's Mid-Year Performance Report 2018/19, we have been engaged to audit the following performance measures:

- Data and commentary reported relating to Performance Commitments as part of the Mid-Year Performance Report;
- Shadow reporting of leakage, customer supply interruptions, unplanned outage, PCC, mains bursts and risk of severe restrictions in a drought; and
- GSS payments

In a series of ten meetings and nine remote audits in October and November 2018, we carried out combined methodology and data audits designed to test:

- The Company's internal control systems to produce the submission;
- Whether reporting appears to align with relevant guidance;
- If data has been compiled in accordance with Company methods and procedures; and
- Whether commentary is consistent with our observations on performance levels, trends and the information we were provided with at audit.

We were provided with copies of the commentaries the Company proposed to publish to explain and clarify its reported performance information. We provided feedback on whether it was a reasonable interpretation of what we had seen during our audits.

Bristol Water met nine of its 21 committed performance levels for 2017/18 and will incur financial penalties on four of the 12 PCs where it has underperformed. However, the Company's 2018/19 mid-year performance shows that unplanned customer minutes lost, mean zonal compliance, meter penetration, total carbon emissions, raw water quality of

sources, SIM score, value for money and negative billing contacts all show an improvement since APR 2017/18. Notable observations on Bristol Water's 2018/19 mid-year performance are set out below.

- The Performance Commitment (PC) A1: Unplanned customer minutes lost continues to be a challenge for Bristol Water. Whilst the mid-year figure indicates an improvement on the Company's performance at APR 2017/18, the Company is forecasting to miss the year-end target, primarily due to the residual effects of the harsh weather in early 2018 and the dry summer leading to ground movement.
- It can be seen from the APR 2018 burst data that, although historically being in the middle of the water industry pack, Bristol Water's performance has shown a rising trend in recent years. A number of other water companies are showing a similar upwards trend.
- The Company is not forecasting to meet its year-end metering penetration target, which is consistent with its 2017/18 APR forecast. However, it is still forecasting to meet the target for 2019/20. There is continued strong senior management ambition and a plan in place to achieve this.
- The Company's Service Incentive Mechanism (SIM) score has improved since APR 2017/18; however, the Company is not forecasting to meet its year-end target. The Company's commentary explains that this is primarily due to the long, hot summer experienced, which resulted in a number of customers having lower pressure than expected. The Company has implemented several actions to improve its performance in this area.
- The Company has recently extended its customer call recording facilities. Our audit and sampling of Bristol Water's reporting against Performance Commitment J1: Service Incentive Mechanism identified a significant volume of calls that were not being logged and a potential for under-reporting of unwanted calls relating to New Supplies and Metering. It does not, however, impact materially on the overall SIM score.

During the assurance activities, we have had free access to the Director of Strategy and Regulation and his team and the full cooperation of the people responsible for preparing and reporting the 2018/19 Mid-Year Performance Report and the supporting information.

We are pleased to provide assurance that, overall, we consider the information published by Bristol Water has been compiled using information which is accurate, reliable and complete. We have traced selected information to data sources and information systems. We consider the published metrics and commentary provide a fair and reasonable account of Bristol Water's mid-year performance in 2018/19 and progress towards achieving its 2020 targets.

While we observed a number of issues for which we provide comment within our main report, we believe these do not impact materially upon the potential to sign-off the Company submission. Each is an area we believe should be given further consideration as part of continuing improvement to performance reporting by Bristol Water.

Jonathan P Archer

Regulation Director Reporter providing Technical Assurance Services to Bristol Water

Mid-Year Performance 2018/19

Mid-Year Performance Summary

The graphic below is a summary of Bristol Water's performance commitments' mid-year³ performance for 2018/19⁴.

Metric				Bristol Water Historical Performance				2017/18 Industry Performance				2018/19 Bristol Water Performance		
Aim	Outcome	Performance Commitment	Unit	2015/16	2016/17	2017/18	Trend	Lower Quartile	Average	Upper Quartile	Bristol Water's Position	Mid-year*	End-year Target	On Track?
Highly Reliable Reliable Supply	Unplanned Customer Minutes Loot	Mins/ Prop/ Year	15.5	13.1	73.7	_/	30.5	19.3	5.4	Behind Others	9.8	12.5	No – target likely to be missed	
		Asset Reliability - Infrastructure	Text	Stable	Stable	Marginal	$\overline{}$					Marginal	Stable	No – target missed
	Reliable Supply	Asset Reliability – Infrastructure (Bursts)	No. of bursts (per 1,000km of mains for comparison)	764 (124)	1,034 (153)	1,222 (179)	/	172	150	121	Behind Others	483	950	No - surget likely to be missed likel Terrenet to be observed likely discussed likely
Highly	Reliab	Asset Reliability - Infrastructure Low Pressure)	No. of properties (per 10,000 connections for comparison)	n	94	65 (l.2)	\wedge	21	1.9	0.5	Middle of Pack	73	69	Yes
		Asset Reliability - Non- Infrastructure	Text	Stable	Stable	Stable						Stable	Stable	Yes
		Asset Reliability - Non- Infrastructure (Turbididty)	No. of Faibures	0	0	o						0	0	Yes

penalty (which will result in lower customer bills)

No data available

Target met

Target not met, which has incurred a financial

³MZC, Negative Water Quality Contacts and Waste Disposal Compliance are reported in calendar years; the mid-year figure reflects the company's performance up until September 2018 i.e. this data represents nine months' worth of data

*Our reported leakage and PCC figures reflects the company's interpretation of the Non-Household Night Use component

*Mid-year actuals for SOS!, hosepipe ban frequency, customers in water poverty and general satisfaction from surveys were not undertaken because these performance commitments are assessed using annual data. A mid-year audit was not undertaken for Population Centres at Risk of Asset Failure because the Southern Resilience Scheme has been delivered

Metric				Bristol Water Historical Performance				Indu	201 Istry Po	7/18 erform	ance	2018/19 Bristol Water Performance		
Aim	Outcome	Performance Comnutment	Unit	2015/16	2016/17	2017/18	Trend	Lower Quartile	Average	Upper Quartile	Bristol Water's Position	Mid-year	End-year Target	On Track?
4	Reliable Supply	Asset Reliability Non- Infrastructure (Unplanned Maintenance)	Number of Jobs	3,353	2,870	3,279	\bigvee					1,674	3,976	Yes
Highly Reliable	Resilient Supply	Population in Centres -35,000 at Risk of Asset Failure	Number of People	288,589	288,589	9,063						N/A	9,063	Yes
High	Sufficient	Security of Supply Index (SOSZ)		100	100	100		97	99.7	100	Frontier	N/A	100	Yes
	Supply	Hoospipe Ban Frequency	Number of Days	115	31	3.1						N/A	10.2	Yes
ŭ A	Safe Drinking Water	Mean Zonal Compliance (MZC)	•	99.93	99.97	99.93	\wedge	99.95	99.96	99.96	Behind Others	100	100	No - Hani to meet
Excellent Quality	Water is good to drink	Negative Water Ozality Contacts	Number of Contacts (contacts per 10,000 people for comparison)	2,329 (9.2)	2,162 (8.5)	1,711 (7.3)	$\overline{}$	8.9	7.2	4.0	Middle of Pack	1,473	2,275	Yes
	Efficient use of resources by company	Actual Leakage	Mirii (Litres /Property/ Day for Competions)	44.2 (84)	46,4 (87.5)	46.6 (87)	~	121	107	86	Ahead of Others	42.2	44.0	Yes
Environmentally Sustainable	Efficient use of water by	Meter Penetration	x	47.3	49.3	52.7	/	42.8"	53.8	62.6	Behind Others	54.5	62.5	No - Actions to Place to Meet 19/20 Target
Envia Su	customers	Actual Per Capita Consumption (PCC)	Litres Read Day	141.1	143.5	146.3	$\overline{}$	150.4	143.0	136.2	Middle of Pack	161.4	142.8	No - Result of hot, dry weather
	Sustainable environmental impact	Total Carbon Emissions	KgCO2e/ Person		32	28	1					15	22	No - Target Hand Io Mort

Target met

Target not met

Target not met, which has incurred a financial penalty (which will result in lower customer bills)

No data available

"The comparative information for metering excludes companies in water-stressed areas

	Metric			Hist	Bristo orical F	l Water Perform		Indu	201 Istry P	7/18 erform	ance	Bristol V	2018/19 Bristol Water Performance		Target met Target not met	
Aim	Outcome	Performance Commitment	Unit	2015/16	2016/17	2017/18	Trend	Lower Quartile	Average	Upper Quartile	Bristol Water's Position	Mid-year	End-year Target	On Track?	Target not met, whi	
ally e		Raw Water Quality of Sources	% of AMPS baseline aggregate of algal biosen frequency	+20	+11	4	$\overline{\ }$					-16 (Improving)	+/-<10 (marginal)	Yes	has incurred a finance penalty (which will re in lower customer bi	
Environmentally Sustainable a	vironmen Sustainab initia	Sustainable environmental impact	Biodiversity Index (BI)	No. of BI points	17,649	17,650	17,657	/					17,657	17,652	Yes	No data available
		Waste Disposal Compliance		96	96	98	_/					98	100	No - Hard to meet, but actions in place		
	Affordable Bills	Percentage of Customers in Water Poverty	•	0.4	0.9	0.0	\land					N/A	1.9	Yes		
stomers		Service Incentive Mechanism (SIM)	SIM Score	85.1	85.9	83.4	$\overline{}$	83.2	84.0	87.0	Middle of Pack	84.6	87.0	No - Actions in Place		
onsive to custo	Satisfied Customers	General Satisfaction from Surveys		83	86	87	\nearrow					N/A	93	Yes		
Respon		Value for Money	×	70	72	69	\land					68	72	No - Hard to Meet		
	Easy to Contact	Ease of Contact from Surveys	•	95.0	94.4	93.1						92.3	>96.5	No - Hard to Meet but Actions in Place		
	Bills are accurate and easy to understand	Negative Billing Contacts	No. of Contacts	2,301	3,096	2,300						849	2,240	Yes		

Unplanned Customer Minutes Lost



The aim of this performance commitment is to minimise supply interruptions. Keeping water flowing is an essential part of our role as a water company; we know from talking to our customers that they value avoiding interruptions, particularly when they last a long time and are unexpected. This performance commitment is measured as the total number of minutes that customers have been without a supply of water in the year, through unplanned interruptions, divided by the total number of properties served by the company in the year.

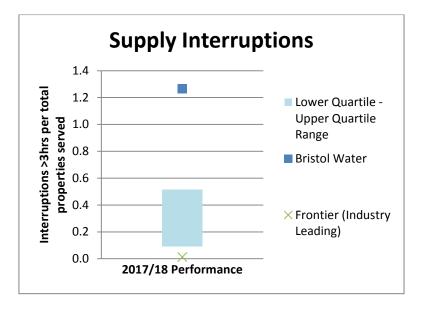
Our mid-year performance has been impacted by two significant weather events; we started this reporting year with an increased number of bursts and leakage associated with the 'Beast from the East' freeze/ thaw event in March and then the hot, dry summer. We are improving the speed of our response to supply interruptions, and investing further in our network monitoring and operational response in order to reduce supply interruptions further.

Mins/customer/year	2015/16 Actual	2016/17 Actual	2017/18 Actual	2018/19 Mid- Year Actual	2018/19 End-Year Forecast
Performance Commitment	13.4	13.1	12.8		12.5
Actual Performance	15.5	13.1	73.7	9.8	
PC met?	No	Yes	No		No
Incentive Reward/Penalty £m	-0.7389	0	-0.7389		

In order to calculate any reward or penalty the ODI performance is compared against the target performance. If the performance falls within the reward or penalty-zone then we multiply the resulting difference by the incentive rate. For average minutes lost, the incentive reward rate is £0.5097m and the penalty is £0.7389m per minute lost per property per year.

Although this metric considers all unplanned interruptions (of any length of time), most companies report on supply interruptions as any interruptions (either planned or unplanned) greater than three hours. The results are below.

Supply interruptions >3hours per total properties served	Bristol Water	Bristol Water's Rank	Lower Quartile	Average	Upper Quartile	Frontier
2017/18 Actual	1.27	19/19	0.52	0.33	0.09	0.01



Our performance in missing our 2017/18 target was primarily due to a number of exceptional incidents that took place over the 12 month period. The Willsbridge burst in May 2017 in particular caused an interruption to 35,000 customers. Other significant interruptions occurred at Sea Mills, Withywood and Meare, which added 0.89 minutes to our reported figure.

Customers can compare our performance on supply interruptions against other companies in the industry at <u>https://discoverwater.co.uk/loss-ofsupply</u>.

Looking ahead to 2020, we will be amending how we report on customer supply interruptions to align with the rest of the industry, so that our customers will be able to compare our performance against other companies' performance. This new standard measure will report on interruptions (both planned and unplanned) that last for 3 hours or more. We are currently exploring alternative supply technology and early warning ('Smart Network') alerts to reduce the average number of minutes our customers are without supply of their water, ahead of reporting on this revised measure. Our proposed targets are below; our targets would reflect an 85% reduction in supply interruptions over the five-year period, which was our forecast of the industry upper quartile in each year.

Supply interruptions >3hours	2020/21	2021/22	2022/23	2023/24	2024/25
per total properties served	Target	Target	Target	Target	Target
Performance Commitment (hours:mins:seconds)	00:04:12	00:03:36	00:03:00	00:02:24	00:01:48

Asset Reliability – Infrastructure

Highly Reliable	
Reliable supply	
Resilient Supply	
Sufficient Supply	

This measure is broadly based on Ofwat's historic serviceability assessment; it relates to the total number of bursts in each year and the number of properties assessed to be at risk of low pressure. Our performance against these two sub-indicators is used to assess our capability of delivering our customers' expected level of service both now and in the future.

Asset health assessment	2015/16 Actual	2016/17 Actual	2017/18 Actual	2018/19 Mid- Year Actual	2018/19 End-Year Forecast
Performance Commitment	stable	stable	stable		stable
Actual Performance	stable	stable	marginal	marginal	
PC met?	Yes	Yes	No		No
Incentive Reward/Penalty	0	0	0		

This year's marginal assessment is unavoidable; our methodology for assessing asset reliability performance requires that an improvement is demonstrated over more than one year in order to revert to a stable assessment. This means that the assessment cannot be better than 'marginal' next year, and therefore this will result in a RCV penalty for 2018/19. The forecast overall marginal assessment in 2018/19 therefore reflects the unusually high number of bursts we experienced in 2017/18 and in particular during and following the exceptional freeze/thaw event of March 2018.



In order to calculate any penalty, the ODI performance is compared against the target performance. If the performance falls within the penalty-zone (a marginal assessment) for a second year (as is inevitable this year) then we apply the incentive rate of £0.685m. If the performance falls within the penalty-collar-zone (a deteriorating assessment) then we apply the incentive rate of £2.1054m. The ODI penalty for this measure will be taken as a Regulatory Capital Value (RCV) adjustment, which will have an impact on our customers' bills but over a longer period of time compared to revenue adjustments. This form of penalty is appropriate because this performance commitment relates to the long-term health of our assets, which reflects investment over a significant amount of time.

If our number of bursts does total above our upper threshold limit this year (1,166 bursts) then we will have

to report a marginal assessment again next year (or possibly a deteriorating assessment) but we do not forecast this, based on our performance to date.

Asset Reliability – Infrastructure – Bursts



This is the total number of burst pipes recorded in the year. A burst pipe is the most common cause of loss of water supply and is an indicator of the health of our pipes, so, as a minimum, we aim to keep the number of bursts stable over a long period of time. The improvement that we forecast primarily reflects the benefit from our activities to reduce leakage and supply interruptions.



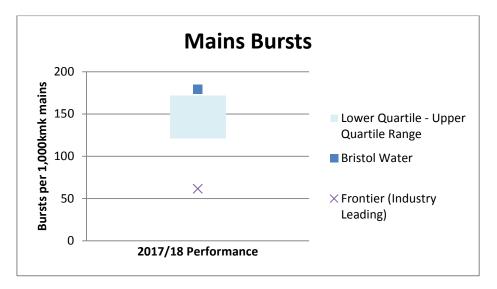
There have been two significant weather events that have caused the high number of repairs. Following the cold spell in March there was a large number of burst mains to be located which were detected and repaired over the first three months of the regulatory year. This was followed by the hot dry summer resulting in higher water demands and ground movement which caused a large number of bursts to occur.

Burst main numbers continue to remain higher than planned, around 35% above where we had targeted to be. Work is still ongoing to locate and repair the bursts that occurred over the summer. Reported bursts did reduce in September indicating that ground conditions were returning to normal.

No. of bursts	2015/16 Actual	2016/17 Actual	2017/18 Actual	2018/19 Mid- Year Actual	2018/19 End-Year Forecast
Performance Commitment	950	950	950		950
Actual Performance	764	1034	1222	488	
PC met?	Yes	No	No		No

Comparative information is available for this metric, normalised as the number of burst pipes for every 1,000km of water main. The results are below.

Mains bursts per 1000km mains	Bristol Water	Bristol Water's Rank	Lower Quartile	Average	Upper Quartile	Frontier
2017/18 Actual	179	15/18	172	150	121	61



Customers can compare our performance on bursts against other companies in the industry at <u>https://discoverwater.co.uk/loss-of-supply</u>.

Looking ahead to 2020, we will be amending how we report on mains bursts, to align with the rest of the industry, so that our customers will be able to compare our performance against other companies' performance. Instead of reporting on the total number of bursts, this new standard measure will report on water mains bursts per 1,000km of pipe. Our proposed targets are below.

Mains bursts per 1000km mains	2020/21 Target	2021/22 Target	2022/23 Target	2023/24 Target	2024/25 Target
Performance Commitment	133	133	133	133	133

Asset Reliability – Infrastructure – Low Pressure



Water pressure determines the water flow from customer taps. This is measured as the total number of properties in our area of water supply which, at the end of the year, have received, and are likely to continue to receive, a pressure or flow below the reference level. Our standard of service for mains water pressure is ten metres head (or 1 bar) at the property boundary of a home or business. This normally means that in a customer's home or business, water pressure should be strong enough to fill a 4.5 litre (one gallon) container in 30 seconds from a ground floor tap. This is the minimum level of pressure we expect each house or business to receive, although pressure can be higher. It is unlikely that customers will experience water pressure below the minimum standard and we have successfully maintained the number of properties on our Low Pressure register safely below our penalty threshold, with an approved remedial works program to drive this number even lower by the end of the year.

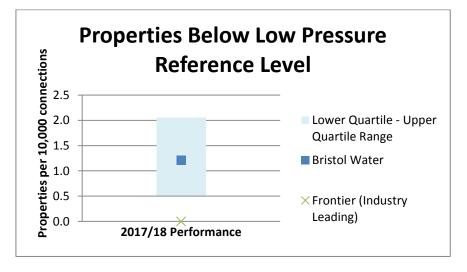
Identifying new properties at risk can arise as a consequence of our proactive monitoring of our network or as a consequence of poor pressure complaints raised by customers. Properties in Kingswood, Glastonbury and Frome have been added to our register in the last six months. Our mid-year performance therefore reflects the fact that new properties have been registered at risk of receiving low pressure. This is a usual pattern for an increase in the first six months but we are confident in the forecast number of properties, once our solutions have been implemented over the months ahead. We have a number of schemes planned, such as:

- Replacing pipes that are currently supply a small block of flats;
- Separating twelve properties from being supplied via one connection; and
- Also separating three properties from being supplied via one connection.

No. of properties at risk	2015/16 Actual	2016/17 Actual	2017/18 Actual	2018/19 Mid- Year Actual	2018/19 End-Year Forecast
Performance Commitment	69	69	69		69
Actual Performance	71	94	65	73	
PC met?	No	No	Yes		Yes

Comparative information is available for this metric, normalised as the number of properties below minimum standard of pressure per 10,000 connections. The results are below.

Properties below reference level pressure per 10,000 connections	Bristol	Bristol Water's Rank	Lower Quartile	Average	Upper Quartile	Frontier
2017/18 Actual	1.21	10/19	2.1	1.9	0.5	0.0



Customers can compare our performance on low water pressure against other companies in the industry at <u>https://discoverwater.co.uk/waterpressure</u>.

We will continue to report on this performance commitment in the next reporting period. Our proposed targets are below, as we plan to continue to reduce properties at risk of low pressure and are currently making good progress compared to these future targets.

No. of properties at risk	2020/21 Target	2021/22 Target	2022/23 Target	2023/24 Target	2024/25 Target
Performance Commitment	68	66	64	62	60

Asset Reliability – Non-Infrastructure



This measure is broadly based on Ofwat's historic serviceability assessment; it relates to unplanned maintenance events and turbidity at our water treatment works. Our performance against these two sub-indicators is used to assess our capability of delivering an expected level of service and expected level of water quality to customers and the environment, both now and in the future.

At Bristol Water we effectively manage and maintain our assets to achieve high levels of asset reliability. Water quality is at the heart of our monitoring and maintenance to ensure high standards are maintained. We effectively use maintenance strategies and risk tools to ensure plant is available and unplanned events are kept to a minimum.

Asset health assessment	2015/16 Actual	2016/17 Actual	2017/18 Actual	2018/19 Mid- Year Actual	2018/19 End-Year Forecast
Performance Commitment	stable	stable	stable		stable
Actual Performance	stable	stable	stable	stable	
PC met?	Yes	Yes	Yes		Yes
Incentive Reward/Penalty	0	0	0		

Although no penalties are forecast for this performance commitment, in order to calculate any penalty, the ODI performance is compared against the target performance. If the performance falls within the penalty-zone (a marginal assessment) for a second year then we apply the incentive rate of £0.706m. If the performance falls within the penalty-collar-zone (a deteriorating assessment) then we apply the incentive rate of £2.119m. The ODI penalty would be taken as a Regulatory Capital Value (RCV) adjustment, which would have an impact on our customers' bills but over a longer period of time compared to revenue adjustments.



Asset Reliability – Non-Infrastructure – Turbidity at Water Treatment Works



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Turbidity is a measure of the cloudiness of water, normally caused by suspended minerals. It is an important water quality control parameter at our water treatment works. Factors such as turbidity affect the effectiveness of disinfection. This metric enables us to consider the following:

• The use of turbidity as a measure to provide assurance of the optimal operation of filter performance, where filtration is used to address identified risks associated with chlorine resistant pathogens in the source water;

- The impact of turbidity on the efficiency of disinfection processes;
- The effect that turbidity has on the aesthetics of the treated water.

We have a long track record of achieving zero turbidity events (and this is the case for 2015/16, 2016/17 and 2017/18), and we are forecasting to again be successful in ensuring consistently good treated water enters our supply system.

Turbidity failures	2015/16 Actual	2016/17 Actual	2017/18 Actual	2018/19 Mid- Year Actual	2018/19 End-Year Forecast
Performance Commitment	0	0	0		0
Actual Performance	0	0	0	0	
PC met?	Yes	Yes	Yes		Yes

Our future plans are designed to maintain our high level of performance on this metric.

Turbidity	2020/21	2021/22	2022/23	2023/24	2024/25
failures	Target	Target	Target	Target	Target
Performance Commitment	0	0	0	0	0

Asset Reliability – Non-Infrastructure – Unplanned Maintenance Events



This metric records the total number of unplanned maintenance events occurring throughout the year, as a result of equipment failure or reduced asset performance. It typically relates to jobs identified at our treatment works, pumping stations and service reservoirs.

We have a long track record of achieving outperformance on this measure and we are again forecasting to outperform against our target, which is an encouraging indicator of the long-term health of our above-ground assets.

We use the information from the work orders to better understand our assets and help to implement appropriate measures to ensure reliability. Effective maintenance and management of assets using such information allows us to run our plant in a resilient manner that will consistently produce high quality water.

No. of maintenance jobs	2015/16 Actual	2016/17 Actual	2017/18 Actual	2018/19 Mid- Year Actual	2018/19 End-Year Forecast
Performance Commitment	3,976	3,976	3,976		3,976
Actual Performance	3,353	2,870	3,279	1,674	
PC met?	Yes	Yes	Yes		Yes

We will continue to report on this performance commitment in the next reporting period and our proposed targets are below.

No. of maintenance jobs	2020/21 Target	2021/22 Target	2022/23 Target	2023/24 Target	2024/25 Target
Performance Commitment	3,272	3,272	3,272	3,272	3,272

Population in Centres Greater than 25,000 at Risk from Asset Failure



We aim to provide a resilient supply of water to our customers, all year round. A resilient supply means that we are able to cope with extreme or unusual events, and this is measured by the number of people at risk from the failure of a single source above ground asset, such as a treatment is unable to operate or a contaminated source (in supply areas of more than 25,000 consumers).

The £27 million Southern Resilience Scheme comprises 30km of large diameter mains and a new pumping station. It provides the capability to transfer water between three of Bristol Water's larger treatment works ensuring enhanced security of supply should any one of them be out of service for an extended period of time. Put simply, it means if there is an emergency we can get customers' water back into supply more quickly.

Completion of this scheme in March 2018 has

provided improved security of supply to over 280,000 customers and has already been utilised to ensure continued supply to customers in the Weston Super Mare and Cheddar areas. An additional benefit to our customers is enhanced security of supply by having the ability to conserve resources such as Chew Valley Lake and Blagdon Lakes during extended hot, dry periods such as were experienced this summer, by supplying water from other sources.



The scheme will also help us meet the increase in demand for water over the coming years. Weston-Super-Mare is one of Europe's fastest growing towns, and we need to supply all of the new residents and businesses coming to the area.

Population at risk	2015/16 Actual	2016/17 Actual	2017/18 Actual	2018/19 Mid- Year Actual	2018/19 End-Year Forecast
Performance Commitment	288,589	288,589	9,063		9,063
Actual Performance	288,589	288,589	9,063		
PC met?	Yes	Yes	Yes		Yes
Incentive Reward/Penalty	0	0	0		

As we delivered the Southern Resilience Scheme by the required deadline, no incentive payment is due.

From 2020 we will be reporting on a new resilience performance commitment. Our current measure removes people in population in centres greater 25,000 from being at risk from above ground asset failure related to a single source of supply - water treatment works (and it did not include mains). Our revised measure relates to people in population centres greater than 10,000 who are at risk of a failure of a critical asset (either a pumping station, reservoir or critical mains) being unable to operate or if a source is contaminated. Our proposed targets are below, based on a ten year programme to deliver this new outcome by 2030.

Population at risk	2020/21	2021/22	2022/23	2023/24	2024/25
	Target	Target	Target	Target	Target
Performance Commitment	724,309	615,732	507,154	398,577	290,000



Security of Supply Index (SOSI)

One of our customers' most important requirements is an unrestricted water supply. Our performance of this is measured by our level of service on the frequency of supply restrictions during periods of water shortages, measured using the 'security of supply index' (SOSI). This takes into account the supply of water that we have available and the demand from our customers, calculated as the proportion of dry weather demand that can be met by the water available for use. If a score of less than 100 is calculated, this would indicate that there could have been a higher risk of water use restrictions for our customers that year.

The index takes into account that there may be restrictions on water use at certain points in time during dry years. As a result it is possible to have a 100% security of supply index at the same time as requiring water restrictions, such as hosepipe bans.

As this measure is based on annual calculations a data audit was not included as part of the mid-year review. We are however confident about our forecasts; we have reported a SOSI value of 100 for every year to date in this reporting period, indicating a sufficient supply with no restrictions. This is due to our effective operational management in response to dry weather conditions.

SOSI Index	2015/16 Actual	2016/17 Actual	2017/18 Actual	2018/19 Mid- Year Actual	2018/19 End-Year Forecast
Performance Commitment	100	100	100		100
Actual Performance	100	100	100		
PC met?	Yes	Yes	Yes		Yes

There is no financial incentive related to our performance against this commitment.

Hosepipe Ban Frequency



This measures the likelihood in any one year that temporary usage restrictions, such as on the use of hosepipes, will be implemented. It is reported as the number of expected days of restriction in the year. The commitment is based on the assumption that a restriction would last for five months (153 days), and that we have a one-in-fifteen year probability of an interruption: 153 / 15 = 10.2 expected days.

If a Temporary Usage Ban were to be introduced, our customers would be restricted from undertaking a number of activities, such as watering their garden, cleaning their cars, or using a hosepipe. In order to prevent such events, we monitor the water resource situation throughout the year and across our operating area as part of our day to day operations. This monitoring ensures that we can identify when a drought is developing and ensures steps can be taken early to help reduce the demand for water, and secure water supplies. We use drought indicators to identify when a drought is starting and if actions should be implemented. We monitor rainfall, reservoir storage, groundwater levels, river flow and other indicators such as

demand for water to identify when we need to take action.

As this measure is based on annual calculations a mid-year position is not reported. However, we are forecasting that for the fourth consecutive year, we will be able to report that our hosepipe ban risk frequency is better than our target. In fact by the end of this reporting year it will have been 29 years since we last introduced a hosepipe ban (in 1990).

No. of days	2015/16 Actual	2016/17 Actual	2017/18 Actual	2018/19 Mid- Year Actual	2018/19 End-Year Forecast
Performance Commitment (days)	10.2	10.2	10.2		10.2
Actual Performance (days)	1.5	3.1	3.1		
PC met?	Yes	Yes	Yes		Yes
Incentive Reward/Penalty	0	0	0		

A penalty of £0.043m would be incurred per day at risk of restriction over the 10.2 day target. Although no penalty has accrued or has been forecast, any ODI penalty would be taken as a revenue adjustment, which would have an impact on our customers' bills (by lowering them) in 2020-25.

Further information on implementing temporary use bans (including hosepipe bans) and the risk of a drought, can be found on our website at <u>https://www.bristolwater.co.uk/about-us/drought/</u>.



We will not be reporting on either hosepipe ban frequency or SOSI as performance commitments form 2020, although we will continue to monitor our performance. We will instead be reporting on a new industry measure of performance known as 'Risk of severe Restrictions in a Drought'. This will measure the percentage of the customer population at risk of experiencing severe restrictions (for example, standpipes or rota cuts as part of Emergency Drought

Orders - EDO) in a 1-in-200 year drought, on average, over 25 years.

% population at risk of drought restrictions	2020/21 Target	2021/22 Target	2022/23 Target	2023/24 Target	2024/25 Target
Performance Commitment	0	0	0	0	0

Mean Zonal Compliance (MZC)



Drinking water must meet strict standards that ensure it is safe to drink and the quality is acceptable to consumers. The MZC performance commitment is a water quality compliance measure based on a series of 39 parameters (e.g. levels of lead, nitrate levels etc.) determined by the Drinking Water Inspectorate, commonly referred to as the DWI. It is calculated based on sampling each parameter at supply points and customer taps in a number of specified zones.

Our water quality team collects samples 365 days a year from across our 2,400 square kilometre supply area to ensure we comply with the sampling regime, with no exemptions applicable for example for weather conditions. The sampling schedule is aligned to a sophisticated computer-controlled

programme so that water quality is checked right from source to customers' taps. Although we will not meet our target of 100% compliance, our performance has been very encouraging and reflects the thorough and meticulous sampling schedule that our water quality scientists undertake.



As this measure is reported to the DWI it is measured on calendar year, rather than a financial year basis, in line with the DWI reporting timetable. During the first eight calendar months of 2018 we had no compliance/ regulatory sample failures. Hence our MZC at the end of August was 100% (on track to meet our target). However, a sample taken in

September at a household property had an odour problem, due to plumbing issues. Consequently our MZC after nine months' of reporting is 99.997%⁷. Our year-end forecast reflects the possibility of incidents occurring, which can be outside of our control such as those associated with household plumbing fittings, which would impact our reported performance.

Our forecasts for 2018/19 and 2019/10 (at 99.98%) have improved compared to the forecasts we published in our Annual Performance Report 2017/18 (at 99.96%). The improved forecasts reflect the fact that our compliance failures to date have resulted from property-specific issues.

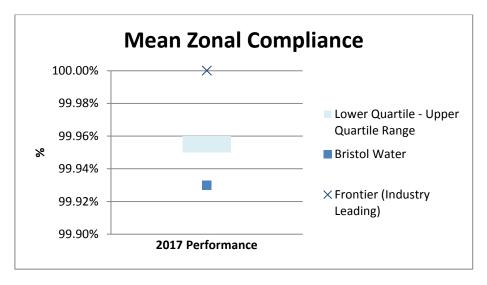
% MZC	2015 Actual	2016 Actual	2017 Actual	2018 Mid- Year Actual	2018 End- Year Forecast
Performance Commitment	99.96	99.96	100		100
Actual Performance	99.93	99.97	99.93	100	
PC met?	No	Yes	No		No
Incentive Reward/Penalty	-0.284	0	-0.284		

There is no outperformance payment available to us for this performance commitment as companies are expected to comply with their legal drinking water quality obligations at all times. In order to calculate any penalty the ODI performance is compared against the target performance. If the MZC score falls within the penalty-zone then the incentive is calculated based on a penalty rate of £0.284m for 0.01. The ODI penalty, currently totalling £0.568m, will be taken as a revenue adjustment, which will be deducted from customers' bills during 2020-25.

As MZC is a performance commitment that all companies in the sector must report on, we have been able to analyse our comparative performance for the latest set of data available (2017/18). The results are below.

% MZC	Bristol Water	Bristol Water's Rank	Lower Quartile	Average	Upper Quartile	Frontier
2017 Actual	99.93	18/19	99.95	99.96	99.96	100

⁷ As this performance commitment is reported to two decimal places, our current performance is actually meeting our target, as this would be reported as 100% compliance.



During 2017 our random compliance sampling at customer properties identified four nickel failures associated with internal plumbing deficiencies. Although these failures were solely attributable to plumbing issues within customer properties, they had the effect of reducing our MZC figure from 99.98% down to 99.93%.

Looking ahead to 2020, the DWI is replacing Mean Zonal Compliance as the preferred measure of water quality with the Compliance Risk Index (CRI). The CRI has been introduced by the DWI to provide a numerical value that reflects the risk arising from treated water compliance failures. It does this be assigning a value to the significance of the failing parameters, the proportion of consumers potentially affected and an assessment of the company's response to the failure. Zero represents an ideal score (where risk has been eliminated). During 2017 we had our best ever CRI score of 0.032. This is one of the best water quality performance levels in the industry; we have a track record of achieving frontier or upper quartile performance since CRI calculation commenced in 2015. The full results for CRI in 2017 are below.

CRI Index	Bristol Water	Bristol Water's Rank	Lower Quartile	Average	Upper Quartile	Frontier
2017 Actual	0.03	3/20	4.82	3.03	1.05	0.00



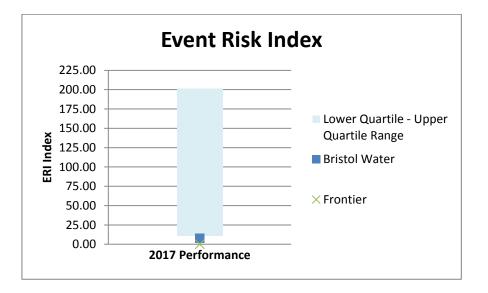
For the first six months of 2018, we have achieved a CRI of 0.02. We are forecasting a CRI of 1.5, which takes into account that events may happen in the remainder of the year.

Our targets for CRI in the next reporting period will be to achieve full compliance (0 CRI points), repeating the level of our performance we achieved in 2017. Our targets are below for completeness.

CRI Index	2020 Target	2021 Target	2022 Target	2023 Target	2024 Target
Performance Commitment	0	0	0	0	0

The DWI has also introduced the Event Risk Index (ERI), which has been designed to illustrate the risk arising from drinking water quality events. Put simply, while CRI indicates the risk that a water quality event will occur, the ERI indicates the potential consequences of such an event when it does occur. Like the CRI, zero represents an ideal score (where risk has been eliminated). The results for ERI in 2017 are below.

ERI Index	Bristol Water	Bristol Water's Rank	Lower Quartile	Average	Upper Quartile	Frontier
2017 Actual	7.91	5/21	201.27	202.44	10.80	0.05



We have not adopted the ERI as a performance commitment in 2020 but we will monitor and report on our performance to the DWI.

Customers can compare our performance on water quality standards against other companies in the industry at <u>https://discoverwater.co.uk/quality</u>.

Negative Water Quality Contacts

Excellent Quality Safe Drinking Water

> Water is Good to Drink

It is important that our water not only meets stringent standards but is also good to drink. This metric measures the total number of consumer contacts (telephone, letter and email) about the appearance, taste and odour of the water for the previous calendar year. As this measure is reported to the DWI it is measured on calendar year, rather than a financial year basis.

We are pleased to report that based on our performance to date, we will meet our target for this year, as we have done for every year of this reporting period. The overall number of customer contacts about water quality has however increased, compared to last year. This increase is associated with an increased activity on the mains network and a reduction in our systematic flushing programme during the summer, due to the following:

• Contacts about the appearance of the water are commonly associated with the suspension of iron particles in water mains due to a change in flow or pressure i.e. a disturbance of the water main. During 2018 activity on the network has increased, with the 'Beast form the East;' causing a significant increase in bursts requiring repair. Put simply, contacts about water quality are to be expected when bursts occur, as the re-routing of water, to ensure a continuous supply of water to our customers, can have a short-term impact on the appearance of the water that comes out of your tap; and

• Our increased activities in reducing leakage, which had a similar effect to the approach to fixing bursts.



The most effective method to reduce the amount of iron particles that can affect the appearance of the water is to systematically flush the water mains. We use water quality data as well as customer contacts to target our flushing activity in the most appropriate areas. Whilst systematic flushing is effective at removing particles of iron it uses large volumes of water. As part of our strategy to manage our water resources during the hot, dry summer we reduced the amount of systematic flushing during peak periods. With the

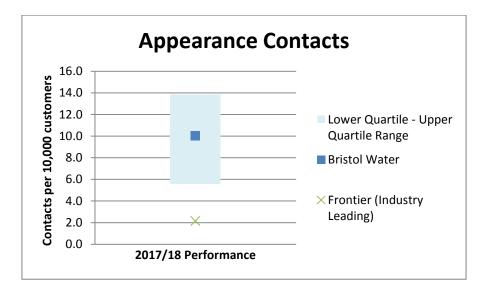
high summer demand period now over, our flushing activities have increased to complete the scheduled flushing programme for this year. We will still outperform our target.

No. of contacts/ year	2015 Actual	2016 Actual	2017 Actual	2018 Mid- Year Actual	2018 End-Year Forecast
Performance Commitment	2,422	2,409	2,322		2,275
Actual Performance	2,329	2,162	1,711	1,473	
PC met?	Yes	Yes	Yes		Yes
Incentive Reward/Penalty	0	0	0		

In order to calculate any incentive payment, the ODI performance is compared against the target performance. If the performance falls within the reward or penalty-zone then we multiply the resulting difference by the incentive rate. For negative water quality contacts the incentive penalty rate is £5,895 per contact and the reward is £1,230 per contact. Any ODI payment would be taken as a revenue adjustment, which would have an impact on customer bills over 2020-2025.

Some companies report on water quality contacts by reporting the number of appearance contacts and the number of taste/ odour contacts separately. Rather than reporting on a total number, the results are reported as the number of contacts per 10,000 customers, to ensure comparability. The results for appearance contacts are below.

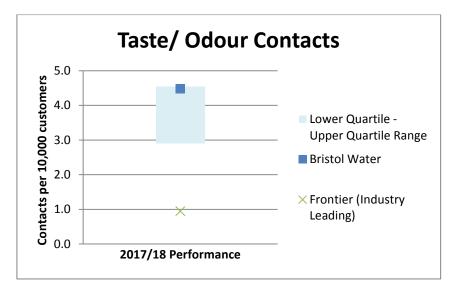
Appearance contacts per 10,000 customers	Bristol Water	Bristol Water's Rank	Lower Quartile	Average	Upper Quartile	Frontier
2017 Actual	10.0	9/19	13.9	11.0	5.6	2.1



Customers can compare our performance on appearance contacts against other companies in the industry at <u>https://discoverwater.co.uk/colour</u>.

The results for taste/odour contacts are below.

Taste/ odour contacts per 10,000 customers	Bristol Water	Bristol Water's Rank	Lower Quartile	Average	Upper Quartile	Frontier
2017 Actual	4.5	14/19	4.5	3.4	2.9	0.9



Customers can compare our performance on taste/odour contacts against other companies in the industry at <u>https://discoverwater.co.uk/taste</u>.

Looking ahead to the next reporting period, we will be reporting on water quality contacts by reporting on the number of appearance contacts and the number of taste/ odour contacts separately. These contacts will be reported per 1,000 customers, to be consistent with industry practice.

Appearance contacts per 1,000 customers	2020 Target	2021 Target	2022 Target	2023 Target	2024 Target
Performance Commitment	0.83	0.73	0.63	0.53	0.43

Taste/ odour contacts per 1,000 customers	2020 Target	2021 Target	2022 Target	2023 Target	2024 Target
Performance Commitment	0.40	0.36	0.32	0.28	0.25

Leakage



Water is supplied to customers' homes through thousands of kilometres of underground pipes. For various reasons, including ground movement and degradation of materials, pipes can leak and some water is lost between the treatment works and the home. This measure is the amount of water that enters the distribution system but is not delivered to customers because it is lost from either the company's or customers' pipes.

There are multiple benefits to managing leakage effectively including reducing the risk of having to impose water restrictions if our area experiences sustained periods of dry weather, reducing our impact on the environment by reducing the amount of water we need to abstract, and reducing disruption to customers when making repairs. For the period 2015-20 we have set challenging leakage targets (to reduce leakage by 12%) at a level where the overall value of the water lost is balanced against the costs of increased leakage control activity. Achieving this target helps us to maintain our upper quartile position in the industry on leakage.

The combination of targeted investment in our network, improved monitoring and control, and our proactive approach to leakage management and leakage reduction initiatives, such as pressure management, continues to see us actively working to reduce actual leakage levels further. Our mid-year performance is however largely as a result of the effects of the late cold snap in March, causing a large number of bursts, as well as an atypical increase in leakage during the



summer months, especially July, largely due to the effect of the long, hot and dry spell. This combination of factors suggests meeting our target for this year will be challenging. We have therefore increased our leakage detection resource by 15 additional inspectors. As a result of this, we expect to meet the actual level of leakage target.

PR14 ODI Leakage (MI/d)	2015/16 Actual	2016/17 Actual	2017/18 Actual	2018/19 Mid-Year Actual	2018/19 End- Year Forecast
Performance Commitment (annual)	48.0	47.0	45.0		44.0
Actual Performance (annual)	44.2	47.4	49.6	46.6	
Performance Commitment (averaged)	48.0	47.5	46.7		46.0
Actual Performance (averaged)	44.2	45.8	47.1	47.0	
PC met?	Yes	No	No		No
Incentive Reward/Penalty £m	0	0	-1.082		

The leakage ODI is based on our average performance over 2015-2020 on leakage performance before any technical adjustments are taken into consideration (the 'PR14 ODI' leakage). Our average leakage levels between 2015/16 - 2017/18 are 47.1 Ml/day, which is above the average end of year target of 46.7 Ml/day. Therefore we have accrued so far in 2015-20 a penalty of £1.0824m based on performance 2015/16 - 2017/18.

We want to always report leakage based on the most up-to-date assumptions to provide the most accurate figure possible. Since 2017/18 we have also been reporting our leakage performance based on our view of the actual level of leakage, based on the latest technical assumptions. Ofwat published a corrigenda notice to the PR14 Final Determination on 25 April 2018⁸ confirming that our approach to dual-reporting leakage during the remaining years of this reporting period was prudent. The technical improvements relate to aligning the measurement of one of the components of leakage measurement, known as non-household

⁸ Corrigenda to Bristol Water's Final Determination <u>https://www.ofwat.gov.uk/wp-content/uploads/2018/04/Corrigenda-Bristol-Water-Limited.pdf</u>

night use (NHHNU). In 2016/17 we identified that the assumptions for the NHHNU component had not been updated since 2007 i.e. the outdated assumptions for this component was providing an inaccurate view of our actual leakage data. We have since



carried out an updated assessment, which has brought our sampling for this component in line with best practise across the industry. To ensure consistency, as these technical changes were identified since the original leakage targets were set, we have agreed with Ofwat that our leakage ODIs (whether these are rewards or penalties) will be linked to the leakage performance before any technical adjustments are taken into consideration (the 'PR14 ODI' leakage). We will performance continue to include however information on our actual level of leakage for completeness. We have also applied this approach to Household Night our Use

measurement, as we have more accurate information from improved network loggers, that wasn't available when the target was set. This does improve leakage, but by calculating penalties in this way we ensure that customer bills benefit from any doubt about how leakage should be calculated.

Actual Leakage (MI/d)	2015/16 Actual	2016/17 Actual	2017/18 Actual	2018/19 Mid-Year Actual	2018/19 End-Year Forecast
Performance Commitment (annual)	48.0	47.0	45.0		44.0
Actual Performance (annual)	44.2	46.4	46.6	42.2	
Performance Commitment (averaged)	48.0	47.5	46.7		46.0
Actual Performance (averaged)	44.2	45.3	45.7	44.9	
PC met?	Yes	Yes	No		Yes

Our performance, based on this adjusted view of the calculation, is set out below.

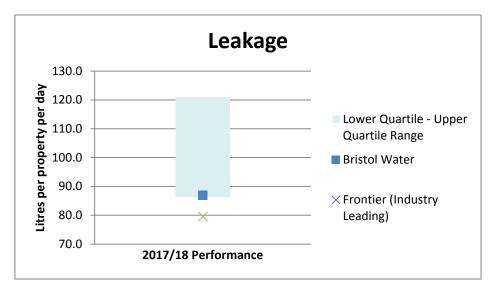
Our actual level of leakage using the updated data is expected to meet the annual target of 44MI/day for 2018/19 and 43MI/day for 2019/20, but we will continue to calculate our leakage ODI without consideration of the technical adjustments for the purposes of the ODI performance.

As leakage is a performance commitment that all companies in the sector must report on, we have been able to analyse our comparative performance for the latest set of data available (2017/18). Leakage performance is presented in megalitres per day because this is how Ofwat expects companies to report on performance. To compare companies of different sizes, performance has instead been presented below by measuring litres of water leaked per property per day.

Leakage per litres per property per day Bristol Water Bristol Water's Rank	Lower Quartile	Average	Upper Quartile	Frontier
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	7.0 9	<mark>9/20⁹ 121.0</mark>	107.3	86.3	79.6
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Our half year 2018/19 actual leakage performance is equivalent to 80.5 litres per property per day and 2018/19 forecast of 84 litres per property per day. This is likely to place our leakage reduction activities in the top quartile of performance in the industry.



Customers can compare our performance on leakage against other companies in the industry at <u>https://discoverwater.co.uk/leaking-pipes</u>.

We will continue to report on our leakage performance in the next reporting period. Our proposed targets are below. Our targets reflect a 15% reduction over the five-year period.

Megalitres per	2020/21	2021/22	2022/23	2023/24	2024/25
day (MI/d)	Target	Target	Target	Target	Target
Performance Commitment	42.0	41.0	39.5	38.0	36.5

Meter Penetration



As you should only pay for what you use, many people regard water meters as the fairest way to charge for your water services. We encourage our customers to be more efficient in the way they use water by increasing the number of household customers who are billed based on their actual water consumption. We measure this by meter penetration, expressed as the percentage of household customers who have a water meter installed at their property. We also provide water-saving fittings and advice on reducing water consumption to help our customers save water.

In comparison to other areas in England and Wales, Bristol Water customers are not in a 'serious water stressed' area. We know from continuous engagement activities that our customers on the whole do not wish to see full compulsory metering introduced and we do not have plans to introduce such a programme. We are however committed to achieving a 66% rate of meter penetration by 2020 and to 75% by 2025.

⁹ Northumbrian Water's leakage performance is reported for the Northumbrian area and the Essex & Suffolk area separately

In recognition of failing our meter penetration targets in 2015/16, 2016/17 and 2017/18 we have now set up a dedicated project, "Meter 66", to provide the increased focus that delivering our challenging metering target for the next eighteen months requires. In order to our commitment to meet install approximately over 72,700 meters by 2020, we now have action plans in place to install circa 1,000 meters per month and to install meters at 6,000 void properties. We plan on meeting these targets through targeted initiatives, such



as our 'Beat the Bill' campaign, which started in October 2017, with the aim to help customers reduce the amount of water they use. Since its launch, customers have saved as much as £100 a year and it has helped us find several leaks on customers' supply pipes.

We also offer a range of free water saving products that could help our customers maximise the money they can save. Customers can find out more information on applying for a water meter and on the products available at <u>https://www.bristolwater.co.uk/your-home/water-meters/</u>.

As part of the Meter 66 planning work, we identified that we were going to miss our meter penetration target for this year. However we are on track to deliver a 4% increase in meter penetration to 58%, which puts us in a good position for meeting our target in 2019/20. Ultimately, though, existing customers retain the choice of whether to be metered or not.

% Meter penetration	2015/16 Actual	2016/17 Actual	2017/18 Actual	2018/19 Mid-Year Actual	2018/19 End- Year Forecast
Performance Commitment %	50.4	54.8	58.8		62.5
Actual Performance %	47.3	49.3	52.7	54.5	
PC met?	No	No	No		No
Incentive Reward/Penalty £m	-0.118	-0.152	-0.152		

Our mid-year performance is below the performance commitment and we anticipate an ODI penalty may apply again this year. In order to calculate any incentive payment the ODI performance is compared against the target performance. If the performance falls within the reward or penalty-zone then we multiply the resulting difference by the incentive rate. For meter penetration, the incentive penalty rate is £0.038m per 1% variance and the reward is £0.036m per 1% variance. The total ODI penalty (forecast to total £0.574m) will be taken as a revenue adjustment, which will lower customer bills between 2020-25.

We will continue to report on meter penetration in the next reporting period. Our proposed targets are below.

% meter penetration	2020/21	2021/22	2022/23	2023/24	2024/25
	Target	Target	Target	Target	Target
Performance Commitment	67.7	69.5	71.3	73.1	75.0

Per Capita Consumption (PCC)

PC met?

Per Capita Consumption measures how much water we use every year. It is defined as the average amount of water used by each person each day. By Environmentally Sustainable knowing this information, the intention is to encourage behaviours to reduce the amount of water we use, thereby helping customers save money for the future and further adapt to the challenges of climate change. It is measured in litres per person per day. Our forecast performance, although disappointing, is not surprising. The hot and dry period in May, followed by a long hot spell in June and July with no of Water by Customers rainfall would lead to an expectation that customers would have used more water. 2018/19 2018/19 PR14 PCC 2015/16 2016/17 2017/18 End-**Mid-Year** (L/p/d)Actual Actual Actual Year Actual Forecast Performance 145.2 144.4 142.8 143.6 Commitment Actual 141.1 144.1 144.5 157.1 Performance

This performance commitment has no impact on our customers' bills as there is no financial ODI.

Yes

No

No

Yes

Our reporting of our leakage performance commitment has implications for our reported PCC figure (due to the inclusion of leakage from customers' pipes). We have presented the information on both for transparency (the impact of the adjusted view of the leakage calculation on PCC is below).

Actual PCC (L/p/d)	2015/16 Actual	2016/17 Actual	2017/18 Actual	2018/19 Mid-Year Actual	2018/19 End- Year Forecast
Performance Commitment	145.2	144.4	143.6		142.8
Actual Performance	141.1	143.5	146.3	161.4	
PC met?	Yes	Yes	No		No

We want to help customers reduce water consumption, through supportive and voluntary measures. However, we recognise that we have to do more to help customers reduce water consumption in line with our long-term ambition to reduce water consumption to 110 litres per person per day by 2045. In order to achieve this, we are implementing an ambitious metering programme, with the aim to achieve 65.9% of domestic properties metered by 2020 and 75% by 2025. As well as metering, our Water Resources Management Plan includes a number of initiatives to help reduce consumption, including:

- The continued provision of free water efficiency equipment
- The continued provision of bespoke water efficiency calculations through our website to empower customers to understand their usage and advice on how to become more efficient
- Developing new partnerships with stakeholders across our region to create new and innovative ways to help customers to become more resource efficient

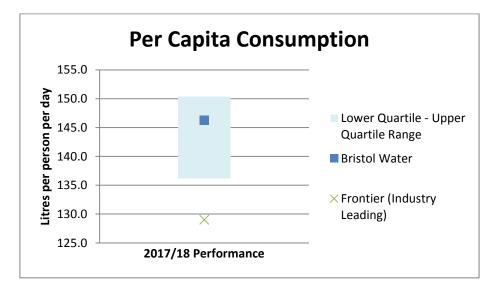
- Developing our evidence base and research programme on the most effective water efficiency measures
- Continuing and expanding our school education programme
- Working with the industry to share experience and knowledge and lead development of initiatives like the water label
- Working with retailers to help their non-household customers to use water efficiently

In addition, our household customers receive an annual newsletter called Watertalk that offers advice to help reduce water consumption as well as money saving tips and we have water saving kits available on request. We have also installed free water fountains in the centre of Bristol and offered a 'water bar' at local festivals and events, to help promote the benefits of water.

As PCC is a performance commitment that all companies in the sector must report on (sometimes referred to as 'total water consumption'), we have been able to analyse our comparative performance for the latest set of data available (2017/18). The results are below.



Litres per person per day (l/p/d)	Bristol Water	Bristol Water's Rank	Lower Quartile	Average	Upper Quartile	Frontier
2017/18 Actual	146.3	13/20	150.3	143.0	136.1	129.0



Customers can compare our performance on the average amount of water used by each household each day against other companies in the industry at https://discoverwater.co.uk/amountwe-use.

We will continue to report on this performance commitment in the next reporting period. Our proposed targets are below. Our targets reflect a 5% reduction over the five-year period.

Litres per head per day (I/h/d)	2020/21 Target	2021/22 Target	2022/23 Target	2023/24 Target	2024/25 Target
Performance Commitment	140.6	139.2	137.8	136.4	135.0

Total Carbon Emissions

Environmentally Sustainable	
Efficient Use of Resources by Company	
Efficient Use of Water by Customers	
Sustainable Environmental Impact	

This is the total carbon emissions produced by the Company and contractors working on our behalf. We calculate our carbon emissions through the electrical energy we use in our operations, our consumption of gas and the fuel we use for transport, plant operation and site heating. This equals our annual operational greenhouse gas emissions, based on the Carbon Accounting Workbook and is expressed in kilograms of CO_2 (carbon dioxide) equivalent divided by the population supplied.

We are proud that our overall energy management is accredited to the ISO:50001 standard. Our performance for this metric is however largely driven by the UK Emissions factor for electricity not meeting the government's own predictions.

Energy consumption has been high during the first six months of this reporting year due to the dry summer, which has led to a requirement for increased abstraction from the River Severn at our Purton site.

We continue to develop and implement a programme of improvements to operational efficiency and a number of significant capital investment schemes that aim to reduce overall energy consumption. Projects currently in progress for this reporting period include:

- The roll out of an automated pump scheduling system that will look to optimise individual pumps, pump-sets and whole source selection;
- Installation of solar photovoltaic (PV) at our key sites (an energy system designed to transform the energy from the sun into electricity via the use of solar panels); and
- Installation of a gas powered generator at Purton Treatment Works.

KgCO2e / person	2015/16 Actual	2016/17 Actual	2017/18 Actual	2018/19 Mid-Year Actual	2018/19 End- Year Forecast
Performance Commitment	32	25	23		22
Actual Performance	35	32	28	15	
PC met?	No	No	No		No

This performance commitment has no impact on our customers' bills as there is no financial ODI.

We will not continue reporting on this as a performance commitment from 2020 but we will be reporting on energy performance throughout the period.

Raw Water Quality of Sources

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Environmentally Sustainable	impa land of th
Efficient Use of Resources by Company	incre mea frequ
Efficient Use of Water by Customers	Our on o this a
Sustainable Environmental Impact	We I sum year whic

The quality of our water sources, particularly in the Mendip lakes, can be impacted due to nutrients and sediment that can enter the watercourses from land and activities in the catchment area of the source. This is an assessment of the quality of our raw water sources that are at risk of deterioration due to increased levels of pesticides and nutrients in their catchments. This is measured as the percentage of the AMP5 baseline aggregate of algal bloom frequency.

Our mid-year improving assessment of a reduction of 16% in the year is based on only six months' of data; algal fluctuations are seasonal and so it is likely that this assessment will have significantly changed when we report at the year-end.

We have seen an unusually warm and dry year; normally dry, sunny and warm summer weather would be ideal conditions for algal blooms. However, the midyear numbers show an improving position (by reducing algal bloom frequency), which suggests that our catchment management initiatives have been much

more successful than expected in improving water quality. It is therefore encouraging that the reduction in algal blooms that has taken place in our reservoirs is likely to continue in future years. This means that water will not be as expensive to treat as would have been the case had algal bloom frequency continue to increase as it did in the previous reporting period.

% of AMP5 baseline aggregate of algal bloom frequency	2015/16 Actual	2016/17 Actual	2017/18 Actual	2018/19 Mid-Year Actual	2018/19 End-Year Forecast
Performance Commitment	>+10%	>+10%	+/- <u><</u> +10%		+/- <u><</u> +10%
Actual Performance	+20% (deteriorating)	+11% (deteriorating)	-1% (marginal)	-16% (improving)	
PC met?	Yes	Yes	Yes		Yes

Ofwat published a corrigenda notice to the PR14 Final Determination on 25 April 2018, including confirmation of the reporting basis for this performance commitment¹⁰. This allowed us to improve the reporting for this performance commitment by converting the target from a categorisation (as either deteriorating, marginal, stable or improving) to reporting on the percentage of AMP5 baseline of 8,059 aggregate of algal bloom frequency.

Performance against this commitment has no impact on our customers' bills as there is no financial incentive.

From 2020 we will be reporting on a revised measure, which will be an assessment of our progress in implementing catchment management of nutrients across our catchments. The measure will relate to the level of nutrient loss reduction, modelled as kilogrammes (kg) of phosphorus (P) not lost to the environment as a result of the interventions taken up by farmers across source catchments. Our proposed targets are below. This metric will more directly measure our delivery of catchment management than our current methodology.

¹⁰ Corrigenda to Bristol Water's Final Determination <u>https://www.ofwat.gov.uk/wp-content/uploads/2018/04/Corrigenda-Bristol-Water-Limited.pdf</u>

Kg of P loss reduction achieved by Bristol Water scheme	2020/21 Target	2021/22 Target	2022/23 Target	2023/24 Target	2024/25 Target
Performance Commitment	109	216	322	427	531

Biodiversity Index



We monitor our protection and enhancement of the natural environment through an innovative approach that we have called the biodiversity index which was introduced in 2014/15 as a new and innovative approach to protecting the environment. This quantifies the environmental value of our sites and creates a "direction of travel" for the way we manage our assets, helping us to protect and enhance the natural environment by using the index to quantify the impact of our actions on the broader environment. It is measured by the cumulative hectares and meters of habitat (e.g. hedges) and the quality of this habitat. This calculation and method is a tool we will continue to develop, using it to measure our performance on habitat protection and enhancement. We report this measure as the number of Biodiversity Index (BI) points.

We are currently digitising our biodiversity records so that we can more easily monitor and plan our biodiversity activities in future years. However, it is not unusual at the mid-year review to not have completed biodiversity

improvements, because our improvement activities are usually undertaken after this period; projects are typically delivered over the winter when there is the least impact on wildlife, such as nesting birds. Improvements undertaken to date include:

- Our hosting of the National Hedge laying Championships at Chew Valley Lake;
- Working with partners, such as Natural England, schools and land owners, to create new habitat and improve biodiversity in areas surrounding the Southern Resilience Scheme pipework;
- Removal of over-grown ditches and clearing up our reservoirs and embankments; and
- Planting deciduous tree species at our pumping stations.



BI points	2015/16 Actual	2016/17 Actual	2017/18 Actual	2018/19 Mid-Year Actual	2018/19 End- Year Forecast
Performance Commitment	17,649	17,650	17,651		17,652
Actual Performance	17,649	17,650	17,657	17,657	
PC met?	Yes	Yes	Yes		Yes

Ofwat published a corrigenda notice to the PR14 Final Determination on 25 April 2018, including confirmation of the reporting basis for this performance commitment¹¹. This allowed us to improve the reporting for this performance commitment by converting the target from a categorisation (as either deteriorating, marginal, stable or improving) to reporting on the number of Biodiversity Index points that have increased each year (from a baseline of 17,613 in 2014/15).

This performance commitment has no impact on our customers' bills as there is no financial ODI.

We will continue reporting on our Biodiversity Index in the next reporting period. Our proposed targets are below.

BI points	2020/21	2021/22	2022/23	2023/24	2024/25
	Target	Target	Target	Target	Target
Performance Commitment	17,668	17,678	17,689	17,700	17,711

Waste Disposal Compliance

This measures co

Environmentally Sustainable

of Water by Customers

Sustainable Environmental Impact This measures compliance (as a percentage) of the number of Bristol Water samples taken of discharged trade effluent from designated Company sample points that meet the consent requirements in the Environment Agency (EA) permits. This data is measured on calendar year, rather than a financial year basis.

The EA does not prescribe the number of samples that are required from each site. The number of samples we do collect takes into account the size of the site and the resources we have available to undertake the technical tasks. We target, for example, to collect 40 samples at Purton and Blagdon fisheries. We have followed this approach for a number of years now.

Unfortunately, we have failed to achieve our target for this performance commitment for each year of this reporting period. Additionally, we are forecasting a deterioration in our performance due to the introduction of a new discharge consent (which came into force from 1 February 2018) that we now

have in place for the fisheries at Blagdon. We are working with the Environment Agency to assess how to measure the environmental need at this site, which previously has not had a discharge consent for historic reasons. In the short term, we anticipate that the introduction of this new consent will mean that the number of failures will increase due to seasonal changes in quality in Blagdon reservoir, even though improvements at other major treatment sites such as Purton have reduced the number of failures elsewhere.

¹¹ Corrigenda to Bristol Water's Final Determination <u>https://www.ofwat.gov.uk/wp-content/uploads/2018/04/Corrigenda-Bristol-Water-Limited.pdf</u>

Our performance forecast for the end of 2018 without the new permit at Blagdon would be 99%, which would have been our best performance in this reporting period and demonstrates that our continuing work in this area is seeing improvements in the long-term.

% Compliance	2015 Actual	2016 Actual	2017 Actual	2018 Mid-Year Actual	2018 End- Year Forecast
Performance Commitment	100	100	100		100
Actual Performance	96	96	98	98	
PC met?	No	No	No		No

This performance commitment has no impact on our customers' bills as there is no financial ODI.

We have plans for a remedial scheme for the Reed Bed discharge at Barrow to mitigate the risk of manganese failures, which historically have presented a seasonal challenge to achieving compliance. A similar scheme will be required to improve discharge quality for the fisheries at Blagdon in the next reporting period. Our proposed targets are below.

% Compliance	2020	2021	2022	2023	2024
	Target	Target	Target	Target	Target
Performance Commitment	100	100	100	100	100

Percentage of Customers in Water Poverty



This performance commitment is defined as the percentage of customers within our supply area for whom their water bill represents more than 2% of their disposable income, defined as gross income less income tax. This measure allows us to understand the impact of our bills on our customers. To calculate this we use a population analytics model to estimate the gross percentage of customers in water poverty, and then deduct those customers who we support through our Assist social tariff.

Using this measure, we are able to offer advice, assistance schemes and capped tariffs, known as 'social tariffs' (including our Assist Tariff, WaterSure Plus and Pension Credit Tariff) to customers who fall within this category. This measure then also allows us to evaluate the success of our tariffs and assistance schemes for customers who are experiencing difficulty paying their bills.

We are committed to ensuring that those who struggle to pay will be given the help they need. In particular, we are able to offer the following social tariffs:

- our 'Assist' social tariff, which offers significant bill discounts to those customers least able to afford their bill, following a means assessment.
- our WaterSure Plus metered tariff, for customers in receipt of certain benefits and are defined by the government as 'vulnerable', either because they have a medical condition or a large family.

 our Pension Credit social tariff, which gives a 20% discount on water bills to customers who live in a household where all members over the age of 18 are in receipt of Pension Credit

In the first six months of 2018/19 we have accepted a further 826 customers onto our social tariffs, mainly through increased promotion and take-up of our Pension Credit tariff. We currently support 11,946 customers through our social tariffs. We have also accepted a further 58 customers onto WaterSure plus in 2018/19, taking the total number of customers on the scheme to 2,645.

As this measure is based on annual calculations a data audit was not included as part of the mid-year review.

% Customers in water poverty	2015/16 Actual	2016/17 Actual	2017/18 Actual	2018/19 Mid-Year Actual	2018/19 End- Year Forecast
Performance Commitment	2.0	2.0	1.9		1.9
Actual Performance	0.4	0.9	0.0		
PC met?	Yes	Yes	Yes		Yes

There is no financial incentive applied to this performance commitment.

Customers can find further information and support on the range of social tariffs we have available on our website at <u>https://www.bristolwater.co.uk/struggling-to-pay/#payment-schemes</u>.

We will continue to report on performance in the next reporting period. Our proposed targets are below, as we intend to ensure that our social tariffs are available to all those who are eligible so customers do not experience water poverty.

% Customers in water poverty	2020/21 Target	2021/22 Target	2022/23 Target	2023/24 Target	2024/25 Target
Performance Commitment	0.0	0.0	0.0	0.0	0.0

Service Incentive Mechanism (SIM)

This is Ofwat's measure for comparing the customer service performance of water companies in England and Wales. It includes quantitative measures of the numbers of complaints and unwanted contacts that companies receive and performance in handling telephone contacts. It also includes a survey of customers' views on the service provided. The score is reported as an index out of 100, in line with the methodology set out by Ofwat in 2015¹².

The long hot summer we experienced this year resulted in a number of customers having lower water pressure than they expected, often at peak demand times. This caused an increased level of customer contact and complaints. Although these contacts were responded to and resolved, the problems our customers experienced still, understandably, impacted their views on our service quality. The impact of this and underperformance in

¹² <u>https://www.ofwat.gov.uk/wp-content/uploads/2015/11/gud_pro201503sim.pdf</u>

other areas such as supply interruptions has continued to result in our score being below our SIM target.

Our satisfaction results from the SIM survey have highlighted that in addition to meeting our customer service commitments, we need to do more to respond to customer requests more quickly and to keep them informed of planned works. Since October we have introduced a dedicated customer care team responsible for tracking all customer requests, in order to improve this experience. We are also streamlining the information flow between our customer care and network operational teams, to improve the customer experience at every stage that their request is with us.



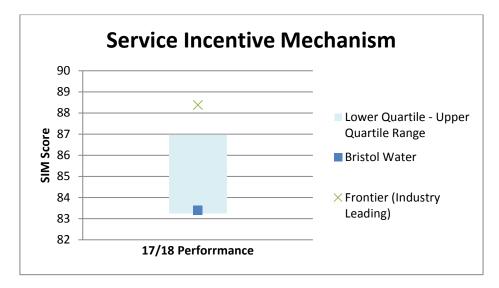
We expect our SIM performance to improve by the end of reporting year as we have increased the resource in our contact centre and we are continually working on improvements to give our customers the answers they need as quickly as possible, such as improvements in how customers can contact us online.

SIM score	2015/16 Actual	2016/17 Actual	2017/18 Actual	2018/19 Mid-Year Actual	2018/19 End-Year Forecast
Performance Commitment	85.0	85.0	86.0		87.0
Actual Performance	85.1	85.9	83.4	84.6	
PC met?	Yes	Yes	No		No

A financial incentive will be applied based on companies' SIM performance. Ofwat will announce further details of this in its determination of price limits for 2020-25. At present we forecast that our performance will be around the industry average, and that no financial adjustment will be made to our customers' bills in respect of SIM.

As SIM is a performance commitment that all companies in the sector must report on, we have been able to analyse our comparative performance for the latest set of data available (2017/18). The results are below.

SIM score	Bristol Water	Bristol Water's Rank	Lower Quartile	Average	Upper Quartile	Frontier
2017/18 Actual	83.38	13/18	83.25	84.44	86.97	88.37



Customers can compare our performance on customer service against other companies in the industry at <u>https://discoverwater.co.uk/customerexperience-rating</u>.

From 2020, SIM will be replaced as a measure of customer satisfaction by Ofwat's new measure of customer experience, known as C-MeX. C-MeX includes measuring the satisfaction of all customers, not just those who contact us. Although the design of this measure is still being finalised by Ofwat, the latest results from the UK Customer Service Index (UKCSI) are very positive and rank us as the top performing water company. The UKCSI is a way in which we can benchmark ourselves against other industries to ensure that our customers are receiving the best service both inside and outside of the sector. We are proud of our success on this measure, however we recognise that more needs to be done in order to meet the levels of service customers expect (and which will be required in order to meet the requirements of C-MeX). The latest UKCSI, conducted in July 2018 reported that Bristol Water scored 79.6, which meant customers continued to rate our service highly. This score is the highest for a water company, and the survey also showed we are the most trusted utility.

General Satisfaction from Surveys



This measure relates to the percentage of customers responding to our annual household customer tracking survey who rate their satisfaction in respect of our service as excellent, very good or good. This is different from our other customer measures as most of the customers surveyed will not have had direct contact with us apart from receiving their bills and customer newsletters, as well as their perception of us from external sources, including media coverage and social media.

As this measure is based on annual calculations a data audit was not included as part of the mid-year review.

Despite the challenging target, we are continuing to improve our performance for our annual survey year on year; there has been a continuing upwards trend since 2015. We did not hit our challenging target of 93% last year, however results from the UK Customer Service Index (UKCSI) are very positive and rank us as the top performing water company. The UKCSI is a

way in which we can benchmark ourselves against other industries to ensure that our customers are receiving the best service both inside and outside of the sector.

% satisfaction	2015/16 Actual	2016/17 Actual	2017/18 Actual	2018/19 Mid- Year Actual	2018/19 End-Year Forecast
Performance Commitment	93	93	93		93
Actual Performance	83	86	87		
PC met?	No	No	No		Yes

This performance commitment has no impact on our customers' bills as there is no financial ODI.

We will not continue reporting on this performance commitment from 2020; we will instead measure our customers' satisfaction, experiences of interacting with us and their views on our services using the industry comparative metric known as C-MeX.

Value for Money



This measure is calculated as the percentage of respondents to our monthly customer survey who have made contact with us, about either a billing or a water supply enquiry, to rate the service we provided in terms of the value for money they received.

Our performance this year has dipped as a result of increased customer contacts and requests for work during the dry, hot summer months. As this impacted the time taken to respond to queries, we understand that this has impacted our customers' views on our performance. We are continuously reviewing all causes of customer dissatisfaction and this has helped us to find areas that we can improve on, such as the introduction of real time feedback, 'Live Chat', a redesign of our bill and the increased use of social media to keep customers informed of incidents and planned works.

The measures we are taking to improve overall affordability across our entire customer base involve:

- Finding efficiencies by improving our digital offering and leveraging new technologies to reduce our cost to serve;
- Continuing to refine our processes for bad debt reduction; and
- Helping customers find ways to reduce their own bills through reducing their consumption.

% satisfaction with value for money	2015/16 Actual	2016/17 Actual	2017/18 Actual	2018/19 Mid-Year Actual	2018/19 End-Year Forecast
Performance Commitment	71	71	71		72
Actual Performance	70	72	69	68	
PC met?	No	Yes	No		No

Our performance against this commitment has no impact on our customers' bills as there is no financial incentive.

We will continue to report on this performance commitment in 2020-25 but it will be reported on using a revised methodology. The revised methodology aligns with CC Water's reporting of this metric and will therefore be more transparent for our customers to help them understand our performance. Our proposed targets are below.

% satisfaction with value for money	2020/21 Target	2021/22 Target	2022/23 Target	2023/24 Target	2024/25 Target
Performance Commitment	80	81	82	83	83

Ease of Contact from Surveys

Responsive to Customers Affordable Bills Satisfied Customers Easy to Contact Bills are Accurate and Easy to Understand This measure is calculated as the percentage of respondents to our monthly customer survey who consider the ease of contact to our operational contact centre to be 'very good' or 'good'. While we understand the importance of providing a range of channels through which customers can contact us, telephone is still the preferred and primary method, so it is important that we monitor the satisfaction of this service.

The performance has dropped over the summer months where we saw an increased level of contact at times where customers were demanding more water than normal in the extended hot period. This caused a large amount of contact

about water pressure and a lot of contact at the same times of the day, making it harder to respond to as we would normally do. We expect this number to improve as we have increased the



resource in our contact centre and we are continually working on improvements to give our customers the answers they need as quickly as possible, such as improvements in how customers can contact us online.

% satisfaction with ease of contact	2015/16 Actual	2016/17 Actual	2017/18 Actual	2018/19 Mid- Year Actual	2018/19 End-Year Forecast
Performance Commitment	96.3	96.4	96.5		>96.5
Actual Performance	94.8	94.4	93.1	92.3	
PC met?	No	No	No		No

Our performance against this commitment has no impact on our customers' bills as there is no financial incentive.

We will not continue reporting on this performance commitment from 2020; we will instead measure our customers' satisfaction, experiences of interacting with us and their views on our services using the industry comparative metric known as C-MeX.

Negative Billing Contacts

Responsive to Customers Affordable Bills Satisfied Customers Easy to Contact Bills are Accurate and Easy to Understand This metric measures the number of 'unwanted' calls received in relating to customers' bills. An 'unwanted' customer contact is defined by Ofwat as calls which the customer would prefer not to make, in the sense that they are dissatisfied because they are experiencing a problem or concern, are making a repeat or chase call, or want to complain.

We are pleased to report that our mid-year position reflects an improving trend in this area; the year on year performance of customers having to contact us is declining. This is a positive in that our customers are clearly having less need to contact us, suggesting that they are satisfied with the responses we give to them. The trend is what we expected to happen by introducing this performance commitment; by explicitly monitoring these sorts of calls, we have been able to put measures in place to prevent unwanted calls.

Contacts/ year	2015/16 Actual	2016/17 Actual	2017/18 Actual	2018/19 Mid- Year Actual	2018/19 End-Year Forecast
Performance Commitment	2,408	2,395	2,315		2,240
Actual Performance	2,301	3,096	2,300	849	
PC met?	Yes	No	Yes		Yes

Our performance against this commitment has no impact on our customers' bills as there is no financial incentive.

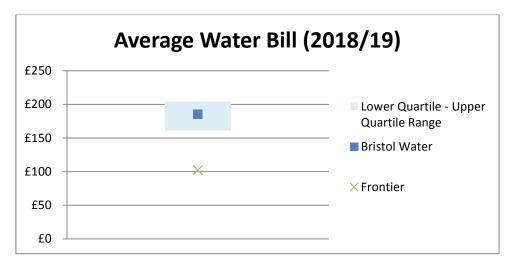
We will not continue reporting on this performance commitment from 2020; we will instead measure our customers' satisfaction, experiences of interacting with us and their views on our services using the industry comparative metric known as C-MeX.

Average Water Bill

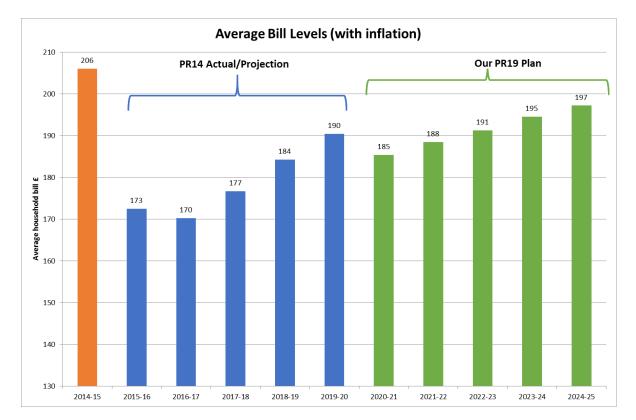
Each year we set our charges informed by the revenue limits that are determined by Ofwat every five years. Our current revenue limits apply for the period 2015-20. Charges for our services are either based on how much water you use (metered charge) or the rateable value (RV) of your property (unmetered charge). Our customers will receive a combined water and sewerage bill – but the charge for the sewerage service reflects the levels set by Wessex Water.

Comparing the average water bill level is however a useful tool for customers to benchmark our against the average bills of other companies in the water sector. Bristol Water's average bill is close to the industry average for 2018/19.

Average bill (£)	Bristol Water	Bristol Water's Rank	Lower Quartile	Average	Upper Quartile	Frontier (cheapest)
2018/19 Actual	184	13/22	204	182	161	102



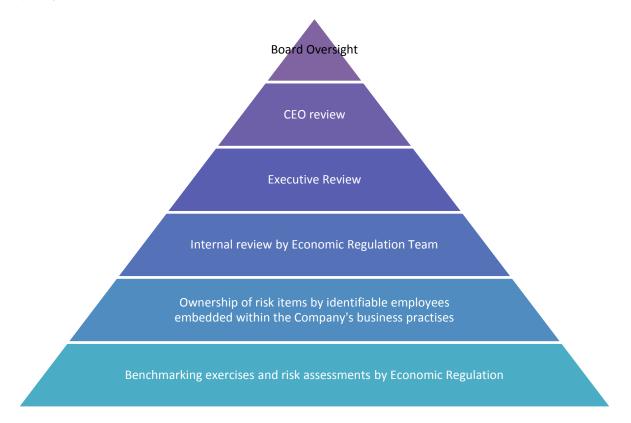
Looking ahead to the next reporting period (between 2020 and 2025) our next business plan sees average bills reduce by 6% and, at least until 2025, stay below the level they were in 2015.



Assurance of Information

Internal Assurance

We use a thorough system of controls to make sure that the information we report and publish is as accurate as possible. For the data items that are most critical to our customers' understanding of our performance (information reported in sections 3 and 4 of our Annual Performance Report), each piece of information has a specific owner and reviewer, responsible for production and updating the reporting methodology statement. Data owners and reviewers are required to provide signed confirmation that the data has been compiled in accordance with the relevant methodology, and that the data is a true representation of the facts. This form provides the opportunity for the data owner to identify any concerns with the quality of the data, for investigation by senior managers and Directors. A data approver (the Executive Director responsible for the area the data item relates to) then approves the quality of the data.



A committee of Executive Directors reviews key data and information before it is published. Progress against key metrics is reviewed in detail monthly so that emerging trends in both performance and data quality can be addressed. Major regulatory submissions, including annual reports, tariffs, accounts and business plans are subject to Board review and approval prior to submission.

We also use external expert auditors to review our methods, systems and processes for reporting key data and information. In particular, the engineering consultancy, Atkins, provides technical assurance on our regulatory submissions, and financial auditors, PwC, audit our key financial data. We also have an internal audit function, which is currently outsourced to Mazars. These auditors provide reports to our Board to provide confidence in the accuracy of the information produced. Our main regulatory submissions are subject to sign off by the Board before we send them to Ofwat.

External assurance

The data published for each performance commitment (except for performance commitments that are assessed on an annual basis) and the methodology documents used to determine the collation of the data were reviewed by Atkins as part of their 2018/19 midyear audit. These audits tested:

- 1. Our internal control systems and control checks to produce the submission;
- 2. Whether reporting aligns with relevant guidance;
- 3. The appropriateness of our performance commentaries; and
- 4. Whether data has been compiled in accordance with our methods and procedures.

The outcome of these two audits on our data and methodology documents, as well the assessments for previous years, is presented in the tables below.

Data								
Performance Commitment	2015/16	2016/17 Mid-Year	2016/17	2017/18 Mid-Year	2017/18	2018/19 Mid-Year		
Unplanned customer minutes lost	Green	Green	Green	Green	Green	Green		
Asset reliability - infrastructure	Green	Green	Green	Green	Green	Green		
Asset reliability - non- infrastructure	Green	Green	Green	Green	Green	Green		
Population in centres >25,000 at risk from asset failure	Green	Green	Green	Green	Green	Green		
Security of supply index (SOSI)	Green	Not included	Green	Not included	Green	Not included		
Hosepipe ban frequency	Green	Not included	Green	Not included	Green	Not included		
Mean zonal compliance (MZC)	Green	Green	Green	Green	Green	Green		
Negative water quality contacts	Green	Green	Green	Green	Green	To be completed Jan 2019		
Leakage	Green	Green	Green	Green	Green	Green		
Per capita consumption (PCC)	Green	Green	Green	Green	Green	Green		
Meter penetration	Green	Green	Green	Green	Green	Green		
Total carbon emissions	Green	Green	Green	Green	Green	Green		
Raw water quality of sources	Green	Not included	Green	Green	Green	Green		
Biodiversity index	Green	Not included	Green	Green	Green	Green		
Waste disposal compliance	Green	Green	Green	Green	Green	Green		
Percentage of customers in water poverty	Green	Not included	Green	Not included	Green	Not included		
Service incentive mechanism (SIM)	Green	Green	Green	Green	Amber	Green		
General satisfaction from surveys	Green	Not included	Green	Not included	Green	Not included		
Value for money	Green	Green	Green	Green	Green	Green		
Ease of contact from surveys	Green	Green	Green	Green	Green	Green		
Negative billing contacts	Green	Not	Green	Green	Green	Green		

Table 1 – Atkins' Data Categories for each Performance Commitment

Data							
Performance Commitment	2015/16	2016/17 Mid-Year	2016/17	2017/18 Mid-Year	2017/18	2018/19 Mid-Year	
		included					

This assessment provides us with confidence that there are no material issues with the quality of our data systems for reporting on our performance measures.

Methodologies							
Performance	2015/16	2016/17	2016/17	2017/18	2017/18	2018/19	
Commitment		Mid-Year		Mid-Year		Mid-Year	
Unplanned customer minutes lost	Amber	Amber	Green	Green	Green	Green	
Asset reliability - infrastructure	Amber	Amber	Amber	Green	Green	Green	
Asset reliability - non- infrastructure	Amber	Green	Green	Green	Green	Green	
Population in centres >25,000 at risk from asset failure	Amber	Amber	Green	Green	Green	Green	
Security of supply index (SOSI)	Amber	Not included	Green	Green	Green	Green	
Hosepipe ban frequency	Amber	Not included	Green	Green	Green	Green	
Mean zonal compliance (MZC)	Green	Green	Green	Green	Green	Green	
Negative water quality contacts	Green	Green	Green	Green	Green	To be completed Jan 2019	
Leakage	Amber	Green	Green	Green	Green	Amber	
Per capita consumption (PCC)	Amber	Green	Green	Green	Green	Amber	
Meter penetration	Green	Green	Green	Green	Green	Green	
Total carbon emissions	Green	Green	Green	Green	Green	Green	
Raw water quality of sources	Amber	Not included	Green	Green	Green		
Biodiversity index	Amber	Green	Amber	Green	Green	Green	
Waste disposal compliance	Green	Green	Green	Green	Green	Green	
Percentage of customers in water poverty	Green	Not included	Green	Not included	Green	Green	
Service incentive mechanism (SIM)	Green	Green	Green	Amber	Amber	Amber	
General satisfaction from surveys	Green	Not included	Green	Not included	Green	Green	
Value for money	Green	Amber	Green	Green	Green	Green	
Ease of contact from surveys	Green	Amber	Green	Green	Green	Green	
Negative billing contacts	Green	Not included	Green	Green	Green	Green	

The leakage and PCC methodology "amber" rating applies to improvements in data estimation we have identified at the mid-year, to accurately reflect the dry summer, which would not apply to year-end data. For SIM, an improvement plan is in place which ensures that the minor potential issues are resolved through careful monitoring, both to resolve the process and to ensure there is no material impact on reported data.

Next Steps

We will continue to make improvements to the way we work in order to improve on our performance. We will publish our Annual Performance Report, which will include information on our 2018/19 year-end performance and any financial consequences of our performance, in July 2019. We also publish an annual "Trust Beyond Water" statement, where the Board sets out its view of the Company's performance.

In advance of the publication of our year-end performance information, we will also publish our Assurance Plan in March 2019, which will set out our approach to assurance of the information that we will publish during 2018/19. The purpose of our Assurance Plan will be to give customers and others with an interest in our business (known as stakeholders) trust and confidence in our data and in how we use this data to report on our performance. It will cover all the key information that we report and publish throughout 2018/19. This includes information reported for regulatory purposes and that produced for the benefit of customers. This document will explain what updates have been to our assurances processes since our mid-year audits took place. A draft version of the Assurance Plan will be published in February 2019 as a consultation.

The full timetable for the publication dates of all our performance reporting requirements is summarised below.

